

**INNOVATION
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Introduction to the Innovation Arabia 14 Proceedings

The Innovation Arabia 14 proceedings is very informative for those who has not attended the courfence and is is awindow for innovative research. It is a recongition for the scholarly activity of presenters. This issue is particluar in its tchchness of multiple research strands for faculty and lerners.

The iconic Innovation Arabia event launched from the 22nd to the 24th its 14th edition virtually under the theme “**Innovation Everywhere**”. The event was held under the patronage of His Highness Sheikh Hamdan Bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai and President of Hamdan Bin Mohammed Smart University (HBMSU).

Innovation Arabia 14 features five subthemes: **Crisis Management and Business Continuity, Smart Future Enables, Learning for a Better Life, Social Innovation Systems, and Virtual Experience Economy**. There was a big focus on the new platforms of innovation and the challenges in universities and business and government organizations. The conference also focused on the most prominent innovations and creativity in the UAE and the region, while gathering the most eminent experts, decision-makers, researchers, and leaders from all parts of the world, to discuss the latest technologies and solutions that create the future of innovation and creativity in the world.

Innovation Arabia, which was entirely virtual, provided a unique experience and excellent opportunity for participants to interact with experts, researchers, and innovators. Innovation Arabia featured **4 panels, 8 webinars** and **150 talks** presented by more than **120 speakers** from different parts of the world, and the organizing committee is expecting.

This year, Innovation Arabia was privileged to have several prominent speakers who enriched the scientific program, worth mentioning: Dr. Borhene Chakroun, Director, Division for Policies and Lifelong – UNESCO, H.E. Dr. Raja Al Gurg, Managing Director of the Easa Saleh Al Gurg Group, Member of Hamdan Bin Mohammed Smart University Board of Governors, IVANO Iannelli, CEO -Dubai Carbon Centre of Excellence, Dr. Naseem Abdullah, Director of health & safety, Dubai Municipality, David Qu, Vice President of Global Publications, Education, and Electronic Products at Joint Commission International, Dr. Hamda Hassan Khansaheb, Consultant Family Medicine and Head of Medical Research Section - Medical Education and Research Department - DHA, Dr. Abdalla Sulaiman Alhammadi, Chief Innovation Officer and the Head of Strategy Department, Ministry of Justice, UAE.

Innovation Arabia 14 was organized by INDEX Conferences and Exhibitions - a member of INDEX Holding, in partnership with Hamdan Bin Mohammed Smart University -HBMSU.

Scientific Committee

Crisis Management and Business Continuity

HOUSING BUBBLE DURING COVID-19

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Abstract

Research purpose. *This research seeks to improve the insight into the impacts of COVID-19 on UAE's housing bubble. It answers the research question: What is the status of the housing bubble in the UAE during the outbreak of COVID-19? The study aims to understand economic impacts of COVID-19 on consumers in the real estate sector, the economic behaviors of consumers in the real estate sector amidst the economic impacts of the pandemic, the impacts of consumers' economic behaviors on the real estate companies, and whether real estate companies have lowered the prices of their properties to survive the financial impacts of COVID-19.*

Research methodology. *The research adopts a qualitative research design to provide practical opportunities for meeting the research objectives compared. Data were collected through interviews. Purposive sampling technique was used to recruit the appropriate study sample population. Social media was applied to create the study's awareness and request eligible individuals to participate in the research. The study involved 50 participants, encompassing consumers in the UAE's real estate sector and agents of real estate firms. The researcher utilized the coding method to analyze qualitative data. Themes were defined from such data cohorts and tallied to compute their relevance level to the research's objectives.*

Ethical concerns. *The study observed various ethical principles such as justice, beneficence, benevolence, and autonomy since it dealt with human subjects. Interviews were only conducted after participants signed the informed consent form.*

Significance of the research. *The study shows how unexpected occurrences can impact a country's economy and the associated sectors and industries.*

Findings. *The pandemic caused severe economic hardship to consumers in the UAE's real estate sector as many people were unemployed, earned less, lessened purchasing power, and saw their businesses collapse. Additionally, many consumers refurbished their tastes and preferences concerning buying and renting a property and were compelled to work from their homes or remotely. Importantly, the residential sector saw a rise in construction activity with about 12,000 units submitted in Dubai and 600 units accomplished in Abu Dhabi. Finally, averagely, residential prices saw moderate reductions. The decreased demand for these assets made real estate companies reduce their properties' prices to survive the financial impacts of COVID-19.*

Keywords: *COVID-19 pandemic, the UAE's real estate sector, consumer behavior, economic impact, consumer spending.*

Introduction

Whereas the government of the United Arab Emirates (UAE) has implemented various stimulus measures to support its economy amidst the outbreak of COVID-19, the adverse economic impacts of the pandemic have influenced the behaviors of consumers already. The major industries and sectors of the country are affected by the pandemic significantly and may take extended periods to recover. In the future, firms would need to adapt to new consumer behaviors to transition to success. Preliminary reviews indicate that the real estate sector is one of the worst-hit sectors in UAE and GCC by extension. The argument is that the economic impacts of the pandemic have caused an

imbalance in the demand-supply relationship. According to S&P Global Ratings, the economic impacts of the pandemic is expected to subdue the international demand for properties in the UAE (Nagraj 2020). Correspondingly, residential prices will continue to decline even in 2021. In a different report, Lynnette Abad, the head of Research and Data Department at the Property Finder Group, revealed that the company experienced a decrease in searchers volume and listings by UAE residents (Nagraj 2020). Correspondingly, Matthew Palmer, the managing director at Alvarez & Marsal in Dubai, reported that the volume of transactions reduced from 41% to about 25% between February and March 2020 (Nagraj 2020). This sudden and significant reduction in transaction volumes indicates a contraction of the market. Whereas the government attempts to support the economy of the country amidst COVID-19, the economic impacts of the pandemic will take a toll on the behavior of consumers, thus affecting sales in the property and real estate sector.

Whereas the pandemic is expected to continue affecting the property and real estate sector significantly, this issue is hardly explored or studied. Over the years, the government has injected resources and transformed trade policies in the housing and property sector to diversify its economy. In response, the economic activities in this sector increased steadily over the same period. For instance, the Bureau of Statistics of Dubai reported that the real estate sector contributed about 22.5% of the Dubai Emirates' GDP in 2008 (Falade-Obalade & Dubey 2014). The rise and stability of oil prices in some periods have increased the demand for properties in Dubai by international and Gulf investors. The real estate sector has also supported the growth of other sectors.

For instance, it supported the growth and development of financial sectors by creating a high demand for credit loans (Taylor-Evans & Coyne 2013). It also supported the tourism sector by providing accommodation for a large number of foreigners in the country. Based on these preliminary assessments, the real estate sector is critical for the growth and development of the UAE's economy (Taylor-Evans & Coyne 2013). As such, the study of the housing bubble during COVID-19 will provide insight into how the government can adjust accordingly. The full scope of the research problem and questions are discussed in the subsequent sections.

Statement of the Problem

Preliminary analysis of the economic impacts of COVID-19 indicates that most sectors have experienced economic shock due to compromised economic activities of consumers. UAE's real estate sector experiences a significant reduction in the volumes of house searches, listings, and volume of transactions following the threatens imposed by the pandemic. Because the outbreak of COVID-19 occurred recently, its impacts in UAE's real estate sector have received insignificant attention from researchers. As such, it is not understood how the pandemic will affect the housing bubble in real estate. In turn, it is not known how the impacts on the housing bubble will affect the economy of the country. As such, this study seeks to improve the insight into the impacts of COVID-19 on UAE's housing bubble. In the process, the proposed study will answer the following question: What is the status of the housing bubble in the UAE during the outbreak of COVID-19? The literature review section provides initial information regarding the research topic, as presented below.

Literature Review

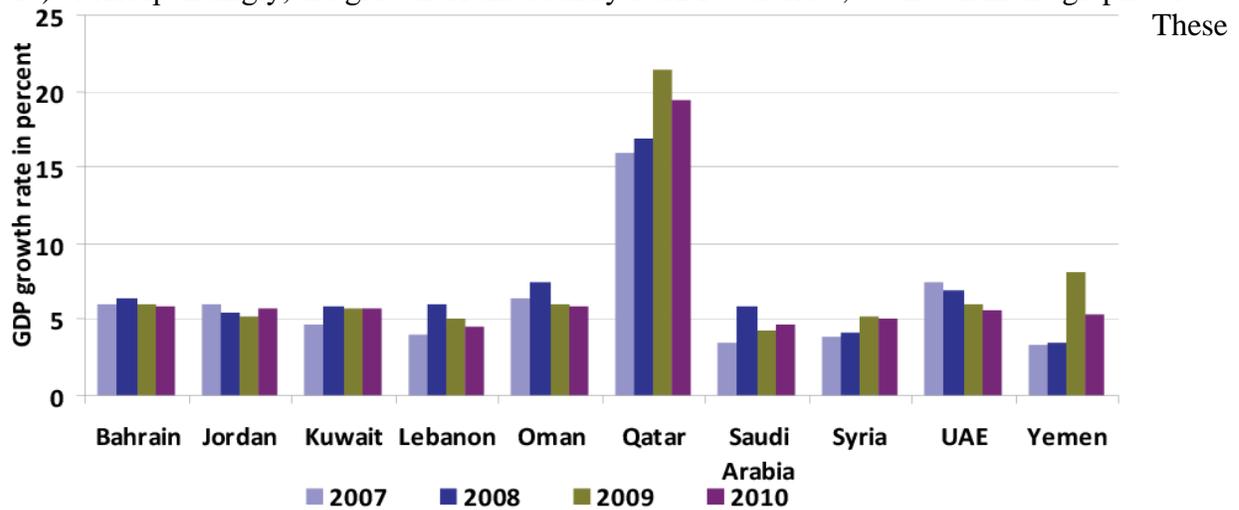
The concept of housing bubble describes a period in the real estate sector where prices of properties increase momentarily due to a surge in demand, exuberant spending behaviors of consumers, and media speculations before falling dramatically. Some scholars such as Glaesar and Nathanson (2015) have attempted to describe the housing bubble phenomenon in the context of irrational exuberance, in which the decisions of consumers and investors is thought to be based on market optimism or pessimism rather than reliable valuation. As such, the prices of properties are often unjustifiable by the underlying fundamentals. For instance, property prices tend to be high because investors believe that the same prices will increase in the future, even when fundamental factors contradict this valuation. Correspondingly, consumers rush to purchase properties to avoid the perceived increase in property prices in the future. Therefore, the housing bubble is created by unfounded speculations about the future prices of properties.

The impacts of COVID-19 on the UAE's housing bubble can be predicted based on the economic outcomes of the real estate sector in the past financial crises. Past financial crises provide models that can be used to assess consumers' behavior in the retail estate during the outbreak of the pandemic. The housing bubble in America, for instance, provides a model for predicting the trends in UAE's housing bubble. In America, property prices peaked in 2006 but began to decline sharply in the same year (McArthur & Edelman 2017). In 2012, the property prices reached the lowest point, thus affecting the global economy and the country's trade partners (McArthur & Edelman 2017). Research indicates that the bubble burst of America's real estate was facilitated by the collapse of America's subprime mortgage lending. The high rates of home foreclosures led many subprime lenders to declare their bankrupt statuses. These adverse outcomes led to other adverse financial impacts. The number of homes with foreclosure filings increased from 0.6% to 1.8% between 2006 and 2008 (Pew Research Center 2009). The high rate of foreclosures filing resulted from harsh economic conditions experienced by most consumers, as examined below.

The high number of foreclosures in the U.S. resulted from multiple economic factors. Firstly, various economic reports reveal that America experienced one of the highest numbers of job losses in 2008. About 2.6 million people lost their jobs by 2008 (Goodman & Lance 2011). Correspondingly, the collapse of major financial institutions such as Lehman Brothers compromised the economic status of the country, thus imposing economic challenges on consumers. The sharp decline in property prices in the same year reduced home equities significantly, thus forcing property owners to default the payment of their loans (Pew Research Center 2009). Correspondingly, the high-cost of properties and unfavorable terms and conditions of loan repayment also forced some investors to list their homes for foreclosures. These factors demonstrate that consumers' behaviors in the real estate sector are influenced significantly by economic conditions. These conditions can stretch a housing bubble boom or shorten it, thus leading to a dramatic and rapid housing bubble burst as was the case in America's real estate. Based on the review of the case study, therefore, adverse economic conditions reduced the ability of homeowners to repay loans, thus leading to the housing bubble burst in America.

The 2009 housing bubble burst in Dubai also provides a model for assessing the impacts of COVID-19 on UAE's housing bubble. The government's attempt to diversify UAE's economy led to the housing bubble boom in major cities, especially Dubai. The prices of properties increased unprecedentedly between 2004 and 2006 based on the country's orientation to the service and tourism

industries. In the process, investors developed tall, massive, and sophisticated skyscrapers in Dubai to accommodate the housing demand created by the surge in tourists. Correspondingly, investors differentiated their properties based on prices to meet the demands of consumers from diverse socio-economic classes. Before 2009, properties in Dubai offered a significant return on investments to investors, thus encouraging the development of more properties in the region. However, the rapid property development in the region came at the expense of debts and speculations that the demand would increase in the future. Signs of trouble or bubble burst began to manifest in 2008, following the financial crisis caused by the collapse of America's real estate sector (Behrendt 2009). In 2009, the crisis reduced property values significantly, thus contributing to the reason why Dubai had a foreign debt of about US\$100 billion (GKToday 2019). As such, each Emirate's citizen was responsible for about US\$400,000 of the total foreign debt (GKToday 2019). Correspondingly, the growth of the country's GDP was slow, as shown in the graph below.



conditions imposed significant financial burdens on consumers, thus cutting their resources. In return, the number of investors in real estate reduced significantly. Correspondingly, some homeowners could not pay their loans, thus leading to a housing bubble burst. This case study, like the previous one, demonstrates the mediating impacts of adverse economic conditions in Dubai's housing bubble burst.

Figure 1: GDP Growth During the 2008-2009 Financial Crisis. Graph Obtained from World Economic Outlook Database. <https://www.imf.org/external/pubs/ft/weo/2008/02/weodata/index.aspx>

Based on the two cases reviewed above, any condition that compromises the economic stability of a country can cut short the housing bubble boom in that country. While exploring the concept of housing bubble further, Oust and Hrafnkelsson (2017) observed that the prices of properties tend to escalate by 50% during the first five years of a housing bubble. Afterward, these prices will likely reduce by about 35%. The reduction in property prices, as observed above, often results from adverse economic conditions. These conditions make it challenging for consumers to purchase properties or pay mortgage loans, leading to the collapse of the sector. Therefore, COVID-19 will compromise the economic condition of the UAE, thus making it challenging for consumers to purchase properties or pay mortgage loans.

An analysis of the behavior of consumers at this time illustrates that the pandemic is affecting UAE's housing bubble adversely. While assessing the economic impacts of the pandemic, the Global Financial Stability report indicated that financial systems of countries had experienced significant recessions (Adrian & Natalucci 2020). The report indicated that the pandemic could cause one of the most devastating global financial impacts if not addressed promptly and conclusively. At the moment, the prices of risk assets have fallen significantly (Adrian & Natalucci 2020). Risk assets are assets that carry significant financial risks if not managed adequately. Therefore, the adverse economic conditions resulting from the pandemic will reduce the ability of consumers to purchase properties and pay mortgage debts in the UAE, thus leading to the significant reduction of property prices in the real estate sector.

Based on the results of the literature review, it can be hypothesized that the World Health Organization (WHO) guidelines for surviving the COVID-19 outbreak will reduce the financial capacities of consumers, thus reducing their demand of properties, compromising their ability to pay mortgage loans, and cutting property prices subsequently. The following objectives will be pursued to achieve the goal of this study.

Study Objectives

1. To Understand the economic impacts of COVID-19 on consumers in the real estate sector
2. To understand the economic behaviors of consumers in the real estate sector amidst the economic impacts of the pandemic
3. To understand the impacts of consumers' economic behaviors on the real estate companies
4. To understand whether real estate companies have adjusted the prices of their properties to survive the financial impacts of COVID-19

Methodology

Research Design

Qualitative research will be used to conduct this study because it provides realistic opportunities for achieving the objectives of the study compared to quantitative study. Because qualitative study encourages deep and broad exploration of the study question, it will provide the opportunity to examine and understand the behaviors of customers in the real estate sector in this period when the economy of the country is affected by COVID-19. It will allow the researcher to understand how the behaviors of consumers have changed with the adverse economic conditions imposed by the pandemic.

Data Collection Approach

Interviews will be used to collect data from the study participants to address the research objectives. Because interviews encourage face-to-face or one-on-one communication, the study will experience a high response rate compared to other data collection methods such as surveys. Interviews will also create an opportunity for the researcher to clarify questions that are not clear to participants.

Study Sample

Purposive sampling method will be used to recruit the appropriate sample for the study. This recruitment technique will be appropriate because it will help the researcher to recruit participants from large customers in the real estate sector. It will also help allow the researcher to focus on representatives of real estate companies. Social media will be used to create the awareness of the study, and ask people who meet the above conditions to participate in the study. The social media advertisements will contain links in which potential participants can send their details. The study hopes to engage about 50 participants, which will include customers in the real estate sector and representatives of real estate companies

Data Analysis

The coding technique will be used to analyze qualitative data. In this technique, pieces of data will be categorized based on the characteristics they share. Subsequently, themes will be outlined from such groups of data and tallied to determine their level of relevance to the objectives of the study.

Ethical Considerations

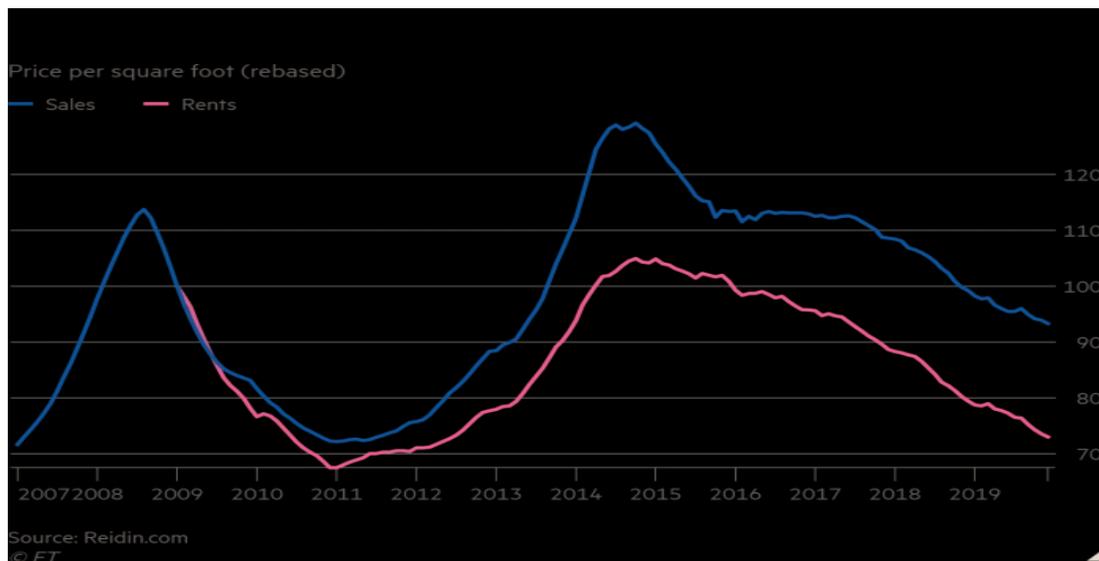
Because the study will deal with human participants, ethical principles such as benevolence, beneficence, justice, and autonomy will be observed keenly. Correspondingly, confidentiality will be maintained by using non-identifying codes to refer to participants rather than their actual names. Secondly, access to raw data will be limited to the researcher only. Lastly, participants will only be interviewed if they provide informed consent.

Significance of the Proposed Research

This research will be critical because it will provide many insights. Firstly, it will demonstrate how unexpected phenomena can affect the economy of a country and the related industries. In the process, the research will debunk the relationship between consumers' economic activities and the growth of industries and sectors. These insights will provide a basis for adjusting government trade strategies and policies. They will also inform the decisions made by companies amidst this pandemic and future unforeseen events.

The hypothesis outlined at the end of the literature review section aligns with the theory of reasoned action. This theory attempts to explain the behaviors of consumers by asserting that the purchasing behaviors of consumers are intended to achieve beneficial outcomes. As such, consumers are rational actors whose actions align with their interests. Based on this theory, therefore, the study will likely reveal a reduction in the rate of property purchases in the real estate sector. Correspondingly, property prices will drop when assessed in the context of the 2009 financial crisis, as shown in the graph below. It will also reveal the reduction in payment of mortgage loans. In the process, real estate will likely experience a reduction in their revenues and narrow profit margins. Some companies will also indicate that they have made losses since the outbreak of the pandemic.

Figure 2: Property price fluctuations amidst the 2008-2009 financial crisis. The graph obtained from the Financial Times. <https://www.ft.com/content/4b8a46dc-40df-11ea-a047-eae9bd51ceba>



Findings

Economic Impacts of COVID-19 on Consumers in the Real Estate Sector

With the ever-evolving transformations regarding the COVID-19 pandemic, UAE companies and employers have faced unparalleled business difficulties, especially how to manage their employment contracts within the law limits, while simultaneously keeping their enterprises buoyant. The pandemic caused several changes such as paid and unpaid leave. Employees were placed on compulsory leaves which were mostly unpaid. Similarly, many companies opted to reduce salaries and wages for their workers. UAE firms were also forced to reduce excess workers to cut redundancies and incentivize other options. Some firms also chose to adopt remote working where employees worked from home to reduce travel allowances and adhere to the WHO's social distancing guidelines (Sbai 2020). The pandemic also necessitated new rules such as daily curfew to restrict movement and social gathering to reduce the spread of the virus. Movement in and out of cities was also restricted by the government, although there were exemptions for truck drivers transiting goods and government employees.

These measures impacted consumers in the real estate sector. The unpaid leave and remotely working from home are associated with reduced incomes for people/consumers. Many people earned lower salaries and wages during the pandemic because they could not get paid for work leave as it was done before the pandemic. Working remotely implied that workers earned less income because they were not granted allowances such as travel (Sbai 2020, n.p). Some were even paid less while they worked home to reduce administrative expenses. Additionally, the pandemic caused the unemployment of many people as many companies were shut down and retrenched their workforce. Organizations were compelled to reduce their operating costs and administrative expenses to survive the pandemic period following the decreased demand for their products and services. One way to do this was to reduce their workforce sizes. Some could not sustain the

pressure and had to close, rendering many people jobless and exposing them to economic hardship (Sbai 2020). Moreover, for casual workers, small businesses, and self-employed people, the daily curfews and restricted movement to larger cities such as Dubai and Abu Dhabi undermined their business opportunities.

As people stayed at home and had little to spend, the demand for commodities also reduced. The reduced demand and spending, in turn, meant that small businesses and casual workers had fewer consumers to buy their products/services. Small businesses fell due to diminished capital for investment and insufficient demand. Casual workers had limited opportunities as factories employed a reduced number of workers per day to counter the diminished consumption (Sbai 2020). Subsequently, the pandemic caused severe economic hardship to consumers in the UAE's real estate sector as many people were unemployed, earned less, lessened purchasing power, and saw their businesses collapse.

Economic Behaviors of Consumers in the Real Estate Sector amidst the Economic Impacts of the Pandemic

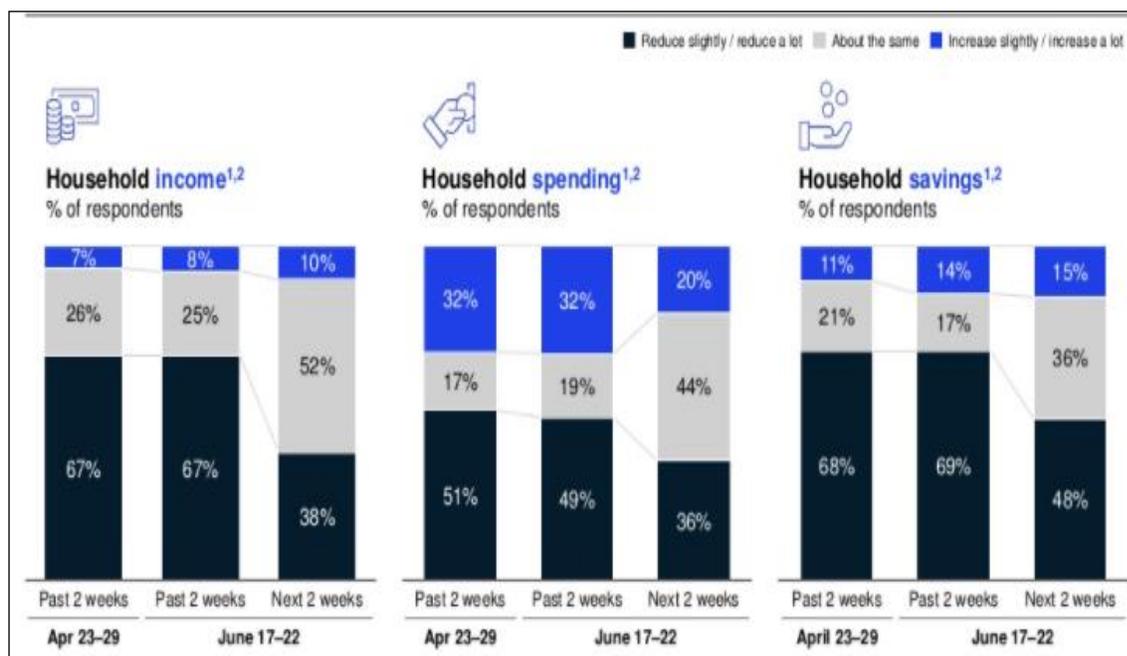
Spending patterns changed due to the economic impacts of the pandemic on consumers, regarding the real estate sector. There were reductions across the board in the purchase level for real estate property. Due to the increased unemployment and reduced earnings of consumers, as well as changes in the general labor force where people work remotely and forced into unpaid work leave, significant changes were noted in the consumer behavior concerning the residential and commercial houses they choose. The first consumer behavior change is that consumers (renters and buyers) will prioritize mixed-use advancements when considering buying or renting an apartment (Sbai 2020). With the economic hardship experiences, residents are now more likely to select an apartment in an area where there is a combination of educational and commercial establishments to prevent going to congested regions.

Secondly, consumers refurbished their tastes and preferences concerning buying and renting a property. The pandemic's economic impacts have compelled many consumers/people to work from their homes or remotely. As a result, many consumers choose homes and rental houses that are fenced and soundproof and have a space for physical activities such as cycling and other forms of exercise. Working from home, unpaid leave, daily curfew, and lockdown imply that people spent more time at home. As people become more health-conscious, they want a space to exercise to remain physically and mentally well. As a result, they have preferred apartments and homes with enough spaces to exercise. Additionally, another consumer behavior change is that residents have opted for lower density properties. The pandemic demonstrated the risk that high-density property could have on residents. Real estate developers have been forced to contemplate designing properties that uphold new social distancing guidelines. People also prefer to buy their homes to isolate themselves instead of occupying crowded apartments where many different families rent (Sbai 2020). Furthermore, in the medium- and long-term, consumer will prefer a well-ventilated offices spaces, which will be on the rise. Companies are also consumers of real estate property. Due to the requirement for improved air circulation in offices, companies will change their purchasing behavior by prioritizing office spaces with proper indoor air quality and circulation and ventilation.

Besides, the consumer spending patterns have changed due to reduced earnings, as many want ways of saving the little they hold. Most consumers are still not fully comfortable returning to their

regular out-of-home transactions. Simultaneously, they have begun implementing low-touch and digital activities, including e-learning, video conferences, and grocery delivery (shopping online), with a high chance to sustain some consumption patterns post-crisis. The changing consumer behaviors and patterns imply that buying or renting expensive apartments or homes will also decline as most low- and middle-income earners will hold their spending in real estate at least up to the time the economy will fully recover. Towards the end of May 2020, nearly 70% of consumers experienced a drop in savings and earning, significantly impacting spending on real estate property (Grimmelt et al. 2020). The reduction in income and savings in that period is depicted in the chart below.

Figure 3: The reduction in income and savings in that period (Grimmelt et al. 2020, n.p).



The Impacts of Consumers' Economic Behaviors on the Real Estate Companies

The UAE's real estate sector features some unique characteristics compared to its counterparts in other nations of the region. This is primarily because the UAE is a temporary home for many expats compared to the citizens, which in turn impacts their preferences and consideration regarding selecting a residential area. For instance, although it is a common habit for this region's residents to consider buying an apartment as an investment hedge against inflation or property for the future, this is not very widespread in the UAE because expats perceive that sooner or later they will emigrate the nation and flee to their home nations (Sbai 2020, n.p). Another main element is that the residential supply is not all accessible to purchase by foreigners. The asset ownership for expats exists in two classes in certain regions: freehold and leasehold. These variables impact the real estate demand in the UAE generally. The oversupply issue in the UAE and particularly Dubai deteriorated with the COVID-19 pandemic. In February 2020, a total of 62,500 residential units were programmed to be finished in that year, which would be the biggest number of fresh units since 2008 (Sbai 2020, n.p). Moreover, according to expectations, the pandemic slowed home sales and reduced rental prices in a market that was still agonizing from stubborn imbalances.

The UAE's real estate market remained to be renter-friendly in quarter three of 2020. The residential sector saw a rise in construction activity with about 12,000 units submitted in Dubai and 600 units accomplished in Abu Dhabi (Sbai 2020, n.p). Homeowners in the UAE have become more positive on the prospective for residential real estate in the near future. Towards the conclusion of quarter three of 2020, half of homeowners indicated that they projected home prices to rise or remain steady up to the end of 2021. Particularly, 33 percent of UAE homeowners were confident that home prices will rise (Sbai 2020, n.p).

Another finding is that the COVID-19 pandemic took a toll on home-builders and real estate developers in the second quarter of 2020, which is usually a strong season for sales. Weakening economy and prolonged operating cycles emanating from social distancing measures impacted both offer and demand of newly constructed houses in 2020. The real estate sector is a crucial part of the UAE's economic activity. The supply-demand imbalance in the sector, especially in Dubai, has been worsened by the pandemic's impacts on consumers' behavior. It is expected that the international demand for UAE's property will subdue and the price residential price reductions to be steeper than were projected. In Dubai, transactions increased with volumes to 41% annually in February 2020 (Nagraj 2020). However, in March 2020, the volumes declined about 25%, showing a substantial shrinking in the sector as potential foreign and domestic purchasers remain at home (Nagraj 2020).

Whether Real Estate Companies have adjusted the Prices of their Properties to survive the Financial Impacts of COVID-19

Averagely, residential prices saw moderate reductions, even though performance differed by location and property type. Real estate companies have lessened their properties' prices to survive the financial impacts of COVID-19 because the demand for these assets dropped. Real estate market is considered a buyer market because property prices in Dubai declined 13.8% in November 2020 as consumers tried to improve their savings from the reduced income (Rahman 2020, n.p). The reduction has, however, persuaded real estate firms and many individuals to invest in the housing sector in regions where demand increased, including Emirates Road, Business Bay, Arabian Ranches, and Dubai Marina. Purchasers look for regions that are well linked with good facilities and infrastructure and access to schools and shopping malls. For these regions, ad demand increased, more investment is also injected. Additionally, villa and apartment prices decreased in some areas in Dubai. For the properties near crowded areas and large scape developments, the demand for houses dropped due to fears of contracting the virus.

Real estate owners and companies reacted by reducing prices to improve demand, and also partly to respond to reduced earnings of consumers. End-users were interested in larger villas and apartments with spate office area, additional storage, physical activity space, usable outdoor space, and more building or community amenities (Rahman 2020, n.p). However, to maintain demand and consumption amid the pandemic, real estate firms reduced prices to sustain purchases for the period. Besides, interest in off-plan assets has declined and people have focused on completed properties, forcing companies to reduce their prices to remain in operation.

Furthermore, most home buyers are Dubai nationals, with a significant percentage of employed people in businesses being expatriates, who are reluctant to own homes. In effect, there is an

oversupply of residential and commercial properties, considering that most Emiratis have either become jobless or been subjected to reduced earning. Amid the pandemic, real estate companies have been forced to reduce prices of their properties to attract demand. For example, houses in Dubai and Abu Dhabi have seen considerable reductions over the period, partly due to oversupply and reduced demand. There was an average decline of 8.7% over a year-on-year period with villa rents in Abu Dhabi, dropping by 8.4% (Rahman 2020, n.p).

Future Research Implications

The current research has focused on the impact of COVID-19 pandemic on the real estate bubble in the UAE. It has discerned how the bubble has changed by examining the impact of changes in consumer behavior, the economic impact of the pandemic on consumers in the real estate sector, and whether real estate companies have reduced prices of their properties. The current study has concentrated on the short- and middle-term of the effects of these variances on real estate bubble, without considering the long-term impacts government interventions and economic stimulus policies will present on the real estate. As a result, future research should focus on how different UAE government's interventions to boost the economy, Dubai administration's economic stimulus package and Abu Dhabi's insensitive to the SME Credit Guarantee Scheme, will impact the housing bubble situation in the long-run, after the pandemic.

Conclusion

The study has examined the impact of COVID-19 pandemic on the UAE's real estate sector bubble. The findings from the data collected reflect the results from previous literature. The pandemic has imposed severe economic impacts on consumers in the real estate sector, rendering many unemployed. These economic effects have in turn influenced these consumers' behaviors regarding real estate property buying trending and patterns. Many consumers have opted to find new ways of saving from the reduced salaries by choosing cheaper residential houses as they cannot afford expensive or luxurious houses. Decreased salaries also imply that consumers cannot pay their mortgage loans. Additionally, companies have opted for remote working and reduced physical office space utilization to survive in the economic and financial hard times. Additionally, the pandemic slowed home sales and reduced rental prices in a market that was still agonizing from stubborn imbalances. UAE's real estate sector has also continued to build more houses in areas where demand has been steady. Furthermore, residential prices saw moderate reductions. Real estate companies have reduced their properties' prices to survive the financial impacts of COVID-19 because the demand for these assets dropped. These findings indicate that the COVID-19 pandemic has generally reduced prices of real estate properties in the UAE as real estate firms aim to respond to reduced demand from the economically constrained consumers. Future research should focus on the long-term impact of the UAE government's interventions to boost the economy on the housing bubble.

Timeline

This Gantt chart illustrates the implementation of the research proposal and plan.

	First Week	Second Week	Third Week	Fourth Week	Fifth Week	Sixth Week
Ethical Review Committee reviews the research proposal						
Implementation						
Data collection						
Data analysis						
Data presentation						

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Updated Uses of Robotics in Healthcare and Service Quality in Patients Safety

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Abstract

This report will explore the updated uses of robotics in healthcare and service quality in patient safety. Robotics now take a different position than they used to, robots now are the main contributors in ensuring patients' safety in tertiary care hospitals. The ongoing presence of robots now confirmed that the incorporation of artificial intelligence and programmed machines elevated the quality of services and the level of health care that is now being put forward to patients. The commonly known uses of robots in the healthcare field are now long gone and advanced applications have been put into work. Robots assist healthcare providers and allied professionals as well as pharmacists in many medical fields. Originally and commonly known, advanced surgical procedures can be performed easily with the assistance of robots. Using robots, surgeries can also be remotely done by an expert surgeon from a far-off geographical location collaborating with an onsite team. Other than that, robots maintain cleanliness and sterilization of theatre rooms and surgery rooms. Infection control is easy with robots in operation theatres as well as infectious disease patients' care areas. Transportation, analysis, storage of medical drugs, and lab samples are carried out more effectively by robots. Robots have removed the difficulties that nurses face when drawing blood from patients by high-quality detection of veins. Additionally, it helps effectively in rehabilitation exercises of paralytic and sport injury patients. Moreover, the use of humanoid robots is by far the most updated and exercised in the current medical practices. In the same way, it can mimic scenes of incidences, humanoid robots are also programmed to respond to treatments and show recovery just like a human would. Undergraduate medical students can simulate surgical operations and actions through the augmented virtual reality to practice in a safe manner.

Keywords: *Robots, Artificial Intelligence, Fourth Industrial Revolution, Service Quality, Safety.*

Introduction

Robotics was first introduced into the medical field in 1985 (Robotic surgery | medical technology, 2021). Surgical robots were the first to be used in a surgery room. But even then, they were not fully developed yet, and as a matter of fact, robots will never be fully developed. There will always be space to improve and provide a better quality of care provided for the patients in hospitals. After they came into use in surgical rooms, robots have entered our lives in many fields but most indispensable is the robotics existence and uses in the healthcare field. Divergent from the original uses of robotics in the healthcare industry, there are now elevated and magnified uses that assimilate to better serve the patient and provide him or her with an unexceptional experience through the utility of quality dimensions used in hospitals put forward by developers that researched patient satisfaction in hospitals conducted on patients themselves, patients' families and hospital staff.

The customer is the core interest in any business, and in hospitals, it is the patients that are the main concern. In the medical field, the customer is the patient, that is why providing him or her with high care standers is crucial. Healthcare providers should always follow the world's best practices

in providing premium quality health care to ensure the patient's safety and satisfaction. The use of artificial intelligence and digital transformation in the field of healthcare revolutionized the mere concept of providing old-school health care services to the progressive uses of robotics and machinery that support and improve the services in medical care. The development and improvement of these robots are crucial to delivering an enhanced patient care and high-level quality services. Quality in the health domain is defined in terms of standards and the application of new computerized bots that will handle the work of labor in a more efficient and effective manner and unsurpassable quality and meager errors while executing the process. Service quality in the healthcare department is defined as safety, effectiveness in doing work, patients are the core prospect in duty, instantaneous, competent and organized, and honorable to the service receiver and provider.

Health care institutes like hospitals and clinics all over the world have integrated robotics of all its kinds and forms within their infrastructure. Robotics facilitated many processes and steps taken by doctors, nurses, pharmacists at healthcare Institutes. Moreover, the health care and services provided by hospitals to patients after the introduction of robotics have made it possible to provide enhanced quality with an increased level of safety to patients. The healthcare sector in many countries that face many problems regarding the level of safety the patient is undergoing is advised to integrate robotics in the care provision system. The risk of health complications and medical errors as well as many other problems ranging from death rates to low-quality care levels have decreased following robots.

The high statistics of each problem occurring, at healthcare institutes decreased along the way, accompanied by decreased risk of occurrence frequently. Not only that, but other solutions such as easy detection of veins when drawing blood, rehabilitation exercises of the paralytic and sports injury patients, transportation, analysis, and storage of medical drugs and blood samples are carried out more effectively by robots, and advanced surgical procedures can be performed easily with the assistance of robots. Surgeries can be remotely done by experts from far-off geographical locations collaborating with an on-site team. The use of humanoid robots is by far the most updated and exercised in the current medical practices. The robot's ability to mimic scenes of incidents and respond to treatment and show recovery help make it a better alternative for medical students to practice on.

Additionally, Robots maintain cleanliness and sterilization at theater rooms and surgery rooms. Infection control is easier with robots in operation theatres and infectious disease patients care areas. Undergraduate medical students can stimulate surgical operations and actions through the augmented virtual reality to practice in a safe manner. The process and outcomes of using robotics in the field of health care show an increase and the quality of the services delivered to patients, an increase in patient safety, a huge reduction in costs to hospitals, improvement in patients outcomes.

Research Questions

- a. *What are the current uses of robotics in the healthcare field?*
- b. *How did the use of robotics improve the care delivery process to patients?*
- c. *What could be the future uses and integration of robotics in the healthcare sector?*

Review of literature

This literature review examines the uses of robotics in the health care field. In addition to that, it illustrates the enhanced quality of patient care received by patients that leads to increased safety in the process of patient care delivery.

1. Fourth Industrial Revolution

1.1. The fast pace of development in the world we live in especially this era gave birth to groundbreaking technological advancement and many computerized domains that give rise to artificial intelligence and machine learning. We are now living in the era in which we used to read about and watch in sci-fi books and movies. The fourth industrial revolution unlike any of the prior three has distinct characteristics and revamp the social and technological environment we live in. Upcoming revolution in the world economy, social status, and social-cultural structure are expected by the times the fifth industrial revolution occurs. The greatest shift between all the industries in the fourth industrial revolution goes back to robotics and artificial intelligence. Sensors allow robots to understand events from their surroundings and by using algorithms to interpret them into artificial intelligence, the robot is able to react and engage in its environment. The expected forthcoming generation of robotics would probably demonstrate a better collaboration between humans and machinery (schwab, 2016).

2. Definition of Robots

2.1. Robotics is a field of science and artificial intelligence that is still being developed and enhanced. The term robotics can be defined from both a technical and a non-technical point of view. The technical definition of a robot by Britannica is “any mechanically driven automation that substitutes mankind work” (robot | Definition, History, Uses, Types, & Facts, 2021). The definition of non-technical robotics is “imposed effort done by servants” (Katevas, 2001).

3. Uses of Robotics in Healthcare

3.1. Robotics and its introduction in the healthcare domain have solved many problems and medical errors that are recorded in big numbers. The majority of these errors are caused by human inaccuracy. The uses of robotics are present even in departments that do not have direct contact with the patient. For example, the health record database is managed more efficiently using robotics, machine learning, and artificial intelligence altogether. Current uses of robotics are evolving and developing day by day and new uses are cultivated to ensure the best results when integrating the robots within the system of the healthcare institute (Butter et al., 2008).

4. Problems in Healthcare

4.1. Disrespect from care providers to the patient or his or her family, short duration of consultation sessions, and long delay time (robot | Definition, History, Uses, Types, & Facts, 2021).

- 4.2. *Catastrophic events that lead to death (Patient Safety, 2019).*
- 4.3. *High death rates due to poor-quality, especially in third world countries (robot / Definition, History, Uses, Types, & Facts, 2021).*
- 4.4. *Tidy sums of money lost in productivity on account of the insubstantial quality of care, typically in low- and middle-income countries (robot / Definition, History, Uses, Types, & Facts, 2021).*

5. **Quality in Healthcare**

- 5.1. *Moving away from the traditional healthcare provision, new and urbanized methods of quality service in healthcare delivery are arising and gradually implemented. Experience makes quality service delivery and healthcare better SERVQUAL and KQCAH practices. Like experienced nurses in the medical field, programming Robots and involving them in multiple sectors in providing health care in a proper way will increase the level of services, therefore, increase patient satisfaction. Robots are similar to any machine, they need continuous updates and programming to meet refined goals to match the optimum SERVQUAL and KQCAH provided. This can be measured by SERVQUAL and KQCAH indicators, like care and respect, continuity and effectiveness, appropriateness, information sharing, efficiency and effectiveness, meals, first impression, and staff diversity (PILLAI and KUMARI, 2016).*
- 5.2. *The level of care the patient is receiving affects his satisfaction as well as the satisfaction of his family and close circle relationships. This satisfaction may cause an acceleration in the patients' recovery duration. The more elevated the quality is the more favored the outcomes are and the more convalescent the effect is on patients. There is a set list of factors that define the quality of health care, listed down below:*
 - 5.2.1.1. *Effectiveness – using empirical healthcare services to patients (Quality of care, 2021).*
 - 5.2.1.2. *Safety – harmless care for patients (Quality of care, 2021).*
 - 5.2.1.3. *People-focused – supply patients with care that complements their needs and preferences (Quality of care, 2021).*
- 5.3. *To understand the benefits of premium quality health care, service providers should:*
 - 5.3.1.1. *Minimize delays and waiting time (Quality of care, 2021).*
 - 5.3.1.2. *Practice consistency in care and services delivered (Quality of care, 2021).*
 - 5.3.1.3. *Ensure availability of services in their wide range and variety whenever needed (Quality of care, 2021).*
 - 5.3.1.4. *Effectively utilize the resources available (Quality of care, 2021).*

Methodology

The research methodology used to construct this report depends greatly on secondary data. Data analysis techniques used reliable and trustable articles and journals available on the internet. Limitations of research were difficulty in obtaining primary data as well as interviewing personnel in healthcare institutes to know more about the experience of using robotics in hospitals and clinics due to the pandemic. Therefore, concluding and collecting this information from official websites on the internet and adding on them.

6. *Research Design*

6.1. *The research design acts as a representation of how the research is carried out. The investigation endorsed an analysis and evaluation of the current and updated uses of robotics in the healthcare domain to deliver premium quality services and increased safety, reduced errors and fatal mistakes that lead to unwanted results through journals and articles that exist on academic web engines.*

7. *Data Collection Methods*

7.1. *The research on this topic was done by inspecting and interpreting data from academic journals and articles that were recently published on reliable and credited websites.*

8. *Descriptive Statistics*

8.1. *1 out of 3 people communicated unpleasant experiences of the healthcare system they received (robot | Definition, History, Uses, Types, & Facts, 2021).*

8.2. *134 million injurious events occurring yearly in hospitals which lead to 2.6 million deaths overall (Patient Safety, 2019).*

8.3. *Ranging between 5.7 to 8.4 million deaths annually are caused by low-quality care in middle to low-income countries. Making up 15% of overall deaths (robot | Definition, History, Uses, Types, & Facts, 2021).*

8.4. *Amounts varying from 1.4 trillion dollars up to 1.6 trillion dollars are lost in productivity yearly because of insufficient quality of care provided to patients in third world countries (robot | Definition, History, Uses, Types, & Facts, 2021).*

Results and discussion

The aim of this report was to study the updated uses of robotics in healthcare and service quality in patient safety. From researching, the subsequent outcomes to the uses of robotics in the healthcare sector were distinguished.

9. *Robotics Solved It.*

Robots use algorithms and AI in detecting any sign in the condition of the patient and can keep health records of patients and list down important information regarding the patient's health condition.

9.1. *Humanoid robotics*

9.1.1. *Humanoid robots assist and rehabilitation as well as their ability to accomplish duties. There are capacitated to perform tasks as if they have the capability but that of a human being. Supporting patients' care and the severe damage, such as rehabilitation, and high-risk cases is what makes humanoid robots the pick of the bunch in these scenarios (Joseph, Christian, A. Abiodun and Oyawale, 2017)*

9.2. *Easy detection of veins when drawing blood.*

9.2.1. *Robots help nurses in detecting the vein that is most suited to draw blood from without the need to inject the needle into the patient's arm more than once to find the source of blood. On the other hand, it saves patients that fear needles the hassle of*

being injected a couple of times which lessens the pain and stress the patient goes through.

9.3. Rehabilitation

9.3.1. *Paralytic and sports injury patients face a hard time when performing physiotherapy sessions. Due to the relaxation of the patient's muscles in these cases, the nurses face problems when having to carry or support the weight of the patient. Therefore, robots have assisted in the treatment of such patients by providing them with support to complete their exercises and treatment.*

9.4. Surgeries

9.4.1. *Surgeries are the original hub where robots were first used. Advanced surgical procedures can now be done easily with the assistance of robots. Surgeons that are located in a different geographical location are able to execute surgeries remotely from far-off geographical location collaborating with the on-site team.*

9.5. Handling drugs

9.5.1. *The process of transporting, analyzing, and storing medical drugs adequately is carried out more effectively by robots.*

9.6. Hygiene

9.6.1. *Robots maintain cleanliness and sterilization of theatre rooms and surgery rooms. Infection control is easier with robots in operation theatres and infectious disease patients care areas.*

9.7. Practicing medical students

9.7.1. *Undergraduate medical students can simulate surgical operations and actions through the augmented reality and virtual reality to practice in a safe manner without the need for volunteers that might risk their lives.*

10. Outcomes

10.1. *Increased quality of services delivered to patients in hospitals and other healthcare institutes. Healthcare providers are trained and educated on how to deliver services that will satisfy the patient out of his or her treatment courses of action.*

10.2. Increase patient safety.

10.2.1. *The patient's safety is achieved and maintained when the healthcare provider avoids or reduces medical errors. When dealing with the health of a patient it becomes very critical to adhere to the highest safety standards. Any minor error might cause exacerbation in the patient's health condition.*

10.3. *Reduced costs on hospitals and other healthcare domains. These costs were lost due to the inefficient use of resources. When effective utilization of financial resources improves, the hospital or clinic might be left with amounts of money that could be dedicated for furthermore improvements in providing patients with high-quality care as well as keep up to date with new modified robots that could aid in delivering higher quality services.*

10.4. *Improve patients' health outcomes.*

10.4.1. *Successfully recovered patients and lower error rates all promise positive results for the healthcare institute. Eliminating fatal errors caused by minor errors from the inattentive operator will also increase the positive and desired outcomes.*

Conclusion

To sum up everything that has been stated so far, robotics is being implemented into healthcare due to the crucial role they play in guaranteeing high-quality patient safety after advanced technology has been introduced. Robots can understand underlying issues related to the current health condition recorded in the EHR of the patient(s) using artificial intelligence and respond based on that. The advancement of these robots is critical for providing efficient healthcare as well as refined assistance to doctors, nurses, and pharmacists. With the arrival of this era of revolutionary technological discoveries and advancements, having the aid of robots will increase the safety and security of patients and help accomplish tasks swiftly and effectively. Hospitals and healthcare institutes will surely continue using robots as they become more developed over time in hopes of enhancing healthcare for patients and staff. The robotics field is promising as robots have tremendous potential to assist, be effective, and keep patients safe. The rapid development of this technology is beneficial to everyone in the health domain. I recommend that service providers, as well as health institutes, focus more on training and educating staff members about the benefits of implementing quality to increase the patients' safety.

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Impact of Effective Leadership in Covid-19 Crisis Management

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Abstract

This paper represents a qualitative research process for looking into the impact of effective leadership during the Covid-19 pandemic. The pandemic has altered how companies operate, presenting new challenges never before experienced. The skills leaders have in managing their organizations have also been placed in the trial, as they juggle between high emotions and difficult decisions. The paper aims to look for the leadership styles that are successful in crisis times and the reasons for their progress. Further, the research also seeks to understand how Covid-19 has changed the normal workplace and the issues leaders have had to endure throughout the year.

The research is geared towards expanding on the critical topic of leadership and pandemics. As the prolonged crisis is new to the modern world, the outcomes of the research will be excellent in laying out the way for future exercises. Future crisis situations will also benefit from extensive research on Covid-19 and its effects. The research process is a qualitative one and looks into journals and articles on the topic. The researcher reads into each paper and extracts the points on the leadership issues during the pandemic. The method also covers a detailed analysis of the content of the papers, eliminating the ones with bias.

The continuing infections show that organizations have to make permanent changes in their leadership. Further, leaders have had a hard time choosing the staff to let go in a bid to reduce the impact of the pandemic. The employees left on the organizations also have had to quickly adapt, looking for support among themselves and from the leadership. The researcher also finds that charismatic, supportive and leaders ready to transform have sailed through the pandemic despite its effects. These leaders have the knack for analyzing the situations and adapt to the problems. The support for the employees has also helped these leaders push organizations forward.

Introduction

Organization leadership covers the techniques and approaches that managers and leaders use for success in carrying out the goals of the institution (Ibrahim & Daniel, 2019). This process is critical since it involves digesting the overall intentions of the company and breaking it down into roles and responsibilities everyone can do to achieve the desired outcomes. Organizational leadership requires a unique set of skills that entail handling problems and passing on the correct information while following the correct ethical decisions. The leadership should also involve motivating groups and individuals in their work in a way that will benefit them and the organization. The thinking methods of the leaders are also different from the rest, as they need to include the strategy of the organization in their actions.

Leadership practices in the ongoing Covid-19 pandemic have changed dramatically, as the work practices and conduct have also altered (Lateef, Tan, & Christodoulou, 2020). For instance, following the discovery of keeping a distance from anyone, many organizations face a problem of how to conduct tasks, especially those which require interaction among several people. The restrictions of movement are also changing the conduct of actions like meetings, which are currently happening through remote connections. Such moves pose challenges to the leadership of

entire organizations. The uncertainty of the length of the crisis and what will happen in the future makes it hard to understand the direction to take.

Objectives

- To understand the leadership styles that have prevailed in Covid-19 crisis.
- To extract the impacts of effective leadership styles in Covid-19 crisis.
- To conclude on the best direction leaders should take in the current pandemic.

Purpose of the Research

This research aims to reveal how effective leadership has been affected by Covid-19. Further, the research will also outline the issues organizations are facing in this crisis. The leadership style in times of crisis management will also help reveal how future crises could be handled. The research will extend the current literature and researches on the issue and possibly reveal meaningful points that will help future research in organizational leadership.

Description of the Research

The research is a qualitative one, where the researchers collected the journals and articles surrounding leadership and changes during Covid-19. These articles are peer-reviewed for top quality results and accurate conclusions. The research is based on secondary sources of information, which means the analysis will happen on existing research studies conducted during the pandemic. Qualitative research is great when forming an opinion and allows the researcher to analyze the topic and create conclusions based on their knowledge and the understanding of the literature.

Each of the articles has undergone strict vetting to prevent bias on the topic. The analysis process involves noting the important areas of the articles that concern the topic and extracting the opinions to form the general view. The combined extraction of information helped form the basis of the implications and conclusions of the researcher.

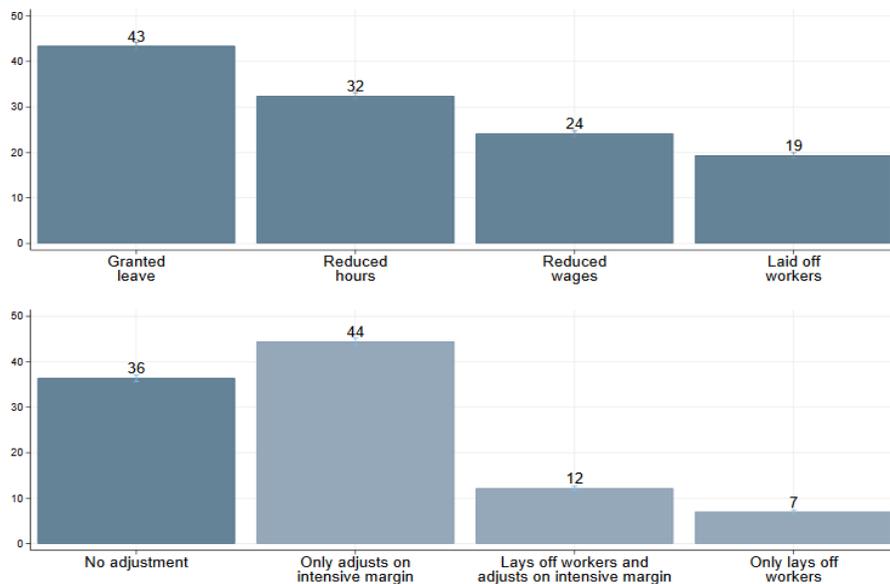
The research also assumes that the articles selected had accurate information with minimal errors. This assumption means that any issues contained in an article or journal have a high chance to be carried over to this research.

Findings

Impacts

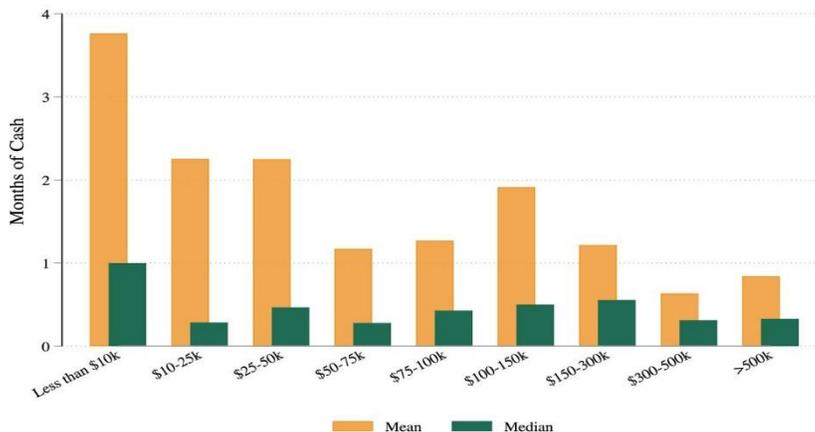
The changes that have existed since the start of Covid-19 are immense. For instance, its persistence and infection rate has forced most businesses to stay closed, which affects the outcomes (Bell, et al., 2020). Further, leaders have also been faced with tough decisions in choosing who to let go. Figure 1 shows a study on how different businesses dealt with the impact of the pandemic. These decisions are towards the survival of the organizations and take a toll on both employees and managers. The trust levels of the employees left can also plummet, as they get into the confusion of who faces termination. Exercising effective leadership in these times has shown to be working; for instance, adjusting to the circumstances with a balanced plan where everyone bears the impact of the pandemic is good. This strategy should also be accompanied by mental and emotional support from the leaders.

Fig 1: Business Adjustments extracted from (Apedo-Amah, et al., 2020)



The need to adapt to a crisis management situation has also been constant for the past year (Narine & Meier, 2020). Figure 2 indicates that most companies at the start of the year only had a few months of cash saved. This mode sees the leadership of organizations seek to alter their operation processes to reflect the needed requirements. The resources and funds to provide training in the new environment are also reduced, which calls for extra innovation to stay afloat. Some organizations employ control centers where they coordinate their employees while they work through remote means. Such moves leave room for the leadership to run the organization without risk to the staff. The major issue in the situation is that coordinating staff who are not physically near each other can be tough or impossible at times. Previous technological adaptation of an organization has shown to reduce the impact of the pandemic, with minimal effort to switch to digital-only interactions.

Fig 2: Mean and median months of cash split by monthly expenses (\$1,000s). (Bartik, et al., 2020)



Effective leadership styles in the crisis

Different leadership styles exist to power organizations through different situations. During this pandemic, an example that has flourished in the hard times is the supportive type, who interact with their teams to achieve goals. With the need for extra support in the Covid-19 pandemic, this leader has helped organizations find focus on critical issues.

Further, charismatic leaders have also seen increased outcomes in the crisis. These leaders are good at looking for new opportunities and push teams to achieve the goals (Ryömä, 2020). These leaders have shown success despite limited resources and hard times. Their push can seem as too tight towards the staff, but the results eventually pay off.

Leaders who were ready to transform and adapt to the new situation also saw much success. These leaders are quick to analyze situations and strategize towards the changes while encouraging the team to follow suit. The productivity level of these leaders is quite high and comes in handy when hard decisions should be considered. Their goal-oriented view also helps define where the organization is headed.

All leaders have also had to increase their empathy and listening skills to offer advice during the crisis. As much as the pandemic has impacted the organization, individuals also have had hard times adjusting to the new norms. The leaders, therefore, have to contain the ability to look at situations from the employee's perspective and make decisions based on balanced understanding.

Conclusion

The pandemic is still ongoing, which shows that organizations might need permanent solutions to their leadership structures. Organizations that had not set themselves up for technological changes have seen a serious impact from the pandemic. The crisis has not spared any organization, providing an excellent platform for researchers and companies to seek better ways of handling crises. Organizations have been forced to try out their crisis strategies and determine their effectiveness. The vague future in regard to the pandemic is also placing all leaders in a difficult position. The expectation to permanently adapt are high and will be necessary when recovering from the new rules.

The different leadership styles have also shown to be crucial in crisis times. Lenient leaders and those who are not keen on making many changes have failed terribly in the current times, forcing some organizations to shut down. The rebuilding of companies will also need time as leaders strategize afresh on the best way forward. As is evident in the continued high infection rate, the workplace has also altered, with leadership focusing on managing more workers in remote locations. The future workplace and leadership qualities and techniques present a wide platform for organizations to innovate.

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Change Management Critical Success Factors

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Abstract

Change is unavoidable in all aspects of life. Businesses and organizations have to adopt change management strategies to meet the ever-changing market trends. Change management is vital in any organization because it ensures that individual values are in alignment with organizational goals. Innovation, globalization, and customer focus are some of the major external drivers of change. Organizations must be constantly innovative to remain competitive. To ensure an overall competitive advantage over other firms in the market, companies must constantly improve production and service delivery. Globalization has expanded the opportunities, complexities, and competition between organizations across the globe. Companies have adapted to strategies that enable them to survive in the globalized environment. Customers as a driving force in any market have the freedom to purchase a product based on the pricing and quality. Therefore, organizations need to organize the production of services to offer the best possible value. Resistance to change is what makes most of the organizational change attempts unsuccessful. This is often caused by employee attitude and financial constraints for adapting to change. When employees feel a lack of involvement in the change, they are most likely to resist the change. Financial constraints would cause change resistance especially in employee training or adapting to new technology. Critical success factors are the necessary attributes that influence a successful implementation of change management activities. Organizations should roll out key performance indices to ensure seamless change process. These specifics associated with change management include practical leadership, effective communication, and performance measures as well as employee acknowledgment. Effective leadership is the major source of guidance to change management. Communication with the relevant stakeholders is a critical success marker for change management because it ensures common ownership and involvement. Properly defined performance measures, acknowledgment, and a reward system are critical factors that motivate employees to achieve set targets. The dynamic nature of the business world requires constant change management in organizations to keep up with emerging trends. Managing change is a matter of readiness and implementation of measures to improve all aspects of the organization.

Introduction (change management, success factors)

Dynamism affects all aspects of human life, including business management and organizations. These establishments need to constantly change to satisfy the trends in their respective markets and, as a result, they need to adopt change management strategies. These plans involve using a set of tools, procedures, abilities, and rules for managing people to attain the necessary outcomes of an initiative (Bouchra, Lotfi, and Semma 2018). The change enables businesses to become stronger and prepared to tackle unforeseen challenges. Change management is important for employees and organizations alike as it introduces a shift in culture to align with individual values that enhance the realization of organizational goals. Critical success factors, barriers to change, and major change drivers are important topics in addressing effective change management.

Literature Review (innovation, globalization, customer, resistance, technology)

Forces for Change

Change in organizations is inevitable and can be driven by an array of factors. Some major external factors include innovation, globalization, and customer focus (Jick 2017, p.25). Organizations should continuously innovate to remain competitive. According to the OSLO Manual (2018), innovation is a new or enhanced product and service that contrasts drastically from the preceding products or services. To ensure an overall competitive advantage over other firms in the market, companies must constantly improve production and service delivery. For instance, cell phone manufacturers such as Apple produce new and better phone models every year to keep up with the competition. Globalization as a factor for change management affects manufacturers, markets, and capitals.

This paradigm has expanded the opportunities, complexities, and competition between organizations that have found it necessary to establish operations across the globe. This expansion has resulted in the adaptation of strategies that enable companies to survive in the globalized environment. For instance, before joining an international market, a company should look into the type of foreign market to be considered and devise strategies to penetrate it. According to OECD (2018), customers are the driving force in any market and have the freedom to decide whether or not to purchase a product based on the pricing and quality. Therefore, organizations need to use their resources and organize the manufacture of goods and production of services to ensure they offer their customers the best possible value. Overall, factors such as innovation, globalization, and customer focus, lead to change management in organizations.

Barriers of Change

Although change is important for an organization's survival, resistance remains the most common barrier to realizing it. According to Bouchra, Lotfi, and Semma (2018), 70 % of all organizational change attempts are unsuccessful. Organizational change might fail due to negative employee attitude, especially if there is a lack of involvement in change by the employees. Inadequate funding is a barrier to change due to expenses such as training of employees, branding of the company, and adaptation of new technology. However, resistance by employees is a hindrance to change as not all employees will embrace the organization's new dynamics, forcing the management to take drastic measures some of which anticipate high employee turnover. Additionally, workers without technical skills remains a structural gridlock to change because the process requires individuals with specific skill sets and it may be difficult to recruit and pay them if the business is still struggling with the change process. Therefore, various barriers make it difficult to implement change management.

Discussion (leadership, management, communication, reward)

Critical Success Factors

For organizations to thrive against competitors, they need to roll out key performance indices to ensure seamless change process. Critical success factors are the necessary attributes and variables

that influence a project's successful completion and implementation and other management activities like the hiring process (Vrchota et al. 2020, p.13). These peculiarities associated with change management include pragmatic leadership, effective and clear communication, and performance measures as well as employee acknowledgment. Effective leadership acts as a major source of guidance for the people in the organization. In fact, Bawany 2016 notes that change management is not as important as leading change. Strong leaders view it as a tool to strengthen and grow the organization without affecting its operations. A capable steward should understand that leading change requires the comprehension of positive and negative attributes of change and their respective impact on stakeholders.

Communication with the relevant stakeholders is a critical success marker for change management because it ensures common ownership and involvement. A study conducted by Hamlin et al. (2019) found that ineffective communication is the most significant deterrence to the realization of organizational change processes.

Absence of directed exchange hinders the overall development and growth of a company. Therefore, properly defined performance measures, acknowledgment, and a reward system are critical factors that motivate employees to achieve set targets. In fact, an effective framework aids an organization in transforming its vision into a set of performance measures (Bouchra, Lotfi, and Semma 2018). Acknowledgment and rewards are issued after analysis of the performance measures, making it paramount to recognize and reward those involved in the process. Rewards take the form of financial rewards, praise, and promotions, amongst others. Therefore, critical success factors such as good leadership, performance measures, and effective communication ensure the success of change management.

Conclusion (organization, success, manage, change)

The dynamic nature of the business world requires constant change management in organizations to keep up with emerging aspects that affect their success. Continuous process of addressing these challenges enables an organization to remain competitive in its respective market. Factors that lead to a change in management include innovation, globalization, and customer focus. Even though the process anticipates organizational survival, certain impediments to change continue derail it. They include negative attitudes from employees, inadequate human resources, financial constraints, and past failure in implementing such processes. Despite the challenges mentioned, an organization can implement certain strategies to ensure successful approaches to this process, for instance, adopting efficient performance measures and recognition, establishing effective communication, and good leadership. Overall, managing change is a matter of readiness and implementation of measures to improve all aspects of the organization.

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Research of efficiency in operation at emirates airlines

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Abstract

There has been a decline in the productivity and general performance of all industries, and airline sector has not been spared. The aim of this research proposal is to investigate the critical elements of Emirates Airlines' operational efficiency so as to determine the company's position in the aviation industry and suggest possible strategies to sustain or boost the company's operational efficiency. The study uses qualitative approaches to gather relevant data, under which case study is used as the most fitting design. The literature review, which lays the foundation for conducting this study uses three major dimensions namely, customer satisfaction, business strategy and organizational model, and reliability. Prior to conducting the study, pilot study that used a comparatively smaller sample of subjects was conducted, leading to predictive findings. Thus, the pilot study is useful to this study since it aids in understanding and predicting the outcomes of the proposed study. It also acts as a pointer to the suitability of the proposed methodology.

Keywords: *Operation Efficiency; Emirates; Airlines; Airline Industry; Coronavirus.*

Research of Efficiency in Operation at Emirates Airlines

Part 1: The Research Proposal

Background of the Study

Aviation industry occupies a significant position in the entire economy of United Arab Emirates since it has contributed vastly to the country's GDP as well as immense opportunities of job creation for the citizens. In particular, Hazarika and Boukareva (2016) identifies that the aviation sector alone contributes approximately \$53.1 billion, translating to 37.5% of the country's GDP. In terms of employment creation, Hazarika and Boukareva report that 750,000 jobs would be available in the industry by the end of 2020. As such, Emirates Airlines is ranked among the leading companies in the airlines sector in terms of organizational strategy, operational efficiency, customer, satisfaction, and general competitiveness and profitability. All of the above elements are crucial determinants of the company's overall position in the industry (LESTARI et al. 2020). As such, they form the basis upon which Emirates Airlines can be evaluated to determine its overall performance in terms of operations efficiency. Subsequently, recommendations will be made to suggest other crucial areas in which Emirates Airlines can enhance its competitiveness by specifically focusing on the strategies to optimize operations efficiency.

Problem Statement

Airline industry is rapidly responding to the changing global business environment, which has continually become competitive overtime. In so doing, it faces devastating challenges such as reduced yields in the advent of the novel Coronavirus. According to the recent data published in the United Arab Emirates Country Commercial Guide (2020), Emirates Airlines is the leading

operator of the Boeing 777 and the super jumbo Airbus 380, recording an approximate fleet of 270 aircrafts as of March 2020. The above data suggests that Emirates Airlines has an efficient operations system, which is the determinant of its high performance in the region. However, Emirates Country Commercial Guide (2020) further reports that Covid-19 has brought devastating losses to the airline industry with unquantifiable magnitude of losses. As such, the future profitability and competitiveness of Emirates Airline will depend on the company's strategy to recover economic losses that arose from the devastating impact of the Coronavirus pandemic (Czerny et al. 2020). Thus, the problem is the uncertainty surrounding the current and future position of Emirate Airline's operation efficiency, since there have been immense changes throughout the Coronavirus period. If such uncertainty continues, the company may be unable to evaluate its strategies effectively, threatening its decline in competitiveness and profitability as a result of the currently unknown and unpredictable operational efficiency.

Goals and Objectives

Purpose of the Study

The purpose of this study is to investigate the critical elements of Emirates Airlines' operational efficiency so as to determine the company's position in the aviation industry and suggest possible strategies to sustain or boost the company's operational efficiency.

Specific Research Objectives

1. To investigate critical elements of operations efficiency associated with Emirates Airlines
2. To determine the position of Emirates Airlines in the aviation industry
3. To suggest possible recommendations of increasing Emirates Airlines operations efficiency

Research Hypothesis

This study hypothesizes that Emirates Airlines has averagely declined in the performance regarding the critical elements of operational efficiency within the past one year as a result of Coronavirus pandemic, but still retains its top position, which can only be retained by implementing strategies like investment in research and development as well as establishing more innovative strategies to serve the customers.

Relevance and Significance the Study

This study is useful in multiple ways, both to the company and to the entire body of research. First, the study will help identify the strengths, weaknesses, opportunities, and threats of the Emirates Airlines Company operation efficiency. The information will be utilized by the company for decision-making regarding the future strategies, especially the strategy to recover economic losses that occurred due to the Coronavirus pandemics. In so doing, the company will be able to make valid and more informed decisions regarding the future practices related to its operations. The study will also contribute immensely to the entire body of research by yielding crucial insights into the current state of airline industry, especially after the Covid-19 pandemic.

The study is relevant to the topic of operation efficiency since it conveys insights into the attributes of an effective airline operations system. Thus, the findings will clarify the essence of operations efficiency as a contributing factor to the overall corporate profitability and competitiveness. The findings are relevant to the customers because they will enable them to make informed decisions regarding their choice of an effective airline company that can meet their demands. Similarly, the company's management will benefit from the findings by strengthening the company's operations. Finally, the entire airline industry will benefit greatly by evaluating the principal determinants and success factors associated with airline operations.

Literature Review

Operation efficiency can be evaluated using three dimensions that contribute highly and affect the nature of operations at the company level. They include; customer satisfaction, business model and organizational strategy, and reliability. As such, the scope of the literature review below is limited to the studies dwelling specifically on the three dimensions identified above. The review is guided by the research objectives; hence, only the studies related to the Emirates Airlines are included in this literature review.

Customer Satisfaction

Customer satisfaction is a crucial determinant of efficiency that informs the company regarding its position in the industry. Against this backdrop, Alshurideh et al. (2019) investigates the how the amalgamation of supply chain affects client relations practices using the case of Emirates Airlines Company. Using integrative case study design, the researchers established that logistics expenses can be lowered using supply chain integration strategy. In so doing, customer satisfaction is also likely to increase (Alshurideh et al., 2019). Other related strategies that can positively impact customer satisfaction include; general customer care and on-board catering services offered to passengers during flight operations. The study above is supported by Sundarakani et al. (2018), which asserts that the competitiveness of the Emirates Airline has a significant impact on the competitiveness of the airline company. Sundarakani et al. made the above conclusions in aimed at investigating the Emirates Kitchen Flight Catering strategy to become a giant brand in the field of catering. Using the relevant publications and a review of literature, the researcher concluded that the company's provision of various on-board delicious food and a regulation of the associated costs for the clients would significantly boost the company's operational efficiency.

The above two studies manifest customer satisfaction in harmony with supply chain efficiency as the crucial elements of considerations, which airline companies should take into consideration to achieve optimal performance in the domain of operation efficiency. Both authors' findings suggest the value of organizational heads harmonizing their various departments to operate coherently to achieve the core objective of the organization, which is the optimization of operation efficiency. Despite the fact that the two authors adopt varied scopes in their studies, there is a unanimous agreement on the need for organizational cohesiveness involving all areas of organization's operations to achieve the competitive position in the industry.

Business Model and Organizational Strategy

Business model and organizational strategy comprise a useful resource for all organizations. This is because it determines a firm's potential to deal with challenges and rise above the competitors

(Teece 2018). In this dimension, Kamarudeen and Sundarakani (2019) investigates the effectiveness of the strategy employed by Emirates Airlines following the reduction in corporate productivity in 2017. Using a case study methodology, the study reported that Emirates Airlines has distinctive capabilities together with significant risks in its supply chain. Based on the findings, there is need for the supply chain managers to deploy the organizational intelligence in achieving the supply chain efficiency as a constituent of operations efficiency.

Another study affirms the effectiveness of strategic management as an organizational approach to achieve operational efficiency, which ultimately results in corporate competitiveness and profitability. The study by Alanezi & Al-Zahrani (2020) dwells on the notion that strategic management is the driver of operations efficiency in the airline industry. The researchers employed Porters Five Forces of Competitiveness to analyze the Emirate Airlines tactical management strategy. In addition, the SWOT analysis was also employed to determine the competitiveness, which is among the contributing factors to the firm's competitive advantage. The results point to the multiple basic elements that are crucial in the airline's operational efficiency including external and internal organizational factors within the company's business environment (Alanezi & Al-Zahrani, 2020). The study has a direct implication to the present research because it manifests the essence of a combination of factors that can be effectively utilized by Emirates Airlines to achieve operational efficiency.

Reliability

Reliability refers to the extent to which an airline company is dependable by customers. Wafik, Abou-Shouk and Hewedi (2017) conducted a study in this dimension with an aim of comparing various factors of airline reliability between EgyptAir and Emirates Airlines. The authors focused on measuring the impact of airline passenger travel cycle on customer satisfaction and loyalty in both companies. Authors adopted a qualitative methodology of assessing the passengers' opinions on the services that both airlines provide, including information availability as well as the tangible and intangible services. Airline's commitment to the declared time schedules also constituted a key factor of reliability in the study (Wafik, Abou-Shouk and Hewedi 2017). Authors reported that travel cycle services have a significant effect on passengers' satisfaction and loyalty. The study also highlights that passengers are not satisfied with late services (Wafik, Abou-Shouk and Hewedi 2017). Subsequently, all airline companies should leverage the above customer-focused reliability indicators, which are crucial determinants of operational efficiency.

The reliability of Emirates Airlines is also evaluated based on the response to quality-related issues. A study by SADIK (2018) evaluated the quality management issues evident in the Emirates Airlines to determine the extent to which the company is considered reliable based on such issues. The researcher adopted a survey design whereby 10 participants from Emirates Aviation University were involved in completing the questionnaires developed in line with the study's aim. 5 of the participants were faculty members whereas 5 were the students for the same university. The study revealed that Emirate Airlines is considered one of the world's leading airline companies globally, ranked at position 6 (SADIK, 2018). Authors emphasize on customer behavior as one of the core attributes of a reliable airline company that emerged from the research. In this dimension, the customer behavior of Emirates Airlines is good, since it constitutes the internal variables including perception, personality, and attitude on the airline.

Conclusion and Gap Identification

The above reviewed studies constitutes the three major dimensions related to the operational efficiency of Emirates Airlines namely; customer satisfaction, business model and organizational strategy, and reliability. Despite the exhaustiveness of the studies in portraying the efficiency of Emirates Airlines, the studies have significant limitations, which will be addressed through this study. Most importantly, authors do not reveal the current position of the company in terms of operations efficiency. Instead, the studies reviews the position of the company prior to Covid-19 ramifications.

This means that the studies cannot be used to make conclusions regarding the current operational efficiency of the company since the situation was seriously altered by the Covid-19 pandemic. This creates a gap to be addressed by this study by investigating the present ways in which Emirates Airlines strives to achieve such a crucial element of organizational competitiveness.

Research Methodology

Research Design

A research design refers to a conceptual structure or a framework for conducting a research study. A qualitative research design entails a comprehensive description of opinions, attitudes, and trends of a particular situation or population (Thomas, 2017). This study will rely on qualitative data drawn from the participants' opinions and publications of Emirate Airlines Company. Thus, the dominant design employed throughout the study is a case study. Additionally, data will be organized into various dimensions or concepts discussed in the literature review to manifest the totality of the company's operational efficiency. A case study is the most relevant design for this research because it can effectively lead to the collection of intensive information regarding Emirate Airline operations efficiency by considering the dimensions identified in the literature review.

Data Collection Methods

To yield the desired data, the researcher will adopt two methods. The first one is the identification of the relevant company documents, which provides appropriate data based on the dimensions of the study. Secondly, the researcher will use a semi-structured questionnaire for the customers of Emirates Airlines to complete. As such, both primary and secondary data will be utilized to arrive at conclusions regarding the topic. All the collected information will be summarized using excel sheets to achieve consistency and effective organization of data.

Sampling

Purposive sampling will be applied for both primary and secondary data. For primary data collection, the researchers will be identified through purposive sampling technique whereby the customers who have sought Emirate Airlines services at least twice will be considered for the study. Twenty customers will constitute the study population to complete the questionnaire. For the secondary data, relevant publications regarding the dimensions of operations efficiency featured in this study will be inspected to provide the qualitative data. Both primary and secondary data will serve a complementary function.

Data Collection Tools, Data Analysis, and Data Presentation

Primary data will be collected using questionnaire, which will be developed using the steps below.

Questionnaire Development Process

The process of developing a questionnaire featured nine steps. First, the researcher determined three research objectives in relation to the research hypothesis that offers the guideline to this study. Research objectives determine the relevance of the study to the researched topic. The objectives were then aligned to the dimensions of the study. Thereafter, the relevant demographic information was determined, since this would aid in the formulation of the relevant questions for the participants. The basic demographic information included the participants' age, location, gender and so forth.

The next step was the determination of the nature of study and its design. Since the study was qualitative, most of the questions included in the questionnaire were open-ended, such that the respondent would have a variety of choices to select, and also give their subjective opinions regarding their experience or perceptions of the featured topic of study. The step was then followed by writing clear questions that could easily be answered by all the study participants. Other considerations while constructing questions included the avoidance of bias from the questions included in the questionnaire, a smooth transition from the simple to complex ideas, and the strict adherence to the relevance of the questions to the research objectives and dimensions.

Secondary Data Collection

Secondary data will gathered using a checklist of questions relevant to the dimensions of the topic. Both primary and secondary data will be summarized using tables, and then analyzed using charts and graphs in order to depict the findings in a visually appealing manner. Measures of central tendency, mostly the means of findings will be used to determine the level of the company's operations efficiency in line with the dimensions identified.

Part 2: Pilot Study

A pilot study was launched to predict the possibilities of conducting the actual study, and to test the possible outcomes of the present study. As such, the pilot study was conducted using the same methodological approaches as the proposed study. To begin with, the setting of the pilot study entailed the use of customer feedback available on various online platforms. The selected reviews were verified and authentic.

Pilot Research Methodology

Generally, the process of data collection and the methodologies involved in conducting the pilot study was similar to the proposed study. However, the pilot study differed from the original study since it used a smaller sample compared to the comprehensive large-scale study. In this regard, the pilot study only relied on a small sample of customer reviews as a representation of the anticipated customer responses on the questionnaire. Similarly, the pilot study only investigated the research objective partly and not exhaustively. This is because its main aim was not to collect the data to be used for decision-making but rather to forecast on the possibilities in the data collection scenario. To eliminate the social, ethical, cultural and professional issues, the researcher conducted the pilot study without identifying the respondents by their specific identities such as locations and other

affiliations (Ismail, Kinchin & Edwards, 2018). As such, the study was somehow general compared to the large-scale study.

Findings of the Pilot Study

Data from the Emirates websites was reviewed to establish the rate of customer satisfaction with various indicators of customer service namely; Emirates inflight entertainment, Emirates food and drinks, and Emirates seating. The findings are attached in the excel file and analyzed as follows:

Customer Satisfaction Indicator	Rating				
	Excellent	Very Good	Average	Poor	Terrible
Emirates Inflight Entertainment	27,806	9,027	2,762	743	560
Emirates Food and Drink Reviews	15,772	9,661	4,289	1,338	989
Emirates Seating	18,841	14,348	6,026	1,027	727

The ratings were accompanied by review statements by some customers. A few of them were picked for this pilot study. They read in part as follows:

For the customer who provided an excellent review on the Emirates seating domain as reported by Emirates (2020a) wrote: *“Flying in their Business Class really lets you rejuvenate and relax right from the beginning of the journey to the very end, it’s the ideal mix of comfort and luxury”*

A customer who provided an excellent review on Emirates food and drinks domain as reported by Emirates (2020b) wrote: *“The kind of treat that you can very quickly get used to! After not having to worry about getting to Heathrow thanks to their chauffeur service, filling up on breakfast in the very roomy business lounge and getting as cosy as possible in our recliners, I’m not sure any other airline is going to cut it in future!”*

A customer who provided an excellent rating on the Emirates inflight entertainment as reported by Emirates (2020c) wrote: *“What better excuse to sit back to hours of movies and TV box sets than when you’re on a flight? You have over 4,500 channels to choose from in every travel class on our inflight entertainment system, ice.”*

Discussion of the Findings and Applicability to the Proposed Study

From the findings, most customers rated all the indicators as excellent, implying their satisfaction with all the indicators. Despite the company’s outstanding performance in the above aspects, there are also some areas that need improvement within all the indicators. This is because all the indicators received a significant percentage of “terrible” and “poor” ratings. Overall, excellence of the Emirates seating indicator is in the comfort of the seats, the reviewer described as rejuvenating. On the other hand, the effectiveness of the Emirates food and drink reviews is in the exceptional

menu and outstanding customer services related to food and drink services. Finally, regarding the reviews on the inflight entertainment, the positive reviews are as a result of the availability of the multiple entertainment options.

Practical and Theoretical Implications of the Study

This pilot study had numerous implications to the actual proposed study. First, it allows the researcher to predict the possible issues that would have otherwise remained unidentified, so as to eliminate possible methodological barriers and execute the study in a methodologically rigorous manner (Crossman, 2019). Additionally, it aided with the refinement and adjustment of the research objectives to come up with the researchable issues and avoid ambiguities and complexities associated with such a large-scale study. Similarly, the study enabled the researcher to identify and clearly forecast on the required time and cost requirements necessary for conducting the actual large-scale study. Finally, the researcher was able to identify and test research the effectiveness and applicability of the research instrument and the applicability of the research process adopted for the proposed study.

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Challenges Affecting the Book Fair Industry: A Case of Sharjah Book Authority

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Abstract

The aim of this paper is to propose a research study to find the challenges affecting the UAE's book-fair industry. The research will be a case study of Sharjah Book Authority and it will suggest the ways for overcoming the challenges that are largely linked to digital publishing for the book fair companies in the UAE. The challenges of the book fair industry are based on the findings from a literature review. The reviewed literature in this proposal categorizes the problems of the global book-fair industry into digital transformation of books, media convergence, distribution, and censorship. However, the reviewed sources do not focus on the book-fair industry of the UAE, so the study will fill an existing research gap. The proposal is for purposive sampling technique to be used in identifying the participants who should have attributes enabling them to give required responses. The study will use 15 respondents for survey method of collecting data and 3 respondents for interviews. The proposed research design is qualitative, based on the nature of phenomenon under study and use of interviews to gather data that will be analyzed thematically. This is a common method used for analyzing data in qualitative studies. An expectation is for respondents to identify challenges affecting Sharjah Book Authority, especially censorship and digital piracy. Respondents should also identify the challenge of distribution due to poor internet availability in some areas and then suggest ways through which the authority can overcome its challenges. The problems affecting Sharjah Book Authority and possible solutions should be clear by the end of the study.

Keywords: *Sharjah Book Fair, challenges, book digitalization, media convergence, distribution, censorship, digital piracy.*

Introduction

Background

The United Arab Emirates' book fair industry is under continuous evolution. According to Al Qasimi (2017), the world is changing fast, and the changes occurring globally constitute major challenges for book publishers. The UAE's book fair industry is adapting to challenges emanating from the global environment, such as technological advancements through digitalization, media convergence, change of distribution, piracy, and censorship. The UAE's industry is in a transformative process whereby it wants to become a coherent and professional community that embraces learning as part of its day-to-day operations. In addition, the book fair industry in the UAE strives to transform its culture by becoming people-driven, whereby UAE's citizens and the broader global reading community should become parts of the industry (Al Qasimi, 2017). The proposal consists of an explanation of the study's purpose, objectives, research questions and the significance of the proposed study, based on the research problem. The proposal also presents a review of previous studies related to the research topic, methodology design, conclusion, and projection of expected findings.

Research Purpose

The broader purpose of this research is to investigate specific challenges affecting the UAE's book-fair industry and suggest the ways through which the industry can overcome them. The research's objectives are to:

- a. Determine how the growth of digitalization affects the UAE's book fair industry, specifically the Sharjah Book Authority.
- b. Find the effects of media convergence on Sharjah Book Authority.
- c. Explain how the change of distribution affects the UAE's book fair industry.
- d. Identify the difficulties caused by piracy and censorship on Sharjah Book Authority.

Research Questions

- a. How has growth of book digitalization affected the work of Sharjah Book Authority?
- b. What are the effects of media convergence on Sharjah Book Authority?
- c. In what ways has the change of global book distribution challenged the UAE's book fair industry and Sharjah Book Authority?
- d. How do piracy and censorship affect Sharjah Book Authority?

Problem and Significance of the Study

The UAE's book publishing industry has grown over time and become a major global player. Al-Qasimi (2017) explains that over the past decade, the UAE's industry has become truly global with at least ten free publishing zones and Sharjah Publishing City is one of them. However, as the industry takes a global outlook, it is critical to know the challenges it is likely to face and how to respond to them. This study's significance is in its determination and explanation of the challenges affecting the UAE's book fair industry from a global perspective. In addition, Sharjah Book Authority and other book fair firms will benefit from this study by knowing the possible solutions to the challenges. Sharjah Book Authority is likely to be facing major challenges related to modern technology development, namely digital transformation of books, media convergence, change of distribution, piracy, and censorship.

Literature Review

Digital Transformation of Books

Digitalization of books is a global trend seen to create opportunities for publishers, but it has its unique challenges. Publishers respond to the trend of digitalization by developing digital copies of their products, but it affects the work of publishing and book-fair spheres. In particular, publishers are compelled to change their work descriptions and processes and they have been forced to alter their traditional models. Emma House conducted a study in the United Kingdom to find the problems of the country's book industry. House's study found that technological advancement and growth of digitalization had negative impacts on the consumers. Besides, the consumption of publications changed because the consumers became 'prosumers' in the sense that they used online platforms to develop networks that facilitate sharing of published content (House, 2013). It is difficult for publishers and book fair organizers to control how online consumers use marketed and

sold copies, especially considering that the existing laws are not updated to handle copyright infringement on online platforms (Siler, 2017).

A study that investigated the modern state of international book fairs in the Arab world found a myriad of challenges linked to digitalization and technology. The study by Al-Aufi et al. (2017) collected data through site visits and questionnaires and it also conducted a systematic review of different previous researches to achieve the objectives. The study found that despite the attempt by publishers to remain conservative or preserve the Arab World's indigenous cultures through publishing, digitalization and the internet had far-reaching consequences.

Further, the research established the presence of negative changes of reading habits, literacy tendencies, and emergence of dominant socio-cultural trends that undermined the emphasis on religion in children's literature. Collectively, these factors pose negative and reverse consequences on the region's book fair and publishing industry (Al-Aufi et al., 2017). Moreover, Carreiro (2010) found that a lot of uncertainty is associated with digitalization and the scholar posits that the ultimate fate of printed books remains unknown. Although E-books have the ability to revitalize the publishing and book fair industry, e-publishing has many drawbacks, such as the difficulty of controlling its consumers. However, tools have been developed to assist companies in handling of the challenges of e-publishing, and they include Digital Asset Management, DAM, and Digital Object Identifiers (DOI) (Carreiro, 2010). Research also found the effects of digitalization on publishers' value chains. Publications are disseminated, sold, and read in electronic formats, suggesting that book-fair and publishing houses have to change their value chains almost entirely (Ronte, 2001). Thus, digitalization of books is a change aspect with a mixture of opportunities and several challenges.

Media Convergence

Media convergence is defined as a modern trend, whereby the gaps between different kinds of media that were initially clear and separate have become blurred. Convergence is mainly characterized by the rise of displaying and consuming of published content via the internet, availability of information in digital formats, and dissipation of margins or boundaries between different media platforms (Kalombe & Phiri, 2019). In this regard, Chao-Chen (2013) studied the effects of convergence of new and old media on content formation. The study used a method of collecting secondary data from new media channels, which had been cited in traditional media over a period of three months, between 30th September and 30th December 2010. The collected data was then analyzed thematically and the results demonstrated that convergence between new and old media was purely motivated by commercial interests, but there was lack of attempt to improve quality of content in new media (Chao-Chen, 2013). The essence of this study is that media convergence is a challenge to the extent that it only serves the commercial interests, but it does not enhance the content generation.

The study by Song (2012) has contradicting findings about media convergence that actually affects how book-fair companies will create their content moving forward. There are new products as outcomes of content digitalization in the industry and the publishers will be compelled to integrate new media formats and products such as e-books, online games, apps, news feeds, and blogs with

their published texts (Song, 2012). Sharjah Book Authority is bound to face serious challenges in conducting its book-fairs because of media convergence. Besides, as Song (2012) states, the resources and materials with which e-books are enriched are great, but the challenge is that they are not readily available in traditional book-fairs. Therefore, Sharjah Book Authority should consider changing from its conventional exhibition practices by adopting and using new media that have the required materials and resources. Further, Sharjah Book Authority should consider the ways, in which the adoption of new media will affect its licensing and rights trade.

The traditional approach to licensing and rights trade is that there is independent negotiation during the process of transferring rights to use materials such as books, films, audio-books, and translations. However, technological growth has disrupted the process of rights transfer because new media have tendencies of accompanying texts with sound tracks, musical notes, and background information as supplements (Kirchhof & Lacerda, 2012). Hence, as Sharjah Book Authority integrates its old and new internet-based media, it must critically think about dealing with far-reaching consequences of such convergence on its traditional practices.

Distribution

Emergence of digital publishing in the UAE and the world at large is rendering traditional distribution channels obsolete. Book businesses need to develop new channels that are compatible with digital technologies. In this regard, Al-Qasimi (2011) conducted a systematic review of different literatures to explore how digital publishing is affecting publishing business in the Arab world. One of challenges identified and analyzed in Al-Qasimi's study is emergence of new distribution channels. The study finds that a major drawback undermining book distribution, especially in the era of digitalization, is a lack of needed infrastructure. At the same time, printing remains limited as a consequence of the lack of supportive infrastructure and there are only about two-thousand printed versions of each copy of a book (Al-Qasimi, 2011). In other words, Sharjah Book Authority has to obtain and use the required digital infrastructure for electronic distribution, but it will implement this at added costs.

Digital technologies have disruptive consequences for traditional channels of book distribution, but there are ways through which companies can manage such disruptions. The research by Gaigher et al. (2014) focuses on publishing and book fair business in South Africa and uses survey method to study disruptions caused by digital technologies and propose management strategies. Some of the barriers to distributing books and conducting book fairs through digital technologies include high cost of transition, low internet access, expensive broadband internet, and the readers that are reluctant to shift from printed versions of books to digital copies (Gaigher et al., 2014). Thus, part of the suggested strategies for handling the drawbacks are publishing and keeping resources in reserve, being ready for change of distribution methods, and designing long-term and change-oriented organizational plans (Gaigher et al., 2014). Sharjah Book Authority could use these strategies to deal with distribution problems associated with digital technologies, but there is a need to align the strategies to the UAE's context.

Censorship and Piracy

The UAE is one of the Arab Gulf Countries, where state censorship of book publishing is still a major challenge for publishers and book-fair companies. Gulf countries are known for being strict on preserving their cultures, and this is a major predictor of state censorship. This is according to the study by Martin et al. (2016) that used the survey method and a sample of 3,017 participants drawn from Qatar, Saudi Arabia, and the UAE. Specifically, the respondents stated that there was an inherent belief in their countries that more initiatives were needed to safeguard their cultural traditions, an issue that strongly contributed to censorship of book publishing.

On top of that, the participants said that their countries and states desired more entertainment that reflected on their histories and culture (Martin et al., 2016). The study by Shahar (2016) focused on censorship as a challenge to Cairo's International Book-Fair and it found close links between the latter and Egypt's political field. The book fair is described as a field-configuring event, in which many representatives of the state or political class are interested. In addition, the Egyptian society sees the international book exhibition as having an important bearing on politics and this attracts the state's censorship (Shahar, 2016). The presence of state censorship in Sharjah Book Authority's context means that it works under close observation from the state.

Moreover, piracy is an issue that Sharjah Book Authority must endure, as it gravitates towards digital publishing. In this regard, the study by Vieira (2019) collected data from two professionals using the qualitative interview method. The researcher interviewed Sari Frances and Lui Simpson to find their professional views on the best ways of responding to digital piracy (Vieira, 2019). The interview data found that controlling digital piracy is a great challenge because users cannot be easily distracted from using pirated content. Online users like pirated research articles because of cost factor and the users consider subscription fees for original and non-pirated publications as additional costs.

Research Gap

It emerges from the reviewed literature that less focus has been given to studying the challenges of the book fair industry in the UAE. The study by Song (2012) makes important findings on the research problem, but its focus is on the Frankfurt Book-Fair, not Sharjah Book-Fair or any book-fair in the UAE. The research article by Martin et al. (2016) only studies the challenge of censorship with the UAE as one of the settings studied. However, the literature review reveals that challenges affecting the book fair industry are broader than censorship. Further, the research by Shahar (2016) analyzes state censorship in relation to digital publishing, but within the context of the Egyptian International Book Fair, whereas Gaigher et al. (2014) focuses on South Africa. Clearly, a study that investigates and analyzes many challenges of book companies with a focus on the UAE is missing. This is the gap to be filled by the current research, which will use the Sharjah Book Authority as a case of the UAE.

Methodology Design

Sampling and Participants

Sampling of participants for the study will be done purposively. Purposive sampling is a suitable approach for selecting participants for this study because the respondents must be people who are capable of providing the needed data. The study will have two distinct samples. Specifically, the first group of participants will comprise of people who have attended Sharjah's book-fairs. A sample of fifteen respondents sampled purposively will provide answers for the survey and the inclusion criterion for this group of participants will be a history of participation in Sharjah Book Authority's exhibition. In addition, the second category of 3 respondents sampled purposively will be involved in the interview. The sample-size is proper for the research because it will give diverse views and responses related to the research problem.

Research Design

The study will use a qualitative design that is chosen because of the nature of the phenomena under investigation. The research problem is thematic because the focus is on challenges affecting the book-fair industry. Therefore, the responses from the participants will be in the form of their opinions regarding the challenges Sharjah Book Authority faces, which is a major reason why the study's design will be qualitative. Furthermore, the choice of this design follows the criterion that most of the past studies on the subject have used the qualitative approach. For instance, the studies by Vieira (2019), Shahar (2016) and many other reviewed studies used the qualitative design and made valid findings.

Data Collection

Data collection will be through a survey and interviews. The survey method will give demographic details of the participants in addition to their responses to questions on the research problem. The interview method will be applied because it facilitates direct communication between a researcher and participants while collecting data. Moreover, interview will be a convenient method of collecting data because it will allow the interviewer to ask for further details in areas where participants do not give clear responses. Interviewing is also a flexible method of data collection, as in the scenarios in which the interviewer will be unable to meet participants physically, the interviews will be conducted through telephone. Hence, there are high chances that the study will obtain the needed information through interviewing.

Data Analysis

Thematic data analysis will be the procedure for analyzing collected information that is mostly used in qualitative research, as interview data is qualitative. Thematic analysis method involves a researcher closely studying or examining data to identify the most and the least repetitive themes. It should be noted that the method is flexible because of high possibility of adapting it to suit any qualitative research. The process of analysis will first involve familiarization, whereby the interview results are studied while identifying themes. Further, the data will be coded by assigning responses to specific thematic codes. The other procedures will involve generation of themes, review or comparison of identified themes to the ones in reviewed literature, definition or naming of themes, and preparation of write-up.

Conclusion and Expected Findings

In conclusion, the proposed study will be about the challenges that Sharjah Book Authority encounters today. The drawbacks of the organization are connected to new developments that are thought to seriously affect book fair trade, including digital publishing, media convergence, digital piracy, censorship, and new modes of distribution. To find the extent to which these and other possible issues affect the company, a sample of respondents will be used. In addition, the selection of participants will be purposive because they must be individuals who have already experienced Sharjah's book fair. The proposed data gathering techniques involve surveys and interviews, as the former will give detailed demographic knowledge of the participants, while the latter are proposed for the flexibility. Through technology mediation, interviewing participants in far-flung areas and those on tight schedules will be possible. The collected data will then be analyzed thematically due to the popularity of this kind in qualitative research.

One of the expected findings based on the reviewed literature is that censorship is among the major challenges that Sharjah Book Authority faces. It is followed by the finding in some of the reviewed literature that the governments of the Gulf region are still exercising a lot of censorship on publishers' work for reasons of safeguarding political interests and preserving the region's culture. Similarly, the reviewed literature shows that digital piracy or violation of property rights is another major challenge for book publishers and exhibition organizers during the modern era of digital publishing. Based on the results of assignment three, some respondents are expected to state that they have faced restrictions when attempting to use some online contents that are protected. The presence of such a finding suggests that Sharjah Book Authority is actually using some digital strategies to curb the drawback of piracy.

Furthermore, it is anticipated that the study will identify distribution as another difficulty. The reviewed literature shows that publishers are making fewer copies of books as an effect of digitalization and it is expected that this challenge will affect the Sharjah Book Authority. It should be noted that the issue of distribution will influence both writers and readers. In addition, the participants of the study should give responses that show both opportunities and threats and digital transformation of books and media convergence. However, most of the responses are likely to reveal negative effects of these technology-based transformations. For instance, the respondents are expected to cite poor internet's availability, especially in the rural parts of the UAE, as an issue affecting distribution of digital copies. They should also recognize other users' insistence on using printed books as a challenge.

Eventually, the respondents are expected to suggest some strategies for Sharjah Book Authority to use in overcoming its challenges. Assignment two revealed that book-fair industry faces risks that deny it an opportunity to sell many copies. In this regard, there are online businesses that have already established in the e-book or digital publishing market, such as Amazon, Kindle, and e-Bay. The study's anticipation is that respondents should encourage Sharjah Book Authority to develop partnerships or collaborations with such reputable digital publishers as a way of increasing its books' sales.

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Health, Safety, and Environment (HSE) Inspections in Commercial Buildings - Internationally and at Dubai Chamber

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Abstract

Health, Safety, and Environment (HSE) inspections play a crucial role in ensuring that there are no risks associated with these aspects of a building. In commercial buildings, HSE inspections need to follow a specific and systematic approach that enables the concerned team to meet their intended goals. Globally, there are simple yet continuously updated best practices for conducting HSE inspections. These updates follow arising issues, such as mental and physical wellbeing of building occupants, emerging environmental issues, and the need for utilizing technology, aside from the basic HSE risks inspected in a building. In Dubai Chamber, the HSE inspection is an exercise that is carried out quarterly every year. It helps identify certain risks and initiate corrective action for these, however there is always room for improvement. The aim of this paper is to review and improve the current HSE checklist used by Dubai Chamber in accordance with the results of benchmarking with global HSE inspections in commercial buildings. Currently, Dubai Chamber uses an HSE building inspection checklist that was compiled based on Dubai Municipality, Jebel Ali Free Zone and Dubai Holding's guidelines and building inspection requirements. This HSE building inspection checklist mainly includes several elements such as the general health and safety, emergency response, waste management and resource use, tenants' safety, and extra requirements for special rooms, such as chemical and server rooms, in the building. The research method used in this paper is a literature review about HSE inspections in global practice and benchmarking the results with Dubai Chamber's HSE inspection. Therefore, this paper can support the Chamber in understanding the current gaps and improving its current practices. After conducting this benchmarking, it was found out that the checklist used by Dubai Chamber can be filled out more precisely and even digitally to prevent human errors, the checklist can be compiled based on risk assessment of the particular hazards in the building, results of the HSE building inspection can be analyzed to determine certain trends, technology can be utilized to enhance the HSE inspection process, and proper communication needs to be maintained with the relevant regulatory authorities as well as the building occupants.

Keywords: *HSE inspections, HSE theories, HSE definition, Health safety and environment, HSE management*

Introduction

HSE inspections are needed in all commercial buildings in which various commercial activities are carried out. In fact, they can also be conducted in residential buildings, however, this is outside the scope of this paper. This paper only focuses on HSE inspections in commercial buildings. These inspections are important because they do not only point health and safety hazards that can impact the safety of building occupants, but also environmental hazards that can impose a threat to the surrounding environment. Currently, there is very limited to no body of research that has been conducted on HSE inspections in commercial buildings in the UAE. More global papers were published and reviewed to conduct this benchmarking study. For more accurate benchmarking results, only papers published on HSE inspections in commercial buildings were reviewed while conducting this research.

Usually, HSE inspections are systematic and conducted by specialized personnel. These personnel are usually HSE officers and managers who are aware of the different types of HSE hazards that need to be pointed out and improved during inspections. In fact, these personnel play a crucial role in all commercial buildings, as they ensure the wellbeing of the building occupants and the safety of the environment, which allows for smooth business continuity. If HSE risks are neglected, incidents can happen, and this can impact the regular flow of business conducted within the inspected building.

In Dubai Chamber, HSE inspections are conducted on a quarterly basis in the building. These inspections in Dubai Chamber are carried out based on a systematic approach that ensures the conducting of these inspections while referring to an existing comprehensive checklist that details all possible types of HSE hazards that can be found. This inspection is carried out by the concerned personnel. Since the purpose of this paper is to shed the light on the HSE inspection that is conducted at Dubai Chamber, benchmarking it with other international best practices in the same field is crucial in order to achieve the intended objective. Also, this benchmarking concludes by stating several recommendations that can be used by Dubai Chamber to review and improve its current HSE inspection process and the checklist used. One recommendation is to conduct a risk assessment for the various HSE hazards imposed by the activities carried out in the building and amend the Dubai Chamber's HSE checklist in accordance with that. Other recommendations include filling the HSE checklist during the inspection rather than later to minimize human error, ensuring the mental and physical health of building occupants is considered during the inspection, digitizing the checklist to reduce paper consumption and promote paperless offices, utilizing advanced technologies such as drones to inspect certain areas like the roof of the building, and involving the concerned local authorities as well as communicating the results of these inspections with the building occupants.

Literature Review

There are few theories that were founded to explain HSE-related matters in organizations. The Behavioral Theory of the Firm (BTF) states that the more an organization overperforms or underperforms its set business goals, the more it is likely to get involved in risky behavior such as neglecting HSE regulations. This addresses the important fact that the more the organization aims to overperform its set goals, the more the chances that it will neglect its HSE responsibility. This also applies to organizations that underperform their goals (Wiengarten et al., 2019). Another theory is the Prospect Theory (PT) which claims that when businesses are not performing well, managers tend to seek risks in order to flourish their businesses again. The contrary occurs when businesses are performing well, and managers focus on reducing risks to their business. This applies to HSE risks as well (Wiengarten et al., 2019). While these two theories are contradicting, however, the one that is applicable to this paper is the BTF. It is also worth mentioning that both theories make sense and are applicable to the business community.

HSE management, which is often associated with quality management as well, is a tool that ensures constant improvement of the current processes carried out in an organization that help retrofit and improve any potential risks. The HSE management system can be found in different types of buildings, and efficient HSE systems can help reduce and improve any risks that can affect the wellbeing of building occupants and the environment.

The need for these management systems is demonstrated in the growing number of organizations globally that implement them every year. In addition, there are various standards that are achieved by organizations that have strong management systems, and these include ISO14001 for Environmental Management Systems (EMS) and OHSAS18001 for Occupational Health and Safety Management Systems. By 2003, more than 500,000 organizations globally achieved these standards, and this shows the increased awareness and need for these standards on a global level (Santos et al., 2017). In this paper, the same definition of HSE management is followed and accepted.

HSE inspection is an inspection that takes place to prevent injuries, illness, fatalities, and environmental damage from occurring due to the operations of the inspected area. In the context of this paper, the inspected areas are commercial buildings and mainly offices. HSE inspections are old practices that began in 1833 in some countries like the UK. However, these inspections began with a narrow focus on occupational health and safety, and later in 1974 began to focus on health, safety, and environment as well. In some countries, HSE inspections are required by law. In other countries, these laws are not established or enforced. Also, the value of HSE inspections have changed over time from being a response to the laws and regulations to be the focus of managers in order to achieve specific goals. More recently, HSE inspections became a sign of businesses' responsibility towards their employees and the environment (Almond et al., 2018). Also, some countries used to perform HSE inspections in different commercial buildings through government agencies that are specialized in this area. However, these government agencies might only focus on certain health and safety areas and neglect the environment. Therefore, self-assessments in HSE inspections and internal audits are the best option available as they cover all elements of the HSE inspection. This method also allows for better improvement of potential risks that are related to all elements of HSE inspections. This can result in a more sustainable and long-term successful organization (Enander et al., 2007).

A safety and HSE culture needs to be embedded within an organizational general culture and norm. If the HSE culture is not integrated nor accepted within an organization, the business will not succeed in achieving its goals and mitigating risks. Also, within the same organization are possibly various perceptions on risk. In fact, the idea of risk varies among employees depending on several factors such as age, work conditions, and occupation. For instance, an employee conducting administrative and office work may perceive risk differently as compared to a field worker. Therefore, these different elements of organizational culture and subjectivity of risk need to be taken into consideration while conducting an HSE inspection (Bjerkan, 2010).

Methodology

To conduct this benchmarking study, an HSE inspection was conducted by the researcher at Dubai Chamber along with the HSE Officer. During this inspection, the researcher noted what the HSE inspection at the Chamber entails including the steps undertaken, the requirements fulfilled, and the checklist used. Also, the researcher listened to a detailed explanation of the process of the HSE inspection at Dubai Chamber by the relevant personnel. Then, a literature review was conducted to understand the trends in HSE inspections in commercial buildings on a global scale. Later, the findings from Dubai Chamber's HSE inspection were benchmarked with other studies analyzed in

the literature review section. This benchmark has led to the identification of several areas of improvement of the HSE inspection in Dubai Chamber.

Results and Discussion

The Example of HSE Inspections at Dubai Chamber

In Dubai Chamber, HSE inspections are an integral part of the organization's continuous goal of maintaining the highest level of safety for both the employees' as well as the environment. Since Dubai Chamber is both OHSAS18001 and ISO14001 certified, the Chamber always ensures maintaining the standards of these certifications even after they are achieved. In addition, the LEED Existing Building Operations and Maintenance (EBOM) Platinum certification of Dubai Chamber prompts it to always maintain and improve its environmental performance in order to re-achieve the certification when it's time to re-apply. Therefore, HSE inspections are very crucial and are conducted on a quarterly basis every year since 2012. Apart from these inspections, spontaneous spot checks are conducted to an arbitrarily selected area in the building to ensure full compliance with the standards of HSE at all times.

The HSE inspection at Dubai Chamber is carried out by a qualified and well-trained HSE officer, who ensures that all aspects of HSE inspections are covered. This checklist was created based on Dubai Municipality, Jebel Ali Free Zone, and Dubai Holding's guidelines and building inspection requirements. It is worth mentioning that since Dubai Chamber focuses on its annual goals, especially those that are related to HSE, it tends to ensure its HSE responsible practices. Any overperformance of Dubai Chamber's HSE goals is not intended and it takes place because of the awareness of employees. Therefore, the BTF Theory does not negatively impact the Chamber's overperformance. Table 1 below provides a non-exhaustive list of the main elements that are mentioned on the HSE inspection checklist. On a quarterly basis, this checklist is updated based on the risks spotted during the inspection.

Table 1: Main Elements of HSE Inspections at Dubai Chamber and the Specific Requirements that Correspond to Each Element

Main Element of HSE Inspection	Major Requirements to be Covered During Inspection
General health and safety	Access to building entrance and exit is not blocked
	Storage areas are clearly labelled, well-ventilated, and kept tidy
	Comfort in all floors is achieved in terms of availability of efficient drinking water dispensers, cleanliness, temperature set at 24°C, and no significant noise
	Ventilation and lighting are adequate in all floors
	Housekeeping is maintained in terms of cleanliness of all floors and workstations, and no open food is kept to attract pests

Emergency response	Interview is conducted with a randomly selected staff to ensure awareness of what to do in case of emergency
	Evacuation route and assembly points are clearly labelled and not obstructed by materials
	Floor marshals who are responsible of leading employees on all floors are fully informed and able to evacuate all employees in case of emergency
Waste management and resource use	Designated recyclable bins are available in all floors and no individual bins are used by employees (bin-less offices)
	Energy is not consumed unnecessarily by switching off computers when not in use and light and motion sensors are working efficiently
	Indoor air quality is maintained and no evidence of non-eco-friendly cleaning agents, no strange smells or accumulated dust, and printers are segregated from workstations
	Water savings are maintained by ensuring low flow and aerators in water taps are working well, no dripping taps, and toilets flushers are working efficiently
	Paper is not wasted and there is no evidence of documents being printed single-sided, and all papers are FSC certified
Health and safety hazards	First aid boxes in all floors are correctly stored, labelled, and contain the full contents
	Manual handling of materials is easy and within reach (between knee and shoulder height)
	Fire extinguishers and alarms have been inspected within the last 3 months by the contractor company and the seals are intact
	Electrical safety is maintained, and electrical room is locked; all electrical equipment is stored well and away from wet surfaces

	Indoor air quality is maintained by servicing the Air Handling Unit (AHU) and replacing filters within last 3 months
Extra requirements and special rooms	Chemical room is tidy, well-ventilated, PPE is available and labelled, all MSDS are available, and janitors are correctly using the chemicals
	Janitors and security rooms are clean, no chemicals stored, and well-ventilated
	Server room is not dusty, coolness required for machines is maintained, and equipment inspection has been done in the last 3 months
	Electrical and elevator rooms are clean and tidy, equipment stored safely, and tests are being conducted as per the schedule
Outdoor garden	No tripping hazards, no sharp tools exposed, no chemicals left outside, gardeners are wearing the necessary PPE, and no evidence of land/air pollution
Tenants' safety	Tenants of Dubai Chamber's building are maintaining tidiness at all times, and fire exits from tenants' shops are not obstructed by materials

In Dubai Chamber, the HSE inspection is conducted systematically and using a designated checklist. This checklist is updated based on new requirements, if necessary. For example, the checklist used to contain an element in which the inspector should ensure that no disposable utensils are used by employees. However, due to the current COVID-19 situation, the precautionary measures require employees to use only disposable utensils. Therefore, this element is not valid at the moment and instead, the inspector ensures that no reusable utensils are found in pantries. This implies that the checklist is constantly updated based on any emerging situations. If an HSE hazard is spotted during the inspection, this will be noted in the checklist and raised to the responsible employees, who will take corrective action to reduce and/or eliminate the hazard. In the next HSE inspection, the same hazard will be inspected along with whether the corrective action was taken. Most of the times, corrective action is taken immediately, and the hazard is reduced. These checklists are always maintained along with photos of hazards and their corrective action for audit purpose.

A Practice Benchmark Between Dubai Chamber and Global HSE Inspections

It is important to conduct practice benchmarks in organizations to understand whether or not there are any gaps in HSE inspections. This will help organizations to continuously improve their HSE inspections while maintaining a high international standard. While HSE inspections are conducted in many commercial buildings all around the globe, this makes conducting a practice benchmark an easy task. In a study conducted in Iran, HSE inspection was carried out. This inspection involved creating a checklist with different types of possible HSE risks that could impose a threat to the building occupants or the environment. The inspection was carried out, and the checklist was filled out during the inspection.

The risk interpretation was formulated on a scale of 1 to 5, with 1 being acceptable risk, 2 meaning future corrective action needs to be taken if necessary, 3 meaning a corrective action is required, 4 indicating that a corrective action needs to be considered at the earliest, and 5 signifying that the activity needs to be stopped and corrective action to be taken immediately. After conducting the HSE inspection and filling out the checklist, the collected data was analyzed. This has led to the interpretation that some high risks are found in the building, and proactive measures need to be taken to eliminate or reduce these risks (Dehdashti et al., 2020). In Dubai Chamber's HSE inspection, a checklist is followed. However, this checklist is not filled out during the inspection but rather later. This can lead to inaccurate entry of data as the inspector might forget some hazards that he/she might have spotted. Also, data is not analyzed later on to understand the number of health and safety hazards, number of environmental hazards, mean of different types of hazards, etc. Nevertheless, corrective actions are taken seriously and implemented by immediate action even to minor near-misses.

According to the Royal Institution of Chartered Surveyors (RICS) of the UK, HSE inspection can be carried out with the help of various technological innovations. For example, drones can be used to inspect areas in buildings that might not be easy to reach, such as roofs. In addition, HSE inspection can even include checking the overall wellbeing of building occupants, their mental health, violence incidents, drug abuse, and physical disorders. These significant elements can be taken care of as sometimes people develop these issues due to the environment they are exposed to in the building. Moreover, special care needs to be paid for pregnant women, the elderly, and people with chronic illnesses who are at high risk of exposure to any kind of health and environmental hazard (RICS, 2018). These elements are absent from the checklist of Dubai Chamber's HSE inspection and are not fully considered. Technological innovation is not used to inspect areas in the building that are not easy to reach, and the various health aspects of building occupants are not looked into.

The Dubai Multi Commodities Centre (DMCC) recommends that HSE inspections be planned beforehand, conducted with representatives from a concerned local authority, and noting and sharing any follow up actions required for hazards identified. Once these corrective actions are made, this needs to be communicated to the staff (DMCC, 2020). This is not the practice at Dubai Chamber since the conducting of HSE inspections is always done by a single person, the HSE Officer, and the results and corrective actions taken are not shared with the staff.

Conclusion and Recommendations

To conclude, there is usually a set of HSE hazards that are mentioned in an HSE checklist to ease the inspection process. While the HSE checklist is a basic requirement in all HSE inspections, however, the checklist needs to be updated continuously. Also, all organizations should ensure that regardless of their status of achieving their goals, HSE should be maintained in the building. Nevertheless, there are different recommendations and best practices identified by key authorities worldwide that help facility managers of commercial buildings carry out their HSE inspections. Once these recommendations are taken into consideration and implemented, the HSE inspections will be more valuable and help mitigate any health, safety, and environment hazards imposed by any of the operations occurring in the building.

A few recommendations might help Dubai Chamber improve its HSE inspections. One recommendation would be to actively fill out the HSE checklist during inspection to avoid any inaccurate information reported. Another recommendation is that Dubai Chamber can base its HSE checklist on a risk assessment of the various HSE hazards in the building. Also, Dubai Chamber can fix CCTV's in areas like the roof to constantly monitor that area, especially that it is the most exposed part of the building. Moreover, Dubai Chamber can pay extra attention to the health, whether physical or mental, of its building occupants since sometimes physical and mental disorders can be induced by the work environment. Lastly, Dubai Chamber can involve a representative from the concerned local authority and improve its communication strategies with external authorities and internal staff regarding its HSE inspections and whether any corrective actions were recently implemented for any hazard identified. These recommendations could help Dubai Chamber improve its current HSE inspection.

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Managing Change Case Study of Sharjah Civil Defense

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Abstract

“Managing change – Case study of Sharjah Civil Defense” is a case study based on data collected from SCD as a successful example of a change implementation that have gone through a major change due to a significant trigger; to digitalized their services and to achieve the organization strategic objectives which aim to ensure the safety and security by reducing immediate response to promote life-saving operations by Using SWOT as a tool to analyze for having a clear picture of the change procedures through specifying the weakness that needs to transfer into strengthen. Adopting ADKAR change model also paved in equipping employees for the change and orchestrated the change process as a reference to address any gap and challenges.

The case study represents one of the success stories of change management implementation one of the most important sectors in the UAE, the Civil Defense. Sharjah Civil Defense was built on a general strategy that based on the traditional methods and missing several success factors, especially the one focusing on the innovation and business continuity, therefore, implementing a completely new strategy considered as a major challenge in the change implementation, therefore, SCD change implementation experience must be highlighted for the benefits of other organization in the UAE.

Keywords: *Change implementation, resistance, critical success factors, ADKAR, SWOT*

Introduction

Sharjah Civil Defense refers to a government organization in the United Arab Emirates tasked with providing security services to citizens and ensuring their safety from disasters such as fires. The civil defense sector is one of the three sectors of the ministry of interior. Sharjah Civil Defense is one of the seven General Directorates of that sector (Strategic Department - Sharjah Civil Defense, 2020). A remote interview on the Zoom platform was conducted with Colonel Khalid Almansoori, the Deputy General Directorate for Sharjah Civil Defense – on Thursday, 8 October 2020, explaining the change's purpose, and how did the management overcome the obstacles. He shared the results of the change, which were successful.

Sharjah Civil Defense Vision

The vision of Sharjah Civil Defense is to have the United Arab Emirates as one of the best countries in the globe in attaining security and safety within its borders (Sharjah Civil Defense, 2019).

Sharjah Civil Defense Mission

The organization's mission is to achieve quality of life within the UAE through working effectively and efficiently during the smart delivery of security and safety services. The mission will be achieved within an innovation-driven environment when protecting lives and property (Sharjah Civil Defense, 2019).

Literature Review

Overseeing an effective organizational change can improve employee morale and create a positive workplace atmosphere. In turn, service delivery processes can be enhanced (Al-Ali, et al., 2017). An analysis of the change management process indicates that it is complex and thought-provoking. Enhancing the organization's process can be achieved by having the right leadership, good communications, and strategic directions. The change management in In Sharjah Civil Defense results in enhancing the e-governance services. Usually, change management is an intricate and challenging process. The process is defined as a systematic approach to managing change that deals with people and resources, considering certain factors (Bel, et al., 2018). Companies implementing change management processes will often encounter difficulties in their interpersonal and intergroup communication strategies, which reduces the process's effectiveness. (Al-Ali, et al., 2017) stated change management is not effective in the absence of change leaders who can challenge the status quo and alter operational processes. Other factors to consider are organizational culture and internal commitment levels. However, the change management process can be accomplished as long as communication, knowledge sharing, and transformational leadership is prioritized. An investigation of change management in the UAE public service points to executive committees' appointment to manage the processes (AlSayegh, et al., 2019).

Research further shows that change managers should develop organizational strategic direction and implement new policies (Bel, et al., 2018). (Al-Ali, et al., 2017) add that change leader's motivation levels determine whether employees will agree to the proposed organizational culture changes. It can be seen that leadership allows the introduction of change concepts. Therefore, change leaders should be able to relate with stakeholders at all levels of the organization. With the current technological inroads, it's essential for governments to integrate e-governance. According to (AlSayegh, et al., 2019), the manual system of government services has been ineffective, showing e-government platforms' need. Similar sentiments were shared by (ChePa, et al., 2017) when investigated the role of information system change management in Malaysian government hospitals. Both studies show that electronic governance allows authorities to transform their transactional relationships with businesses, citizens, and public institutions. In turn, the process empowers citizens through enhanced service delivery and better handling of complaints.

Sharjah Civil Defense successfully implemented organizational change by applying a SWOT analysis and utilizing the ADKAR models. Research shows that most governments now use change management models to alter organizational culture (Smith, 2016). SWOT stands for strengths, weaknesses, opportunities, and threats (Nazarko, et al., 2017), while ADKAR stands for awareness, desire, knowledge, ability, reinforce (Tang, 2019). The SWOT analysis allowed stakeholders to identify their operational weaknesses and strengthen them. On its part, ADKAR allowed the organization's leaders to categorize and prioritize change outcomes. Therefore, it can be seen that change management processes in government agencies borrow heavily from conventional management practices and tend to rely on standard change models. Through change management, Sharjah Civil Defense has enhanced its e-governance services changing results can be augmented by good leadership and strategic direction. In the modern context, governments have been using change management models. At Sharjah Civil Defense, evidence points to SWOT and ADKAR as the main drivers of organizational change.

Research Methodology

An interview was conducted with Colonel Khalid Almansoori, the Deputy General Directorate for Sharjah Civil Defense.

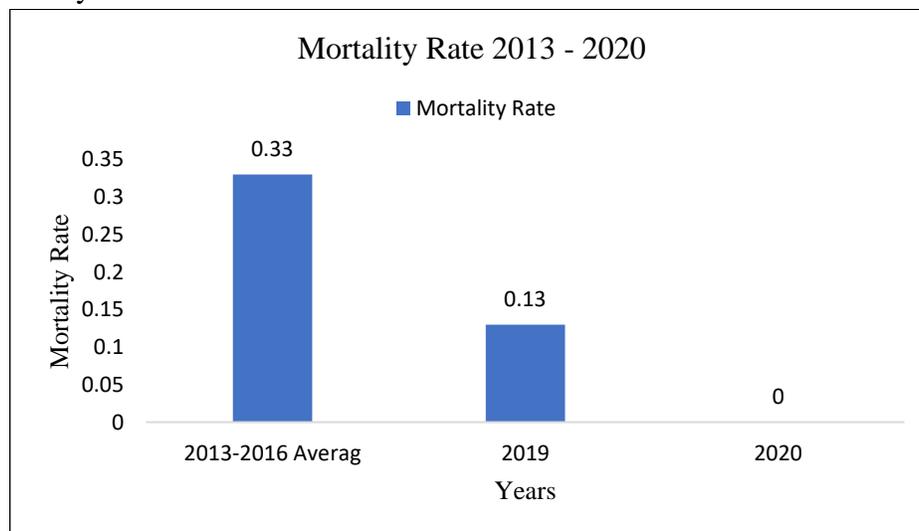
Results and Discussion

The chart below shows a significant reduction in the mortality rate in 2020 due to change operations aligned with the organizational objectives after implementing the change program (Strategic Department - Sharjah Civil Defense, 2020).

Company's Reason for Implementing the Change

Sharjah Civil Defense was inspired by Sheikh Khalifa Government Excellence Program regarding quality and excellence. They had set a goal to win as the best regional administration in the UAE. The need for change in Sharjah Civil Defense is necessitated by SWOT analysis (Almansoori, 2020). The organization's strategic objectives have been implemented to guide service delivery, aiming to ensure safety, security and to reduce immediate response to promote life-saving operations.

Figure 3: Mortality Rate 2013-2020



Source: (Strategic Department - Sharjah Civil Defense, 2020)

Suggestions and Complaints

During the interview, Almansoori stated that sometimes an organization's change is driven by the essential stakeholders' suggestions and complaints, including employees, suppliers, and vendors. Colonel Khalid Almansoori stated that feedback is one of the reasons that steer the change in

organizations (Almansoori, 2020). In this regard, (Bracken, et al., 2001) explained in their research that feedback from multiple sources has more advantages for organizations to change. Change in organizations needs to fulfill the demands of various stakeholders. Thus, they need to collect feedback from multiple sources and implement them in the organizational change process.

Employee Training and Customer Satisfaction

Colonel Khalid Almansoori stated that organizational change is essential to meet its strategic objectives, mission, and vision. This view is evident as it explains the evolution of the organization with the modern environment. An organization is successful when it can quickly adapt and change the strategies as per the current needs. The strategic needs and development change over time as the world process; thus, it becomes inevitable for organizations to stay on their old paths to achieve their organizational goals. Colonel Khalid Almansoori also stated that to increase the service quality, they train their employees for excellence and quality (Almansoori, 2020). (Futures, 2020) Also agrees that training employees are one of the keys and fundamental aspects of getting better performance and service quality. Especially in businesses that include direct and physical interaction between customers and employees, such employees' training becomes critical. (Koval, et al., 2019) explained in their research that any organization's service quality depends on how well the service employees are trained. The analysis of (Koval, et al., 2019) demonstrated that any employee should be prepared for excellence in their professional skills to attain better customer satisfaction. This becomes much more vital when it comes to direct interaction with customers like restaurants. The development of any organization leans on its employees. Thus, employees must be trained in a timely and effective way to play their part in organizational development and change.

Unknown change, Covid-19

Sometimes, organizational change originates from the utmost needs of development, evolution, and progress. However, at times, organizational change can be the drastic requirement of certain events. This event for the organizational change has been the COVID-19 pandemic that has completely changed how business processes were carried out. The epidemic has completely changed how business interactions took place. With the elimination of physical interaction, the business process had to move towards virtual platforms. As (Almansoori, 2020) said that their meetings have now shifted to e-meeting even though digital media existed in the past, but people preferred physical interaction.

Digitalized Service

One of the essential operational changes highlighted by (Almansoori, 2020) was how they now deal with the fire reports and calls. The current e-service system is an automated version that automatically records the response time and navigates further operations. Besides, results from the digitalization and modernization of the organization. We live in an advanced technological world where the past manual works have been replaced by computer programmed operators, including digital machines and computers (Almansoori, 2020). The advancement of technology has brought critical changes in organizations and their manual operations. (Cijan, et al., 2019) explained that organizational change amidst technological advancement is inevitable for organizations of today.

It is just a matter of time and how organizations accept the change brought by technology that matters. Digitalization is the modern need for companies to have advanced operations. It gives companies a competitive edge over others as well.

The Change Model

Colonel Almansoori clarified that Sharjah Civil Defense change plan refers to a strategy that connects organizational strategic objectives, implementers, and partners through spreading the culture of change. A SWOT analysis tool was implemented to assess risks and point to the partners, and implementers needed to achieve the objectives. Thus, the plan was useful in change management since it was assisted in the determination of risks. According to Colonel Almansoori, the organization's change intended to adopt the ADKAR change model and focuses on other additional pillars that serve their business, such as partner involvement (Almansoori, 2020).

Awareness

As a first building block in ADKAR change model, (Almansoori, 2020) Sharjah Civil Defense awareness strategy focuses on engaging employees by announcing the desire for change. Which open an effective communication channel to explain the goal of the change. This stage encourages employees to ask questions, share opinions and ideas, and make suggestions. Goyal and Patwardhan published a case study about the role of change management using ADKAR model, they define that “awareness helps to build a desire to change in employees by creating awareness through several communications means, the desire to participate in the change is developed in employees if they find that the change taking place is beneficial for them.” (Goyal, C. & Patwardhan, M, 2018, p. 311).

Desire of change

Colonel Khalid Almansoori has emphasized the need for the change due to an accurate examination of the current situation, identifying problem and deficiencies leads to Sharjah Civil Defense to change. Almansoori also stated that change is desired to support their strategic objectives: reducing the average response time to fire accidents and attain zero deaths (Almansoori, 2020). According to (Eisenstat, et al., 1990) Knowing the need for change can serve as catalysts for change by being aware of the current need or the organization's future vision by emphasizing less on creating an urgent action and focusing more on the quality of the change to maintain the continuity of the organization and lead it forward. To maintain that (Alsher, 2015) stated that "In order to define the change properly, you need to identify the behavior gap between the current state and the future state."

Knowledge: Operating Plan

Believes that change can create uncertainty and instability during the implementation phase (Appelbaum, et al., 2018). Therefore, it is necessary to adopt a clear change implementation plan developed and tailored by the organization changing. Sharjah Civil Defense adopts the same approach; Referring to Colonel Khalid Almansoori, each change process implemented by the

Sharjah Civil Defense has a fixed operating template created to support and document the change process that is managed and reviewed by the Quality Department (Almansoori, 2020). Adopting this template helps in identifying tactics to manage the change, generate an infrastructure of the change process, and line management roles and integrate with the operating plan (Graham, 2005).

Ability: Define tasks and responsibilities

One of the most critical points Colonel Khalid Almansoori mentioned is defining the activities/responsibility and build teams to manage these activities based on their area of expertise and abilities (Almansoori, 2020). This step appears in all change models. Kotter's change model pointed out that this step is getting the right people by selecting them based on the mix of skills. (Zervigón & Saia, 2002) published a case study about a team-building approach to organizational change recommended that the team needs ongoing communication with the management to establish their role and responsibility during the change process. Furthermore, management must consider more significance to encourage knowledge sharing among the employees as part of their responsibilities. It will maintain that all employees are involved in the change process to spread the culture of success (Zervigón & Saia, 2002).

Reinforcement: Follow-up and evaluating the progress

As a part of the change implementation phase, Sharjah Civil Defense intends to review the change process on quarterly, bi-annual, and annual bases. During the quarterly evaluations, the organization is reviewing the key performance indicators, biannual reviews focus on the results of surveys related to the organization (Almansoori, 2020). Colonel Khalid Almansoori confirmed that a semi-annual review is a necessary approach adopted to maintain the change's progress by submitting a report to raise any challenge and reflect change progress statue of each stage. Lastly, the annual reviews focus on results from SWOT analysis to determine the state of the organization in meeting its objectives. Moreover, it is used for setting strategic goals for the next year. Thus, the regular review of the program is essential. It is possible to evaluate organizational performance based on different aspects and at different times (Strategic Department - Sharjah Civil Defense, 2020). Implementing this step will help the organization track its change, solve existing problems, and avoid potential issues. PROSCI ADKAR model adopts managing the change stage by employee involvement to analyze their feedback and implement corrective actions based on the reported progress of the change (Goyal, C. & Patwardhan, M, 2018).

Aims and vision of the change

An essential step in Kotter's change model "develop the vision"; setting a direction and developing a vision that reflects the organization's aims with the future along with strategies for producing the changes needed to achieve that vision, is a way leading an organization to constructive change referred to (Kotter, 2001). Colonel Khalid Almansoori emphasizes that before implementing any change, the change process includes aims from different aspects to maintain tracking orientation of the Ministry of Interiors, the directions of the leadership, higher management, and the aims of its change. SCD management highly considering all aspects of aims in creating the vision, believing that it is a based structure of the change (Almansoori, 2020). (McGuire, 2001) Stated that visions

need to be “strategically sound” and achievable; the significant visions are built on and extend an organization’s historical value. In contrast, a vision introduces a new challenge to organizational members. Challenge does not abandon all of the qualities and traditional values that have worked in the past. Having a proper plan, including valuable aims and vision, helps employees and leaders will have something to refer to when evaluating their change management efforts (Martic & Jounay, 2020).

Defined your partners

The environmental work of SCD required collaboration with partners from all sectors in order to maintain the quality of the provided services referring to Colonel Almansoori effective partners base is an approach that build to support Sharjah Civil Defense as most of the provided service needs to be linked with other partners as an example determine the response time for the support team we need the support from the Roads and Transport Authority and the Police (Almansoori, 2020). Involving partners in the change process is important as (Peltokorpi, et al., 2008) have proposed that identifying your partners and evaluate their influence on the change process as an essential component. It is also important to analyze partner's resistance, the complexity of the change and management capability.

Resistance

During the interview, Almansoori mentioned that any change has a risk. It is not easy to introduce a change, and people will ask why we have to change? There is no need to change if things are going well; therefore, change is unnecessary (Almansoori, 2020). According to (Laura-Georgeta, 2008), there are many reasons people resist a change; one of them is that they may not recognize the need for change and the objectives. Also, they may disagree with the organization’s new direction. (Topchik, 2000) mentioned that people resist change because they consider that the existing way of doing things is satisfactory; they cannot understand why change is needed and unclear what the change will bring.

Resistance in the Anarchy of the organization

Colonel Almansoori stated that resistance came from the top of the organization pyramid. The top management where they usually have a fear of failure, and their rejection reasons is that if everything is going well and smooth, why do we need to change? (Coetsee & Flood , 2013) argue that in reality, people resist the discomfort that goes through the change and the loss that people resist. Also, Jeffery D and Ford Laurie mentioned that resistance is appreciated in changing management. It requires a shift in managers where they blame resistance for the failure of change. Authors also stated that half of the organizational changes fail due to primary reasons; one of them is dysfunctional blaming resistance for managers who observe resistance as threatening where they may become uncommunicative and more concerned about being right (FORD & FORD , 2010).

Resistance also came from the line workers or the employees where (Almansoori, 2020) stated that change sometimes could end the employee services, considered one reason employees resist the change. Non-educated employees are one example that will resist change. According to (Dennis,

2009) anxiety will appear before implementing the change, the fear of job loss will become overarching. Many employees will be afraid that they will not retain their jobs after a change, whereas others will not learn and develop new skills (Bateh, 2013).

Change Resistance Form

Sharjah Civil Defense created a model for any change that will happen. The model is called the “Change Resistance Form” it describes the change, change rating, and how it will affect each department/service/people. The form needs to be signed by the executives and quality department. This is an example of a great plan to make your change valuable and affected; having details and valuable numbers of information will show the employees that this change will have a better impact on the organization (Almansoori, 2020).

Employee’s involvement in change management

Accepting a change begins with communication; as Colonel Almansoori mentioned, to take a step and change, share the ideas with the team, let them know the reasons behind the change. Listening to the team is an essential element while changing; employees may give you excellent ideas to implement the change, resulting in reducing the resistance (Almansoori, 2020). In this regard, (Laura-Georgeta, 2008) stated that employees need to be heard and involved in the process. The expertise in change management suggests that managers should communicate with each organization's level about the causes and impacts driving this change. It is essential to mention how jobs will be affected before, during, and after the change. (Scott, 2011) mentioned that to have a significant change, two things must be considered: breadth and depth. Breadth means that the change should be across the organization involves every department, and depth means everyone within these departments must be involved and aware of this change process.

Critical Success Factors of Change Management

Insuring Preparation for Incidents

Preparing for any future cases that may occur, employees should be prepared for emergency procedures to deal with such circumstances. The pandemic situation as an example, the organization started working remotely, allowing adjustment and free enterprise to get work done efficiently and ensure business continuity (Almansoori, 2020). Inventing scenarios to reduce the amount of speculating on upcoming circumstances, therefore, manage not to make new outcomes that might further jeopardize the organization's work plan (Sawalha, 2018). Through the interview with Colonel Khalid Almansoori, he raised that creating and updating defense plans helps to prepare for known and unknown risks with an effective response to emergencies (Almansoori, 2020).

Promoting Civil Safety and Protection

Colonel Khalid Almansoori stated that the organization needs to provide safety and prevention standards for civilians and properties. Moreover, Spreading the culture of safety and prevention awareness for the civilians and equipping operation teams and centers with the best equipment and technology suitable for assisting in the services related to Civil Defense (Almansoori, 2020). Thus, the importance of prevention awareness is to improve safety behavior, understanding (Qayoom & Hadikusumo, 2019).

Promoting Customer Happiness with Provided Services

Based on Sharjah Civil Defense, they provide ease of access to customers and apply the governmental standards for creating and utilizing e-services by collaborating with smart governments, authorities, and other partners (Almansoori, 2020). (Hsieh, et al., 2018) stated that customer service is the end goal for any organization to survive in the long term. Creating good quality e-services and improving the deployed model to run the organization successfully is crucial. This change requires change management on an acceptable level and employees to have possession of the company. The results of the products for the customers must be updated and upgraded as per the needs of time and people. Therefore, employees have to be impact-oriented and show ownership with the company they work with, and keep themselves upgraded with the times.

Ensuring Availability of Administrative Services with Accordance to Quality, Competency, and Transparency Standards

The administrative services are provided to the customers should ensure quality, competency, and transparency standards. The previous point and this one has a lot in common, they talk about the customers' deliverables. The final product that reaches any customer involves all departments, which helps achieve its goal. Moreover, involving the Human Resources department to manage and track the employees' performance will help maintain continuous improvement. The strategic department must be updated in terms of the market structure and the practices prevalent in the market (Almansoori, 2020). The administrative and the operative functions in any company must be updated and implemented to be implemented smoothly. Getting the employees updated with the latest procedures and operations and implementing new and smooth procedures to bring good connectivity between the departments would involve change management (Pawlowski & Clements, 2010).

Promoting Innovation Culture in Corporate Work Environment

A competitive work environment keeps any company ahead of its time. However, seeking innovation and nurturing thinkers and spreading knowledge and awareness regarding the fields of innovations. Also, foreseeing the future by a security model that simulates the future (Almansoori, 2020). Providing a competitive environment in any company is a critical part of change management where it creates the opportunity to gain new skills and technically updated (Horibe, 2016).

Conclusion

This research paper shows a successful change implementation. It reflects the organization's strategic objectives that aim to ensure safety and security by reducing immediate response to promote life-saving operations. Using SWOT as a tool to analyze for having a clear picture of the change procedures by specifying the weakness needs to transfer into strengthening. Adopting the ADKAR change model also paved in equipping employees for the change and orchestrated the change process to address any gaps and challenges. Using Change Resistance Form helped to understand the employee resistance to change and ensure the employees' involvement. Promoting the critical success factors at Sharjah Civil Defense plays a big role in preparing the employee. It ensures collaboration between all departments, besides looking forward to promoting the innovation culture in the competitive environment for a security policy. In conclusion, a noticeable

reduction of death cases has been recorded in 2020 compared to previous years. Therefore, the change operation was in line with the realization of organizational objectives.

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Critical Success Factors of Change Management During Mergers

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Abstract

The purpose of this paper is to highlight some of the most important critical success factors of change management, particularly during mergers. The world around us is changing, and changes are happening more frequently and more rapidly. Many organizations found themselves in a position where they have to merge with other organization in order to face the forever increasing competition. Many organizations fail to implement changes successfully, simply because they do not pay enough attention to some critical success factors such as change leadership, effective communication, and managing resistance to change. Resistance to change should be seen as a natural phenomenon that accompanies most changes. However, in order to implement changes successfully, and for the sake of business continuity, employees' resistance must be handled effectively and sensitively.

Keywords: *Change management, Change leadership, Effective communication, Resistance to Change, Mergers.*

Research Methodology

This is a literature review paper.

Introduction

One of the biggest challenges faced by leaders in many organizations is how to succeed in implementing change. Change management is a structured approach or a planned process that facilitate the transition of the individual employee, team, and entire organization to the desired state (Aljohani, 2016). Some organizations perceive change as a negative factor that should be avoided while others think of change as an opportunity to be explored (Dinnwoodie et al., 2015). However, no organization can avoid change forever. Change is received and is carried out by 'people' and, therefore, it can only succeed by paying attention to the 'people-side' of change management. Very often, change is imposed on employees with little consideration paid to its effect on them. Change is not a full-time job for employees, it is simply an added burden to their daily tasks. This is why it is imperative to pay a lot of attention to the human side of change management. One of the key indicators of the effectiveness of any organization change is how the employees respond to the change (Bartunek et al., 2006; Oreg et al., 2011). One of the effects of change is 'uncertainty'. Recipients of change often find themselves in situations where they have to deal with ambiguity and confront the unknown. This is particularly true when it comes to mergers. Uncertainty often lead to resistance, industrial action, and demotivation, which often cause a threat to the organization operations (Van der Voet and Vermeeren, 2017).

Mergers often lead to changes in organizational structures. This affects both the management and employees. As a new organization is formed from the merger, some position will be introduced, and some will be merged, and others will be removed. This causes anxiety amongst the employees and the management, especially when neither of them wants to leave. This high level of uncertainty can lead to stress, role conflict and demotivation (Lewis, 2019). The following sections describe the most critical success factors for managing change that must be considered, particularly in the case of mergers.

Change Leadership

Leaders are the principal players in formulating, sustaining, influencing and directing change in the organization. They possess the technical and conceptual skills that are essential in guiding the employees on which direction to take. Leaders in the organization also possess the reward power which they can use to influence the employees to initialize change (Alvesson and Sveningsson, 2015). Leaders are required to be charismatic to inspire change to the employees and have them enthusiastically embrace the merger of the two entities (Dinwoodie et al., 2015). Leaders are responsible for translating the change vision to activities that can be executed by the teams they control. Change leadership is critical in addressing the people emotions associated with the change. It requires the leaders and the entire organization to address the outlook, the beliefs, and develop practical behavior that is necessary to adopt change. Leadership allows the employees to be drivers of change, thus keeping them committed throughout and be empowered to face and overcome uncertainties, fears, and distraction. Leaders set ethical standards by embodying the ideal organizational values of integrity, self-confidence, resilience, competence, and honesty (Attah et al., 2017). Leaders address the turnover risks by ensuring they constantly involve their team when formulating change initiatives. They also train and guide employees to gain more competence and confidence in implementing new tasks. Leaders also use their influence to inspire compliance and commitment, which is necessary to drive change effectively (Attah et al., 2017).

Developing a clear vision for change is absolutely imperative. Very often, leaders develop strategic objectives which are neither specific, measurable, attainable, realistic, nor time-framed. Having an ambiguous vision lead the organization to spend its resources on activities that do not contribute toward its growth or competitiveness which causes wastage. A clear vision defines the company's value proposition to its stakeholders and the scope of application. Leaders must develop a simple and clear strategy statement that all the stakeholders can internalize and use as a guide when making difficult decisions (Collis and Rukstad. 2008).

Effective Communication

Communication is a vital ingredient when initiating change. Early communication to stakeholders enables the employees to create the right set of attitudes and values to facilitate the change process. Communication is the media upon which the organization vision and strategic objectives are shared. It enables management and employees to understand the what, why, where, when, and how of the strategy. Lack of communication can cause the failure of change initiatives (Beatty, 2015). Organizations need to develop a proper communication structure that will facilitate the free flow of information to avoid the dominance of grapevine (Denning, 2011). Preparing organizational culture to accept change involves adopting new communication approach that allows free flow of

information. The organization need to adopt open-door policies where the employees can engage with management despite their position and authority (Angwin et al., 2016). The three significant obstacles and risk that leaders address during change management are staff turnover, employees' resistance and communication breakdown. Leaders should encourage constant communication by responding to employees' questions and giving feedback to minimize resistance (Dinwoodie et al., 2015). Therefore, change leaders need to develop a sound communication strategy. The communication strategy should highlight the roles and responsibilities of each group of stakeholders, the guidelines and the objectives to be achieved, and the core communication items. Effective communication is critical in winning the hearts and minds of the employees. It is the basis upon which the interests and desires of employee to implement the change arises (Hasanaj, 2017).

Managerial communication in the form of “positive metaphors, axioms, stories and slogans can have beneficial effects on the employee inspiration, motivation, shared organizational cognition and learning and help realize the envisioned organization transformation through overcoming the resistance to change, resolving the conflicts and the successful implementation of new strategies” (Muthusamy, S.K., 2019, p.114). According to Smith (2020), one of the greatest barriers to change is lack of effective communication of the need for change. Leaders must ensure that information relative to impending changes is continuously communicated.

Dealing with Resistance to Change

According to Decker et al. (2012), failure rates of change initiatives may be as high as 93%. Edmonds (2011) noticed that the employees' resistance to organizational change was primarily due to fear from the unknown. What Edmonds has noticed actually makes a lot of sense. Change means something new, new means it is ambiguous, and ambiguity leads to confrontation with the unknown. This confrontation with the unknown can bring the worst in people.

The very important role of the leader in the process of implementing organizational change is linked to overcoming resistance to change. This is one of the most important and most challenging tasks that leaders have to deal with when implementing change (Aleksic et al., 2015). One of the most effective ways to reduce employees' resistance to change is to actually involve them in the early stages of decisions driving the change. In fact, many authors concluded that change recipients' participation in a change program is an effective strategy to deal with their resistance (Joshi, 1991; Judson, 1991; Kotter and Schlesinger, 2008; Pardo-del-Val et al., 2012; Auster and Ruebottom, 2013). Early and frequent involvement of employees is also emphasized by Smith (2020, p.12) as he stated “Resistance drops off in proportion to the involvement of the participants. One of my early mentors told me not to expect complete support from any individual who was not personally involved in a change that affected his/her work. It is not physically possible to involve everyone directly but setting up networks intended to reach out to as many people as possible is the next best thing”.

It is a challenge to introduce new concepts and values to employees. However, it is even a bigger challenge to make employees actually ‘forget’ what they are used to, to abandon what made sense to them for many years, and to forsake some deep-rooted values. To control resistance to change, “proper education, effective communication, facilitation, motivation, negotiation, manipulation, co-operation and coercion” are recommended (Agboola and Salawu, 2011, p. 235).

It is important to remember that communication is not about giving orders from top to bottom. Transparent, two-way communication is very important during turbulent periods. It is also imperative to remember that a significant part of communication is 'listening'. Listening to what the employee is saying without passing judgments and without interruptions. Sometimes all what the employees need is someone to listen to them so they can 'vent' their worries and anxieties. Not listening to employees during turbulent periods will cause them to suppress their feelings in a pressure cooker, that would soon explode. According to Serban et al (2020), managers need to ensure that their messages have been received properly and they have been understood and accepted. This involves employees' participation in discussions, and listening to them. According to Cabrey and Haughey (2014), If employees are provided with all the facts and all the misinformation are cleaned through effective communication, employees' resistance will be diminished.

Empowerment is another important way to reduce resistance. Empowered employees feel trusted and this makes them motivated. However, it is important to make sure that the employee is able to carry out the required task first. If not, then training is strongly recommended. Hon, A.H., Bloom, M. and Crant, J.M. (2014) emphasized the importance of empowering employees in order to overcome or reduce resistance to change.

Merdzanovska, M. (2016), provided instruments for overcoming resistance to change. These instruments are highlighted in the Table 1 below and they can be used as a guide for overcoming resistance to change.

Table 1: Instruments for overcoming the change resistance (Source: Merdzanovska, M. (2016) 'Dealing with Change Resistance', *Economic Development / Ekonomiski Razvoj*, 18(1/2), p. 404.)

Instrument	Steps
Strong political dynamics	Convincing the employee to have the same vision with the leader
Education of working force	With education of working force, the fear can be reduced, when it is clarified what the changes mean
Employee involvement in change planning	The employees who are involved in the change process and are informed, understand the need for help better and defy the changes much less
Rewarding the constructive behavior	The changes are accepted more easily if the employees are rewarded for their constructive behavior

Conclusions

Change is inevitable. It is happening more frequently and more rapidly. No organization in the world can escape from this reality. Change will be chaotic if not managed properly. In order to manage change effectively change leaders need to focus on the critical success factors of change management. Three important critical success factors were highlighted in this paper. Change leadership is absolutely imperative. Without an effective change leadership all efforts will be wasted. Change leaders must understand that the required changes can only be implemented and achieved through their employees. Therefore, paying careful attention to the human side of change management is very important. Furthermore, change leader need to have excellent communication skills because communication is another very important critical success factor. Lack of communication can lead to misunderstanding and misconceptions which will cause change initiatives to fail. Handling resistance through careful and sensitive communication is another very important critical success factor that was emphasized in this paper.

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Change Management Critical Success Factors

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Abstract

Competition in the global market has become fiercer and tougher as driven by several factors such as globalization, shifts in trends, changing market demands and market uncertainties such as the global financial crisis and the Covid-19 pandemic among others. Identifying and understanding the critical success factors of change management is important in the process of assessing change programs, identifying opportunities and challenges and achieving increased competitive advantage among organizations. This study intends to explore the critical success factors of change management from a general perspective. This study is exploratory in nature as it makes use of secondary data from previous and existing studies in an attempt to explore the critical success factors of change management from the traditional to the contemporary period. Findings from this study revealed that there are a number of critical success factors in ensuring effective management of change including (but not limited to) effective leadership, organizational culture, training and development, effective communication, teamwork, readiness for change, technology, quality, employee satisfaction, and clear shared vision. The integration of the critical success factors in organizations' strategic change management can contribute to achieving positive outcomes and overall success in achieving their goals especially in times of difficulties and uncertainties in the global market.

Keywords: *Change Management, Critical Success Factors, Effective Leadership, Organizational Culture, Training and Development, Effective Communication, Teamwork and Readiness for Change, Technology, Quality, Employee Satisfaction, and Clear Shared Vision*

1. Introduction

As there are uncertainties in the global market place, it has become important for organizations to ensure that they effectively cope in order to maintain their position and increase their competitive advantage. Aside from market uncertainties, changes are also constant in the global marketplace thereby creating opportunities and challenges for businesses worldwide. For example, the emergence of globalization presented changes in terms of technological advancements, shifts in traditional working methods and processes and changes in market demands, it has become important for organizations to ensure that they are able to cope with these changes by means of shifting processes or undergoing organizational change. According to (ELsheikh, 2010), as competition in the in the global market becomes tougher due to several factors such as globalization, low profit margins and demanding clients, shifting from traditional working methods to the application of new systems has become inevitable in order to achieve competitive advantage. This means that firms need to undergo organizational changes in order to cope with shifts in market trends and to achieve increased competitiveness. So, how can firms promote successful and effective management of change in order to achieve positive outcomes?

The main purpose of this paper is to explore the critical success factors of change management. The need for this research is based on the importance of implementing successful change management in order to enable organizations to overcome the rapid changes occurring in the global business field. Analyses of the critical success factors of change management can present significant implications to the recent challenges being faced by various businesses worldwide as a consequence of the COVID-19 crisis. By having a better understanding of the critical success

factors of change management, decision makers can develop appropriate strategies that can enable their businesses to overcome the changes in the market and deal with the new normal resulting from the COVID-19 pandemic.

2. Literature Review

2.1 Overview of Change Management

Change management is one of the widely studied in the field of management in the recent years because of the several changes happening in the global market. Thus, the importance of change management has become vital to the success of organizations in pursuit of maintaining and sustaining growth and competitiveness in the highly complex and dynamic global market. According to (Hashim, 2013), organizations are changing because of several factors including technological advancements, economic changes, and the changing behavior of consumers worldwide. Change is defined as alterations to organizations' strategy, organizational culture, environment, technology, structure or people due to various reasons such as corporate strategy, employee attitudes, market situation, technology, economics and government laws and regulations among others (Passenheim, 2010). Therefore, the same author described change management as the "correct understanding of the organizations that want or need to be changed, correct understanding of the people who are willing or forced to change, the effectively realization of change, and understanding the dynamics of change" (p. 11).

Early approaches and/or theories suggest that organizations could not be effective in relation to improve performance if constant changes are implemented but in contrast, modern theories position that continuous change is importance in order to achieve organizational effectiveness and growth (By, 2005). Among the earliest change management models was developed by Kurt Lewin (1951) which became one of the bases of modern models and theories (Teczke, 2017). Since the introduction of Lewin's model, there have been other theories and models that have been developed, adapted and expanded Lewin's theory such as John Kotter's (1996) eight-step change model, Cummings and Worly's (1995) five-phase process for managing change and Armenakis and Harris' (2009) change readiness model among others (Saetren, 2017). These change management models have presented the importance of success factors is assessing change projects within firms. Therefore, in implementing organizational change, it is important to understand the critical success factors and the risks regardless of the theory or model to be applied.

2.2 Critical Success Factors of Change Management

No matter what theory or model is used in the implementation of organizational change, it is important to have a better understanding of the critical success factors of managing change (Mak, 2019). As it has become vital for organizations to adjust and modify its methods, works, processes and management all the time, promoting effective change management can contribute to increasing their abilities to find solutions, improve work methods and systems and achieve increased efficiency and competitive advantage (Al-Khaffaf, 2012). But, how can the management of change be applied effectively and successfully? In answer to this question, there are critical success factors that can be integrated in change management in order to reduce change initiative failures within organizations (Al-Khaffaf, 2012).

Yet, to understand critical success factors, it is essential to identify the different forces that can affect change management process. Mak and Chang (2019) also noted that forces encouraging change are considered as driving forces whereas forces resisting changes are restraining forces. This means that resistance to change is one of the main challenges in the effective implementation of change in organizations. To understand the critical success factors in change management, it is vital to analyse the variables representing the change initiatives such as new competitors, service quality strategic associations and technologies adapted among others (Al-Khaffaf, 2012). In line with this, it is important to take into consideration critical success factors in order to ensure successful management of change. This means that there are strategic relationships between variables and critical success factors in order to promote successful and effective change management. For the purpose of this research, the focus will be on the ten (10) most common critical success factors in change management - effective leadership, organizational culture, training and development, effective communication, teamwork, readiness for change, technology, quality, employee satisfaction, and clear shared vision.

2.2.1 Effective Leadership

In managing change, one of the driving factors is encouraging employees to accepting change. This means that leaders play important roles in relation to motivating and encouraging employees towards acceptance of changes within the organization. According to Karnouskos (2015), it is important to understand how change affects people both at the emotional and cognitive level in order to effectively management change. In relation to this, managing different types of change effectively is positively associated with style of leadership (Karaxha, 2018). This means that strong leaders present flexibility in their approaches with regard to motivating and encouraging employees to accept and overcome organizational changes being implemented. For example, an effective leader is a catalyst for change and is able to use different leadership styles that are more appropriate to motivating unique employees towards embracing the changes as opposed to resisting them and to encourage them to actively participate with the change implementation. As highlighted by Celik (2016), motivation can decrease during the process of change but effective leaders are able to overcome this challenge and address the issue of resistance to change. So, effective leadership is one of the critical success factors of change management.

Abbas and Asghar (2010) asserted that effective leadership is always necessary towards bringing about effective changes in organizations. As explained by the same authors, effective leadership has positive influence on fostering a culture of change that is important in addressing problems that can hinder successful change management efforts. Abbas and Asghar (2010) identified cognitive, functional and social competences of leaders in order to affect successful change in organizations. Among these competences include creativity, self-reliance, communication skills, teamwork abilities, interpersonal skills and motivational skills among others. Similarly, Attah (2017) noted that effective leadership is among the most important parts of organizational strategy towards achieving sustainable changes. Thus, effective leadership contributes to facilitating successful organizational changes through innovation and improvement initiatives (Hao, 2015).

According to (Attah, 2017), an effective leader sets an example as an inspiring model of honesty, integrity, self-confidence, persistence, knowledge of the task and good emotional adjustment and balance. The same author noted that change can be achieved through strategic leadership wherein effective leaders need to posses good leadership characteristics. In relation to this, (Zel, 2016) asserted that leaders should first have a good understanding of the meaning of change and why

there is a need for change. The same author explained that a change leader must start with a vision so as to clarify the direction for change and lead and inspire change by dealing with the negative effects of change and influencing positive responses to change. Leaders are change agents and the most important tool for change such that it is the behavior of the leaders that makes the change situations more effective (Ajmal, 2012).

2.2.2 Organizational Culture

As leadership is recognized as one of the critical success factors in effective change management, it is also noticeable to understand the importance of the mediating role of organizational culture. Since changes need to be set in the organizational culture, it is of vital importance that a culture of change management is created within organizations. Set changes in a firm's organizational culture is one of the key success factors of addressing resistance to change (Kiarie, 2012). Similarly, organizational culture affects employees' work behavior and performance suggesting that it can play a mediating role towards employees' attitudes and response on acceptance or resistance to change (Onyango, 2014). According to Rajput (2014), it is important to determine change related dimensions in organizational culture that are weak in order to be able to improve these areas to reinforce them towards promoting change readiness. So, organizational culture plays an important role in creating readiness for organizational change. Culture is important in promoting successful change management because it is a contributing factor to reducing employee resistance to change (Onyango, 2014). The same author noted that since culture is described as the collection of values and the foundation of organizational norms, it is a strong influencing factor on fostering positive attitudes towards change.

One of the reasons for the failure of change management in organizations is not being able to anchor changes in the organizational culture (ELsheikh, 2010). This means that culture is considered as a critical factor on the management of strategic change and on addressing resistance to change (Kiarie, 2012). According to (Onyango, 2014), organizational culture affects leadership and change management. Interestingly, (Martin, 2013) suggested that organizational culture can either help or hinder the change process when it comes to successfully undergoing change which means that change agents should be able to tie changes to the organizational values. As such, it is important to set the culture and mindset in order to contribute to the effective management of change.

2.2.3 Training and Development

Implementing changes in organizations is a long, complex and continuous process which creates demands for training and development. In order to encourage employees to support and participate in the change process, it is important that they are provided with appropriate training in order to enhance their knowledge and skills in relation to the new processes and changes. For example, if a company is transitioning to digital systems, the management should expect that not all employees are technically inclined which means that training them would help equip them with needed skills and knowledge to cope with the new digital systems and processes to make them more efficient and productive. According to Gil, et al (2015) there are specific demands for training within the change process in order to achieve successful change implementation. Similarly, Rodrigues and Walters (2017) noted the importance of training and development in the implementation of innovative and strategic changes in order to foster continuous improvement. As explained by the same authors, training and development not only contribute to enhancing employees' skills, knowledge and attitudes but also increases their involvement in the change process by gaining the

competencies required to enable them to overcome new and challenging situations. So, training and development is considered as a critical success factor and a requirement for successful organizational change (Vinesh, 2014).

2.2.4 Effective Communication

When changes occur in organizations, employees would have their questions and expectations. As such, it is important for change leaders to ensure that the goals, reasons and expectations of organizational change are communicated effectively to all employees at all levels to prevent misunderstandings and confusion. For example, if a change in the organizational structure is in process, this change can make some employees feel doubtful and uncertain about the security of their jobs which means that transparency through clear communication of goals and expectations is needed to prevent misunderstanding and demotivation among employees. According to Le Jean (2011), the difference between success and failures in the implementation of changes in organizations depends on the ability of change agents to identify employees' expectations and influence their behaviors by making them understand change initiatives in order to prevent the rise of conflict. This means that communication needs to be planned in a strategic way to fill gaps in information.

So, one of the critical success factors of change management is having clear and honest communication (Chatsworth Consulting Group, 2014). Effective communication is essential in influencing employees' attitudes towards gaining acceptance for the need of change. According to (Malek, 2012), communication is considered as a vital leverage in the process of successful change management because it serves several functions including information sharing, participation or involvement, vision and motivation, compliance and feedback which can reduce negative feelings that lead to resistance to change. The same author noted that communication have an influence on resistance to change which affects the effectiveness and success of the change initiatives. (Malek, 2012) further noted that effective communication is a critical success factor in change management because it is not only important for informing, motivating and coordinating but also in managing employees' expectations thereby influencing them positively.

2.2.5 Teamwork

One of the barriers to effectively managing organizational change is lack of teamwork and cooperation between leaders and employees. Correspondingly, teamwork is important in the effective management of change because it enables members of the team to cooperate and help one another in identifying and developing solutions to problems throughout the change implementation process (Elsheikh, et al 2010). In addition to this, promoting teamwork means bringing together vast amount of knowledge and skills, combining a higher level of trust with a shared goal and generating new ideas and opinions thereby increasing chances of achieving positive results (Kiarie 2012). In line with this, the quality performance of work teams is vital to the success of the change process (Sharma, 2012). This means that the collaboration among members of organizations undergoing changes can contribute to increased motivation towards influencing positive outcomes.

Teamwork is one of the major challenges during organizational change process (Harvey, 1998). As explained by the same author, the likelihood of success of change management can be determined by employees having positive attitudes that can be achieved through them working together as a team towards achieving organizational goals. This suggests that effective teamwork allows for employees to produce intended outcomes.

2.2.6 Readiness for Change

Resistance to change is one of the fundamental barriers to effective change management. In order to address this, it is important to focus on ensuring that employees at all levels gains acceptance and be ready for organizational changes. According to ELsheikh (2010), including approaches to increase organizational readiness for change to the change management plan is important in order to achieve success. Similarly, Howley (2012, p. 1) noted that “readiness for reform or organizational change is often said to be an important predictor of how successfully new policies, programs, or practices will be implemented”. The same author explained further that readiness for change should not be conceptualized simply as lack of resistance, rather fostering engagement, active participation and willingness to adopt to new practices.

Readiness for change is a critical success factor of change management because the concept means that people involved in the change process have sufficient knowledge of the change for effective implementation (Howley, 2012). This means that organizational readiness for change can have major influence on employees’ attitudes toward initiating and maintaining changes. As highlighted by Weiner (2009), in a culture where readiness for change is embedded, employees exert greater effort and persistence towards displaying more cooperative behavior. Thus, readiness for change is an important factor in the successful implementation of change in organizations.

2.2.7 Technology

Technological advancements are among the factors of change globally. As such, organizations attempting to promote effective management of change need to be able to cope with technological changes. According to (Al-Khaffaf, 2012), successful change requires transformation of organizations in alignment with the shifts happening in the global market. For example, the same author noted that successful change within contemporary organizations must attempt to establish robust, standardized and flexible information technology (IT) architectures and systems. Similarly, (Safitri, 2013) noted that in order for organizations to deliver good plans in project success and change management, they need to ensure that technology, markets, trends and business environment related to the change projects are able to deliver effective solutions and technological innovations. Therefore, technology is considered as one of the critical success factors in effective and successful change management.

(Lo, 2016) highlighted that technology orientation works as aiding firms in the acquisition of substantial technological knowledge and being able to use this knowledge to come up with new solutions in response to customers’ needs. As such, the same authors asserted that technology is considered as a fundamental source of the execution of strategic implementation in response to market changes. As such, the integration of appropriate technologies in linked with user acceptance can be viewed as a critical success factor in fostering successful management of change (Horne, 2014). In change management projects, it is important to understand and better manage the realities of technology-based changes in organizations (Al-Khaffaf, 2012). For example, organizations that are not able to keep pace with technological changes impact the improvement and maintenance of their services (Kiarie, 2012). As highlighted by (Stoyanov, 2013, p. 10), “the implementation of the information technologies in organizations is a solid prerequisite for the duly and successful change of the business processes”. The same author explained that technology such as information technology should not be perceived as an approach for changes in business processes rather an instrument to support the rational conduction of managing change in organizations. Therefore, there

is a strong relationship between technology and effective change management particularly for contemporary organizations (Karnouskos, 2015).

2.2.8 Quality

In the implementation of changes in organizations, one of the main concerns is the maintenance of work quality. As such, the application of quality standards is viewed as one of the critical success factors in management of change (Al-Khaffaf, 2012). One of the most common and widely applied in continuously promoting quality during change processes in organizations is total quality management (ELsheikh, 2010). For example, the same authors noted the wide use of ISO 9001 system as instrument in strategic change management that contributes to transforming performance and improving quality of services in organizations. Similarly, quality as a critical success factor in change management is also associated with leadership. According to (Le Jean, 2011), quality leadership is important in leading organizations to answer and adapt to change effectively. Quality leadership, in the context of change management, places emphasis on empowerment and recognition in inspiring and directing change throughout the organization (Randeree, 2008).

2.2.9 Employee Satisfaction

In the advent of organizational changes, employees are the most affected which by extension, impacts their job satisfaction (Gomes, 2009). As explained by the same author, it is important to consider employees' commitment and satisfaction when undergoing changes throughout the organization. Employees have different perceptions on a changing work environment on an emotional level which affects their resistance or acceptance to change (Beijer, 2016). Therefore, in several successful organizational changes, involving employees during planning and execution phases is important in order to engage employees and maintain their satisfaction in pursuit of promoting acceptance of changes (Al-Khaffaf, 2012).

In the study of (Turner, 2017), employee satisfaction and engagement in change management yields a productive environment and fruitful progress in change implementation. In relation to this, the study of (Asfaw, 2018) revealed that there is a strong relationship between employee satisfaction and organizational change such that the perceived efficacy of change is also grounded on the level of employees' work situation and job satisfaction. As such, the same author noted that employee satisfaction, as a critical success factor, is managing the human part of the management of change. Employee satisfaction is significantly associated with resistance to change which makes it an important factor to consider in order to implement successful change management (Turner, 2017).

2.2.10 Clear Shared Vision

In order to successfully implement changes in organizations, they should start with a clear vision. According to (Al-Khaffaf, 2012, p. 3), "Creating change starts with creating a vision for change and then empowering individuals to act as change agents to attain that vision". Creating a clear shared vision means creating a positive vision to be shared with involved stakeholders. As highlighted by (ELsheikh, 2010), among the main barriers affecting successful organizational change include the lack of vision and failure to communicate the vision. This means that in order to implement successful management of change, it is important to develop the right vision and be able to communicate that vision the involved people in order to reduce factors of resistance to change (Kiarie, 2012). Therefore, creating a clear shared vision can aid in directing the change effort in a positive light.

Creating a clear shared vision as a critical success factor in change management is also associated with effective leadership. (Jones, 2019) asserted that it is the responsibility of effective and quality leaders to set the change vision and strategy, align people towards the vision and strategy and to inspire and motivate them to realize the vision and strategy. The same authors noted that creating clear shared vision and contributing to the realization of the vision helps in making the management of change successful. Therefore, creating the vision should be part of planning for, management and implementation of change such that “action without vision is a nightmare” (Group, 2014). This means that a clear vision is important in order for change programs to become successful.

3. Methodology

In order to address the research objectives, a qualitative, exploratory research design was carried out involving the collection of secondary data through review of existing literatures about the critical success factors in change management. According to (Swedberg, 2018), exploratory data analysis is an approach allowing data to reveal their underlying structure to allow researchers to discover something new and interesting about the research topic. In order to explore the critical success factors of change management, the exploratory research design is the most appropriate to be used because it allows the researcher to explore an already existing topic to generate new or interesting ideas or to increase knowledge of the change management phenomenon.

While this is the case, it is important to note that carrying out an exploratory research does not intend to offer final or conclusive solutions to problems identified, rather explores the research topic with varying levels of depth (Dudovskiy, 2018). Among the advantages of exploratory research include flexibility and adaptability to change, effective in laying out the groundwork leading to future studies and exploratory studies can contribute to saving time and other resources (Dudovskiy, 2018). Despite these advantages, the same author noted that there are also some disadvantages including generation and interpretation of qualitative information are subject to bias, cannot be generalized to a wider population and findings may not be useful in the decision making at a practical level. In reporting the findings, data was analysed using exploratory data analysis. As highlighted by (Komorowski, 2016), any method of analyzing data without including formal statistical modeling and inferences falls under exploratory data analysis. In carrying out this study, an extensive research was conducted to review related literatures in the critical success factors in change management and analysed data through exploratory data analysis.

4. Findings

The purpose of this section of the research is to generate a more in-depth understanding of the critical success factors of change management in order to enable organizations to overcome the rapid changes occurring in the global business field. Findings from this study revealed that there are a number of critical success factors in ensuring effective management of change including (but not limited to) effective leadership, organizational culture, training and development, effective communication, teamwork, readiness for change, technology, quality, employee satisfaction, and clear shared vision. In addition, the findings from this study indicated that the integration of the critical success factors in organizations’ strategic change management can contribute to achieving positive outcomes and overall success in achieving their goals especially in times of difficulties and uncertainties in the global market.

These findings are also in line with the study of (Minarro-Viseras, n.d.) wherein it was found that critical factors for success are achieved by the provision of sufficient resources and linking all factors to achieve successful change management implementation. More so, findings from this research also showed that there are significant associations between the critical success factors which means that they need to be integrated together in change management strategies in order to become more effective and successful. This is in line with the study of (Appelbaum, 2017) wherein it was revealed that critical success factors such as employee commitment and effective leadership are positively associated to successful organizational change management. The application of the critical success factors in change management implementation can be placed on a continuum of influence focusing on the critical and important factors to build a foundation for successful organizational change management.

5. Summary and Conclusion

Continuous change is one of the factors that contribute to the growth and sustainability of modern organizations. As such, change management must be part of organizations' strategies particularly in today's changing marketplace. In implementing organizational changes, there are a number of restraining forces such as resistance to change that prevents successful management of change. This paper concludes that critical success factors such as effective leadership, organizational culture, training and development, effective communication, teamwork, readiness for change, technology, quality, employee satisfaction, and clear shared vision be focused on in order to achieve successful change management. This study shows that these critical success factors are linked to successful and effective management of change and to one another.

Based from findings from research, it was found that critical success factors need to be understood extensively in order to achieve successful change management in organizations. Currently, several businesses worldwide have been undergoing significant changes in response to the consequences of the COVID-19 pandemic. So, this research is considered relevant in the current situation of global business field such that the concepts in this paper can be applied in the strategic change management programs being implemented by organizations towards the integration of new processes such as going digital and working remotely.

6. Recommendations

It was noted that findings revealed the vital importance of the critical success factors in the transition processes of firms towards achieving successful changes. As already highlighted, the world has been impacted by the recent Covid-19 pandemic forcing organizations to carry out certain changes in order to cope with the new trends and normal in the global market. Thus, the following recommendations are proposed based on the findings from this study:

- Firms operating in the contemporary time should be able to establish a sense of urgency with regards to focusing on the important critical success factors that may be aligned with the new normal and trends in the global market today. For example, technological advancements are considered vital in today's time which means that organizations should be able to invest in and adopt new technologies in order to efficiently meet customers' demands and cope with their new behaviours.
- Firms should develop continuous training programs particularly for executives and leaders in order to ensure quality and effective management practices are applied across all areas

of management function including management of change. This includes training and creating new knowledge for addressing resistance to change and promoting effective communication.

- Organizations should ensure that change is embedded in their organizational culture.

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Proposed Change management plan report for merging two organizations.

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ABSTRACT

Global rapid change and evolution comes with a level of uncertainty. Companies always try to perform with alignment with it to keep on their survival and competitiveness. Therefore, one of the major changes that companies may face is to merge with other companies. Hence, it is essential to apply such effective methodology of merger to have a healthy change management system that ensure smoothness and efficient merge and keep on the organization competitiveness position in the market. Change will influences many sides and specially the main stakeholders and there are three main parties regarding this change implementation. Change sponsor (The authority of change) is the first party and Change manager is the second who is the immediate level below. Moreover, Change manager is responsible of implementing the change performance efficiently. Change agents is the third level in the hierarchy who is one level above the first line employees. However, to achieve excellence in merging two companies it is highly recommended to involve as much possible of employees in the changing team to raise their acceptance toward change and to increase the cultural awareness toward it. There are some characteristics than the top-level management should have such as (Individual care, Build a creative team, Sense of responsibility, and Idealize impact from the leadership team). Not to mention, the importance of having a good culture. Culture is mixed of attitudes, actions and behavior that a group collectively follows in a certain place. It is recommended that during the implementation of an organizational culture to consider that there is two different cultures merging to avoid any lack of communication of acceptance between the two companies. There are many tools we could use to assist the merger and of them is Kotter eight steps. Kotter is the most confident approach covers the main factors and key elements to accept the change and involve employees. After the merger has done, the most challenging part will face the merged organization, which is to achieve sustainability because it is harder to stay at the top than climbing towards that goal. It is normal to resist any kind of change. Individuals always feel unsafe to start a new experience but gain confidence once the change starts and if it proceeds smoothly. This research discusses the integration plan between two architecture companies. Moreover, an analytical read to the impact of its stakeholders and how to perform and manage the change. Finally, the custom managing change methodology determined by the final objectives.

Keywords: *Change management, Companies Merge, Sustainability, Kotter eight steps.*

Introduction

Although global changes and rapid evolution brings with them a level of uncertainty, change is essential for maintaining competitiveness and survival. One of the most important changes that organizations experience is an organizational merger. Organizational mergers occur when two different companies unite to become one, resulting in a new identity that may be opposed by the

newly combined stakeholders. (Giessner, Steffen, Viki, Tandayi, Otten, Sabine, Terry, Deborah, Tauber, Susanne, 2006) causing threats to both organizations.

Therefore, one of the main objectives of applying efficient change management system is to ensure smooth transition ensuring continued efficiency and the competitiveness in the market. (McGreevy, Malcolm, 2009).

This report unveils the critical factors to achieve an efficient change management during the operation of merge between two companies, by analyzing stakeholders effected from the merger and the role of leadership implementing the change to ensure overall acceptance from both sides workers and alignment of both cultures together. The change should further sustain this merge and its changes on the new company to achieve sustainability.

The aim of this report is to apply the best possible approach implementing this change using the factors mentioned above.

Methodology

This research is made by analyzing secondary data provided from literature reviews that discusses change management cases in merging companies. Merging two companies needs to have will structured strategy that leads to successful merge. Therefore, it needs to be supported with previous examples that shows how to establish such approach and sit a strategy that fits in the case.

Moreover, analyzing merging two architecture has been made from various scopes. Kotter eight steps was discussed to ensure that the strategic plan that the researcher discussed would achieve its targeted aim. Change team, culture and sustainability were discussed from previous literature reviews. Hence, provided with recommendation that could support the case given in every stage.

Change Impacts on Main Stakeholders

There are always major outcomes from mergers, and to analyze these, we have to be cognizant of effected stakeholders. Considering time frame, there are current stockholders, future, internal and external stakeholders (Rune, 2014). The internal stakeholders are the employees of both companies including managers and the employees in every single level. The external stakeholders are more complex specially when the firm are large and long established due to their business footprint. Finally, it is important to understand that every stockholder will be impacted from different angle. While change management must be customized on a case-by-case basis, the process is greatly facilitated by implementing change management frameworks. . (Rune, 2014).

Leadership and teams

Change sponsor, change managers and change agents are the three critical change parties critical to any change process, who must work together to implement the process, with responsibility to communicate with all the interests parties specially the workers and implement the change successfully. They must carry out these aims by also reducing stakeholder resistance and through stakeholder involvement in the process. (Bertoldi, Giachino , Rossotto, Bitbol-Saba, 2017).

Because of the difference types of stockholders, it is highly recommended to create a change team from both companies requested the change. Moreover, the team members have to cover all the interested stakeholders. The discussion below details each part of the change team and members occupy the role.

- **Change Sponsor:** The authority of change. They are the responsible to set the change map and vision to achieve the goals aimed to reach instructing and cooperating with the different team layers. Moreover, sponsors are responsible for enabling and empowering the managers and the agents information and tools required to do the job efficiently. Lack of efficiency is a strong clear indicator for change failure. (Haitt; M.Jeffrey; Creasay; J.Timothy, 2003)
- **Change manager:** While the sponsor is the top level of the change team, it is the person on the immediate level below - the change manager – who is operationally responsible for driving the change process. There are some factors to be consider in the manager such as sharing knowledge, empowering the workers to perform efficiently and motivate the team to accept the change. (Bertoldi, Giachino , Rossotto, Bitbol-Saba, 2017)

The change manager should determine the best approaches to drive the change, designing the strategy and clearing the vision and objectives to achieve the best change outcome. Moreover, the change manager’s role is to communicate with the employees and guide them, to follow up with all the updates regarding the new change in daily base and lack of any factor could be a reason to fail in that change aimed to reach. (Bertoldi, Giachino , Rossotto, Bitbol-Saba, 2017) Depending on the structure of the two companies and their structure, it is recommended that choosing the manger should be decided through a continuous assessment of change managers candidates culminating in a short list, following which those short-listed are interviewed for the most suitable candidate, acceptable to the sponsor.

- **Change agents:** This role populates the third level in change management hierarchy. Change agents are the mid-managers and defined as “At least two level below the CEO and one level above the first line employees” (Lunts, Phillip, 2012)There is a critical role to play by the change agents because they are the key to control and sustain the changes to the company. Moreover, the change agents are the main responsible for introducing the change to workers and for keep track of changes, and keeping the higher level manager and the sponsor aware of all the surrounds and updated. (Lunts, Phillip, 2012)

Critical to success is to involve the largest number of employees in change management and to foster collective team building.

There are some characteristics that change leaders should obtain due to their mission to merge and change.

- 1- Individual care, the main element that effects change implementation positively or negatively is the acceptance or resistance to change, as change starts and ends with the individual. Therefore, leaders have to encourage and communicate effectively with workers and learn from worker feedback.(Page, Schoder, 2019)

- 2- Build a creative team, leaders should empower workers to think and innovate by involving them in the change and integration system. (Page, Schoder, 2019). Hence, having less opaque points regarding the new operations in the firm.
- 3- Sense of responsibility, (Page, Schoder, 2019). inspiring the employees to increase the sense of responsibility toward the change. (devote to change)
- 4- Idealize impact from the leadership team on the workers happens when they act as a role model to the team. Acting in a purpose way and following the change roles and not breaking the red line will increase feeling of commitment toward changes and integrating. (Page, Schoder, 2019).

Layoffs

Companies merge to increase efficiencies, so there is going to be layoffs for those jobs that are duplicated such as the support staff. Some jobs might have less layoffs such as Architects as this would depend on how integrated the designs become.

Culture

Culture is mixed of attitudes, actions and behavior that a group collectively follows in a certain place. It is important while setting an organizational culture to consider that there is two different cultures merging together to avoid a clash of cultures. Accepting that there are legitimate differences will determine failure or success of implementing the change. (Kansal, Chandani, 2014)

Transformational leadership is a method that plays a significant role to fill the gaps between both companies' workers. It is a style of work that encourage individuals to cooperate together by getting out of their own comfort zone and by starting to accept other point of views and ideas. Leaders should have some key characteristics such as inspiring the employees to work and respond positively to other stakeholders. Moreover, they have to understand and learn more about their teams to develop their abilities and understand their needs and issues regarding the new culture and thus allow them to empower all the workers to be involved and raise the feeling of commitment toward the cultural change. (Rahman, Hadi, 2019)

Change application needs to be guided with a map process to accurately meet the objective. Furthermore, each change or integration fits on a different processes depending on the internal , external factors and the variation type of stockholders. Kotter presents eight steps to raise trusts to build a strong structured merge between the two companies. (Julien Pollack , Rachel Pollack , 2014)

Kotter's eight steps

Kotter is the most confident approach covers the main factors and key elements to accept the change and involve workers in my opinion. Moreover, raise the feeling of commitment toward implementation the change successfully through reacting positively to all the comments and accept different point of views and suggesting from the workers encouraging them to work harder and more efficiently. (Julien Pollack , Rachel Pollack , 2014) Kotter's eight steps will be discussed with more details to visualize the advantages and reasons choosing the following approach.

- 1- Establish the feeling of urgency: The feeling of urgency is the first step to start the mechanism of change. (Mumma , Morris, 2017) It can be compared to the “Start Engine” for how all the workers have to be notified and react to it positively. It could be defined also as a refreezing stage. Hence, it should take place in the first meeting to clear the importance of change and how to manage it during the merge implementation.
- 2- Set a guiding team : It is highly recommended to create a team from both companies trusted by the employees to the guiding coalition for the workers during the change. (Mumma , Morris, 2017)
- 3- Create a vision and strategy: The underlying change need to be ruled by a clear vision and strategy. The vision should include mainly the reason of change and how change sponsor and managers will achieve it. Vision and strategy of change must clear the expected effects on both companies’ workers and specially the benefits of merge in general which helps indirectly to accept the implementation. (Spencer, Winn, 2005)
- 4- Communicate the change vision and strategy: This is basically related to the previous point. As mentioned above the vision and strategy applied should be clearly explain to the team to raise the change acceptance and merge both companies smoothly (Spencer, Winn, 2005). It is advisable to show the stockholders reasons of change. Hence, updating the team toward the processes and keeping them onboard is highly recommended to make the change more likely to success.
- 5- Broad based action: This stage of implementing Kotter’s steps recruits as much stockholders as possible toward change. Empowering the workers to have feeling of ownership about the change application is critical idea. Moreover, I would recommend administering some surveys regarding the change experience from the employees point of view to estimate how much it actually effected them. Setting meetings with the team leaders on a regular base with an open discussion may lead to make a key changes and improvement from their feedbacks, as change managers are most exposed to change issues, and thus can provide effective feedback to higher-level managers. (Mumma , Morris, 2017)
- 6- Highlight short-term wins: Building confidence of the stockholders about the merge implementation is a necessity. Demonstrating short-term wins will always assist the stockholders to believe that the target aimed and the company vision is reachable. I would suggest that the short-wins has to be cleared by exhibiting the targets that they already reached and what is going to happen next every time they could or clearing it through some statistics that shows how that merge improving the company numbers. Hence, it will never let any of the them downsize the change application or underestimate it.
- 7- Consolidate the profits and seek for improvement: Gathering the list of achievements accomplished to achieve the larger goal. Although celebrating the small goals is critical to raise the confidence, it is prudent to always avoid declaring an early victory(Mumma , Morris, 2017). Once the goal is close to being achieved, it is recommended to gather the teams closely to have an internal benchmarking, meetings and brainstorming which will assist the managers to find an opportunities to improve in the future.
- 8- Refreezing: the last step is to work on increasing the employees commitment to the change and improve their ability to work on the new processes and perform in parallel with the new company’s system.(Spencer, Winn, 2005)

Sustainability:

It is harder to stay at the top than climbing towards that goal. There will be no reason to implement a change management and do efforts reaching goals without a sustaining plan. Sustainability is staying on the new system and perform based on it for extended period. considering new methodologies applied and ensuring the two companies merger is the norm without considering getting back to pervious form. (Lillis, Szwejcowski, 2015)

Next, Some factors to assure that change is sustain and not just a temporary improvement:

Perceived Value: A tool that visualize the impact of the change and results. It is suggested demonstrating the data and achievements of the two companies by the project team. Presentations, graphs and reports during the leadership meeting is advisable to feel the change fingerprint. (Thoms, Zahn, 2010)

Gather Feedbacks: Monitoring feedbacks from the change experience is critical (Thoms, Zahn, 2010). Gathering all possible workers feedback will assist to build future strategy avoiding the gaps that happened in the past and may develop some future key decisions taking advantage learned from past project team experience.

Stakeholders: Stakeholders have to be involved during the change and after it happens. There are important roles that leaders should play to assure that the merger is sustained. Leaders have to keep confirming the importance to change and the efficiency merging the companies. Furthermore, they must routinely ask managers to provide them reports regarding the last updated in detail to assure sustainability and solve any challenges faces the firm after the integration. Workers are the main factor to success. Training them and making them ready to perform with excellence after the change happens will lead to sustainability of the change application and increase their commitment toward the new integration. (Thoms, Zahn, 2010) It is recommended to develop a package of training programs aligning with the needs of the firm to raise their efficiency and qualify them in form stages.

Organizational Infrastructure: Supporting change should be from the inside operations and processes in the newly merged company. Sustaining change by aligning operations to changes already put in place is critical. I recommend adding new job roles if needed to align and sustain the new approaches serving the integration. Moreover, it is a wise move to study the company needs and develop a protocols to align with it. Healthy infrastructure will assist the organization in general to sustain the integration and benefit from it as possible from it. . (Thoms, Zahn, 2010)

Partners: Involving partners to support the sustainability of change and focus on who will support the vision is advisable. (Thoms, Zahn, 2010) It is recommended regarding the architecture company to develop the future projects after the integration RFP and find the best possible partners to cooperate with. Partners role is always to support the workers in all the company levels and to drive the change to the safe side clear and sustained

Conclusion

It is normal to resist any kind of change. Individuals always feel unsafe to start a new experience but gain confidence once the change starts and if it proceeds smoothly. Change management in

case of merging two different companies is more complicated. It is not just a small scale of change than effect a few people. Two companies integration means a huge wave of changes will affect all levels of stockholders. I would recommend naming the new merged company M&S as the first letters of Mada and Shurooq. Starting with M letter because it comes first in the alphabetical order. Hence, the new company name will still remember both company workers a bit about their previous companies.

The above discusses the integration plan between two architecture companies starting with the impact of its stockholders and how to deals and manage the change. After that, the custom managing change methodology is determined by the final objectives. Leadership issues was considered with the three different levels of change teams, as well as their consideration of cultural effects and suggested tool kits to build a healthy culture. Kotter's eight steps to use as the change model and ending with suggesting some factors to assure sustainability after implementing the change. Not to mention that all the plan details and recommendations were provided in each point and in case of having some further considers or questions at any stage of implementing the change do not hesitate to contact for assessments and support. We wish both Al Mada and Al Shurooq companies all the best in the future and we hope to co-operate together soon.

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Change Management: The Acquisition of Noor Bank

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Abstract

In the current dynamic and highly competitive global economy, organizations must constantly embrace and adjust to change and restructuring to maintain their competitive edge. Fundamental forms of organizational restructuring like mergers and acquisitions (M&A) have become common phenomena. With such complex restructuring processes that involve human costs, the development and implementation of effective change management strategies are unavoidable. Over 70% of M&A transactions worldwide do not meet their projected post-merger performances despite the large amounts of human and financial resources involved in the processes (Kansal and Chandani 2014). The failure of many M&A transactions in the recent past can be attributed to the failure to focus on the human dimension of the corporate integration processes. This paper investigates the concept of change management in mergers and acquisitions, focusing on the case of Noor Bank's acquisition by Dubai Islamic Bank. The study employs a mixed research method that incorporates both qualitative and quantitative research techniques. The study sample consisted of the executive leaders and top managers of both the Dubai Islamic Bank and Noor Bank who have played significant roles in the success of the acquisition process between the two organizations. The conceptual framework of the study revolved around the principles of organizational change management. Data collection was conducted through interviews. The information obtained was supplemented by a review of the publicly available data about the involved organizations. A review of the existing literature on the concept of change management in relation to M&As was also conducted. A descriptive data analysis technique was applied to identify the various themes and patterns pertaining to change management during acquisitions. These include strategic and cultural management approaches, motives behind the acquisition transactions, resistance towards change, and effective communication. The findings of the study confirm that the management of Noor and Dubai Islamic Banks followed an agreement based on the guidelines of appropriate change management model to form a joint operation. Although the acquisition terms did not satisfy all the stakeholders involved especially those affiliated with the Noor bank, leaders from both organizations believe that the model provides a high probability for success. The study also identifies poor communication, lack of precise shared vision, employee frustration, job insecurity, poor reward system, and incompetency as the factors behind employees' resistance to change during acquisitions. These findings can help corporate leaders to understand the importance of effective change management during such organizational restructuring processes as mergers and acquisitions. The joint operations between Noor and DIB provide valuable information concerning how to improve strategic position through M&A and helps other players in the finance industry to understand the complexities involved in the journey of building joint operations. The study also provides a framework for future researchers to base their analyses as they strive to develop change management models that are applicable on a global scale.

Keywords Acquisition, Merger, Dubai Islamic Bank (DIB), Noor Bank, Change, Management

Introduction

Change is an inevitable process that an organization is likely to undergo in the course of its operations in a bid to advance its strategic position and become increasingly competitive. The way an organization manages changes matters significantly because this could determine whether the group attains the anticipated objectives or not. The report pays attention to how Noor and DIB handled change at a time when the latter acquired the operations of Noor. The findings provide valuable lessons that may help both the merged companies and others that wish to make such strategic moves.

Operators in financial and non-financial sectors learn the need to adopt an effective change management plan that provides clear guidance on what ought to happen during the entire transformation process. They understand the importance of developing mechanisms for countering possible resistance that is likely to occur from workers who feel that the changes do not favor their individual interests. Businesses learn the values of setting their motives clear before making any strategic moves to be certain of the potential consequences and to avoid risks. Similarly, the study illustrates the implications of the merged operations between Noor and DIB, and other firms can also acquire helpful information from the section. The study relies on a mixed-method research design that provides the chance to interact with the organizational leaders and employees and draw vital data that help to answer the research questions.

Background

Noor Bank, previously called, Noor Islamic Bank, was established by Sheikh Al Maktoum on 7 January 2008 in Dubai, UAE. The institution fully abides by the directives of Sharia law based on its location and target buyers, who are mainly local Muslims and those visiting from abroad (Noor Dubai Islamic Bank, 2020). The group provides a wide range of services, including; trading services, Islamic-based insurance, wealth management, and personal and corporate banking. The facility has stabilized its position across the country, and manages multiple stations in Al Ain, Dubai, Abu Dhabi, and Sharjah. The group has continued to improve its practices, and in 2018 the financial institution was recognized as the 11th most promising bank in the UAE (Noor Dubai Islamic Bank, 2020).

The institution developed the initial 24-hour, seven-days-a-week facility in the UAE barely four months after its first opening. It again established another station at the Dubai Airport three months later, and a year later recognized as among the top lead arrangers. The group recorded mixed performance between 2009 and 2011 because whereas it performed poorly in the first two quarters of 2010, it recorded significant outcome by the end of 2011 (Noor Dubai Islamic Bank, 2020).

The facility continued improve its operations throughout 2013 when it collaborated with Emaar Properties, initiated Noor Trade, which focused on serving small and medium enterprises. Noor Bank's performance improved in 2014 when it reportedly tripled its revenue and shed off the name 'Islamic' from its name to appear more inclusive (Noor Dubai Islamic Bank, 2020). It was in 2014 when the company strengthened its capacity to relate with its buyers, while paying considerable attention to fostering its collaboration with governments, businesses, investors, and individuals across all sectors (Noor Dubai Islamic Bank, 2020).

Noor Bank worked hard towards achieving its vision, mission, and values. Its chief vision is to be acknowledged as the globe's best modern financial institution that is in compliant with Sharia regulations. Its mission is to empower employees to give outstanding consumer experiences (Noor Dubai Islamic Bank, 2020). The primary values at the bank, encompass innovativeness, integrity, collaboration, agility, and excellence (Noor Dubai Islamic Bank, 2020). The group's leadership abides by these guidelines in pursuit of its core objectives.

Organizational structure and management

The Government of Dubai and the Royal Family in Dubai own the largest shares of Noor Bank. The government together with members of the Royal Family own more than 80% of the institution's shares, and affiliates of the Abu Dhabi Royal Family own the rest of the shares in total (Dubai Islamic Bank, 2020). Sheikh Ahmed Bin Mohammad served as Noor Bank's Chairman from 2016, and worked with a Board of Directors. The facility's leadership continues to follow Sharia regulations even after its acquisition when His Excellency Mohammed Ibrahim Al Shaibani, who also functions as the Director-General of His Highness, the Ruler's Court of Dubai assumed the role of Chairman (Dubai Islamic Bank, 2020).

H.E Mohammed works closely with Dr. Adnan Chilwan who serves in the capacity of Group Executive Officer (Dubai Islamic Bank, 2020). These two leading officers receive help from various departments that focus on different aspects, but work towards achieving a common goal. Leaders apply top-down communication, which is a type of issuing information, instructions, and communication within a business utilizing a hierarchal framework. The approach works in such a way that information from the highest-ranking officials within the bank move down to workers using the organization's managerial plan (Dubai Islamic Bank, 2020).

Need for Change

Corporations apply the concepts of change for a number of reasons, such as to reduce costs, mitigate dissatisfaction at the place of work, improve managerial benefits, and boost growth and build a better position in the target market. Brisson-Banks (2010) argues that adopting change provides workers with the chance to acquire new information and skills, and to discover new opportunities and apply their creativity in ways that finally benefit the firm through heightened commitment and new ideas.

Soon after Noor was set for the acquisition by DIB, it adopted the Kotter's 8-step change framework, which implies that for change to be prosperous, at least 75% of the organization's leadership needs to pay much attention to the change (Brisson-Banks 2010). The framework requires the team implementing change to consider eight key steps in implementing change. Noor while planning for the change focused on the first two steps of Kotter's 8-step change model; creating urgency and forming a robust coalition. Brisson-Banks (2010) informs that for concrete change to take place, it is only possible if the entire organization really needs it. Team leaders and workers, therefore, need to create a sense of urgency around the requirement for transformation because this may help to ignite the first motive to get things running. Noor's management knew that it was not all about showing stakeholders about the poor outcome or escalating competition, but rather about forming an open and convincing conversation about what it taking place in the marketplace and the level of competitiveness. The management at Noor handled the first step by identifying possible threats and forming scenarios describing what could emerge in the future. It also examined the possible chances that could be utilized before commencing an open dialogue

that would get people thinking and talking. The group while focusing on the second stage, developing a strong partnership, dwelt on convincing people that change is inevitable. The group at this stage applied strong leadership and reached for support from vital people within the financial institution. Noor while handling the second phase acted in accordance with the directives of Brisson-Banks (2010) who urges team players to identify real leaders in the firm, as well as involve important stakeholders. The company asked for the emotional indulgence of the key players, and promoted team building to achieve the desired change.

Noor paid particular attention to the third, fourth, and fifth aspects of Kotter's model; developing a vision for transformation, communicating the vision, and eradicating possible hurdles. The group established a vision for change by first contemplating about needed transformation and utilizing the many options and solutions available to them. Brisson-Banks (2010) inform that forming a clear vision can help each member of staff know why the company asks them to do something. Noor established a framework that outline the organization's future, and selected a team to oversee the implementation of the aspiration. The firm while communicating the vision in the fourth stage, tried to relay the message as frequently as possible using the most powerful approaches that appeal to everyone. The firm acted in accordance with the directives of Brisson-Banks (2010) who asserts that it is not necessary to convene special meetings to communicate the organizational vision when adopting change, instead it is wiser to explore each available opportunity. However, the management tried to consider people's anxieties and concerns honestly and openly when expressing the vision. The corporation minimized obstacles by working with competent team members who know their roles and are conversant with appropriate ways for delivering change. The corporation also followed the guidelines by Brisson-Banks (2010) by recognizing and appreciating people for accepting and working towards enacting change. Noor paid much more attention to the change process to achieve the desired outcome.

The firm focused keenly on steps six, seven, eight of Kotter's model – creating short term wins, building on the change, and strengthening the transformations in the organizational culture. The team while formulating the short-term wins gave members a taste of early victory because Brisson-Banks (2010) informs that nothing provides more motivation than prosperity. Thus, the group focused on what it can easily achieve while ensuring everyone that the move is for the good of the entire organization. The group's management did not focus on goals that are difficult to achieve, and which would cause more discomfort within the entire workplace. Noor while paying attention to the seventh phase (building on the transformation) was keen not to become overexcited before attaining the real aspirations. Therefore, the group leaders focused on fulfilling all aspects before moving to the next category. They analysed each phase looking at what went wrong and what worked in accordance with plans and identified ways for making advancements. Finally, the anchored the adopted changes in the organizational culture by reminding stakeholders about the progress, and reminding everyone of the main objectives.

Literature Review

The review of existing literature on change management during mergers and acquisitions reveals two major management frameworks that contribute to the success or failure of organizations during the transition period. These include the adoption of strategic and cultural approaches to change management. The strategic approach entails striving to understand the organization that is being acquired while the cultural approach involves studying the stakeholders of the organization, their

needs, and organizational behavior. To support the strategic approach, Rockwell (1968) identifies the importance of understanding the management attributes of the target organization as well as their workplace policies and regulations. According to Chatterjee and Brueller (2015), effective integration strategies must align with the major motives of the transaction as well as the activities surrounding the acquisition process. In most cases, managers of the organization seeking new corporate platforms opt to maintain the operational structures of their target organization (Chatterjee and Brueller 2015). Analyzing both approaches is critical in understanding the dynamics involved in business acquisitions as well as the best practices for enhancing change management during and after the acquisition process.

One of the most critical factors to consider when implementing the strategic approach is the motives behind the proposed changes. According to Hassan et al. (2018), most analyses on mergers and acquisitions consider the tangible financial outcome and ranking in the stock markets. In a study to develop a more accurate threshold for gauging the performances of M&A, they draw a connection between the intangible motives for M&A and their outcome. According to Rockwell (1968), it is important for organizations seeking acquisition to identify and analyze the main objectives of the integration deal including what the acquirer is set to gain. Hassan et al., (2018) conclude that defining the motives of the companies involved in the acquisition process is critical to achieving a positive outcome.

Kansal and Chandani (2014) attribute the failure of most mergers and acquisitions to ineffective change management. In a study to investigate the factors that generate change and the best change management practices, they identified profitability, system dynamics, personal and structure focused changes as the main reasons why most organizations seek an acquisition. Kansal and Chandani (2014) also outline poor communication, lack of precise shared vision, frustration, job insecurity, poor reward system, and incompetency as the factors behind employees' resistance to change. Angwin et al (2020) uphold effective communication as an important change management tool at all stages of the integration process. The changes that come with M&A transactions cause anxiety and insecurity among employees and, therefore, can negatively affect the organization's post-merger performance if not well managed (Angwin et al., 2020). Kansal and Chandani (2014) assert that constant communication at all phases of the acquisition process improves employee motivation and commitment to change, therefore, improving the post-acquisition performance of their organization. Rockwell (1968) supports these views on communication, citing that organizations that wish to successfully form lasting integrations with others must seek to develop and implement effective communication strategies that would facilitate the change process. Kansal and Chandani (2014) recommend various change management strategies including the development of a clear vision, restructuring of HR functions, downsizing, integration plan, and employee involvement in the change process.

Methodology

Study Design

The study employs the mixed method approach, which entails using both qualitative and quantitative techniques. The mixed approach is more suitable in this case because it provides a chance to know the contradictions existing between qualitative findings and quantitative outcomes. Moreover, the research method is suitable because it gives a voice to respondents and ensure that study results are grounded on their experiences. The research design is also suitable because it

familiarizes the researcher with the skills of conducting both a qualitative and quantitative study, which increases their likelihood of conducting future researches with ease. However, mixed methods have their limitations. An apparent drawback is that the technique requires much skill and resources, a situation which may require the incorporation of experts.

Research questions

- What were the reasons for executing the Change?
- Did you meet any resistance to change? What were the mechanisms for addressing the resistance?
- What approaches did you use to implement change?
- What were the implications of the Acquisition?
- What other measures were adopted to improve the functioning of the merged groups?

Sample

The study includes the organizational leaders for both Noor Bank and Dubai Islamic. Specifically, the study incorporates the Director General and Chief Executive Officer from both DIB and Noor Bank because they are in a better position to explain why both firms choose to take the strategic move. However, the study also includes employees in particular departments who are in a better position to provide valuable information regarding the research questions.

However, all the participants first fill a consent form where they confirm they will take part in the study. The primary qualifications for participants to be part of the study is that they must be an employee at either Noor or DIB, and must have the ability to communicate using English. The study applies the stratified sampling method, which categorizes potential respondents into smaller units called strata before conducting further analysis to pick those who are likely to provide the highly needed information. Whereas the sampling approach provides a fair chance for everyone to take part in the study, it also ensures that those who participate are able to provide relevant data that would answer the research questions.

Data collection

Data collection happens using e-mail interviews because of the several advantages researchers enjoy when they use the technique. Upon completing and submitting the consent form via email, the participants receive an open-ended questionnaire where they submit their response in a way that satisfy them.

Data analysis

The study applies the descriptive analysis method, which entails describing and summarizing the nature or results of the collected data. The description makes it easier to understand the key concepts behind the responses, thereby providing the chance to find suitable responses to the research questions.

Findings

Acquisition Motives

Several factors pushed DIB to acquire Noor. One of the major driving factors is DIB learned that Noor was willing to give away its assets at very reasonable price (Hassan et al. 2018). DIB utilized

the rare opportunity and projected a promising future for the firm by investing in Noor's assets. The other motivating factor that pushed DIB to acquire Noor is to diversify its operations as a way of minimizing risk (Bodt et al., 2018). Bodt et al. (2018) describe how most companies practice diversification by taking over the activities and portfolios of other company to mitigate company and industry-specific threats. DIB's leaders reveal that acquiring Noor presented an opportunity for decreased volatility in earnings and risks while boosting potential gains by owning Noor's assets. DIB according to Bodt et al., (2018)) acquired Noor to achieve financial and operating synergies, such as the ability to set higher prices for services and goods and different functional capabilities from each institution.

The representative from Dubai Islamic Bank reported that the group clearly acknowledges the significance of upholding strong regulation and will remain dedicated to ensure that consumers, investors, and corporate affiliates enjoy the utmost confidence in the new joint operations with Noor Bank (Dubai Islamic Bank, 2020). DIB believes that the fusion of the two activities will further strengthen its position as one of the biggest and most influential Islamic financial organizations in the world, with a long-lasting track record of financial gain, a clearly established plan, and a vigorous balance sheet (Dubai Islamic Bank, 2020). The management and shareholders at DIB are confident that the new scale and size will permit the robust organization to gain new opportunities for economic advancement and prosperity across the entire region, while ensuring that the financial sector in the UAE remains at the forefront of the economy in the Islamic world (Dubai Islamic Bank, 2020). On an international level, DIB will expedite its growth plan to join the dots from East Africa, the sub-continent, and the Far East with Dubai as the place with new locations and markets emerging for one of the most prominent Islamic financial institutions in the globe.

Resistance Towards Change

The organizational leaders at Noor Bank reveals through the interview that some workers at were resistant to embrace the new changes. According to the former leader of Noor Bank, some employees feared that the shift would make them to lose their jobs. Some workers at Noor feared that due to the high number of employees at DIB (9000 members of staff) may render the 1,200 to 1,400 workers at Noor jobless, thus magnifying the level of fear among them (Kudakwashe, 2020). In addition, many workers feared that their voice regarding the entire acquisition process may not be heard considering that the government played a vital role during the changeover. The interview reveals how team leaders became aware of the escalating tensions and decided to address the matter by interviewing all specific workers to find out if they will be able to fill certain positions. Furthermore, the group managed to handle the discomfort by getting the human resource teams from both sides together to come up with a suitable framework for absorbing Noor's employees. John Iossifidis, the CEO at Noor, reminded workers at the facility to prepare for some changes as they shift to the new facility, which helped to condition employees to prepare for the changes.

An interview with Dr Adnan Chilwan, the CEO of DIB, reveals how the facility tried to address the resistance to change using various techniques. Chilwan informs that even though some departments did not have any vacancies, the bank created new positions to accommodate the additional workers. Response from the HR team at Noor revealed that only approximately 300 workers out of the 500 selected employees were absorbed at DIB to fill different positions. One employee from Noor expressed his pleasure to get the position at DIB saying that the company provides workers with better exposure and more opportunities to improve their career. However,

the response from one worker who joined DIB expressed displeasure, and claimed that he is considering finding another place of work (Kudakwashe, 2020).

An interview with the organizational leader (Chilwan) also reveals that the firm experienced considerable challenge in maintaining asset quality. The CEO attributed the problem to the weakening property market with United Arab Emirates and because of a slowdown in global economy (International Finance, 2020). DIB viewed its acquisition of Noor as a suitable approach to overcome the external complications, and also thought that reducing the number of employees will provide a suitable alternative. However, the decision to lower the number of workers was met with much resistance, which compelled the firm to hold interviews to pick skilled and qualified workers to continue working for the merged entity. Thus, DIB encouraged all workers not to worry about job loss until after the interview is over, and it is clear who joins or leaves the merged entity.

Adopted Measures

Dr. Chilwan presented other important information regarding the measured DIB had adopted to ensure that operations between the two parties happen without any hurdle. The leader said that the bank hired HSBC Holdings Plc to provide valuable information concerning the most suitable way to complete the acquisition of Noor. The consultations provided helpful guidance, which resulted in an increase in DIB's capital assets by thirty percent after completing the deal. Also, DIB sought the services of Ernst & Young (EY), which provided helpful guidelines on how to fruitfully implement the entire project. DIB knew that buyers would still be confused regarding the joint effort and chose to clarify things for them. To facilitate proper interaction between DIB and its buyers, the financial institution issued direct consumer communications in the form of direct calls, electronic direct mails (EDMs), and short message service (SMS). Relaying the messages and information was important because this helped customers to know how the merger would function, and what they need to do if they require any service. The primary objective of the approach was to keep buyers up to date with all service and system enhancements, while improving the present consumer services. The management believes that providing the relevant information will help to improve consumer satisfaction, and will make buyers happy for being attended to by the largest financial institution with a broader reach and robust brand. Consequently, the management adopted a timeline for 300 days under which it would complete all the adopted plans. However, because the management adopted some of the most effective ways to handle the entire project, it was possible to meet the required targets within 283 days, thereby achieving all the targeted plans seven days before the identified timeframe.

Critical Success Factors

The concept of critical success factors has continued to attract the attention of many operators in the field of project management. The concept develops at a time when the area of mergers and acquisition continue to make significant growth over the last twenty years, largely because of globalization (Hoang et al., 2020). Consequently, researchers have spent considerable time examining components of critical success factors that add onto a prosperous acquisition. They provide valuable information concerning the factors to consider when considering entering into an M&A, which may be of significance to those who wish to enter into such partnerships. For example, Rockwell (1968) recommends that when entering into an M&A deal, it is imperative to consider several factors, including identifying and outlining the primary objectives for the acquisition, outline what the acquirer is likely to get from the acquisition, examining the

management's capabilities and resources, executing the required plan within the suitable time, and addressing the challenges that could interfere with the entire process.

Other factors to consider while entering into an M&A deal such as the one between DIB and Noor Bank identifying the organizational niche, and considering factors that impact on business outcome. Hoang et al. (2020), on the other hand, feel that planning M&A requires the participating sides to consider several essential factors, including developing clear goals and objectives, developing a structural scope of work, practicing buyer consent and consultation, and promoting engagement from team members and leaders. Also, fundamental according to Hoang et al. (2008) is that team leaders in charge of a project need to develop proper communication models, which make it easy to relay information from one person or group to the other. Hoang et al. (2020) think that it would be a good idea to consider other essential components, including creating a detailed strategic plan, recruiting and working with specialists from M&A advisory organizations, and establishing outlines so that the organization know how long it would take to complete a particular obligation or task.

Implications for Future Research

The findings of this study are not only useful to corporate leaders that wish to consider improving their business performance through acquisitions but also to scholars and researchers alike. They form a background that future researchers can base their analyses on change management during the acquisition process. High rates of failure and resistance to change during mergers and acquisitions remain major issues of concern among business leaders and scholars in the modern business environment. Organizational leaders can apply the findings of this study to understand the dynamic nature of the integration planning and integration process during M&A. The research findings provide scholars with an in-depth view of the elements that contribute to the success or failure of corporate integrations in M&As. These include effective communication, organizational culture, change and leadership management, organizational planning, and employee involvement. By understanding the causes and nature of the challenges that M&A transaction processes present in the workplace, researchers can focus on aligning the directions of their future studies with the needs of organizations going through these challenges. Researchers who understand the themes analyzed in this study can develop change management models that help organizational leaders to overcome the fear of failure and face the challenges of organizational acquisitions with confidence.

The study involved a review of literature on M&As from various sectors of the economy and, therefore, the applicability of the outcome is not limited to the service or banking industry. However, primary data was obtained from a single case study (the acquisition of the Noor bank) and limited to the Dubai market. Therefore, the findings do not entirely reflect the change management challenges affecting the acquisitions on a global scale, neither are the solutions deduced applicable across all sectors of the global economy. The study recommends future researchers extend the scope of their investigations to other more dynamic sectors of the economy such as the construction, manufacturing, or fashion industries. Moreover, they could consider investigating acquisition transactions between multinational organizations. Analyses of cross-border acquisition processes might involve the consideration of such complexities as cultural differences, language differences, and other communication barriers when developing viable corporate integration and change management models.

The research focused on the views of the top leaders of both DIB and Noor Bank. While these parties are the top decision-makers of the involved organizations and provided authentic views of the subject matter, there was a need to obtain the views of other members of the organizations. Employees are the most affected parties in acquisition processes and therefore, their commitment to accepting change highly determines the outcome of the M&A transactions. Moreover, they are the key agents of change in the organization. Future researchers on the subject might be interested in widening the scope of their study sample and seek the views of both the top and subordinate employees on change management during acquisitions. This would not only provide more reliable unbiased data but would also facilitate the development of more effective change management strategies that would be applicable across all sectors of the global economy.

Summary

Businesses when entering into partnerships have the objective of expanding and surviving difficult times as it happened with Noor Bank and Dubai Islamic Bank. The acquisition of Noor by DIB has put the latter at a more competitive position, with the facility now functioning as the second-largest financial firm worldwide. Nevertheless, the joint operation is more likely to succeed if all stakeholders pay attention to key components such as acting with necessary diligence, proper communication, proper leadership, and collaboration. The facilities followed a suitable change model and engaged others in adopting the change. Other companies in the financial and non-financial sectors can gain valuable lessons from the acquisition that they can use to improve their practices.

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Appendix

Question 1: What were the motives that lead to the Noor Bank acquisition? Where these negative or positive implications that forced change to take place?	
Interview Responses	
1	Several motives led to the Noor Bank acquisition. One of the reasons that led to the acquisition of the bank is the fact that DIB recognized that the bank was significantly undervalued. In recognition of this fact, DIB took advantage of this mispricing. It was a case of capitalizing on a firm that trade on less than its actual value hence the acquirer could take advantage of the difference between the true value and the purchase value as the surplus.
2	I believe that acquisition was diversification to reduce risk. In most firms, diversification through the acquisition of other firm's portfolio reduces the investor's firm-specific risk. The acquirer bought the Noor Bank with a belief that it will reduce earnings volatility and risk and increase potential value. The diversification of the investor's risk takes advantage by trading on the portfolio is that Noor Bank engaged in.
3	I think that the acquisition of the Noor Bank is the creation of an operating and financial synergy. This is the potential additional value from combining two firms, as is the case in Noor Bank and DIB. The operating synergies that motivated the acquisition included the economies of scale, superior pricing power of the products and services, taking advantage of different functional strengths of the two banks, and exponential growth in the new and existing markets. The financial synergy that contributed to the acquisition is the lower cost of capital and the higher cash flows.
4	The motive that contributed to the acquisition was the fact that management was becoming a challenge at the Noor Bank. A bank that was once ranked and took pride as the most progressive bank was now finding it difficult to continue and expand the business. The incumbent management contributed to a greater percentage of the mismanagement.
5	The acquisition could be a result of the management serving their managerial interests. The managers in this case took the step, not for stakeholder wealth maximization but managerial interest. The managers were eager about empire expansion by making DIB the largest and most dominant Sharia bank in the UAE. Through this, they could take the managerial ego as well as increase the compensation and side benefits for the employees.

Question 2: How did the acquirer bank react towards Noor Bank employee's movement? Was there any resistance? What was the reaction of Noor Bank staff towards the change they faced? How did they deal with it? Did they accept the new offers offered by the acquirer? If yes, how did they cope with change once they moved to DIB?	
Interview Responses	
1	As part of Noor Bank HR team and managing the integration process from HR's end, the acquirer bank accepted Noor Bank employee movement and divided the interview stage into phases. Each HR business partner/ representative held a specific department portfolio to ease the movement. Employees resisted the change and could not cope with it. 70% of the staff lost their jobs and only 500 staff made through. Out of 500 employees only 300 employees accepted the offers and moved to DIB.
2	Yes, I am from Sales team, I did accept the new offer. The offer given to me was almost similar to the package I had at Noor. The new environment is nice and I like DIB's work style. The scope is higher than Noor and from an experience point of view it's so much better.
3	Yes, I am from the Operations team, I was dissatisfied with the interview process as it was unfair. I did not accept the offer initially however I was forced due to the current market condition. I was forced to accept this change and try to move on. Honestly speaking I am not doing my best in my job and I only deliver as expected and never exceed. I am trying to look for another opportunity to move forward.
4	As part of the Noor Bank Recruitment team, the acquirer bank requested us to submit all the employee portfolios/documentations/CVs within a limited time frame. Post that, DIB's HR based on specific science, they have aligned each employee according to their experience, knowledge and educational background to available vacancies/or created a vacancy for them.
5	As an entry level Noor Bank employee, I have accepted the offer while others didn't due to the downgrading that they felt regarding their previous position. I tried my best to coop with changes and think of it as a better opportunity as I will be within a larger bank.

Question 3: What were the factors that lead to successful migration process? Please explain.

Interview Responses

1	As being part of the integration team from Admin's team, the objective behind to enhance the position of DIB in the locally and internationally.
2	As being part of the customer experience and reengineering team, I believe this enhanced the brand's position in the market and resulted in the benefit of the customers giving them better services.
3	I am managing the integration process from IT department; Ernst & Young (EY) partnered with us to smoothen the integration process, the management have assigned us specific deliverables with responsibilities and set timelines and weekly rehearsals to complete the migration. Plus, HSBC was hired by DIB management to advise on the migration with Noor.
4	I was managing communication in the integration committee, we have assigned scenarios of communications in different formats like EDMs, SMSs, direct calls to update the customers with the system update and changes in their banking relationships.
5	I am from the Admin team; I was selected to be part of the integration team however I did not make it through in DIB. DIB's management has given us timelines, scope of work, and guidance on when/how to execute the integration with the help of (EY) to execute the project. they have given us a maximum of 300 days for completion however, we have managed to complete the same within 283 days.

Question 4: Do you think that this change has negative impacts, which were not spotted until now?

Interview Responses

1	In general this change supposed to enhance the current condition of DIB and strengthen its position in the market, but customers of Noor Bank will be facing some difficulties in dealing with different services types at DIB and compare their benefits accordingly. This might include confusion and instability, so DIB role comes in to picture at this time to resolve such issues.
2	I think this acquisition has been well planned for, so for the time being there are no major surprises in term of negative impact and hopefully there will be none in future. However, what comes to my mind right now is that the employees' resistance might affect the business performance for some time in future.
3	Yes, one major impact is losing such talented people from Noor Bank where they had more than 8 years of experience and they showed a very talented mind in innovation and productivity. I think the downsizing was not performed properly and there might be a better way for achieving such acquisition.
4	I think negative impacts will show in the next one to two years where things will be settling down then weaknesses in all departments or system integration will be spotted, but change is a continuous process where roles of enhancement should be there as a continuous process.
5	I think there might be one negative impact in future, which is after this acquisition; DIB will face big challenges in controlling this huge expansion internally and externally. Internally at work process level and organization structure level. Externally in dealing with new large number of customers as well as dealing with Noor Bank partners.

Question 5: What strategy DIB used in the acquisition process?	
Interview Responses	
1	As being part of Re-Engineering team at Noor and taking part in the integration process. To be honest due to the market situation and our bank is under huge pressure of maintain the assets quality. To manage this issue, Dubai Islamic Bank management were forced to lay off staff. But decision created a chaos in the integration process as many employees resisted. So the approach was to conduct interviews to pick the talented staff at Noor.
2	As Noor bank employee, the strategy that DIB used was a bit harsh due to the fact that number of employees increased will the departments are still the same. Therefore, a series of interviews were conducted to pick the right people for the needed position.
3	As a current employee in DIB, I went through multiple examinations to be selected in the new structure after the acquisition process. Personal interview, technique examination and testing period, to proof that I deserve the position in DIB.
4	As an entry level employee DIB HR department interviewed me and due to my limited years of experience, they have assigned me to intensive training courses and then allocated me to the department that the training was specific about.
5	As a previous employee at Noor Bank, I was not able to pass all DIB appointing requirements that lead to downgrading me and assign me to another department other than the one I used to be in Noor Bank. This led me to not accept the new offer and position resulted in applying for resignation.

Question 6: How both DIB and Noor Bank employees adopted change?	
Interview Responses	
1	The merger is not a simple step in employees' careers; I faced difficulties accepting the new change. I moved to the same department I used to work in, but my position was not vacant as a manager, leading to work as an entry-level employee. I tried to cooperate with others and present myself, but it was brutal as the organization's restructuring took place due to the merger situation. I begin to search for better opportunities matching my qualifications and position, and successfully I managed to find a good opportunity.
2	The merger process was not transparent initially; everyone was in uncertainty condition as not much detail was exposed. Later DIB CEO meets all the employees of both DIB and Noor bank, explaining to them the plan and what difficulties that might face the bank beside the positive aspects of the merger. He also announced that employees from Noor Bank would be assigned to the same department in DIB. This leads employees to be more relaxed. Besides, any further help will be provided throughout the merger process to ensure the flow of work and acceptance occurs.
3	Due to the merger process, as an entry-level employee in Noor bank, I felt unsecured as I might lose my job. At the beginning of the merger process, DIB CEO met all the employees and provided details about the aim and the future steps that will be considered in the merger process, gladly he didn't mention anything about cutting cost policy. I moved to my new department. My manager understands our situation that we came from Noor bank; he showed a lot of support and appointed a senior employee to guide us through the department work. After a period, KPI was assigned to ex Noor bank employees after understanding the whole work process and being part of the DIB existing team and part of the merger team
4	Begin an employee in Noor bank. DIB managed welcomed us tried to show support at the beginning of the merger process. After being assigned to new departments, the department's involvement was close rather than from the top management. DIB top management only was involved in the first step of the merger. I believe that the situation and direction were not very clear. Some incentives and bonuses were reduced and eliminated until the whole process is stalled. This merger oppresses me, but due to Covid19, the market is weak, and job opportunities are less; thereby, I am staying at DIB until the market is flourished, seeking a better job
5	As an ex-employee in Noor bank, a DIB merger is considered a better opportunity for me. DIB is regarded as one of the most prominent Islamic banks in the region, and after the merger, it would expand and strengthen in the bank industry. Since the first day at DIB, my department director showed support and guides towards every department's work detail. Besides, it prompted me and my collages from Noor bank to the HR department to enroll us in intensive training to better understand the work and enhance our skills. Moreover, the director placed us among the merger team to share knowledge and be part of the merger process. I believe that it is an excellent opportunity to be in a larger bank. The direct manager plays an essential role in accepting the merger and performing the work successfully.

Change Management's Critical Success Factors

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Abstract

Ever growing business competition across many industries and market has created a need for organizations to continuously change and adapt to market needs and demands. Change management is one tool that is used by businesses to understand, support and implement change in their processes, employees and stakeholders. The effective application of Change Management helps organizations improve system processes, easily identify their challenges and opportunities, provide competitive advantage in the marketplace and guarantee successful achievement of organizational goals. Whilst understanding its management, it is crucial to study the Critical Success Factors (CSFs) that affect the change process.

This research aims to review the existing literature on the importance and the effect of Change Management and the six main critical success factors to managing change in organizations. These include stakeholder alignment and top management commitment, employee attitude towards change, change leadership, organizational culture, work values and environment, constant communication, and finally organizational structure and readiness to change. These factors are assessed based on their effect on change management and which tool of change management process can be used to overcome the challenges involved in their implementation.

The literature reviewed identified a number of success factors that help organizations pave a way into achieving competitive advantage in the highly unstable and competitive future market, increase return on investment, and improve productivity.

It is therefore possible to successfully implement change by efficiently managing these critical factors. Employees need to understand that change is here to stay, and it has no end point. The organization must integrate employees throughout the change process in order to gain acceptance and achieve desired objectives.

Keywords: *Change Management, Critical Success Factors, Change Management tools, Change strategy, Change factors.*

Content Summary

Based on a thorough review of existing literature, this article identifies and sheds the light on six main critical success factors that organizations must consider when implementing change or developing strategies to manage and control the change management process. According to previous studies, organizations require a valid framework to successfully manage change and transformation. Therefore, this article highlights the components of a good change management process, importance and effects of change management, and the critical success factors that affect the successful development of the change management process. Each business sector has a different set of tailor-made success factors that need to be taken into consideration. These factors, if not managed appropriately, present barriers to the successful implementation of change in organizations and call for solutions to overcome them. As such, the six main factors include: Stakeholder alignment and top management commitment, Employee attitude towards change, change leadership, organizational culture, work values and environment, constant communication, and lastly organizational structure and readiness to change.

It is observed that the McKinsey 7-S model mentions the effective management of change in strategy, structure, systems, shared values, style, staff and skills, as significant criteria for the commitment among top officials and the alignment between their goals and intentions. It is also

important for organizations to anticipate employee attitude towards this change and find a solution to manage it through open communication, employee engagement and empowerment, training, facilitation and support, counseling and team building.

This is also reflected in the ADKAR theory of change management standing for Awareness, Desire, Knowledge, Ability and Reinforcement. It is also noted that Change leadership needs careful considerations of a leader who is exemplary and motivates employees towards change. Another significant factor is in the work values or organizational culture which can be managed by the Nudge theory to inspire, encourage and influence employee understanding and views positively. Continuous open channels of communications also play a vital role in encouraging trust among employees. Lastly, a suitable organizational structure is crucial to preparing staff towards change. Either centralized or decentralized strategy may be utilized to introduce to change agents a proficient system that positively impacts the change. It is therefore possible to successfully effect change by efficiently managing these critical factors. Employees need to understand that change is here to stay, and it has no end point. The organization must integrate employees throughout the change process to gain acceptance and achieve the desired objectives.

Introduction

Historically, change has been an inevitable part of our society. Communities and organizations had to adapt to the modern world by continuously updating their systems, methods, and processes to mirror the rapidly evolving strategies and technologies. In this scenario, all corporations strive to transform themselves and adapt to rapid changes successfully to be at par with other players as well as retain business competitiveness. Accurate management of this change is crucial in paving the way for an effective and efficient transitional development of the organization. Change management is a systematic approach to dealing with the transition or transformation of an organization's goals, processes or technologies.

Reasons for such organizational change may include; technological evolution, consumer habit changes, pressure from new competitors, acquisitions, mergers and organizational restructuring (Drechsler, 2008). The purpose of change management is to implement strategies for effecting change, controlling change and helping people to adapt to change. Implementing change successfully is however a very long and tough process that requires constant attention. Developing planned initiatives of change, aligning them with business goals as well as following suitable change approaches are essential for success in this arena. However, not all companies are able to cope with this pressure and emerge victorious as transformed and changed businesses. Evidently, there are a plethora of challenges or issues hampering change management.

According to Hughes (2011) a failure rate of around 70 per cent of all change programs initiated was reported. This poor success rate indicates a fundamental lack of a valid framework of how to implement and manage organizational change and that what is currently available to academics and practitioners is a wide range of contradictory and confusing theories and approaches (Todnem, 2005). Edmonstone (1995: 16) supports this observation in his statement, "many of the change processes over the last 25 years have been subject to fundamental flaws, preventing the successful management of change". To be effective, the change management process must take into consideration how an adjustment or a replacement will impact processes, systems, and

employees within the organization. Identifying these risks as well as major success factors, which largely influence the outcome of all change programs, are therefore critical and imperative for success. In this paper, existing literature on change management in addition to prevailing theories and models in this field are considered, reviewed, and analyzed in details to identify the critical success factors of change management.

Understanding change management and its significance

Before identifying factors that affect or influence change management, it is important to gather a thorough knowledge and understanding on the concept of change management in business. There must be a process for planning and testing change, a process for communicating change, a process for scheduling and implementing change, a process for documenting change and a process for evaluating its effects. Each change or action will have a cascade effect that affects any future events and subsequent reactions. Thus, a mechanism is required to manage the continuous transformations that occurs. In practice, changes occur daily within all organizations, before or after planning, while rarely the emerging change is only planned or unplanned: it is mostly a mixture. From the everyday organizational experience, it is clear that the process of change is always varied and multifaceted, and in turn touches and interconnects, to a greater or lesser extent, all the different subsystems of each organization-actor (VLADOS, 2014). He further states that, "In particular, a process of change may, to a greater or lesser degree, be imposed from a higher level or derive from the base; be centralized or participatory; be superficial or structural, depending on the particular "physiology" of the "living organism" which accepts and treats it, but also according to the particular nature of this change itself."

ElSheikh et al. (2010) state in their study, that change management is a continuous process of aligning organizations with their immediate marketplace by being more efficient and effective than other players or competitors and by constantly collecting feedback from internal and external stakeholders. In other words change management is considered as a tool for reducing environmental, motivational and incentive barriers while also improving organizational structure. In simpler terms, change management is a framework that helps businesses to understand, support and implement change in business as well as on all employees and stakeholders. For change to occur, every leader and manager should be involved for a smooth organizational transformation while at the same time, employees need to be informed of the change. During change management, it is the leader's role to educate, communicate, participate, involve, task support, provide emotional support and incentives, manipulate, and coerce the employees about the change. Similarly, empowering and involving employees in the change will help in effectively managing it. By managing change efficiently in an organization, the business can evolve with changing market trends and gain competitive advantage over other firms. This will lead to new and improved business methods, business production and quality improvement.

Organizations can look forward to higher profit returns and act as agents of change who benchmark global market trends for other organizations in the same field. This paper highlights some of the main critical success factors to manage change in an organization. Based on this, this article intends to provide answers to the following three questions;

1. What makes up a good change management process?
2. What is the importance and effect of change management in an organization?
3. What critical factors affect a successful development of the change management process?

Change Management's Critical Success Factors

Researchers tend to disregard the fact that change management's success factors are different for different business sectors or industries. Thus, particular elements of successful change in the telecommunications industry may not prove operative or effective in the aviation sector. It is therefore critical to identify and implement success factors that are most suitable and appropriate to a particular business. Henry Hornstein (2014) states in this context that change management projects may often face internal challenges or barriers that may significantly deteriorate the probability of success.

These barriers may include a lack of vision, insufficient sense of urgency, failure to communicate vision, failure to create short term goals, lack of resources, lack of employees' participation, (Hornstein, 2014). For this however, it is imperative to rely on fundamental and critical success factors. Some common and major change management success factors are critically and elaborately discussed below.

Stakeholder alignment and top management commitment	Management is ensuring change is implemented and are committed to the cause
Employee attitude towards change	Managing employee resistance towards change
Change leadership	Leaders are motivating and leading change by example
Organizational culture, work values and environment	Employees buy into the vision and culture guides attitude and behavior towards change
Constant communication	Open two way channel of communication engages employees and makes them feel part of the change
Organizational structure and readiness to change	Design effective steering committee structure to drive change

1. Stakeholder alignment and top management commitment

One of the primary factors affecting change management success is the alignment between stakeholders' expectations, incentives, and interests. As found by Henry Hornstein (2014), all stakeholders must remain collectively accountable for all intended changes. For this, a common set of interests and goals must be identified and followed throughout. They should also take responsibility of managing integration of different change programs within business policies. Here, all professionals must collectively stress on organizational intensions and goals. This cohesion between different stakeholder groups is significant for the development of proper and goal-oriented change plans that are suitable for all rungs of the corporation. The organizational politics and tactics used by strategic managers to influence organizational change strategy may also disrupt the organizational structure and its ability to implement change successfully if suitable, coherent and professional goals and interests are not identified. Thorough integration and collective participation of all stakeholder groups is therefore critical for success in this context (Hornstein, 2014).

In addition, professors from Erasmus University Rotterdam and University of Southampton in United Kingdom identified that commitment among top management officials is another major critical success factor. For this, direct and active participation of all officials is necessary, which further aids in developing organizational change plans by considering all elements of success. Management's behavior significantly shapes and defines corporate attitudes. All senior management must therefore particularly establish goals and directions of change and share them with other employees and stakeholders (Kuipers et.al, 2010). Such sharing highlights on one of the vital stages of change management as mentioned and postulated by McKinsey in their 7-S model comprises of strategy, structure, systems, shared values, style, staff, and skills, all of which are critical and necessary for effective change management. The seven elements are divided into the 'soft' and 'hard' areas. Strategy, structure, and systems are the hard elements and are much easier to identify and manage.

These are the areas most concerned with the stakeholders and top management (Jurevicius, 2013). This theory therefore asserts the fact that commitment among top officials and the alignment between their goals and intensions are significant criteria for successful change management (Esther Cameron, 2004). The McKinsey 7s framework is especially important when organization design and effectiveness are at question. If the organization structure and management style are not aligned with the change values, then there is a need to reorganize relationships to achieve an effective commitment to the change. Continuously reviewing the seven elements of McKinsey, that is, strategy, structure, systems, skills, staff, style, and shared values, is important since change in one element that affects other elements and requires implementing a new design.

However, it is also important to note here that leadership plays a crucial role in inspiring change, setting appropriate direction and ensuring proper change implementation. Leaders and managers in every segment, department, and hierarchical level are therefore major drivers of change management in business. Nevertheless, they are hardly ever given the importance they deserve.

2. Employee attitude towards change

According to Dr. El-Dirani, Hussein and Hejase (2019), 'People who work in the organization are the key of the success or failure for implementing a certain change, where organizational development is based on human resource development, and the focus of development are humans.' The problem of resistance to change arises and can negatively affect the whole process of change and might sometimes lead to undesired results (Dirani et al. 2019). Consequently, organizations try to mitigate the negative impact of change using several organizational development techniques in order to accomplish that goal, those techniques vary according to the employees' resistance case and level.

They are education and communication, participation and empowerment, facilitation and support, bargaining and negotiation, and coercion, in addition to other organizational development techniques are used in order to promote change like counseling, training, and team building, etc. (Jones, 2011).

The best way to sensitize employees to change is to involve and achieve the maximum levels of training and education, to highlight the different attitudes and behaviors. Given that the change involves a new situation characterized by high uncertainty, it is likely that employees feel vulnerable in terms of risk taking, committing errors and can be punished. Employees are afraid to lose something that they value, or do not understand what the change is for and its implications, or if the change makes sense in the organization, or they have difficulty with coping with the level at which the change is introduced and how much practice is required.

As much as the employee confidence in themselves is stimulated, the more their availability to assume the risks involved in change will be bigger. The effort is to create a positive culture that will change the attitude of the type "change causes suffering" in expressions like "business is change" (Nastase, et. Al, 2012). The ADKAR theory of change management which stands for Awareness, Desire, Knowledge, Ability and Reinforcement hypothesizes that all employees must be aware of the requirement of change, be ready to bring about change and play a major role in it, have sufficient knowledge about intended change and its implications, be able to incorporate change regularly and keep it reinforced and implemented later as well.

The theory infers to employee support towards change strategy as the key and the five steps to ensuring this includes (accipio, 2019).;

- Awareness –** Requires employees to be made aware of what and why change is occurring by management. Lack of awareness may lead to demotivation and loss of a sense of direction in the strategy.
- Desire –** Employees will naturally desire to be part of the change if they are included in the vision and project development from the start so as to ensure their support in the final outcome
- Knowledge –** Employees require full management support in developing their skills since change will usually bring about change in routine and skills of employees as well as overall organization change
- Ability –** Development of employee knowledge will have to be coupled with the necessary individual ability
- Reinforcement –** It is necessary to reinforce the change process and individual rewards long after the change has occurred so as to ensure employees resist backsliding into old habits

Considering this theory, it is evident that all employees participating in change management and implementation must have some basic knowledge and awareness about the intended change and its benefits and be able to incorporate and retain it successfully in reality. Furthermore, the theory helps individuals cope and plan for the change process well and monitor employee reactions during the change. It is worth mentioning that different individuals will cope differently in each stage of the process at different times (accipio, 2019).

3. Change leadership

Change leadership can influence the acceptance of change and reduce employee resistance, leading to collaboration between leaders and employees to construct the change together. Furthermore, a change leader can either adopt behaviors that would help the employees be more comfortable with the change or motivate them by showing task behaviors that would help attain the end goal of the change (Fadzil et al., 2019, as cited in Griffith- Cooper and King, 2007). A leader should motivate and act as an example to the employees by being fully committed and positive towards the change. Change will not take root nor be upheld by a leader who is biased on modernization and unsure of himself/herself. It takes a particularly well organized, principled and disciplined leader to not only enforce the change but maintain it without struggle. Kennett-Hensel and Payne note that leadership is marked by the ability of the leader to engage his followers by having them accomplish tasks the leader has set, but completing those tasks according to their own methods they have approved (Payne, Kennett & Payne, 2018).

In alignment with this discussion, Tucker and Russell (2004) defined the transformational leader “as one who formulates an inspiring vision, facilitates the vision, encourages short-term sacrifices, and makes pursuing the vision a fulfilling venture cited (Tucker & Russell, 2004, p.104).” In their

article, Tucker and Russell (2004) discuss transformational leadership questions and assumptions. They stated that problem-solving and intellectual creativity are valued in this style of leadership and to accomplish this, the transformational leader must be able to generate a bond between himself and his subordinates through his own development as a transformational leader. Further, this leader must have “self-confidence, inner integrity, honesty, and personal values” as Tucker and Russell (2004) mentioned. They also indicated that the transformational leader must not only use his rational faculties, but also his empathic faculties to lead transformation. In this way, the leader can further engage his followers: he appeals to their minds and their hearts in leading them through positive change. “Such leaders attract internally motivated people, inspire them with a mission, and initiate new ways of thinking, the result is new influence on the culture of the organization (p. 105)” (By Tucker & Russell, 2004).

4. Organizational culture, work values and environment

Corporate culture is a major aspect for the value system of businesses. It comprises of a set of beliefs, guiding principles, policies and programs. It influences employees, their attitudes and behaviors, and helps in the collective understanding of policies and programs. An organizational culture change is imperative for supporting all organizational change initiatives. Therefore, evidently, employees must change their way of thinking and acting to adopt new change plans and successfully establish them in their businesses. This requires embedding new improvement strategies and changing work values and environments in accordance with new change initiatives. If the change will transform the history and traditions of the firm, then it can be difficult to convey it to employees. Commonly, organization culture stands for the ethics, standards and judgment of value present in an organization, and these messages are created and communicated by managers. Here, Elsheikh *et al.* (Mohamed Rabie Elsheikh, 2010) argues that changes in business procedures will remain short-lived and superficial unless strategic changes in values and approaches to problem solving are implemented. The Nudge theory of change management may be referred to in this context.

This theory postulates that inspiring and encouraging employees and influencing their understanding and perceptions positively are critical for eliminating all challenges and allowing unhindered change management. The theory was initially developed in 2008 by Richard Thaler and Cass Sunstein as a behavioral science concept. Here employees are given a choice to decide the needed change themselves rather than being told what to do. The nudges need to be presented in a way that is indirect, subtle, open-ended, educational, optional, and open to discussion.

The theory gives the employee choice thereby strengthening employee bonds with the business work values, improved environment and opens a way to better develop the organization culture. Moreover, there is no set method to the theory thereby requiring the organization to partner this concept with a more structured change management model so as to guarantee that employees decide on a choice that you want (Process.st, 2020). As stated by Thaler and Sunstein (2008) in their book [*Nudge: Improving Decisions About Health, Wealth, and Happiness*](#), "A nudge is any aspect of the choice architecture that alters behavior in a predictable way without forbidding any options or significantly changing their economic incentives. A nudge must be easy and cheap to avoid." (Thaler & Sunstein, 2008). This suggests that a change in fundamental work values or organizational culture is significant for change management.

5. *Constant communication*

The fullness of the communication and the level of participation among followers in designing and implementing change can be of tremendous influence: the better the communication and the more participation that is allowed and encouraged breeds trust in the process and in the changes themselves (Kennett-Hensel, & Payne, 2018). Kennet Hensek & Payne (2018) further state that ‘Stakeholders should be informed throughout the process and channels for a two-way flow of communication to be provided and respected.’ A persistent, open and honest conversation about what is going on is essential in maintaining a productive atmosphere.

All individuals involved might have valuable suggestion to be heard. By keeping an open dialog, these suggestions to change may have a positive impact on the process. Additionally, employees will be positive about a transparent system that keeps them in the loop and considers their valuable suggestions (Payne, Kennett & Payne, 2018). Open communication breeds trust in employees towards the management leading the change and this communication needs to be taken positively and with confidence towards the change process. Messages need to be constantly conveyed to those who are mostly affected; they should be simple, relevant, meaningful and consistent. The change message must especially be clear on the conditions that may affect employee job security so they can better understand the value of change and not focus on how it threatens their careers and their social interactions after implementation. Therefore, a two-way communication within the organization sends an implicit message to employees that they are valued and trusted by the organization to be included in the decision-making process. This also gives them the opportunity to build the capability to cope with the change and have an impact on the change.

6. *Organizational structure and readiness to change*

A formal organizational structure may stand as a barrier to successful change management if excessive focus is laid on customers while resources and responsibilities are fragmented into disconnected segments. Implementing suitable structure, culture and human processes are therefore significant in this context (Kuipers *et al.* 2014). For this, professionals often stress on designing a suitable steering committee, change team and change champions, each with different sets of roles and responsibilities.

Two different strategies may be adopted in this regard. Firstly, a decentralized strategy may be used to keep all agents of change in their appropriate groups, make sure all change initiatives are addressed and fulfilled systematically and proficiently and influence all respective groups to report to change champion. Secondly, a centralized approach may be adopted and all agents in the team should be encouraged to report back to the top team directly. Inadequate attention on suitable change agent programs ultimately generates the most impactful risk or challenge for effective change management (Dr. Ben S. Kuipers & Kuipers, Higgs, Walter Kickert, Jolien, 2010). A suitable steering committee can go a long way towards organizing and preparing employees to embrace change without much resistance. Careful planning of information flow about the change and management of employee attitude at every stage of the change will help the organization to handle any difficulty that may arise later during the process.

The readiness for change is also a crucial factor in this context. Employees must be adept in recent market changes, be flexible and adaptable, stress on the changing needs of customers and support continuous improvement and strategic change management. Overall, employees must gain the required experience and confidence to propose suitable change initiatives and take part in it successfully. According to VLADOS, to develop an “open mind” towards change the whole organization needs to be informed about the change instead of a minority few, the change must not be imposed on the people from above rather they should be convinced first, employees need to be trained and knowledgeable about the new things that would help them assimilate to change fruitfully and the people need to be trusted and involved in decision making (VLADOS, 2014).

Summary

The paper clearly portrays what change management is and how it benefits an organization in the currently evolving society and competitive industry. By projecting an organization into the future, change management when successfully implemented will not only increase the company's return on investment but also propel the company to the next level platform in its development. However, there are several critical success factors that all firms must consider to ensure that they do not face the derogatory impacts of challenges and failures and are not compelled to abruptly end the transformation process. While there are several critical success factors of change management, some of which are operative and effective in particular industries only, the most common and regular factors are analyzed above, which are frequent and widespread in all business sectors. All in all, by keeping the discussed factors at the forefront of the process implementation, the company can look forward to higher probability of successfully executing the desired change initiative.

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The coefficient of relative risk aversion and asset demands

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Abstract

The coefficient of relative risk aversion (CRRA) is an essential parameter in economics, wherever or whenever a maximization is undertaken of the utility of consumption, wealth, or income. It is a useful input in asset demand, aggregate demand, product demand, growth theory, education, labor supply, savings and retirement planning, resource depletion, and insurance, among others. There is an abundant literature on point estimates of the CRRA, but only one study on its dispersion, variability, or uncertainty. Unfortunately this study computes a standard deviation of point estimates, while in this paper, each point estimate has its own standard error. The CRRA is usually considered to differ within a country, among countries, and for specific age groups, although no measure of volatility is explicitly presented by most. Our theoretical apparatus is derived from two asset demand equilibrium relations. The first is the equality between the expected utility of the terminal risky wealth and the terminal utility of the certainty equivalent. The second is the first-order condition of the maximization of the utility of terminal wealth when wealth is invested in one risky asset and one risk-free asset. The theoretical utility function adopted is isoelastic, which yields a constant CRRA. The econometric procedure is by Generalized Method of Moments (GMM), which is directly applicable to the setting, and is recommended for implicit equations. In addition, bootstrapping, or resampling with replacement, of the yearly data on a stock market index, and a risk-free asset, is carried out for more than 1000 runs or repetitions. There is a strong support for the two models, as provided by the econometric diagnostics. The CRRA estimates encompass all those in the literature, and vary below a maximum of 9.9308. The hypothesis that the CRRA is positive and reasonable is plainly approved upon. The mean and median CRRAs are close to one. Hence, one notable finding is that a logarithmic utility, which possesses a CRRA of one, is predominantly accepted. This is a sign of relief because log utility is routinely assumed in many theoretical and empirical contexts.

Key words: *relative risk aversion, risky asset, riskless asset, expected utility, asset demands, log utility, GMM, bootstraps, US. JEL Classification Codes: G11, G12, C26.*

1. Introduction

The coefficient of relative risk aversion (CRRA) appears in many economic relations, whether microeconomic or macroeconomic, that involve the maximization of the utility of consumption, income, or wealth, and other decision-making choices under certainty or risk. It is an essential component of any utility function. As applications the following examples where the CRRA is needed can be enumerated: asset demand, aggregate demand, product demand, growth theory, employment, education and human capital, labor supply, savings and retirement planning, natural resource depletion, health insurance, unemployment insurance, liability, property, and life insurance, social security payments and other government transfers, taxation spillovers, the effects of other public finance policies etc... Therefore the list is long. That is why the topic has inspired and incentivized many economists. Unfortunately most of the literature has provided point estimates, or sometimes lower and upper bounds, without any measure of dispersion or uncertainty. A survey of the literature pertaining to the CRRA can be found in Gandelman and Hernández-Murillo [1], and especially in Conine et al. [2]. One exception stands out: Tödter [3] who calculates CRRA standard deviations, which amount to 1.41 and 1.45. However, these figures are obtained

from the dispersion of point estimates of the CRRA with a bootstrap procedure. This paper generalizes the issue to generate standard errors for *each* CRRA point estimate. In total fairness both Gandelman and Hernández-Murillo [1] and Conine et al. [2] report respectively inter-country and inter-temporal CRRAs (for the US), but they do not derive a volatility statistic. Working through their table findings, the average CRRA is respectively 0.97 and 1.97, and the standard deviation is calculated to be respectively 0.60 and 0.92.

The problem with the Tödter results is that the minimum CRRA from his bootstraps is 1, while the usual expectation is that the CRRA be positive, and not necessarily higher than 1. Hence something is missing and one might be skeptical about the robustness of his results. At the very least the two CRRA averages could be biased upwards. If one truncates the two sample CRRAs in this paper to be greater than one, the two averages and the two standard deviations, for the two cases where the risk-free rate is fixed and variable, the statistics become comparable to Tödter's results. With a fixed risk-free rate the CRRA in the truncated sample has an average of 2.98 and a standard deviation of 1.46, while they are respectively 3.51 and 1.41 for Tödter. With a variable risk-free rate the CRRA of the truncated sample has an average of 2.91 and a standard deviation of 1.47, while they are respectively 3.58 and 1.45 for Tödter. Tödter results amount to disregarding about 24% of the data. And the problem with the derived statistics of Gandleman and Hernández-Murillo [1] and Conine et al. [2], is that the volatility is measured *between* CRRA estimates and not for *each* CRRA estimate, a problem that they share with Tödter. There is every reason to believe that the CRRA is volatile in a given country and in a given sample of the population.

The paper is organized as follows. Section two presents the theoretical asset demand models. Two models are retained. The first is the requirement that the expected terminal wealth invested in a risky asset (the stock market) must be equal to the utility of the certainty equivalent (the risk-free asset). As an extension, the paper considers the case where the certainty equivalent is itself uncertain. The second asset demand model is the first-order condition of the maximization of the expected utility of wealth, invested in a portfolio composed of one risky asset (the stock market) and a risk-free asset (a Treasury security). The third section estimates, by Generalized Method of Moments (GMM), the two theoretical models for a sample of yearly data on the S&P 500 and a T-bill rate. This estimation leads to a point estimate of the CRRA with a computed own standard error.

To provide more confidence in the results bootstrapping is conducted, which amounts to resampling with replacement a number of times, chosen to be around 1,000 times, and estimate by GMM the theoretical relation for each resampling. The outcome is around 1,000 CRRAs, 1,000 standard errors, 1,000 Durbin-Watson Statistics, and 1,000 actual p-values of the J-statistic belonging to each one of the around 1,000 GMM regressions that are run in the bootstrap. The final section summarizes and concludes.

2. Theory

The first asset demand function starts from the following identity (Huang and Litzenberger, [4]; Danthine and Donaldson, [5]):

$$E[U(\tilde{W})] = U(CE) \quad (1)$$

Where \tilde{W} is the random terminal wealth that was invested in the risky asset, E is the expectation operator, $U(\cdot)$ is the utility function, and CE is the certainty equivalent wealth. Initial wealth is W_0 . Denoting the risk free asset return by rf , and the risky rate of return as \tilde{r} , and replacing the two returns in equation (1) one obtains:

$$E[U(\tilde{W})] = E\{U[W_0(1 + \tilde{r})]\} = U[W_0(1 + rf)] \Rightarrow E[U(1 + \tilde{r})] = U[(1 + rf)] \quad (2)$$

Initial wealth cancels out because it is known with certainty at the start of the period. The utility function is supposed isoelastic:

$$U(X) = [X^{(1-\gamma)} - 1]/(1 - \gamma) \quad (3)$$

Equations (2) and (3) lead to:

$$E[(1 + \tilde{r})^{(1-\gamma)} - 1]/(1 - \gamma) - [(1 + rf)^{(1-\gamma)} - 1]/(1 - \gamma) = 0 \quad (4)$$

$$\text{Or } E[(1 + \tilde{r})^{(1-\gamma)}] - (1 + rf)^{(1-\gamma)} = 0 = E[(1 + \tilde{r})^{(1-\gamma)} - (1 + rf)^{(1-\gamma)}] \quad (5)$$

Knowing the probability distribution of \tilde{r} one can estimate this difference equation by Generalized Method of Moments (GMM) as an implicit equation with one parameter (γ). Each outcome of the risky return is replaced in equation (5) and the GMM procedure can be implemented for all sample outcomes. The risky return is the annual rate of return on the US S&P 500, and the risk-free asset is a yearly US Treasury yield. The sample extends from 1928 to 2020. Azar [6] used equation (5) with discrete normal distributions that he chose arbitrarily to approximate the first two moments of a continuous distribution of the risky return with mean 13.3% and standard deviation 20.1%.

The second equilibrium relation for asset demand assumes that the investor builds a portfolio consisting of a risky asset and a risk-free asset (Huang and Litzenberger, [4]; Danthine and Donaldson, [5]). Let α be the fraction of initial wealth invested in the risky asset, and continuing with the same notation as above, one has that the terminal wealth is:

$$\tilde{W} = W_0[\alpha(1 + \tilde{r}) + (1 - \alpha)(1 + rf)] = W_0[\alpha(\tilde{r} - rf) + 1 + rf] \quad (6)$$

And the expected utility of terminal wealth is:

$$E[U(\tilde{W})] = E\{U[W_0[\alpha(\tilde{r} - rf) + 1 + rf]]\} \quad (7)$$

Taking the first order partial derivative with respect to α and equalizing it to zero for a maximum one obtains:

$$E\{U_\alpha[W_0[1 + \alpha(\tilde{r} - rf) + rf]](\tilde{r} - rf)\} = 0 \text{ where } U_\alpha = \partial U(\cdot)/\partial \alpha \quad (8)$$

Since W_0 is known in advance, and by using the utility function in equation (3), then:

$$E\{[1 + \alpha(\tilde{r} - rf) + rf]^{-\gamma}(\tilde{r} - rf)\} = 0 \quad (9)$$

Assuming the portfolio is invested in totality in the risky security, i.e. $\alpha = 1$, then equation (9) becomes:

$$E\{[1 + \tilde{r}]^{-\gamma}(\tilde{r} - rf)\} = 0 \quad (10)$$

The term in brackets can easily be solved by GMM.

3. The empirical results

3.1 Source of data

The data on the annual return of the S&P 500 stock market index was retrieved from the web site: <https://www.macrotrends.net/2526/sp-500-historical-annual-returns>. The data on the annual long interest rate for 1928 till 1959 was retrieved from Robert Shiller's online page: [www.econ.yale.edu/~shiller > data \(1928-1959\)](http://www.econ.yale.edu/~shiller/data) - long term stock, bond, interest rate and consumption data. The data on the annual interest rate for 1960 till 2020 was retrieved from the web site of the Federal Reserve Bank of Saint Louis: Long-Term Government Bond Yields: 10-year: Main (Including Benchmark) for the United States (IRLTLT01USA156N).

3.2 Results for the first asset demand function

3.2.1 A constant risk-free rate

The first asset demand function is in equation (5) and is here repeated:

$$E[(1 + \tilde{r})^{(1-\gamma)} - (1 + rf)^{(1-\gamma)}] = 0 \quad (5)$$

It is estimated by GMM. The instrumental variables in all of this paper are chosen to be the first and second lags of the risk-free rate, the risky return, and the inflation rate. The estimation process is repeated some 1,000 times, 1,023 times to be exact. The results are tabulated in Tables 1 and 2. Table 1 is for the case of a constant risk-free rate at a point of 4.6158%, and Table 2 is for a variable risk-free rate. The two tables record the following for each repetition: the CRRA (γ), the Durbin-Watson statistic, the p-value of the J-statistic, the standard error of the CRRA, the t-statistic, and the t-deviate for the hypothesis that the CRRA is 1.

Table 1: Summary statistics on the bootstraps of the first asset demand function with a constant risk-free rate at 4.6158%.

	CRRA γ	Durbin- Watson	P-Value of the J-statistic	Standard error of γ	t-statistic $\gamma = 0$	fort-statistic for $\gamma = 1$
Mean	2.392072	1.974679	0.492642	1.037375	2.277827	1.292628
Median	2.247566	1.988746	0.467599	1.022461	2.198555	1.244346
Maximum	8.697489	2.566853	0.995164	1.757011	10.59688	9.377305
Minimum	-1.858397	0.976301	0.031971	0.654779	-1.697395	-2.657161
Std. Dev.	1.727783	0.214095	0.240385	0.156468	1.571541	1.590816
Skewness	0.635527	-0.595973	0.236470	0.695777	0.560777	0.523480
Kurtosis	3.531380	3.848094	2.032733	4.015499	4.102378	3.848721
Jarque-Bera Probability	80.89976 0.000000	91.21747 0.000000	49.41422 0.000000	126.4966 0.000000	105.4167 0.000000	77.42620 0.000000
Sum	2447.090	2020.096	503.9726	1061.235	2330.217	1322.359
Sum Sq. Dev.	3050.908	46.84500	59.05642	25.02097	2524.076	2586.370
Observations	1023	1023	1023	1023	1023	1023

Table 2: Summary statistics on the bootstraps of the first asset demand function with a variable risk-free rate.

	CRRA γ	Durbin- Watson	P-Value of the J-statistic	Standard error of γ	t-statistic $\gamma = 0$	fort-statistic for $\gamma = 1$
Mean	2.247055	1.973440	0.494655	1.075113	2.065574	1.112681
Median	2.095691	1.988285	0.475439	1.054811	2.007601	1.049997
Maximum	9.930775	2.569639	0.998621	1.867455	12.02903	10.81774
Minimum	-2.128678	1.024622	0.045972	0.672932	-1.973665	-2.900844
Std. Dev.	1.765082	0.219441	0.237701	0.171484	1.553232	1.570199
Skewness	0.658138	-0.529286	0.220177	0.758080	0.576273	0.544741
Kurtosis	3.787884	3.728252	2.082955	4.181920	4.637585	4.366269
Jarque-Bera Probability	100.3113 0.000000	70.37074 0.000000	44.11188 0.000000	157.5283 0.000000	170.9282 0.000000	130.1623 0.000000
Sum	2298.737	2018.829	506.0317	1099.841	2113.082	1138.273
Sum Sq. Dev.	3184.056	49.21361	57.74485	30.05358	2465.606	2519.766
Observations	1023	1023	1023	1023	1023	1023

The average CRRA is equal to 2.3921, while it is 4.50 in Azar [6], and 3.51 in Tödter [3]. The median is 2.2476, while it is 3.59 in Tödter. The standard deviation is 1.7278 while it is 1.41 in Tödter. The maximum and minimum are respectively 8.6975 and -1.8584, while they are 12.54 and 1.00 in Tödter. As mentioned before the finding that the CRRA is not less than +1 in Tödter [3] seems strange, and implies that some 25% of the data is disregarded. Hence Tödter's results are severely biased.

The average CRRA standard error is 1.0374, and it varies between 0.6548 and 1.7570. The average t-statistic is 2.2778, and varies between -1.6974 and 10.5969. The fact that the minimum, i.e. -1.6974, is not statistically significant allows us to conclude that the CRRA is positive, as expected theoretically. The average Durbin-Watson statistic is a healthy 1.9747, very close to 2. The maximum is 2.5669 and the minimum is 0.9763. The critical Durbin-Watson t-statistics for a marginal significance level of 5% are 1.55 and 2.45.

There are 39 observations outside this range, which corresponds to a percentage of 3.8123%, which is less than 5%. Therefore one can conclude that there are no first-order positive or negative serial correlation of the residuals (see Table 3). The average of the actual p-value of the J-statistic is 0.4926, and varies between 0.0320 and 0.9552 (Table 1). The number of observations that are less than 5% is 4, or 0.3910% of the total number of observations. Hence the J-statistic is not anomalous. Just to the contrary. See Table 3. A CRRA value 1 is within all limits of confidence intervals, except the interquartile range. This is evidence of support to log utility. Finally, the t-deviates for the null hypothesis that the CRRA is 1 have a mean of 1.2963, a maximum of 9.3773, and a minimum of -2.6572. Out of the total only 68.216% of the t-deviates are inside the 95% confidence interval. This is due to significant skewness and kurtosis.

Table 3: Further summary statistics on the bootstraps of the first asset demand function.

	CRRA with the risk-free rate fixed at 4.6158%	CRRA with a variable risk-free rate
# repetitions	1023	1023
Mean	2.392072	2.247055
Median	2.247566	2.095691
Maximum	8.697489	9.930775
Minimum	-1.858397	-2.128678
Std. Dev.	1.727783	1.765082
Quantiles (25% - 75%)	1.18305 - 3.33738	1.02334 - 3.24078
Quantiles (10% - 90%)	0.36679 - 4.70827	0.13362 - 4.64256
Quantiles (5% - 95%)	-0.04138 - 5.68580	-0.33114 - 5.34261
Quantiles (2.5% - 97.5%)	-0.52324 - 6.34755	-0.69957 - 6.20796
Quantiles (1% - 99%)	-0.88377 - 7.37390	-1.11377 - 7.26041
# ≤ 0	58	89
% ≤ 0	5.6696%	8.6999%
Minimum t	-1.6974	-1.9737
# $t \leq -1.96$	0	1
% $t \leq -1.96$	0%	0.0978%
# $t \leq -1.645$	2	2
% $t \leq -1.645$	0.1955%	0.1955%
Durbin-Watson statistic ($dw, \alpha = 0.05$)		
# $dw \leq 1.55$	33	34
% $dw \leq 1.55$	3.2258%	3.3236%
# $dw \geq 2.45$	6	7
% $dw \geq 2.45$	0.5865%	0.6843%
# $1.55 \geq dw \geq 2.45$	39	41
% $1.55 \geq dw \geq 2.45$	3.8123%	4.0078%
P-value of the J-statistic		
# ≤ 0.05	4	3
% ≤ 0.05	0.3910%	0.2934%
Null Hypothesis: CRRA=1		
# $t \leq -1.96$	10	14
# $t \geq 1.96$	311	274
# $-1.96 \geq t \geq 1.96$	321	288
% $-1.96 \geq t \geq 1.96$	31.3783%	28.1525%
% $-1.96 < t < 1.96$	68.6216%	71.8475%

Notes: CRRA stands for the relative risk aversion coefficient. # stands for frequency. % stands for relative frequency. The Student t-statistic is t.

3.2.2 *A variable risk-free rate*

The average CRRA is equal to 2.2471, while it is 3.58 in Tödter [3]. The median is 2.2476, while it is 3.58 in Tödter. The standard deviation is 1.7651 while it is 1.45 in Tödter. The maximum and minimum are respectively 9.9308 and -2.1287, while they are 14.37 and 1.00 in Tödter. As mentioned before the finding that the CRRA is not less than +1 in Tödter [3] seems strange, and amounts to disregarding around 25% of the data. Hence Tödter's results are severely biased.

The average CRRA standard error is 1.0751, and it varies between 0.6729 and 1.8675. The average t-statistic is 2.2656, and varies between -1.9737 and 12.0290. The fact that the minimum, i.e. -1.9737, is statistically significant at the two-tailed 5% marginal significance level allows us to conclude that the CRRA is not always positive, as expected theoretically. The average Durbin-Watson statistic is a healthy 1.9734, very close to 2. The maximum is 2.5696 and the minimum is 1.0246. The critical Durbin-Watson t-statistics for a marginal significance level of 5% are 1.55, and 2.45. There are 41 observations outside this range, which corresponds to a percentage of 4.0078%, which is less than 5%.

Therefore one can conclude that there are no first-order positive or negative serial correlation of the residuals (see Table 3). The average of the actual p-value of the J-statistic is 0.4947, and varies between 0.0460 and 0.9552 (Table 1). The number of observations that are less than 5% is 4, or 0.0460% of the total number of observations. Hence the J-statistic is not anomalous. Just to the contrary. See Table 3. A CRRA value 1 is within all limits of confidence intervals, except the interquartile range. This is evidence of support to log utility. Finally, the t-deviates for the null hypothesis that the CRRA is 1 have a mean of 1.1127, a maximum of 10.8177, and a minimum of -2.9008. Out of the total only 71.8475% of the t-deviates are inside the 95% confidence interval. This is due to significant skewness and kurtosis.

3.2.3 *Comparison*

Comparing the previous results, with and without a fixed risk-free rate, the following can be derived. The mean and median are lower in case of a variable rate. However, the standard deviation is higher. This implies that the range between maximum and minimum is wider for a variable risk-free rate. The lower quantiles and the upper quantiles are all respectively less with a variable risk-free rate. The 95% confidence interval for the hypothesis that the CRRA is 1, is more inclusive with a variable risk-free rate but the frequency is less than 95%, which is expected with high skewness and kurtosis. The other statistics are somewhat close for the two cases. See Table 3.

3.3 *Results for the second asset demand function*

3.3.1 *A constant risk-free rate*

The second asset demand function is in equation (10) and is here repeated:

$$E\{[1 + \tilde{r}]^{-\gamma}(\tilde{r} - rf)\} = 0 \quad (10)$$

It is estimated also by GMM. The estimation process is repeated 1,023 times. The results are tabulated in Tables 4 and 5. Table 4 is for the case of a constant risk-free rate at a point of 4.6158%, and Table 5 is for a variable risk-free rate. The two tables record the following for each repetition: the CRRA (γ), the Durbin-Watson statistic, the p-value of the J-statistic, the standard error of the CRRA, the t-statistic, and the t-deviate for the hypothesis that the CRRA is 1.

The average CRRA is equal to 1.1521. The standard deviation is 0.9359. The maximum and minimum are respectively 4.6870 and -0.9947. The average standard error is 0.5347, and it varies between 0.3346 and 0.9965. The average t-statistic is 2.0639, and varies between -2.1067 and 8.5240. The fact that the minimum, i.e. -2.1067, is statistically significant allows us to conclude that the CRRA is not always positive, as expected theoretically. The average Durbin-Watson statistic is a healthy 1.9744, very close to 2.

The maximum is 2.5643 and the minimum is 1.0017. The critical Durbin-Watson t-statistics for a marginal significance level of 5% are 1.55 and 2.45. There are 40 observations outside this range, which corresponds to a percentage of 3.9101%, which is less than 5%. Therefore one can conclude that there are no first-order positive or negative serial correlation of the residuals (see Table 6). The average of the actual p-value of the J-statistic is 0.4938, and varies between 0.0321 and 0.9954 (Table 6). The number of observations that are less than 5% is 3, or 0.2933% of the total number of observations. Hence the J-statistic is not anomalous. Just to the contrary. See Table 6. A CRRA value 1 is within all limits of confidence intervals. This is evidence of support to log utility. Finally, the t-deviates for the null hypothesis that the CRRA is 1 have a mean of 2.0639, a maximum of 8.5240, and a minimum of -2.1070. Out of the total only 75.8553% of the t-deviates are inside the 95% confidence interval. This is due to significant skewness and kurtosis.

Table 4: Summary statistics on the bootstraps of the second asset demand function with a constant risk-free rate at 4.6158%.

	γ	Durbin-Watson	P-Value of the J-statistic	Standard error of γ	t-statistic for $\gamma = 0$	fort-statistic for $\gamma = 1$
Mean	1.152083	1.974387	0.493781	0.534709	2.063864	0.146562
Median	1.062536	1.989201	0.474305	0.525319	2.055199	0.125432
Maximum	4.686995	2.564289	0.995414	0.996504	8.523986	6.705340
Minimum	-0.994738	1.001661	0.032070	0.334568	-2.106699	-4.224543
Std. Dev.	0.935944	0.215910	0.240381	0.086347	1.558214	1.686416
Skewness	0.628660	-0.567514	0.233612	0.713443	0.268386	0.232460
Kurtosis	3.460194	3.714052	2.036195	4.014967	3.205236	3.015162
Jarque-Bera Probability	76.41104	76.64647	48.90018	130.6952	14.07674	9.223240
	0.000000	0.000000	0.000000	0.000000	0.000878	0.009936
Sum	1178.581	2019.798	505.1383	547.0069	2111.333	149.9326
Sum Sq. Dev.	895.2630	47.64282	59.05439	7.619886	2481.447	2906.567
Observations	1023	1023	1023	1023	1023	1023

3.3.2 A variable risk-free rate

The average CRRA is equal to 1.0655. The standard deviation is 0.9411. The maximum and minimum are respectively 5.3533 and -1.3157. The average standard error is 0.5428, and it varies between 0.3398 and 0.9937. The average t-statistic is 1.8836, and varies between -2.7230 and 9.6441. The fact that the minimum, i.e. -2.7230, is statistically significant allows us to conclude that the CRRA is not always positive, as expected theoretically. The average Durbin-Watson statistic is a healthy 1.9729, very close to 2. The maximum is 2.5547 and the minimum is 1.0840. The critical Durbin-Watson t-statistics for a marginal significance level of 5% are 1.55 and 2.45. There are 44 observations outside this range, which corresponds to a percentage of 4.3011%, which is less than 5%. Therefore one can conclude that there are no first-order positive or negative serial correlation of the residuals (see Table 6). The average of the actual p-value of the J-statistic is 0.4976, and varies between 0.0389 and 0.9985 (Table 6). The number of observations that are less than 5% is 2, or 0.1955% of the total number of observations. Hence the J-statistic is not anomalous. Just to the contrary. See Table 6. A CRRA value 1 is within all limits of confidence intervals. This is evidence of support to log utility. Finally, the t-deviates for the null hypothesis that the CRRA is 1 have a mean of -0.0056, a maximum of 7.8426, and a minimum of -4.7925. Out of the total only 75.5621% of the t-deviates are inside the 95% confidence interval. This is due to significant skewness and kurtosis.

Table 5: Summary statistics on the bootstraps of the second asset demand function with a variable risk-free rate.

	γ	Durbin-Watson	P-Value of the J-statistic	Standard error of γ	t-statistic for $\gamma = 0$	fort-statistic for $\gamma = 1$
Mean	1.065542	1.972916	0.497633	0.542811	1.883559	-0.005603
Median	0.997956	1.985910	0.478839	0.533975	1.895011	-0.003476
Maximum	5.353271	2.554683	0.998494	0.993676	9.644140	7.842599
Minimum	-1.315729	1.083997	0.038858	0.339759	-2.722982	-4.792542
Std. Dev.	0.941088	0.220771	0.237537	0.088042	1.565388	1.678118
Skewness	0.625533	-0.488347	0.214779	0.690026	0.253440	0.236590
Kurtosis	3.803389	3.518041	2.082887	3.831545	3.443830	3.266923
Jarque-Bera Probability	94.22674	52.10035	43.71691	110.6549	19.34797	12.58068
	0.000000	0.000000	0.000000	0.000000	0.000063	0.001854
Sum	1090.049	2018.293	509.0783	555.2956	1926.880	-5.732259
Sum Sq. Dev.	905.1301	49.81220	57.66514	7.921980	2504.348	2878.034
Observations	1023	1023	1023	1023	1023	1023

3.3.3 *Comparison*

Comparing the previous results, with the second asset demand function, and with and without a fixed risk-free rate, the following can be derived. The mean and median are lower in case of a variable rate. However, the standard deviation is higher. This implies that the range between maximum and minimum is wider for a variable risk-free rate. The lower quantiles and the upper quantiles are all respectively less with a variable risk-free rate. The 95% confidence intervals have a relative frequency less than 95%, which is expected with high skewness and kurtosis. However, the inclusiveness is similar, but higher than in section 3.2.3. The other statistics are somewhat close for the two cases. See Table 6.

Comparing the results between sections 3.2 and 3.3, the means, medians, and standard deviations are significantly lower with the second asset demand function. However the 95% confidence intervals for the hypothesis that the CRRA is 1, i.e. log utility, are broader for the second asset demand function.

Table 6: Further summary statistics on the second asset demand function.

	CRRA with the risk-free rate fixed at 4.6158%	CRRA with a variable risk-free rate
# repetitions	1023	1023
Mean	1.152083	1.065542
Median	1.062536	0.997956
Maximum	4.686995	5.353271
Minimum	-0.994738	-1.315729
Std. Dev.	0.935944	0.941088
Quantiles (25% - 75%)	0.49189 - 1.67346	0.40004 - 1.58187
Quantiles (10% - 90%)	0.04572- 2.41170	-0.06251 - 2.32651
Quantiles (5% - 95%)	-0.20246 - 2.90330	-0.31556 - 2.69844
Quantiles (2.5% - 97.5%)	-0.43800 - 3.29138	-0.53181 - 3.22214
Quantiles (1% - 99%)	-0.61488 - 3.86009	-0.79610 - 3.66214
# ≤ 0	92	112
% ≤ 0	8.9932%	10.9482%
Minimum t	-2.106699	-2.722982
# t ≤ -1.96	1	2
% t ≤ -1.96	0.0978%	0.1955%
# t ≤ -1.645	5	5
% t ≤ -1.645	0.4888%	0.4888%
Durbin-Watson statistic ($dw, \alpha = 0.05$)		
# $dw \leq 1.55$	34	36
% $dw \leq 1.55$	3.3236%	3.5191%
# $dw \geq 2.45$	6	8
% $dw \geq 2.45$	0.5865%	0.7820%
# $1.55 \geq dw \geq 2.45$	40	44
% $1.55 \geq dw \geq 2.45$	3.9101%	4.3011%
P-value of the J-statistic		
# ≤ 0.05	3	2
% ≤ 0.05	0.2933%	0.1955%
Null Hypothesis: CRRA=1		
# t ≤ -1.96	101	123
# t ≥ 1.96	146	127
# $-1.96 \geq t \geq 1.96$	247	250
% $-1.96 \geq t \geq 1.96$	24.1447%	24.4379%
% $-1.96 < t < 1.96$	75.8553%	75.5621%

Notes: CRRA stands for the relative risk aversion coefficient. # stands for frequency. % stands for relative frequency. The Student t-statistic is t.

4. Conclusion

Using expected utility analysis with one risky asset and one riskless asset, and using a conventional utility function, two asset demand functions were considered. The first is an equilibrium relation between expected utilities, and the second follows from a first-order condition of a maximization of expected utility of a portfolio. The riskless asset was assumed either to be fixed or to be variable. Estimation was carried out by GMM. The results were repeated for around 1,000 times, through a bootstrapping procedure. The two asset demand functions produce very reasonable estimates of the coefficient of relative risk aversion. The average point estimates vary between 1.07 And 2.25. There is no evidence for an equity premium puzzle. The econometric diagnostics show a good specification. Log utility turns out to be supported in over 70% of the runs. For the investor this paper provides for a pin down of the estimate of the price of risk in a given economy. Several other applications need the input of a CRRA. The introductory remarks have stated a list of them. An avenue for future research is to test the equilibrium relation between expected utilities for two highly risky assets.

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The Impact of Continuous Improvement on the Employees Satisfaction Applied on X Company

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Abstract

With time it has been noted that it is necessary for organizations to effectively implement Continuous Improvement so as to improve their services and processes. Past researches have highlighted that these methods of applying new ways to improve work processes have led to innovation in work place and improved employee efficiency and product quality. They have suggested several factors that affect the process and how they impact employee satisfaction towards efficiency and quality productivity. This article aims to research the major factors that impact Continuous Improvement on employee satisfaction level, the obstacles and challenges of implementing the process and how they can be overcome. The methodology applied to research is Qualitative Method by selectively sampling on X Company employees based on Stratified random sampling approach and through survey questions that aim to find the relationship between Continuous improvement and employee satisfaction levels in relation to the major factors affecting the process and challenges. Contrary to what is discussed in past literature that employee satisfaction is ensured by prioritizing on factors of Top management support, commitment and well-trained employee, with no mention of the importance of availability of resources in the process of Continuous Improvement. This article's research result findings reveal that continuous improvement positively affects employee satisfaction in relation to factors like effective and open communication, Top management support and employee engagement. This coincides with the results of organization overcoming challenges of lack of resources, employee resistance to change and lack of employee training. For organizations to improve employee satisfaction towards higher quality productivity through Continuous Improvement it is important to keep in mind these factors and how the barriers to achieving them can be overcome. Organizations can gain competitive advantage by employing Continuous improvement to positively impact Employee satisfaction.

Content Summary

The main purpose of the article was to research and compare literature on how Continuous Improvement impacts employee satisfaction by studying the critical success factors on this impact and how to improve on them while overcoming the challenges that affect the process. Three research questions were answered by employees through a survey applied by Qualitative method. The first research question survey revealed that effective communication and employee training are the most important factors to organizations implementing Continuous Improvement, Moreover the Literature considers Top Management support and Commitment as the most relevant factor. Conversely the second research question revealed a lack of resources, employees' resistance to change, lack of communication and lack of training as significant challenges towards Continuous Improvement Implementation while in contrast the literature did not find lack of resources as of being of consequence towards the study. Accordingly, the final question finds a positive

relationship between Continuous Improvement and employee satisfaction towards improved productivity, employee engagement and improved work quality.

By assessing the research study, it is recommended for organizations to effectively plan and implement the culture of Continuous improvement into their employment training programs, establish open communication and provide training for Top management towards commitment and improvement of their communications skills. Organizations also need to pay attention to the challenges that affect Continuous Improvement and find solutions to overcome them, like a lack of available resources and how to effectively overcome employee resistance to change. These impacts can be reduced, or overcome in other cases, while implementing Continuous Improvement through benchmarking according to pioneer companies.

Introduction

Continuous improvement is one of the Total Quality Management practices that implemented effectively and widely. There are many researchers has emphasized and discussed about it. It refers to play a vital role in improving the processes and services in a different department as well as the ability to implement in different sectors and size of the organization.

There are many approaches and methodologies that used to implement the CI such as Lean approach and Six Sigma methodology. etc. The importance and significant of this research are willingness and looking for some insights through this research such as: the main critical success factors for continuous improvement. besides, the main barriers that avoid to implement the continuous improvement as well as the its impact on the Employees satisfaction through increasing the productivities and create a healthy environment at the workplace.

The research topic will be a focus on:

The impact of Continuous improvement on the Employees satisfaction

The aims and objectives of the research

- Understanding and determining the major factors that reinforced the Continuous improvement program as well as comparing the literature reviews that similar in this fields.
- Identifying the main barriers and challenges that impact on the continuous improvement program and employees' attitudes.
- Investigation the relationship between the continuous improvement and employees' satisfaction.

Research problem and questions

Based on implementing the Continuous improvement program two years ago. The researchers are willing to understand and highlight the critical Succus factors that enforced implementing the program in the Public service sectors. Besides, The X company has faced some obstacles that avoid implementing the program; hence the researchers will identify main challenges and barriers in this program as well as to suggest the improvement recommendations to tackle these challenges and applying practical and efficient. Besides, discussing the relationship between implementing the Continuous improvement program and Employees satisfaction.

At the end of this research, the researcher will be answered these questions below:

- What are the main critical success factors that enforced implementing the Continuous improvement program?
- What are the barriers and challenges that impact on the Continuous improvement program?
- Is there a relationship between the Continuous improvement and Employees Satisfaction?

Literature review

Following the theoretical framework helped us a lot to find out what are the significant factors leading to job satisfaction for the employees in the process of continuous improvement. Before that, we need to understand what continuous improvement is.

Continuous Improvement

Many companies have now adopted this advanced approach in order to gain customer happiness and loyalty. (Jurburg et al.,2017) defines Continuous Improvement as “inter-related group of systematic processes of constant change across the whole organisation, focused on engaging everyone inside the organisation and achieving greater business productivity, quality, safety, ergonomics and competitiveness.” Because this process involves the entire organisation, this system continues to evolve with the growing time (Jurburg et al.,2017).

Many authors and scholars came up with a lot of Continuous Improvement model and what are the significant factors that drive this process successfully and in a positive manner. (Dahlgaard et al.,2013) proposed a set of the model that focused on the following factors for motivating employees and leading to job satisfaction when his study saw the impact of Continuous improvement on the workforce. So, the major ones are top management support and commitment, effective communication with the employees, collaborative decision-making with the people, rewards and incentives associated with the continuous improvement process, effective training and empowerment of the employees (Dahlgaard et al.,2013). Now, let us discuss these variables in the light of the literature review.

I. Top Management support & commitment:

A most important trait of this process is that it is a people-driven process as it revolves around people. This is because it engages everyone in the entire process. (Readman and Bessant, 2007) discusses in his study that supportive top management helps the employees to have more job satisfaction and stay loyal to the firm (Readman and Bessant, 2007). So, it is one of the most relevant factors among all others.

II. Effective Communication:

(Jimmieson, Peach, and White,2008) clearly states in the report that proper communication process that engages the employees fully and makes them aware of all the procedures is a significant step. This enhances the self-worth of an employee, and as a result, he/she satisfies to a level where their commitment level is raised (Jimmieson, Peach, and White,2008).

III. Collaborative Decision-Making:

(Kim, Hornung and Rousseau, 2011) have elaborated that collaboration with the employees during the process of continuous improvement is essential. This helps employees to recognize their value as they are also a part of the decision-making process and are an important asset to the firm (Kim, Hornung and Rousseau, 2011).

IV. Rewards & Incentives to employees:

(Kerrin and Oliver,2002) discussed in their research that the impact of rewards and incentives to employees involved in this Continuous Improvement process. Recognition programs can boost the satisfaction level of the employees more than the financial benefits (Kerrin and Oliver,2002).

V. Effective Training Programs:

(Spear ,2004) emphasized that effective training programs and proper guidance to the employees related to the process, making it easy for employees to understand all the policies and procedures. This, in turn, increases their job satisfaction and employee retention (Spear, 2004).

VI. Employee Empowerment:

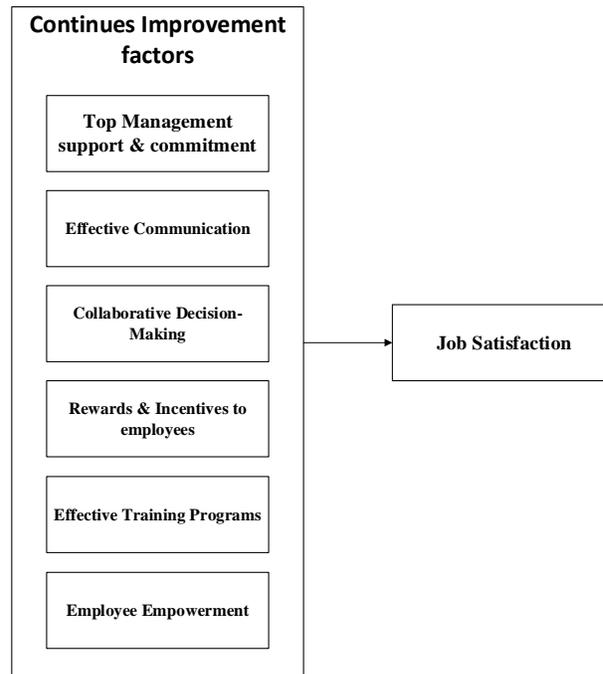
Employees understand that they are an important part of the firm and being involved in such an extensive program of Continuous Improvement. So, when they are given such autonomy. As a result, they give more loyalty to the firm and come up with excellent services (Stephen, 2012).

VII. Job Satisfaction & Continuous Improvement:

(Mosadeghrad, 2014) cited in his report that the successful implementation of quality management techniques at the workplace usually increases the quality of employees' work and output levels. Hence, leading to more job satisfaction, more commitment, and less absenteeism from the job place. Although it creates a bit high-pressure dynamic for the workers but still if we see it, on the whole, it boasts the motivation level of the employees (Mosadeghrad, 2014).

VIII. CHALLENGES/ BARRIES OF CI ON EMPLOYEE SATISFACTION

Continuous improvement is never an easy task since some organizations are not able to reward their workers for an excellent job done, inadequate training and slow implementation of employee suggestions. (Maarof and Mahmud ,2016) write about these issues, and that employee satisfaction can only be realized when such continuous improvements that work in their favour are addressed. Finally, another challenge that companies face is that of defective outputs. In a quest to improving organization quality standards as written by (Ayeswarya). recommends that in order to ensure defect-free and error-free outputs, employees should always be trained either in the long term or short-term basis with the inclusion of bench-marking sessions and this serves as knowledge enhancement for them. Thus, they will be more satisfied with their jobs.



The Research Methodology

In this research, the team will be chosen the “Qualitative Method” to finds out the relation between continuous improvement and how it is going to affect the employees positively as what are the motivating factors.

Research Strategy

The research strategy in this research will be:

- Identifying the research Problem and questions.
- Looking of the preceding studies and literature reviews that focused on this topic and other related it.
- Designing the questions that will be asked to the employees based on the literature reviews.
- Selecting the research Methodology and the Sample techniques.
- Survey Piloting and testing to be understandable.
- Releasing the survey based on the selected samples and within specific period time.
- Collecting the answers and Code analysis.
- Discussing and interpreting the result that obtained and comparing with other literature reviews.
- Writing the conclusion and the suggesting the main recommendation of the research.

Reliability and Validity

Reliability:

The interviewer will send the survey through the Email and then getting the written answers through the interviewees to ensure the reliability of this research.

Validity:

The researchers have used “content validity” type in this research and getting the acceptance on the questions proposed through the TQM instructor (holds PhD in Quality management).

Sampling Technique

The researchers will choose the Ten persons (one person from each different sections), based on the “Stratified random sampling” approach.

No	Section Name	Employees position
1	Quality Section	Senior Manager of organizational excellence
2	Strategy Section	Director of Strategy Dept
3	Business Incubation section	Director of Business Incubation
4	Fund department	Analyst
5	Business Consultancy section	Executive
6	Business start-up support section	Senior Manager
7	Government Procurement program	Manager of GPP
8	Entrepreneurial Promotion Section	Manager of Promotion Section
9	Dubai Entrepreneurial Academy	Principal Executive
10	Service Centre	Service Centre Manager

The survey Questions:

Q1: What are the main critical success factors that enforced implementing the Continuous improvement program?
Q2: What are the main challenges and barriers that avoid implementing the Continues Improvement process effectively?
Q3: How is the Continues Improvement process that impact on the Employees happiness?

X Company background

X Company established in 2002. It was developed to support start-up and growth the small and medium enterprises (SME) at the different phases. The vision of X Company is to be a global centre on entrepreneurship. It aligned with Dubai strategy through Two objectives that are:

- Support the establishment and growth of SMEs.
- Simplify & enhance establishing & doing business services.

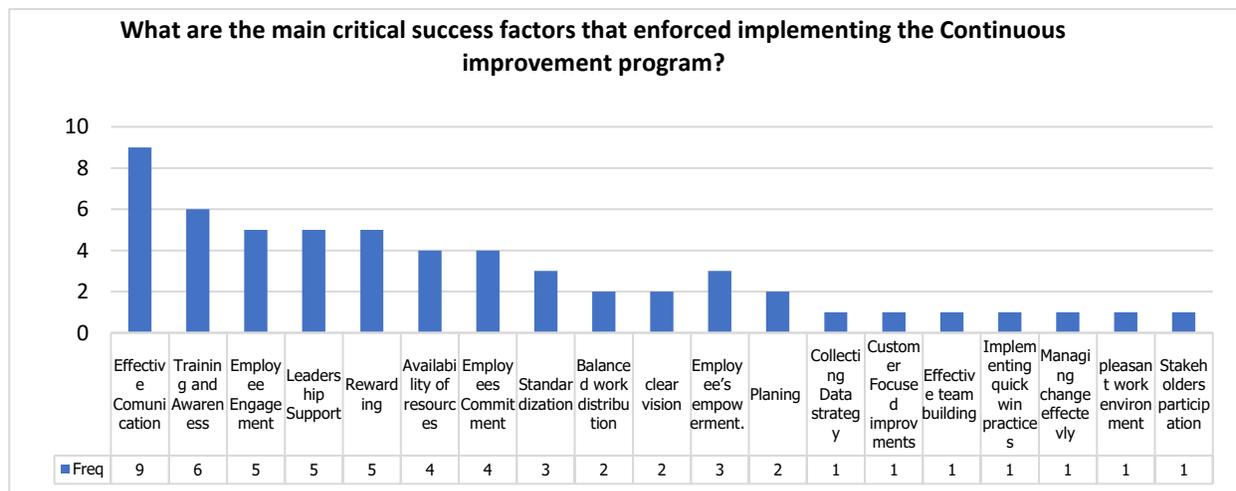
There are a lot of services that innovated based on new and existing businesses’ needs and requirements to support their survival, growth, and sustainability.

Data analysis and discussion

Question 1: What are the main critical success factors that enforced implementing the Continuous improvement program?

No	Classification	Frequency	Percentage
1	Effective Communication	9	16%
2	Training and Awareness	6	11%
3	Employee Engagement	5	9%
4	Leadership Support	5	9%
5	Rewarding	5	9%
6	Availability of resources	4	7%
7	Employees Commitment	4	7%
8	Standardization	3	5%
9	Balanced work distribution	2	4%
10	clear vision	2	4%
11	Employee's empowerment	3	5%
12	Planning	2	4%
13	Collecting Data strategy	1	2%
14	Customer Focused improvements	1	2%
15	Effective team building	1	2%
16	Implementing quick win practices	1	2%
17	Managing change effectively	1	2%
18	Pleasant work environment	1	2%
19	Stakeholders participation	1	2%
Total		57	100%

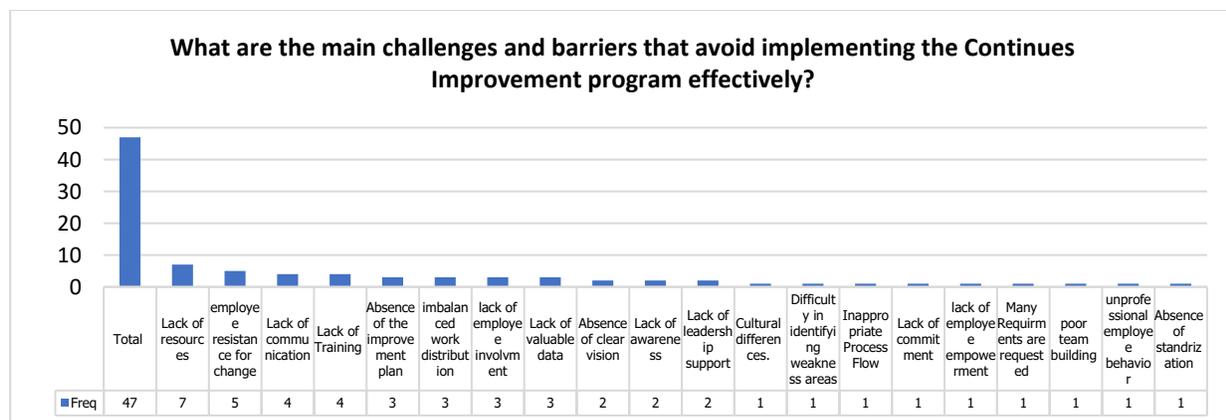
A thorough review of the literature based on the research data analysis of X Company reveals that effective communication is the most vital inherent factor to impact continuous improvement process on the employee satisfaction level. Moreover, in the Literature Review based on the research of (Readman and Bessant, 2007) Top Management support and commitment is considered as the most relevant factor. Being as it may, effective communication may still be considered as a by-product of Top Management support. The collected data depicts Leadership support among the third group of factors that responders believe impact continuous improvement at 9%, including; employee engagement, reward and leadership support.

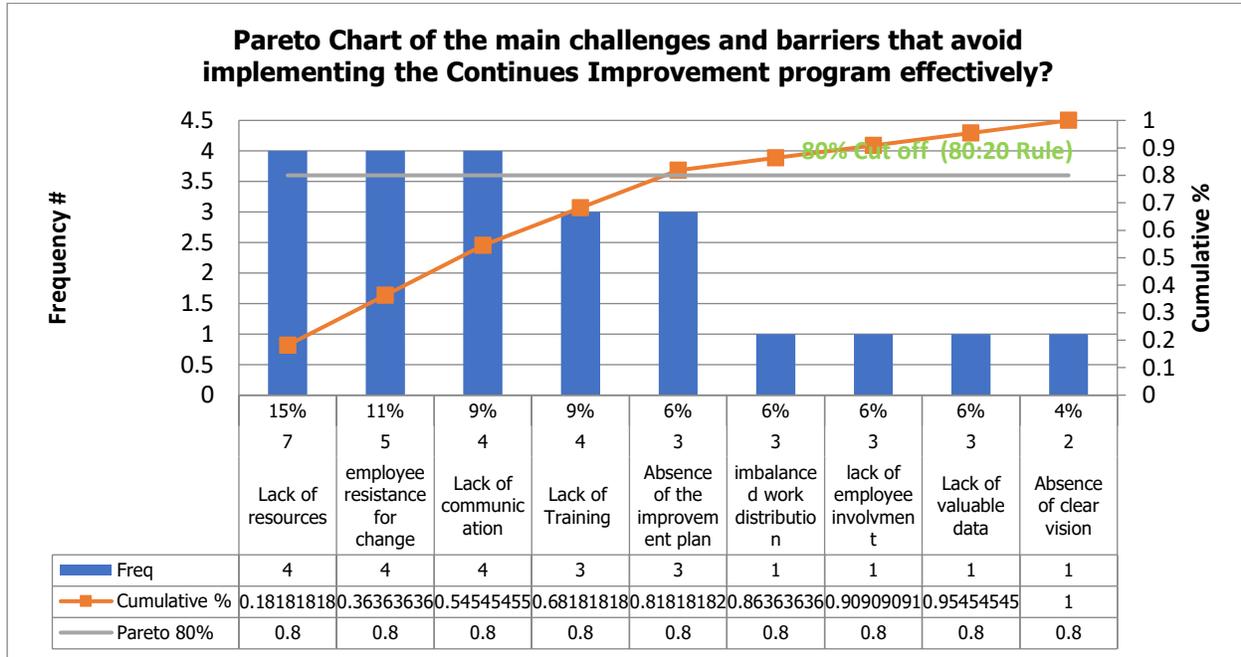


According to survey results Training and Awareness seem to be the second most important factor, at 11%, beside effective communication. This infers to what (Spear, 2004) emphasized in the literature that with effective training employee job satisfaction and retention increases when they are made aware and understand the policies and procedures. It is interesting that the study revealed that availability of resources and employee commitment (7%) are considered as being of more note among the factors than clear vision and planning (4%). Employee empowerment seems to also be among the mid related factors (at 5%) when it comes to the research study.

Question 2: What are the main challenges and barriers that avoid implementing the Continues Improvement process effectively?

No	Classification	Frequency	Percentage
1	Lack of resources	7	15%
2	Employee resistance for change	5	11%
3	Lack of communication	4	9%
4	Lack of Training	4	9%
5	Absence of the improvement plan	3	6%
6	Imbalanced work distribution	3	6%
7	lack of employee involvement	3	6%
8	Lack of valuable data	3	6%
9	Absence of clear vision	2	4%
10	Lack of awareness	2	4%
11	Lack of leadership support	2	4%
12	Cultural differences.	1	2%
13	Difficulty in identifying weakness areas	1	2%
14	Inappropriate Process Flow	1	2%
15	Lack of commitment	1	2%
16	Lack of employee empowerment	1	2%
17	Many Requirements are requested	1	2%
18	Poor team building	1	2%
19	Unprofessional employee behaviour	1	2%
20	Absence of standardization	1	2%
Total		47	100%



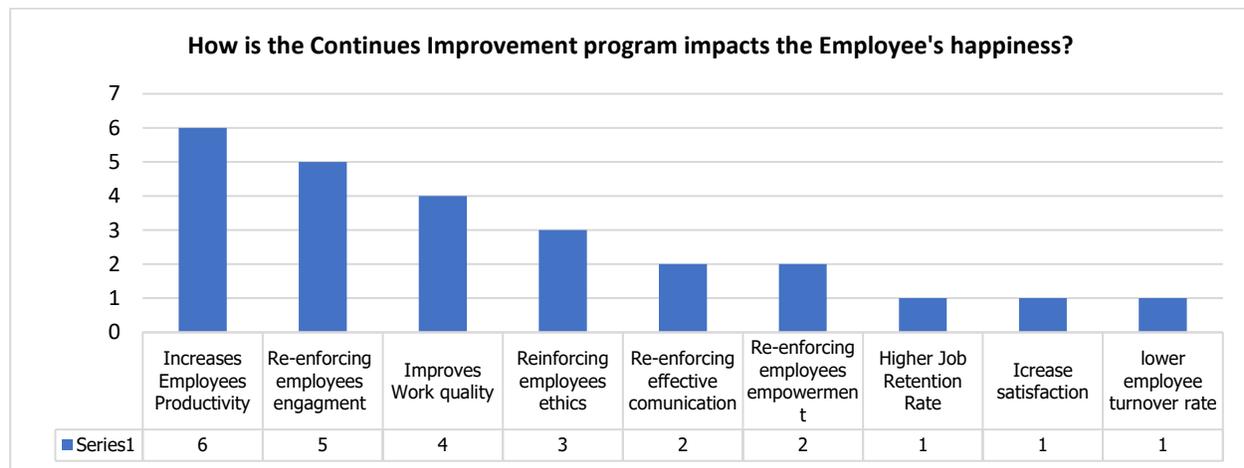


In accordance with the survey results, the research study answers the question of the main challenge and barrier to effective implementation of continuous management program being a Lack of resources at 15% frequency, followed by Employee resistance to change (11%), lack of communication and lack of training (9%). Moreover, despite the earlier data collected on the first question, lack of clear vision, leadership support, commitment, and employee empowerment seem to be seen as low on the barrier scale (below 4%). This implies that with enough resources, employee resistance may be overcome with transparent communication, proper training programs and support of Top Management.

Therefore, availability of Resources should be among factors impacting continuous improvement. However, based on (Dahlgaard et al., 2013) major factors discussed in the literature, Availability of Resources was not considered despite its significance. What is more, in the Literature, (Ayeswarya) mentioned that the frequently trained employees would serve their knowledge enhancement and as a result, they will be more satisfied with their jobs.

Question 3: How is the Continues Improvement process that impact on the Employees happiness?

No	Classification	Frequency	Percentage
1	Increases Employees Productivity	6	24%
2	Re-enforcing employees engagement	5	20%
3	Improves Work quality	4	16%
4	Reinforcing employees ethics	3	12%
5	Re-enforcing effective communication	2	8%
6	Re-enforcing employees empowerment	2	8%
7	Higher Job Retention Rate	1	4%
8	Increase satisfaction	1	4%
9	Lower employee turnover rate	1	4%
Total		25	100%



Back to the main study of this literature on the impact of continuous improvement on employee satisfaction, it is clear the third question of the research study answers this with 24% of the responders agreeing that it increases employees' productivity while re-enforcing employee engagement (20% agree) and later improves work quality (16%). With these three tops most factors it follows that employee ethics, effective communication and employee empowerment will be re-enforced leading to higher job retention and low employee turnover rate as cited by Ali (Mosadeghrad,2014) in his study report in the literature.

Overall, the results show that to positively impact employee satisfaction during a continuous improvement program, it is essential to ensure open communications channel and provide proper training. While (Readman and Bessant, 2007) in the literature emphasized on Top management support and commitment, the respondents of the study company did not rate this on a large scale probably because they already have the support and take it for granted.

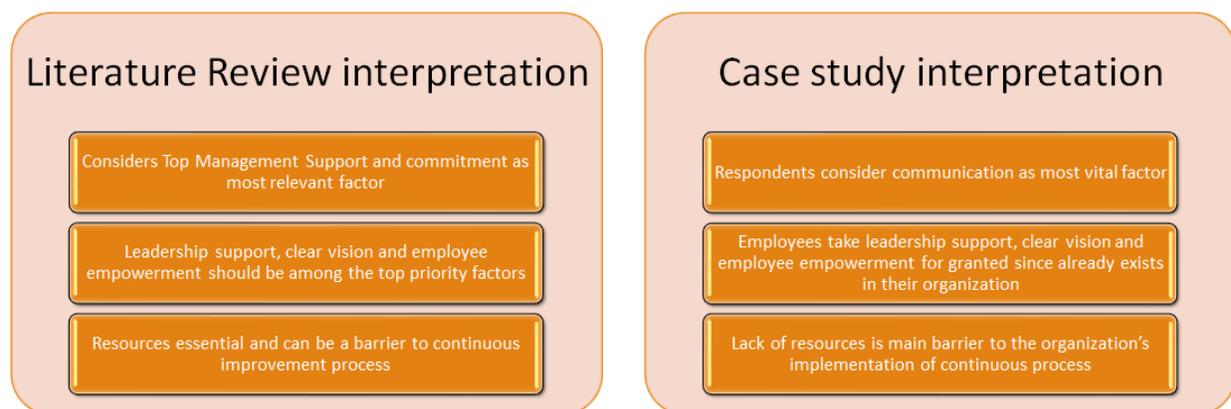
They also considered clear vision and employee empowerment on a low scale since it is already present. While we agree that communication is of high import, organizations, which lack these factors, can be significantly affected in their continuous improvement process and eventually lead

to inadequate quality production. Therefore, it is critical to keep these factors together on a top priority scale in any organization.

Conclusion

To sum up, the report has been done to answer and analyse three main questions in order to identify the important factors that enforce the organisation to implement continues improvement, the challenges that interfere with applying continues improvement effectively and the relationship between continues improvement and employees' satisfaction. Unlike the literature review, the survey showed that the most important factors that enforce the organisation to implement continues improvement are effective communication and training. In contrast, the literature review states that the most important factor is top management support and commitment.

The organisation's top management must understand what the challenges that interfere with implementing continues improvement effectively to find solutions for these challenges are. As the study found that the most critical challenges are lack of resources, employees' resistance to change, lack of communication and lack of training. According to the results, there is a positive relationship between continues improvement and employees' productivity. Therefore, increasing the implementation of continues improvement programs increases the employees' productivity. It also reinforces employees' engagement and increases work quality.



Recommendations

The study suggests to establish and sustain the culture of continues improvement through effective planning and implementation of continues improvement models and tools to take advantages and benefits of the implementation such as encouraging the employees to increase their productivity and improve work quality. Another suggestion is to provide training for top management and employees to improve their communication skills since it is the most important factor; therefore, the lack of communication will impact negatively on implementing continues improvement programs. Furthermore, benchmarking with pioneer companies in implementing continues improvement in order to define the opportunities of improvement and find a way to reduce the impact of the challenges that interface applying it effectively, for example, understand the needed resources that are needed in implementing continues improvement programs, how to avoid or deal with employees' resistance to the change.

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Appendix:

Appendix – A: Continuous improvement		
Question 1: What are the main critical success factors that enforced implementing the Continuous improvement program?		
No.	Notes (code)	study themes
1	Leadership support is the number one factor for the success of a continuous improvement programs. Leaders should demonstrate behaviors that they wish their employees to have.	Leadership Support
2	Make change as a long term change and not a short term initiative, changes need to maintain momentum to ensure the changes are not forgotten.	Managing change effectively
3	Give support to employees throughout the process, dedicated team can be assigned to guide and support employees	Leadership Support
4	Involving external parties is also important as part of the process, this can include, partners, supplies and customers	Stakeholders participation
5	Rewards & Recognition	Rewarding
6	Fair Work Allocation	Balanced work distribution
7	Management Encouraging Feedback & Suggestions	Leadership Support
8	Maintaining Work Life Balance	Balanced work distribution
9	Initiating Skip Level Meeting's	Employee's empowerment.
10	Practicing Transparent Work Culture	Effective Communication
11	Top management support	Leadership Support
12	commitment through meeting	Employees Commitment
13	reviewing and giving directions to support effective communication from the management.	Effective Communication
14	involvement in decision making and improvement, planning, creating a strong culture that related to improvement, training, Leadership role model	Employee Engagement
15	rewarding and motivating employees.	Rewarding
16	the entire organization starting from the CEO to the lowest level needs to speak to the same language. Everyone needs to be clear as to where the organization is heading and what the key milestones of the continuous program are.	Clear vision
17	All employees need to be involved. Hence, it is vital that a project steering committee involving senior management is set up and cross functional teams between different departments are set up to avoid cultural barriers and employee resistance.	Employee Engagement
18	Regular meetings of the cross functional teams and steering committee to monitor progress. The continuous program needs to be dynamic to accommodate uncertain market changes and internal changes.	Effective Communication
19	Regular meetings with top management	Effective Communication
20	a clear training plan for all employees in their specified areas.	Training and Awareness
21	Top management should believe the importance of improvement	Training and Awareness
22	Right team	Effective team building
23	Employees engagement	Employee Engagement
24	Allocate resources	Availability of resources
25	Clear Targets and objective	Clear vision
26	Clear plan	Planing
27	Effective training in quality and improvement at all levels of employees even managers.	Training and Awareness
28	Engagement and involvement in process updates.	Employee Engagement
29	Process mapping and transparent.	Effective Communication
30	Process KPIs implementing and reviewing it annually.	Planing
31	System availability in some departments.	Availability of resources
32	Management reviewing for performance and KPIs.	Employees Commitment
33	There standards an approach for service management and process documenting and improvement.	Standardization
34	Shared the knowledge though shared folders.	Effective Communication
35	Implementing the ISO9001:2015.	Standardization
36	Fully comply on the ISO9001 and no confirmatory cases	Employees Commitment
37	Using and implementing Lean and Kaizen tools and approach to improve.	Standardization
38	Effective awareness about the processes and service.	Training and Awareness
39	Shared the processes and services manual by details.	Effective Communication
40	There are a lot of measurement of customer voice such as: perception, happiness, mystery shopper, suggestions and complaint.	Collecting Data strategy
41	Having good culture for improvement and improvement.	pleasant work environment
42	Rewarding scheme implementing quarterly and annually.	Rewarding
43	Employee's empowerment.	Employee's empowerment.
44	Resource allocation and providing for small project in improvement.	Availability of resources
45	Leadership focused on customers.	Customer Focused
46	Commitment from team leaders and support from leadership.	Employees Commitment
47	Availability of information, databases, data to work on...etc.	Availability of resources
48	Having a proactive learning culture in the entity.	Training and Awareness
49	Having a rewarding system to encourage more employees to participate.	Rewarding
50	Implementation of quick wins throughout the continuous improvement program.	implementing quick win
51	Involving team members from different backgrounds and grades for more insights in the improvement process.	Effective Communication
52	Leadership Support.	Leadership Support
53	Effective Communication.	Effective Communication
54	Deployment of rewarding system to encourage more employees to participate.	Rewarding
55	Involve employees in decision making.	Employee Engagement
56	Effective Training Program.	Training and Awareness
57	Employee empowerment.	Employee's empowerment.

Appendix – A: Continuous improvement**Question 2: What are the main challenges and barriers that avoid implementing the Continues Improvement program effectively?**

No.	Notes (code)	study themes
1	Involvement of all stakeholders, which causes difficulty in fostering collaboration	Lack of communication
2	Employee engagement challenges, for them to accept change and for them to commit.	employee resistance for change
3	Enforcing change is a barrier, employees should be consistently involved.	lack of employee involmnet
4	Budget Constraints	Lack of resources
5	Insufficient Team Strength	poor team building
6	Long Working Hours	imbalanced work distribution
7	Inappropriate Process Flow	Inappropriate Process Flow
8	Lack of Training	Lack of Training
9	Lack of Resources	Lack of resources
10	Attitude Issues	unprofessional employee behavior
11	Centralized decisions: that would hold employees back from taking decisions and lead to over processing which will definitely kill employees improvement skills.	lack of employee empowerment
12	Lack of problem root - solving: if there is no dig down into the root cause, no matter what ideas you come up with will never have impacts as long as the base needs to be adjusted.	Difficulty in identifying weakness areas
13	Short sighted thoughts and/or visions: Temporary solutions vanish quickly as they have short life time which will have a negative impact on long term continuous improvements.	Absence of clear vision
14	Cultural differences.	Cultural differences.
15	Employee resistance.	employee resistance for change
16	Objectives of the improvement program are not clear between all levels of the organization.	Lack of communication
17	Continuous program being static.	Absence of the improvement plan
18	Lack of coordination between cross functional teams.	Lack of communication
19	The main challenge is usually the budget	Lack of resources
20	Resistance to change	employee resistance for change
21	Lack of awareness	Lack of awareness
22	Lack of resources	Lack of resources
23	Need accurate data and available about the services and customers journey.	Lack of valuable data
24	No supporting leaders and service managers.	Lack of leadership support
25	Need for competencies in quality and improvement as well as planning.	Absence of the improvement plan
26	Lack of knowledge in SMEs startup and development.	Lack of awareness
27	Lack of management practices in middle management.	Lack of Training
28	There is no clear objective for Quality and improvement as well as alignment with departments and	Absence of standrization
29	Fear for fail and risk-taking from managers.	lack of employee involmnet
30	There is no clear for improvement target and benefit expected.	Absence of the improvement plan
31	Need more communications and awareness about the plan and targets as well as feedback for progress.	Lack of communication
32	There are a lot of requirements that are related to quality and improvement.	Many Requirements are requested
33	Some Leaders have the resistance to change and improvement.	employee resistance for change
34	Need more training in quality and improvement.	Lack of Training
35	No clear tasks and responsibilities.	Absence of clear vision
36	The workload for some employees that impact negatively for supporting improvement and change.	imbalanced work distribution
37	Slow implementation and approvals from leadership	Lack of leadership support
38	Lack of budget	Lack of resources
39	Lack of resources	Lack of resources
40	Having other tasks to finalize along with the improvement process	imbalanced work distribution
41	Lack of commitment and motivations from the team	Lack of commitment
42	Depending on 1 person to plan and implement	lack of employee involmnet
43	Lack of budget.	Lack of resources
44	Employee resistance.	employee resistance for change
45	Lack of Training.	Lack of Training
46	Lack of awareness.	Lack of valuable data
47	Lack of accurate data.	Lack of valuable data

Appendix – A: Continuous improvement		
Question 3: How is the Continues Improvement program impacts the Employee's happiness?		
No.	Notes (code)	study themes
1	The program empowers employees to solve problems that encounters them and gradually improves the efficiency of their work processes.	Re-enforcing employees empowerment
2	It also lets employees know that their ideas are important, when implemented it changes the employee's role and responsibilities from being a passive actor to being an active participant of the business processes.	Re-enforcing employees engagement
3	Increases Productivity	Increases Employees Productivity
4	Improves quality	Improves Work quality
5	Improves employee satisfaction / morale	Reinforcing employees ethics
6	Higher Job Retention Rate	Higher Job Retention Rate
7	reduction in employee turnover rate	lower employee turnover rate
8	Multitasking	Increases Employees Productivity
9	Spreading Positivity	Reinforcing employees ethics
10	Leads to Process Improvement Initiatives	Improves Work quality
11	Enables Volunteering	Increases Employees Productivity
12	It raises employee's self-esteem and let them gain confidence.	Re-enforcing employees engagement
13	When employees are continuously valued and their opinions are implemented, they will love the working place and be keen on higher their company excellence bar	Increases Employees Productivity
14	Sustainable strong performance; employees will keep up reading and searching for best practices in order to maintain their performance level and gain the respect they always get.	Increases Employees Productivity
15	If employees are involved in the program with specific decision making authorities, they will feel their contribution and valued. This makes them happy mentally.	Reinforcing employees ethics
16	It increases the level of employee's happiness, it is a positive relationship between improvement and employees happiness	Improves Work quality
17	The employees able to involve and engagement in improvement.	Re-enforcing employees engagement
18	Transparent the processes that impact on the improvement	Re-enforcing effective communication
19	Participating in improvements processes as the employees are part of the improvements processes.	Re-enforcing employees engagement
20	The ability to speak out, communicate, participate and taking into consideration the employee's suggestions and feedback.	Re-enforcing employees empowerment
21	To have a verity of communication channels for processes improvement and quality to allow the employee's to present their suggestions and participation which helps in Employee's happiness.	Re-enforcing effective communication
22	Increases employees happiness towards the service that has been improved	Increase satisfaction
23	Increases Productivity	Increases Employees Productivity
24	Improves quality	Improves Work quality
25	The ability to speak out, communicate, participate and taking into consideration the employee's suggestions and feedback.	Re-enforcing employees engagement

Shopping Malls and Covid-19 Global Crisis- Shaikha's Shopping Mall (Imaginative Setting)

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Abstract

The purpose of this paper is to spot the light on Covid-19 crisis affecting the businesses around the world and making lots of stores, companies, retailers and shopping malls' owners struggle to keep their business on operation without going bankrupt. How the government new policies and regulations affected them. How they maintained their customer's even with the social destining and what strategies they followed to keep customers' safety first and what strategies they adopted to overcome this disruption. SHAIKHA's Shopping Mall is an imaginary mall used in this paper to focus on various challenges that most of the malls had to face in order to co-op with the covid-19 crisis and how shopping malls have strived the Covid-19 pandemic in more details, why a radical change was needed, and how the shopping malls' owners embraced technology in order to increase their income, productivity and competency. In addition, the physical shopping mall before and after the crisis will be illustrated in this research paper. Plus, the essay will talk about the people involved in the change with their names, job descriptions and roles in carrying out the change towards success in most critical situation in SHAIKHA's Shopping Mall as well as, the impacted people and how they adopted the change effectively. Never the less, I'll discuss the mall's future actions to maintain and fulfill the customers' demands and create a new reason for them to visit the mall and enhance their experience in general. Last but not least, Kurt Lewin's change model will be linked to the research situation and how this selected change model helped the change management manage the crisis and how they carried out the change as well as, how they unfreezed the old habits and how they refreezed the new habits to achieve SHAIKHA's Shopping Mall new goals.

Keywords: shopping malls, crisis, covid-19, business, economy, omnichannel, multichannel, change, change model, Kurt Lewin, change management

Introduction

Covid-19 crisis striking down the businesses around the world and making lots of stores, companies, retailers and shopping malls owners struggle to find ways on how to keep their business operating without being bankrupt. Having the government policies to keep the social distance for the sake of the people's safety and locking down the cities to contain the virus from spreading out has made many companies, retailers and landlords change their whole operating systems and practices in order to survive this crucial disruption. SHAIKHA's Shopping Mall is one of the shopping malls that had gone through various challenges in order to co-op with the covid-19 crisis.

In this essay SHAIKHA's Shopping Mall will be an example setting of how shopping malls have strived the Covid-19 pandemic in details, why a radical change was needed, and how they embraced technology to increase their productivity and competency. In addition, the physical shopping mall before and after the crisis will be illustrated in this essay.

Plus, the essay will talk about the people involved in the change with their job description and roles in carrying out the change towards success in most critical situation in SHAIKHA'S Shopping Mall as well as, the impacted people and how they adopted the change effectively. Never the less, I'll discuss the mall's future actions to maintain and fulfill the customer's demands and create a new reason for them to visit the mall and enhance their experience in general.

The Setting

SHAIKHA'S Shopping Mall is one of those malls where people meet, dine in, buy, play and spend their time with their family. This shopping mall contains several fashion stores, restaurants, and a couple of cafés, one cinema, one gymnasium, children's playground, a spa, and a supermarket. Moreover, SHAIKHA'S shopping mall has one formal website which fulfills customer's online orders beside some multichannel such as Facebook, Twitter, Instagram and Snapchat.

Before the crisis people used to socialize and experience the new lifestyle in SHAIKHA'S Shopping Mall. The sales were good enough for the mall to survive. But Moza the CEO of the mall wasn't fully satisfied with the sales outcomes and the employees' performance. So, she has decided to adopt a change to increase the productivity and the staffs' competence. But before adopting the change the Covid-19 knocks down the businesses around the world forcing the CEO to think again about the future of the mall.

Which made her hold an urgent meeting with her change management team. The team contains seven people, the change manager Mr. Ahmad who is the direct manager of the customer service department. Ms. Maitha is the head of communication and technology department and an expert in e-commerce online business. Another team member is Ms. Dua a proactive leader and a change agent working as a front tier in customer service for several years with a significant experience in customer happiness service. As well as, Ms. Ameena the sales and marketing director with her co-partner Ms. Alya.

These two are the people who are working behind the scene and enabling customers to recognize our mall widely around the world. Furthermore, Ms. Latifa a professional training expert in training department and an active member in change management team. Last but not least Ms. Sayeda who is an innovative person working in change and innovation department.

The Gap and the Change Needed

The rapid changes happening around the world and the technology era affecting the companies and the organization to go fully digitalized in every aspect of the organization. This has created a gap in SHAIKHA'S actual Shopping Mall which made Ms. Dua the proactive employee assesses the problem and come up with a plan, which was introduced in the meeting to discuss it with the change management members. The identified gap was as explained in the table below:

The Gap	The Department	The Solution
Lack of training provided for employees	Customer Service	Regular training on how to deal with customers professionally
Lack of technology knowledge	Communication and Technology Department	Training on using the newest technology according to the market demands
Low Marketing advertisement	Communication and Technology Department and Sales and Marketing Department	Coming up with innovative ideas integrated with technology (using omnichannel approach)
Covid-19 Crisis	Sales and Marketing Department	Joining powers by co-operating with other e-commerce companies such as Noon.com, Souq.com, Amazon.com, Namshi.com
The Physical building	Change and Innovation Department	Construction renovation

Change Management Team's Roles and The Change Implementation

In a meeting with all the customer service employees the manager Mr. Ahmad introduces the change and explains why the change is needed and how it will be implemented and who will be directly affected by the change. He mentioned that the change has to be implemented immediately to save the mall from bankruptcy and the employees from losing their jobs. He explained that the mall will go fully online through omnichannel approach and that employees will switch to remote work where they will have to work from home. He was interrupted by some employees who seemed to be annoyed about the change. Are we closing down? Are we all going to work from distance or some of the employees will be terminated? As Mr. Ahmad listens carefully to the employees' concern and with a good manner he smiles and replays that all the employees will have to work from home to keep the social distance. As these are the government safety policies to prevent the virus from expanding. Mr. Ahmad added that all the employees will be trained on using technology and all will be provided with resources and supports needed to accomplish the designated goals. He stated that working from distance is an advantage to everyone. Just think about it, you won't have to pay for your car's fuel, you're not going to be stuck in the traffic or even wake up at 4 pm just to arrive at work early and many other advantages. He concluded that the company cherishes every employee and will not let go of them, because of Covid-19 crisis, instead he calmed them and asked them to unite as one and work collaboratively to overcome the challenges all together as one family. As Hudescu and Ilies (2011) stated that "leaders must communicate with the employees in terms of making them understand the basics of the change or else employees will not value the purpose of the change process and will resist it, which will act as a boundary to the change process".

Ms. Maitha is working with other professionals in designing and creating a strong digital online platform to enhance the customer's experience. As this method will allow them to reach every customer and accomplish their needs and enrich their shopping experiences. Ms. Maitha knows well that success comes from happy customers. And to achieve that Ms. Maitha launches an omnichannel retail to integrate the actual store with the online store to provide the customers with continuous shopping experience through various channels. According to Tessa Roberts, "Omnichannel retail (or omnichannel commerce) is a multichannel approach to sales that focus on providing seamless customer experience whether the client is shopping online from a mobile

device, a laptop or in a brick-and-mortar store”. (Roberts, 2020) This approach will help improve the customer service and will allow for more flexible interaction between them and the customers. Never the less, omnichannel will enable them to hear more from the customers, get their honest opinion and feedback on the products or the services.

Ms. Ameena the sales and marketing director is working with her co-partner Ms. Alya on joining hands with big brands to promote the products and services. Because of Covid-19 pandemic few customers will visit the actual mall where the number of the customers will be lesser than before regarding the strict restriction on the people’s number and the government concern towards public safety. So, the sales and marketing director is cooperating with Noon.com, Souq.com, Amazon.com and Namshi.com in order to merchandize the products effectively and increase the mall’s revenue.

Moreover, Ms. Alya suggested to have a reward program strategy with specific benefits to retain the present customers and draw in new customers too. For example, a special reduction for premium customers and a special gift coupon on their birthday. While for the new customers we could offer them a welcoming 10% off on their first purchase. Beside that we would offer 5% off for selected customers who carry student card, Sanad card for people with disability, Senior Emiratis card, esaad card, Homat Al Watan card...etc.

After launching the digital platform where the employees will work from home. They need to be trained beforehand and should be supplied with the needed resources to be able to implement the change. Ms. Latifa is the training professional from technology department who is working collaboratively with Ms. Dua in delivering the main objectives and the new values of the mall. Ms. Latifa is training the employees on how to use specific programs and softwares that will help them work easily from distance.

While, Ms. Dua encourages the employees to participate in the change by motivating them and creating a shared goal and desire, which will help them build their self-confidence and increase their performance quality. “It is important for a change agent or leader to motivate and inspire the employees of the organization” (Gilley et al, 2009). Furthermore, providing the employees with efficient tools to enhance their productivity by distributing laptops, computers, headsets and other needed devices depending on the employees’ job.

As well as, installing and downloading the required software that would help them access the work database. Plus, providing them with business phone software to allow the employees communicate effectively with the customers and colleagues. In addition, supporting the employees with an online contact with IT support center to ease any problems or issues that they may face while they’re on remote. According to Luscher and Lewis (2008), “change agents must be extensively involved with the process of change and must be highly cooperative and flexible when interacting with employees”.

The experienced Ms. Dua and a proactive leader delegates the tasks to the employees and ensures that every employee knows his/her new role in carrying out the change.

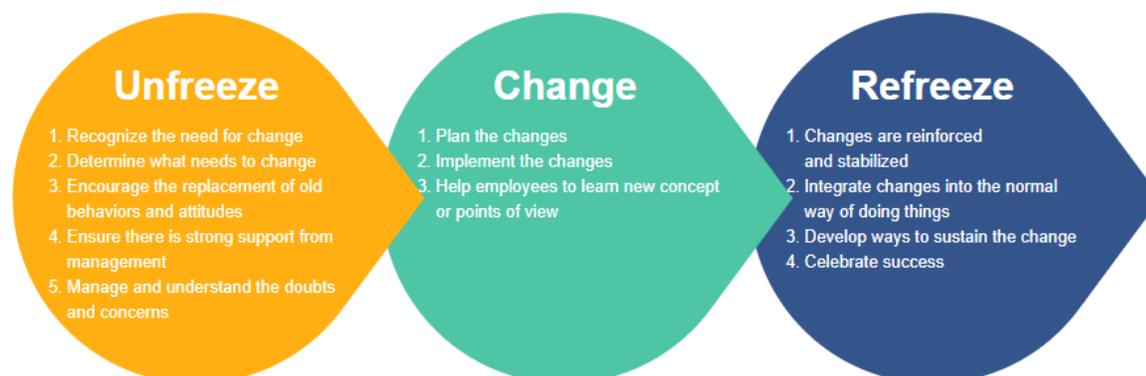
The proactive leader communicates with the employees regularly through communication mediums such as Team, Zoom, Skype and DialPad just in case they need any help, support them if they have any struggle with the program as well as track their productivity frequently. Plus, she keeps reinforcing the good behaviors to ensure the sustainability of the change. However, Dua reports back the employees' feedback to the top management to know how they're performing from distance to reinforce the desired behavior and celebrate the success.

Future Actions for a Brighter Experience

Not to mention that the CEO of the mall is worried about the future of the SHAIKHA's physical mall. She stated that if customers are more interested in digital shopping, then what should we do to attract them back. She asked Ms. Sayeda for her opinion, because she is an innovative person with brilliant ideas when it comes to innovation and change. Ms. Sayeda has suggested several things to give customers a relevant reason to draw them back to the actual mall. She mentioned that people are looking for social interaction, because of Covid-19 restriction. So, as the pandemic restriction is being slowly lifted the mall needs to focus on:

- 1- The safety of the customers by providing sanitizers in every store and in every corner of the mall. Plus, providing masks and gloves for customers and employees to avoid direct touch.
- 2- Increase the green scenery spaces with a new decoration for a relaxation environment and add seating for people to relax and take pictures.
- 3- Expanding the food hall for more interactive experience by including variety of food from different cultures with great offers.
- 4- Increase the leisure activities, fun zones and build new stores, offices, clinics, pharmacies, libraries and other facilities or services.
- 5- Increase the parking spaces.
- 6- provide other retailers and businesses with great offers and opportunities to rent spaces for occasions, exhibitions and events.

Kurt Lewin's Change Model



(Anon., 2020)

In this setting the change model that best fits is Kurt Lewin's change model which contains three main stages and emphasizes on the leader's role. "This process is being initiated through Lewin's (1947) three steps change model denoting the step-by-step phases of unfreezing, changing and refreezing, so employees are being involved and instructed by leaders regarding the issues related to change process". (Porras & Robertson, 1992) In our setting the CEO adopted the change regarding the poor operation of the mall as well as, the external effect of the pandemic Covid-19.

This reactive change enabled the mall to adopt a quick-change model to cope with the disruption. So, the employees were informed about the necessity of the change required to move the mall from its current state to the future desired state. This is where Mr. Ahmad gathered his staff to talk about the current situation, why the change is needed, how it affects the mall and its employees and what is the new role for each employee and what's expected from them. The next stage where the change was taking place by affecting the employees' performance, skills and services. Which was carried by the change management team with the guidance of the leader Ms. Dua. The last stage is refreezing where the change has been implemented successfully and the desired behaviors were reinforced by the top management to sustain the change continuous practice within the mall.

Unfreezing the Old Habits	Adopting the Change	Refreezing the New Habits
CEO recognizing the need to adopt change regarding the external effect of covid-19	The team management analyzing the current situation and creating an effective action plan	Provide the employees with support and encouragement for a sustainable change.
The employees' performance, skills and the physical service need to be changed and updated through technology and distance learning	Carrying out the change and implementing the action plan	Reinforce the good behaviors and reward them
Mr. Ahmad informing the employees about the reason behind the change and encourage them to adopt the new skills, behaviors for a better performance	Help and encourage employees adopt the change and enable them to learn the new skills required.	Create a sustainable plan to ensure the continuity of the change for a long term
Provide the employees with the support needed through training them and providing them with all the resources needed	Give the employees the time and the opportunity to practice and adjust to the new situation	Celebrate the success of the change implementation to motivate the employees and to encourage them carry with new adopted behavior.
Mr. Ahmad managing the employees' concerns, understands them and listens to them		

Conclusion

Being a proactive company, organization or mall helps in adopting change and makes them ready to co-op with any crisis that might arise in the future. Adopting a change model as Edgehouse *et al.* (2007, p. 7) suggested that, “models are useful tools. Not only because they provide path to follow, but also because they are powerful mechanisms that can down out anxieties about unknown future result”. Plus, having an effective change management team in every company or organization with proactive members will help in implementing the change and will reduce the resistance among employees. Never the less, having a great communication among the top management, change management, employees and customers will enrich the individuals’ experiences plus, will ensure that accurate information and services are delivered. Shopping malls and retailers need to concentrate on investing more and more on digital stores to increase the productivity and create an effective and attractive experience as well as, to achieve customers’ satisfaction.

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Quality services in Islam Perspective

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1.1 Abstract

Quality management services concept implanted in most of the developed countries, most of organisations are operate within a competitive environment. The Quality management is not a new concept in Islam. The religion of Islam encouraged the Muslims to perform the works in perfect way because Muslim's fully believe that Allah will reward those people who do a good performance in a perfect way. There are many evidences in the Glorious Qur'an and in Sunnah explain this concept. This paper will find out these evidences that the quality service concept started before 1400 years not when the father of total quality management "Deming" established the 14 point's related to the quality management.

In Islam Prophet Muhammad Peace Be Upon Him (PBUH), established the standards for all Muslims and if the Muslims follow these standards he/she will get reward from Allah. This is clear evidence that the standard concept is not new concept it came from Islam. So, the quality is the standard and the standard as just discussed came from Islam. So, can conclude that the quality came from Islam!

However, the quality in Islam is to get Allah satisfaction. Therefore, the Muslim have to do services in Islam with higher standards and have to care about how Allah sees these things done. Also, Muslim's should do everything because Muslims feel and fully believe that Allah see him/her

On the other hands, most of Hadith in Sunnah mentioned the meaning of quality management in different ways and Prophet Muhammad Peace Be Upon Him (PBUH) created the standards through explaining the Qura'an and if anyone implemented these standards will get satisfaction and reward from Allah.

1.2 Keywords: *Quality Management, Total Quality Management, Quality standard and Quality management in Islam perspective.*

1.3 Introduction

New organisations have become very interested in applying the concept of quality management in all divisions with variety models of quality. Quality management is considered an effective management tool in supporting and improving organisation performance. The most successful and inventive organisations are concentrated in using quality management as model forward to excellence.

However, most organisations are coming under strong pressure to ensure that their performance is up to global standards to remain globally competitive. For that reason, different organization sectors applying yearly to win one of any quality award standards which strive to improve and develop their performance.

To begin with, quality management might refer both to a product (or service) or to the process that generates it (Sartor, 2019). Quality management is focused not only on product and its service quality, but also the means to achieve it (Hawarna, 2011). This paper will focus on quality

management in general concept which including quality management. In addition, will discuss the topic in two pronged: The first, explained the quality management as a standard concept, which many people knew. The second explained the quality management concept based on Glorious Qur'an and the Sunnah. In addition, this paper will discuss the quality management concentrated on services and find the compatible concept in Islam perspective.

In addition, Allah said in the Surah Al-Naml, (Verse 27: 88) that “The artistry of God, who disposes of all things in perfect order”. So, the quality management criteria's came from Islam perspective, which began before 14th century, and not as the Western countries declared that they are the pioneers in this field. This paper will try to fill out the gap and show the evidences from Glorious Qur'an and Sunnah that the pioneers of the quality management concept came from Islam.

This paper will view the meaning of quality management and quality management in Islam perspective. The aim is to find out the gap related to these meaning.

1.4 Review of the literature

Management is the process of getting things done through other people, which mean that there are management functions. These functions are simply parts of a manager's job in any organization. The organizations constitute groups of people endowed with diverse capabilities and interest, working towards achieving a common vision through a set of goals (Alhabshi, 1998).

Quality Management (QM) and Total Quality Management (TQM) are synonymous. However, TQM is a wide-ranging term than quality management that includes all levels of management in organisation and covers all activities. Quality Management and Total Quality Management enhance continuous improvement to increase organisational performance.

Quite a few definitions have been proposed by quality gurus to explain the meaning of Quality Management and Total Quality Management. For instance, W. Edwards Deming (1986) stated that, “Quality management should be aimed at the needs of the consumer, present and future.” Joseph M. Juran defined Total Quality Management as a comprehensive management approach aiming at satisfying the customer (Juran, 1986). Dr. Joseph M. Juran presented Juran Trilogy, called Quality Trilogy; the aim of this Trilogy is to manage the quality.

The traditional approach to quality at that time was based on quality control, but today, the Trilogy has become the basis for most quality management best practices around the world. The Juran Trilogy is a universal way of thinking about quality—it fits all functions, all levels, and all product and service lines. Dr. Joseph M. Juran extended his definition to include continuous improvement and total customer satisfaction (Stephens, & Juran, 2005). The most successful and innovative organisations concentrate on using quality management as a model toward achieving excellence (Reis, Pena, & Gillis, 2011). Juran defined quality “Doing the right things from the first time and without mistake” (Juran, 1986).

However, Quality improvement begins with what Crosby (1986) calls the four absolutes of quality management, which are: (1) quality is conformance to the requirement (2) system of quality is prevention (3) the performance standard is Zero Defects, and (4) the measurement of quality is the price of non-conformance.

Two of the best described Crosby quality approaches as cited in Hart & Bogan (1992) are:

1. Do it right the first time and every time. There is no place in his philosophy for differing level of quality or categories of quality (e.g. high/low, good/poor). He stresses that the way to manage quality is by prevention, not detection and testing.
2. Zero defects or defect free: does not mean that the product does not have to be perfect. It does mean that every individual in the organisation is committed to meeting the requirement the first time, every time and that not meeting the requirement is not acceptable (Crosby, 1979).

In addition, Crosby's Zero Defects is a performance method and standard that states that people should commit themselves too closely monitoring details and avoid errors. By doing this, they move closer to the zero defects goal. According to Crosby, zero defects was not just a manufacturing principle but was an all-pervading philosophy that ought to influence every decision that we make. Managerial notions of defects being unacceptable and everyone doing 'things right the first time' are reinforced. Quality management is all about doing the right things right, first time. It is a complete focus on the management of people and process to guarantee customer satisfaction at all times.

However, before 14th century Prophet Muhammad Peace Be Upon Him (PBUH) said: "Allah loves that if one does a job, he perfects it". The same meaning used in current time but in a different concept under the meaning of do the right thing with zero defect (Juran, 1986). This means you must do all things without any mistake.

In addition, Allah said in Surah Al Taubah, (Verse 105 : 9) "Work (righteousness): Soon will Allah observe your work, and His Messenger, and the Believers: Soon will ye be brought back to the knower of what is hidden and what is open: then will He show you the truth of all that ye did."

For that reason, the Muslims motivation is clear in Islam perspective because Muslims knows very well that Allah sees all of us and rewards the honest and hardworking ones. The Prophet Muhammad Peace Be Upon Him (PBUH) has taught us that every human endeavor is an act of worship and charity. Thus, a Muslim engaged in work knows that through his work, he is worshipping his Lord, and this is a powerful motivator in itself irrespective of any material gain (Ahmad, 2006). However, there are three states or stages of the development of the human soul or nafs (Al Habashi, 1998):

- 1- Ammarah which is prone to evil, and, if not checked and controlled, will lead to Perdition.
- 2- Lawwamah, which feels consciousness of evil, and resists it, asks for Allah's grace, pardon after repentance, and tries to amend; it hopes to each salvation.
- 3- Mutma'innah, the highest stage of all, when the soul achieves full rest and

satisfaction after aql (intellect) has checked the evil tendencies of man.

“In a short, quality management services in Islam it depends on internal feeling which call “Niyah” seeking for good services concerning reward from Allah and can find this meaning from “Hud Surah”, (Verse 11: 15). “Whoso desireth the life of the world and its pomp, we shall repay them their deeds herein, and therein they will not be wronged”.

1.4.1 Quality Management Standard

In addition; the concept of quality must start from the inception of the product. If the raw material used does not possess good quality, the final product cannot meet the required quality standards. Even, if the quality of the raw material is satisfactory, the process of manufacture will also contribute for the products quality. To check the quality of the products standards are set by the government and the products, which pass through the tests conducted by such organization, acquire the standard make, which ultimately helps in selling the product (Mishra & Sandilya 2009).

However, top management believe that quality awards require them to change their policy, strategy, and sometimes their organizational chart to meet quality standards and to increase the customer satisfaction, as Joseph M. Juran mentioned in his book “Without a standard there is no logical basis for making a decision or taking action.”(Juran, 1986). In other word, the quality is a standard, and any organisation follow this standards will achieve the quality such as Edward Deming’s establish fourteen points to reach the standard of quality and if any organisation implement these points will achieve quality and will be reward for any quality services.

Conversely, the standards of quality came and rooted from Islam perspective and can find the evidence from this Hadith. Allah’s Apostle entered the mosque and a person followed him. The man prayed and went to the Prophet and greeted him. The Prophet returned the greeting and said to him, “Go back and pray, for you have not prayed”. The man went back prayed in the same way as before, returned and greeted the Prophet who said, “Go back and pray, for you have not prayed.” This happened thrice. The man said, “By Him Who sent you with the Truth, I cannot offer the prayer in a better way than this. Please, teach me how to pray.” The Prophet said, “When you stand for Prayer say Takbir and then recite from the Holy Qur’an (of what you know by heart) and then bow till you feel at ease. Then raise your head and stand up straight, then prostrate till you feel at ease during your prostration, then sit with calmness till you feel at ease (do not hurry) and do the same in all your prayers. So, the Prophet Muhammad Peace Be Upon Him (PBUH) does not agree about the way that the person pray because the person does not reach the standards to let Allah accepted the pray. With the same concept, the quality management established by standards and if any organisation implements these standards will increase the profit growth, and customer satisfactions, reduce the employee’s retention and will get quality rewards and excellence degree, which can enhance the reputation.

1.4.2 Quality Management focus on leadership and customer’s satisfaction

Quality leaders in successful organisations believe that management and the system are the cause of poor quality rather than the workers (Juran & Gryna, 1993). Contemporary organisations should

have leaders who shape the future and make it happen. Such leaders act as role models for its subordinates by being exemplary and promoting values, ethics, and inspiring trust at all times. The leaders must be flexible, enabling the organisation to anticipate and react in a timely manner to ensure the on-going success of the organisation. One of the main task for the top management and leaderships in any organization is to increase the customer's satisfaction and decrease complains.

1.4.2.1 Leadership

Juran (1991) mentioned that leaders must meet the challenge of education. Leaders have to implement an open-door policy to feel free and encourage the employees to share new ideas with their line managers. On the other hand, Crosby (1991) illustrated that the leaders must be reoriented to learn how to avoid the problems that got the organisation into trouble. In addition, employees must be respected enough for making them interested in work, so that management benefits from their knowledge and experience.

Joseph M. Juran said, "It is most important that top management be quality-minded". In the absence of sincere manifestation of interest at the top, little will happen below." (Juran, 1993) in Islam the managers should be role models for all employees. Therefore, they can understand the purpose and the mission of the organisation from the manager attitudes and from his instructions as a leader of the organization. This can be clear from Al Hadith that Prophet Muhammad Peace Be Upon Him (PBUH) said, "Pray as you have seen me praying, and when it is the time of prayer, one of you should pronounce the call (Adhan) for the prayer and the eldest of you should lead the prayer".

In addition, the Prophet Muhammad Peace Be Upon Him (PBUH) said, 'The truthful trustworthy merchant is with the Prophet Muhammad Peace Be Upon Him (PBUH), the true ones and the martyrs (on the Day of Resurrection). Therefore, the leadership should be role model.

1.4.2.2 Customer satisfaction:

The quality of a product, system and services can defined as its ability to ensure complete customer satisfaction in totality (Mishra & Sandilya 2009). Edward Deming, an eminent statistician, was one of the first to recognise the importance of service as a vital component of quality. He is credited with having taught the Japanese how to create and deliver quality while much of his work centered on products; his vision of quality is very broad in scope and extends beyond statistical quality control making his ideas relevant to any area of services quality (Chakrapani, 1991).

In addition, Quality management services is a key to organisational success, and as a certain management style shows its effectiveness, in today's competitive marketplace, organizations are facing increasing pressure to apply creative ideas and strategies and achieve sustained operational excellence to improve their overall performance and competitiveness' (Al-Dhaafri, Al-Swidi and Yusoff, 2016; Kirkham et al, 2014).

The reason for this includes market globalization, increased customer focus on quality, the inter dependence of economies and technological innovations (Maheshwari & Vohra, 2015). These

changes and challenges have provided crucial opportunities for organizations to optimize the use of their capabilities efficiently for growth in their business environment (Ali, Hilman & Gorodutse,2017).

However, in any quality award, the high score always given to the customer results. In this regard, Fram & McCarthy (2011) recommended for organization managers to sustain customer satisfaction, they need to do three things. They recommend continuous focus on the basic expectations of customers, and continuous provision of customer support via efficient deployment of existing technological capabilities with a view, continuous improvements in a way that keeps pace with technological innovations.

Therefore, the positive relationships between external and internal customers can found if the employees were satisfied with the external customers, because if the employees were satisfied they will be more loyal to the organisation and can provide unique services. So, the employees should contact the customers in a good way. The positive relationship is an organisation with customers, if not; it means organisations are too far to make profits.

In addition, Capodagli & Jackson (1999) mentioned understanding your customer is an essential element in achieving organisational excellence. As the master of customer focus, Walt Disney mentioned that, you do not build the product for yourself; you need to know what the people want and build it for them. (Capodagli & Jackson, 1999). Total Quality Management (TQM) emphasis customers feedback, performance monitoring, continuous improvement, and worker participation. Edwards Deming focus on create constancy of purpose toward improvement of product and service with the aim to become competitive, stay in business and provide jobs (Chakrapani, 1991).

However, Quality management services are related to organizations provides services. If you provide services to customers you, must smile in front of customers. Allah's Messenger Peace Be Upon Him PBUH said, "Your smile before your brother is a Sadaqah for you". In addition, Islam said you have to share full time for customer's satisfactions. So, Allah will reward you because you are going behind the Islam attitudes".

In addition, the Sunnah on the authority of Abu Dharr Jundub ibn Janadah and Abu Abd al-Rahman Muadh Ibn Jabal - may God be. He said" Fear God wherever you are and pleased with them- on the authority of messenger of God follow the bad and the good will erase it and create people with good manners. Narrated by al-Tirmidhi. Two of the companions on the authority of the Hadith narrated this Hadith: Abu Dharr and Mu adh Bin Jabal- may God be pleased with them both.

However, Quality in Islam can be explained from this Hadith: "He who acted dishonestly towards us is not of us", which means everything should be standard and truth in Islam and does not any deception.

However, Quality in Islam perspective should no cheating no lying, and has good standard quality because it is impossible to separate the process and the human factor. Therefore, quality in Islam perspective is a fulfillment of expectation, is doing good things right and this is uniquely defined by each individual.

1.5 Methodology

This paper presents a description of the methods used to collect data in order to find out the meaning of the quality services in Islam perspective. This paper collected the secondary data from the literature review references that explained the meaning of quality services based on Islam perspective.

1.6 Results and Discussion

Based on what explained and discussed above, can say that, this paper tried to fill out the gap and find out the concept of quality management services in Islam perspective. Quality management services can be seen from this example, most companies work are not related or based on Islamic perspective. They do their tasks without giving any attention whether these tasks are made according to Sharera'a or not. For example, the Bar selling alcohol this Bar provide a good services and the management of this Bar make sure that the customers are satisfy and all process happen in a good way that means it should be in high quality. While in reality all this work done does not related to Islam. So, the quality services in Islam perspective should not related to all sectors (Hawarna, 2011).

1.7 Conclusion

As common known that some organisations may be trading in or selling in khamr or other haram products or services; hence, the conduct of the whole organisation is unethical but most of these organisations are implement quality management standards and provide good level of services (Beekun, 1981).

From all of above, the father (founder) of quality is Joseph M. Juran from the West and his popular ideas about quality or the Prophet Muhammad Peace Be Upon Him (PBUH) and his ahead-of-time concepts!

Many Arab countries are using the quality model, with many criteria and standards to improve the organisations (government and privet sectors) without being aware that what they are implementing is quality's concept that originated from their own religion. The unbelievable thing is that most of the organisations in the Arab world are trying to implement and translate the quality model created by the West. Sometimes, they find some difficulties translating the same exact method, which might result in poor and weaker outcomes.

On the other hand, implementing quality model based on Islamic values, which is ready to use through the holy Qur'an and Sunnah, will effect in a better result and stronger outcomes. Can say, that there is a gap in this field and need to create new quality model based on Islam perspective and can say that prophet Muhammad Peace Be Upon Him (PBUH) is the father of quality and the quality existed before Islam, but with Islam quality, it became more complete.

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Managing change in the Ministry of Education in the UAE

Alya AlAli and Eman Al Ghefli

HBMSU learners

Abstract

Ministry of Education has firm the Education 2020 strategy which is intended to structure a knowledge-driven economy as the country furthers its economic diversification. Ministry of Education enthusiastic its hard work in evolving and developing an advanced and innovative education system that is important for generating knowledgeable and worldwide competitive labor force that will encounter the growing requirements and demands in the labor market. since the world has faced a diverse crisis in the recent age, the COVID 19 pandemic has developed a different crisis for which the management change entails a different strategy. This study aims to determine how change management was applied and what are the suitable and appropriate strategies was conducted and followed. To test the hypothesis that empathetic the new idea of the change management of the Ministry of Education of the UAE to promote new learning methods and systems. It requires theoretical data for the research work; Hence, this research has used qualitative data (an interview) which was conducted through an online videoconferencing platform, Zoom with the manager of Mohammed bin Rashid Smart Learning Program in the United Arab Emirates. The interview, which took for an hour, facilitated pointedly in providing rich evidence about the change that emerged within the Ministry of Education as well as the challenges that came along with thought change as well as the resistance it handled during the execution process and the critical success factors, are presented. With the determination of examining Ministry of Education and the change it has implemented and applied, many aspects were covered in a form of a Research presenting the case study research methodology, reasons for the MOE change implementation, the change model, examples of the faced resistance and finally critical success factors.

Keywords: Change Management, Pandemic, Covid-19, Resistance, Success Factor, UAE Education.

Introduction

The UAE's Ministry of Education (MOE) is the governing body that oversees all of education matters in the country. The Ministry is responsible for UAE's education planning which include setting a general academic policy for all schools and universities to follow and implement strategies including education improvements intended to fulfil the needs of the community. Guided by its vision, "Innovative education for a knowledge, pioneering, and global society", MOE dedicated its efforts in developing an innovative education system that is key for generating knowledgeable and globally competitive labor force that will meet the increasing requirements and demands in the labor market (United Arab Emirates Ministry of Education, 2020). Furthermore, the Ministry supports the national government's pursuit of "ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all citizens", which is basically one of UAE's sustainable development goals. In fact, MOE has developed the Education 2020 strategy which is aimed towards building a knowledge-driven economy as the country furthers its economic diversification (UAE Government, 2020).

Research Methodology

Research Approach

Though the world has faced a different crisis in the modern age, the COVID pandemic has developed a different crisis for which the management change requires a different strategy which cannot be covered using conventional approach or theories (Clark and Vealé, 2018). Hence in the research, the inductive approach is used.

Data Collection

As this research work sheds light upon understanding the new concept of the change management of the Ministry of Education of the UAE to promote new learning methods the research work requires conceptual or theoretical data for the research work, Hence, this research has used qualitative data.

Research Strategy

As it is defined that the research is dependent on the qualitative data it is essential to understand the sources of data. Generally, there are two sources such as primary sources of data and secondary sources of data. To make the research authentic, interviewing has been chosen for the research work based on some research questions through an interview with Halawa Al Shehhi, manager of Mohammed bin Rashid Smart Learning Program, all important details regarding the change implemented by the Ministry, including the resistance it faced during the implementation and the critical success factors, are presented. The interview was conducted on 22 October 2020, 11:32AM - 12:35 PM through an online videoconferencing platform, Zoom. The interview, which lasted for an hour, helped significantly in providing rich information about the change that transpired within the Ministry as well as the challenges that came along with said change.

With the purpose of examining MOE and the change it has implemented, this paper presents the underlying processes of the Ministry's change model.

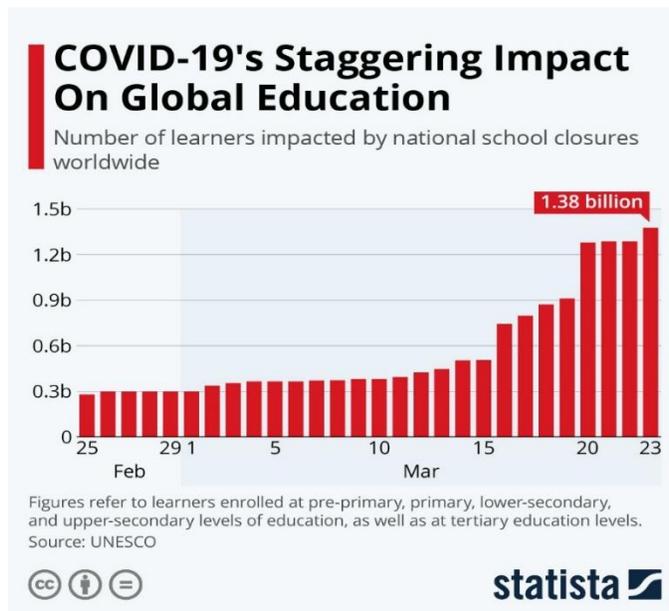
Reason for the Change Implementation in the Ministry of Education

The COVID-19 pandemic, one of the inconsequential events in the 21st century, has severely affected many countries worldwide. Health, **education**, business, and other economic sectors had been equally disrupted as well. According to Pak, et al. (2020), aside from the increasing mortality rates, COVID-19 also generated negative economic consequences as evidenced by closures of business, reduced productivity, disruptions in global trade, and the decline of tourism industry due to travel restrictions. Also, the education sector was found to have been significantly impacted by the pandemic.

As shown on Figure 1 on the next page, COVID-19 has affected more than a billion of students worldwide between February and March caused by the disruptions of classes and school closures. In the study of Nicola, et al. (2020), it was revealed that as governments implemented mandates and protocols on social distancing, lockdowns, and travel bans, schools have also closed down, forcing the education sector to come up with strategies to adapt to these unparalleled changes. As Sahu (2020) additionally indicated, schools and universities worldwide have been taking the necessary precautionary and control measures to ensure the safety of their students and their staff members. In the interview with Al Shehhi, she revealed that because of COVID-19, changes had

to happen in the education sector and stated, “The spread of COVID-19 pandemic has affected education significant, as schools and universities around the world have been closed to contain the coronavirus epidemic on 91 percent of students, and thus learning has moved from classrooms to homes.”

Figure 1: Impact of COVID-19 on Global Education (McCarthy, 2020)



The UAE is not exempt from these difficulties. As a matter of fact, UAE announced the temporary closure of its schools and universities, both private and public, in an attempt to contain the spread of the coronavirus. Considering the extent of implication that COVID-19 has caused worldwide, the federal government considered it necessary to undertake this strategy so as to also use the time to sterilize the schools and their facilities (Arab News, 2020). Spearheading this initiative, the Ministry of Education felt that it will be appropriate to close down the schools and universities in the country as it operates the sterilization program. As Al Shehhi mentioned, the schools and universities were closed from March 8 until the end of the school year and that the Ministry of Education, in cooperation with the national government, took this as an opportunity “to work closely with principals and teachers to immediately start pursuing education online.”

The Change Model

With the need for a change implementation in the Ministry of Education being primarily driven by the COVID-19 pandemic, the organization has identified distance learning system as the most suitable initiative in this time of crisis. As it faces a problem in planning and scheduling the educational activities of the students now that schools, colleges, and universities have temporarily shut down as a control measure of the government, the Ministry is spearheading in taking education online. However, the UAE is not the only country that has started to embrace online learning or e-learning. As indicated by Ali (2020), many countries such as Romania and Belgium have shifted towards online education in observation of the global health protocol on social distancing. In

addition, governments recognize e-learning as a solution in sustaining the continuity of teaching and learning amidst the pandemic.

Some nations such as the Philippines were challenged with this shift. The Asian country which was completely unprepared for the change of learning setup faced several barriers. It was mentioned by Toquero (2021) that this difficulty is brought by the fact that teaching in the Philippines was conducted in a conventional classroom setting prior to the coronavirus outbreak. However, for the UAE, the adoption of online learning or distance learning is a welcomed change. As Al Shehhi said during the interview, “The education sector in the United Arab Emirates has been prepared for this radical transformation in advance since 2017 by forming a working group tasked with implementing an experimental ‘transformation into smart’ education, which I am currently leading as the director of (referring to Mohammed bin Rashid Smart Learning Program).”

Indeed, the UAE has long adopted online education even before the COVID-19 pandemic. As a matter of fact, the Arab country has been pushing the use of ICT in the education sector. According to Snoussi (2019), when the government has integrated the ICT solutions in its transition to smart government, it has also recognized the potential of bringing these technologies to transform education institutions across the country. Several schools have been used e-learning tools to improve the quality of student education. Majority of the schools in the UAE are using blended learning which is the combination of e-learning and offline learning or the traditional teaching/learning method. It is also additionally mentioned by Nasir (2017) in a report in Khaleej Times that the introduction of online learning in the UAE allowed students to collaborate and interact with one another, partake in educational discussions, and do their homework and classwork. One of the e-learning platforms used by UAE schools is LMS wherein students can attend online classes as the technology also hosts blogs and web-based documents. Furthermore, LMS facilitates collaboration between teachers and students.

The e-learning tools adopted by UAE schools are considered one of the few initiatives which supported the government’s pursuit toward smart education, which Al Shehhi mentioned in the interview. The smart learning program called Mohammed bin Rashid Smart Learning Program was the government’s project in 2012. Its purpose was to transform the country’s learning environment and culture by launching smart classes (Zhu, et al., 2016). The program was participated by 123 government schools where textbooks were replaced with computer tablets and Smart Boards were placed in classrooms. The UAE government considered the program to be a huge step in improving the entire education ecosystem. Instead of the conventional method of writing notes while the teacher is talking, students can focus more on the discussion because the material is already in their device and at the same time, they can utilize the Internet to do research and communicate with their teachers (Pennington, 2014).

Because of the high level of preparedness of the UAE in adopting online learning, there was no need for a significant adjustment in its education system, compared to what other countries like Egypt, Oman and Philippines had struggled with. Through Mohammed bin Rashid Smart Learning Program which flagged the way for the design of the smart education portal, facilitating teaching and learning became much easier. The portal, which Al Shehhi noted, “is an interactive electronic learning platform that brings together teachers, students, and parents in one place to facilitate communication and learning by including new teaching methods.”

The portal then makes it easier and more convenient for teachers and students, and even the parents, to meet the desired academic outcomes even during this time of pandemic. As a part of the country's 'Transformation to Smart Education', the smart education portal is seen as an opportunity to positively change UAE's education landscape amidst COVID-19. Private schools in Dubai, Sharjah, and Abu Dhabi have already adopted the platform and made significant iterations, alongside the blended learning approach. Apart from the portal being highly useful in facilitating communication and/or interaction between the students and the teachers while completing their assignments, the portal also allows parents to access the progress reports and class schedules of their children. This helps ensure that students are still well-guided by their parents even if they are learning online (Houalla, 2020).

In line with parents' access to the portal to monitor their children's academic performance, the Ministry of Education also approved the application of the smart evaluation system which is used to measure the performance of the students in the smart learning system. This would help the Ministry determine whether its efforts in implementing the smart education have been successful and consequently, make necessary changes to further improve the smart learning process (Al Amir, 2020). Aside from all these initiatives, the Ministry of Education has taken these steps for the implementation of distance learning (UAE Government, 2020):

- Provision of a one-week remote professional training for teachers and administrators in government schools.
- Collaboration with Hamdan Bin Mohammed Smart University in the launch of a free online course.
- Establishment of two operations centers responsible in overlooking the distance learning system in the UAE.
- Mandate of distance learning system implementation in private schools.
- Creation of a technical helpline that will assist students and parents in case they experience any issue.
- Coordination with Telecommunications Regulatory Authority, Du, and Etisalat for the provision of mobile internet package to UAE families who have no internet connection at home.

Resistance

Implementing change can be challenging for the organization. In the study of Aljohani (2016), it was revealed that organizations plan to make certain changes and inform the employees about said plan, this makes employee speculate their stand in the organization. Feeling of uncertainty can occur which possibly leads to low employee motivation and reduced performance. Because of this, increased risk of employee resistance can happen. Aside from being uncertain of how the change can affect them, employees also think that these changes, especially the radical ones, can disrupt their familiarity of the organization and of their work. When introduced with new procedures, employees who are unwilling to make and accept changes would be less enthused as they dislike learning new concepts or change things that they have come to be familiar or comfortable with. The same was also expressed by Al Shehhi. She stated, "It is very natural to have resistances against

any new change that takes place in any company, institution, or government ministry, if the change will take the course of business to another unfamiliar or sudden way without prior preparation.”

In the aspect of implementing change in the education sector, resistance is also encountered. For example, when SheXian High School, an old school in HanDan City, China, introduced the Lexical Approach, there was resistance from the teachers primarily because they felt the need to change their teaching method, making the change process difficult (Shen, 2008). Another example of resistance in the education sector was explored by El Zaatari (2011). In his study, he mentioned the resistance among teachers to the educational change in UAE government schools because they fear the unknown consequences of the change and at the same time, they were tired of the frequent changes in the sector. Now that the world is faced with a public health crisis, changes in the education sector needed to happen. The global education sector was confronted with a dilemma on how to successfully implement the change and at the same time, overcome the barriers that come alongside it. This was also elaborated by Al Shehhi in the interview, “Different pillars of education witnessed the movement of this change, affecting many aspects of it, including the method of teaching and learning as well as administrative matters. The evaluation methods were also affected by the relationships between the school and the community (family) based on partnership. That arises from students, parents, teachers, and administrators.”

Teachers, being one of those who resisted against the educational changes in the UAE, have varied reasons for not being completely supportive of the country’s transition to distance learning. Al Shehhi said that the resistance of the teachers “stems from their lack of familiarity with how to initiate and manage change and to follow the plans developed by the Crisis Management and the Ministry of Education.” This lack of familiarity among teachers on the new teaching setup is driven by the significant difference between online education and the traditional classroom setting and also on the fact that there is a need for them to be highly capable in using the e-learning tools. As indicated by Almaiah, Al-Khasawneh, and Althunibat (2020), teachers resist to online education because of their weak IT skills and lack of technology acceptance. In other words, teachers feel unprepared in handling the changes which come along with the implementation of distance education. Teachers’ low confidence on their IT skills (i.e. using online educational platforms) can be an attribute of technology anxiety which according to Tuncay and Uzunboylu (2010), is due to lack of experience in using ICTs in performing teaching tasks, thus resulting in possible low self-efficacy. As Al Shehhi added, “A large group of teachers cannot accept the use of all interactive teaching methodologies that enhance creativity in innovation in teaching. There is difficulty dealing with communication techniques and technical problems.”

Another cause of the resistance from the teachers, according to Al Shehhi was the pressure. She said, “It seemed to us that some of the resistance we faced from the teachers was that they accepted parts of the change that they were not familiar with, such as presenting study content, discussion, etc., but they felt upset and pressure from other parts, which in turn required them to make an extra effort, such as downloading lessons.” In the study of Lloyd, et al. (2012), teachers are less enthused with distance learning because of the added workload this entails, especially in managing certain aspects of the new system which they are unfamiliar with or lack knowledge of. Similarly, Bezuidenhout (2015) noted that distance learning is perceived by teachers as stressful and time consuming and that the added workload can make it difficult for them to balance their work and

personal lives. Consequently, teachers experience burnout attributed to the increased workload and job demands.

In order to address the resistance from the teachers, a training plan was developed. Al Shehhi said, “To overcome the previous hurdle related to teachers, a training plan and mechanism has been developed by creating groups in the MS Teams tool; To train cores by 1984 coaches in 46 groups. Training took place on March 15-19. The training consisted of two types (‘asynchronous’ workshops) + concurrent community training learning with MS Teams.

Thirty different training course have been implemented that enabled teachers to acquire skills: digital, technical, and electronic maturity.” The purpose of a training plan, as mentioned by Parlakkılıç (2014), is how it ensures that the teachers are able to use the system smoothly and efficiently. At the same time, this can enhance teachers’ digital literacy. As Al Shehhi noted, “The Specialist Training Week is dedicated to support teachers with knowledge and skills in the optimal and effective employment of the Ministry’s e-platforms, and to achieve this, the following measures have been taken (i.e. an introduction to distance learning, tools used in distance learning, design of learning in the context of distance learning, implementation of distance learning, e-assessment in distance learning).” This correlates with how the success of e-learning largely depends on the effectiveness of the training provided to teachers which makes it greatly important that the organization prepares the educators not only on how to use the system but also on how to overcome certain difficulties during the entire course that distance learning is implemented. It was also indicated by Zweig and Stafford (2016) that training teachers help increase student engagement, thereby paving the way for the accomplishment of desired learning outcomes.

Aside from the teachers, the Ministry also faced resistance from working mothers. As what Al Shehhi in the interview, “The problem of working mothers also came to the fore, and it became one of the most prominent obstacles to distance learning at a time of the spread of the coronavirus. The problem is that working mothers struggle to find a balance and time between following their children during the morning school period and their work. Perhaps, the most difficult matter is that some of these mothers are originally teachers dedicated to providing remote classes at the same time as their children, and some of them may be in the first stage or in kindergarten, so there must be an adult with them to follow them.”

The challenge faced by working mothers comes with the fact that parental involvement is a critical factor in the academic achievement of their children, but with the conflict in their working hours and their children’s online classes, their involvement is reduced. According to Jafarov (2015), parents are encouraged to take part in their children’s education, especially since it can have a positive impact on their academic success. This was further elaborated by El Nokali, et al. (2010) who stated that there is a positive correlation between parental involvement and students’ academic performance and the factors that contribute to it such as task persistence and achievement motivation. But with working mothers’ inability to balance their work and their responsibilities as parents, it will be therefore difficult for them to be as involved in their children’s education as needed. This has subsequently become the root of their resistance toward online education.

As a way of addressing the issue, a strategy was developed. Al Shehhi said, “As for working mothers, the federal labor governments have been addressed to reach an optimal solution under the current circumstances, which is to exclude working mothers with children in the elementary stage to work on the remote worker system.” This helps ensure that working parents to still be involved in the education of their children. Considering that students are still adjusting to the new learning setup, it is thereby important that parents are still able to guide and monitor their education. As what Stevens and Borup (2015) noted, parents can be the key that will help students overcome their difficulties in adjusting to the online setting as they also serve as their children’s learning coaches aside from the teachers. This initiative implemented by the UAE government is a way of also ensuring the readiness of the parents in the distance learning system. This is linked with what Fedina, et al. (2017) noted in their study pertaining to the important role of parents in ensuring the success of the implementation of distance learning technologies, specifically since they understand the needs of their children and also work together with the teachers.

Critical Success Factors

In the success of a distance learning system, there are several factors that can contribute to said outcome. In the interview with Al Shehhi, she placed an emphasis on the readiness of the UAE for this new approach to learning and teaching, considering that the government has long been pursuing the adoption of digital learning even prior to the COVID-19 pandemic. This preparedness has driven to the accomplishment of one critical success factor which is institutional management. According to Cheawjindakarn, et al. (2012), institutional management which includes effectiveness of the distance learning program and the operational plan executed by the organization or the government. In the case of UAE education, the preparedness of the government has made the transition to distance learning smoother than other countries. Its Mohammed bin Rashid Smart Learning Program which has been operating years before the pandemic has been a significant tool in MOE’s change implementation.

The second critical success factor achieved by the Ministry in its adoption of online education is high level of support. In the interview with Al Shehhi, she said that because of the resistance that Ministry faced from teachers, it has developed a one-week training plan that will help increase the educators’ digital literacy and level of preparedness in terms on how to manage the system and the challenges that they might encounter during the teaching session. In the study of Alqahtani and Rajkhan (2020), it was revealed that support toward the instructors can have a significantly positive impact on the overall effectiveness and success of the distance learning system.

Through professional training of instructors, they are more confident and more competent to perform their tasks which could drastically differ from when they were teaching in a physical classroom. Not only does it help teachers do what is expected of them, provision of training can also improve the students’ online learning experience.

The third critical success factor of distance learning is parental involvement. This is expressed by how Al Shehhi emphasized the initiative undertaken by the government to help working mothers still be able to balance work and providing support to their children’s online education. The significance of parental involvement in education has been explored in several research studies. One of which is by Đurišić & Bunijevac (2017). It reiterated how parental support can directly

yield positive implication on the academic performance of students. In that same way, the students' academic achievement in a distance learning setup is also deemed to be heavily influenced by the involvement of the parents. As also indicated by Lu and Hao (2014), the support of the parents – from the provision of Internet connection and computer or technological devices to collaboration with teachers – can be a tool to help increase academic motivation among students, thereby improving their academic outcomes.

Finally, course evaluation is a CSF of distance learning system which is important in measuring the quality and overall success of online education (Cheawjindakarn, et al., 2012). Although Al Shehhi did not specifically mention the government's efforts in evaluating its online learning implementation, Al Amir (2020) reported that UAE has adopted a smart evaluation system which measures and assesses the progress of the students' academic performance, thereby determining the effectiveness of the distance learning system.

Summary

The Ministry of Education (MOE) has undertaken a radical change by implementing the distance learning system. This is a response to the COVID-19 pandemic which has affected the global education sector, leading to school closures and transition to online education. Through an interview with Ms. Halawa Al Shehhi, the manager of Mohammed bin Rashid Smart Learning Program, it was found that the Ministry has taken several steps to ensure the successful implementation of distance learning in the country – from the rollout of the smart learning portal down to the provision of mobile internet package to UAE families without home internet connection in collaboration with TRA, Du, and Etisalat.

The success of UAE's distance learning system, however, is not without any challenges. In particular, the Ministry faced resistance from teachers and working parents. Teachers, for one, resisted because of their lack of familiarity with the new system and the pressure they felt in performing their tasks. Meanwhile, working mothers resisted because of their difficulty balancing their work and their responsibilities as parents with their conflicting schedules. To address the issues, strategies were performed. Training was provided to teachers and working mothers were excluded from the remote work system. In line with all this, the Ministry's change implementation is fueled by the following critical success factors: institutional management which is evidenced by the high level preparedness of the UAE for the transition to distance learning, support, parental involvement, and course evaluation.

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Change Management's Critical Success Factors

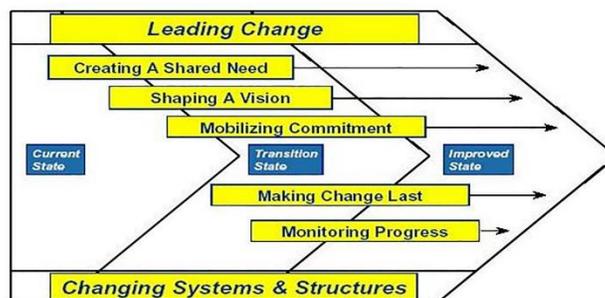
Faisal Al Taher

Introduction

Spearheading change programs is an integral aspect of organizational development. Notably, the rapid pace of technological innovations, economic pressures, and the everchanging stakeholder needs imply that organizations must modify the way they operate. While most of the transformational initiatives are justified, the low success rate has elicited concerns about the failure to realize anticipated objectives. Considerable evidence shows that 70% of all change programs fail (Burnes & Jackson 2011). The staggering rate of unsuccessful outcomes underscores the need for a valid framework to manage transformational initiatives. Figure 1 represents comprehensive model of change process. Against a backdrop of today's shifting socio-economic and demographic trends, it has become virtually indisputable that the primary task of organizational leaders is renewing strategic directions to remain competitive (Ibrahim et al. 2019). To this end, identifying critical success factors in change management provides an effective approach to support the implementation of transformational initiatives.

Figure 4: Common elements of successful change initiatives (Ibrahim et al. 2019)

Executive Buy-in



Gaining support from all levels of the organization is pivotal to successful change implementation. This process entails creating buy-ins and overcoming potential sources of pushback from top management. Furthermore, the communication about change should also target middle-level managers and employees. A recent study reveals that a lack of inclusion can negatively affect the level of buy-in among employees (Overmans 2019). Thus, bringing change initiatives to reality is intricately related to the support gained from leaders and other members across different levels of the organization.

Additionally, successful change leaders must also explain how their ideas can enhance operational efficiency and enable the institution to achieve its goals. In this regard, spending ample time on educating executive leaders about the rationale of one's proposal is crucial. For instance, the C-Suite executives, such as the

Chief Executive Officers (CEOs) often focus on growth while the Chief Financial Officers (CFOs) tend to concentrate on costs. This requirement does not imply that change initiatives should be solely based on strategic objectives of the organization. Nonetheless, it is prudent to frame the proposed solution to fit into the bigger picture of organizational success by crafting a vision for the future of the organization (Overmans, 2019). Therefore, successful change leaders must possess effective communication skills and ensure that their ideas are aligned with institutional goals.

The credibility of a change initiative also plays a pivotal role in the process of gaining executive buy-in. In most cases, top managers control critical resources, and there are multiple competing projects. They must select which ones to approve or sideline. Consequently, requesting support for a change program requires a detailed plan that addresses potential barriers and solutions to gain an upper hand against others. For example, Appelbaum et al. (2012) suggest that having a diagnostic report that has been compiled by a consulting firm adds credibility to the need for a change initiative. Generally, conducting a detailed feasibility assessment of the initiative is fundamental in gaining the approval of the organizational leaders.

Finally, providing a reliable proof of concept helps to convince the executives to support the proposed idea. For example, creating a small-scale pilot of the initiative or conducting beta-tests can be used to demonstrate its success if adopted organization-wide. The deployment of demo versions of the change project requires fewer resources. However, the outcomes of the process can be used as tangible proof to inspire top-level managers to dedicate time, energy, and resources to implement the initiative on a large scale. For instance, Overmans (2019) argues that persuading people to change is not enough to realize the change, one must provide a plan. In essence, the proof of concept demonstrates that the change program is well thought-out and deserves prioritization.

Communication

Effective communication is perhaps the most crucial change management's success factor. Appelbaum et al. (2012) cite an investigation proving that communicating during organizational transformation is linked to employee receptivity to new changes. According to the findings, weekly team meetings enabled employees to be more trusting and open to the transition process (Appelbaum et al. 2012). Thus, ensuring that all employees are well informed about regular updates is essential in successful change management.

Many organizations need both regular and sporadic changes to remain relevant in their industrial domains. However, these processes are often shrouded in uncertainty as employees transition from the known to the unknown (Thakur & Srivastava 2018). According to Appelbaum et al. (2012), complaints of inadequate information are common during organizational change. As a result, it is imperative for the change leader to decrease ambiguity through honest, accurate and clear messaging. Thus, while change is inevitable, transparent communication is a critical pillar for its success.

Furthermore, there should be a support structure for the change initiative to ensure its sustenance. Notably, progress cannot be achieved unless there is a framework to ensure that new initiative thrives. For instance, offering training, mentorship, and shadowing opportunities to the employees is essential during change management (Appelbaum et al. 2012). Appelbaum et al. (2012) note that organizational leaders can lend support to change initiatives through inspiring commitment and establishing key competencies among the

workers. For example, providing in-service training, allowing staff members to attend conferences, and inviting experts to inspire commitment to new changes can significantly contribute to successful implementation of a change initiative. Therefore, organizations should undertake proactive measures to support the change management process.

Employee Participation

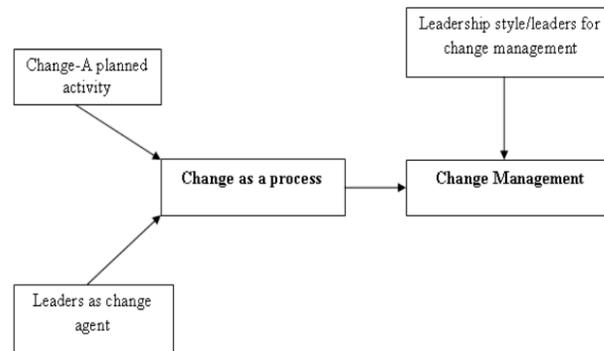
Employee participation is pivotal in the success of any change process in the organizational setting. According to the research, workforce members are likely to resist new initiatives if they perceive that existing means and resources cannot sustain the proposed ideas (Thakur & Srivastava 2018). Notably, employees are active participants in the change process. Schmidt, Groeneveld and Van de Walle (2017) argue that creating support for change should involve the workers because they are at the forefront of delivering the necessary services. Therefore, they should be better informed about all aspects of the proposed idea, which enhances the chances of a smooth transition. Furthermore, the researchers caution that failure to take participation seriously can be counterproductive to the entire change process due to declining morale (Schmidt, Groeneveld & Van de Walle 2017). Consequently, allowing workforce to participate is essential to the success of the change management process.

Employee involvement also influences the response to the proposed change. Osborne and Hammoud (2017) assert that leaders should leverage employee engagement strategies to steer their organizations toward achievement. Therefore, involvement of the workers in the change process is essential to its success.

Participation involves giving each employee a fair say. Allowing them to offer their feedback also enables the change agent to correct some of the inherent deficiencies in the proposed initiative. Oftentimes, initiators can overlook some issues, which can be observed by others and corrected timely. Researchers reveal that organizations which engage employees tend to have better customer satisfaction, profitability, and productivity (Osborne & Hammoud, 2017). Thus, listening to everyone's ideas can significantly contribute to the enhancement of the change initiative.

Effective Leadership

There is little doubt that change management efforts will be unsuccessful without competent leadership. Notably, leaders are at the forefront of setting a good example that employees must follow. According to Carucci (2016), enterprise transformation relies, to a significant extent, on the leadership provided by people at the helm of the organization. He further cautions that leaders can also be the main stumbling block in the change management process (Carucci 2016). Although they dedicate their best efforts to deliver the perfect change management initiatives, they also pose the most potent threat to successful transition. According to Carucci (2016), leaders must first pursue personal transformation before engaging in organizational change. Ajmal et al. (2012) offer a detailed diagrammatic representation of how leaders should act as change agents in the organizational context (see Figure 2). Thus, leadership is the most critical determinant of successful transition.

Figure 5: Leader as change agent diagram (Ajmal et al. 2012)

Leaders play a fundamental role in dealing with resistance to change. Notably, they must listen and encourage participation from all individuals affected by the proposed ideas. Failure to address resistance can result in undesired consequences. For instance, employee productivity can plummet and threaten the organization's ability to fulfil its responsibilities to stakeholders. At the same time, some people can react by quitting from their employment. The loss of talent can be more devastating to the organization since hiring skilled employees is a tedious process that requires rigorous vetting of the applicants. Therefore, leaders must find ways of addressing resistance to disruptive change before it becomes an existential threat to the organization.

Leaders also have a responsibility to create a shared vision and clarity about the scope of disruptive change to their employees. To this end, they must articulate what the change initiative means to the employees and other stakeholders. They should also appeal to the participants by explaining how it aligns with the organizational objectives (O'Reilly et al. 2010). During the process, the organization can also achieve cross-functional cooperation as different leaders and departments find their roles in making the transformation successful. Thus, leading the employees towards a shared vision is an indispensable success factor in change management.

Since most organizations have multiple levels of leadership, cooperation with leaders at all tiers is required to achieve successful transformation. Put differently, no leader can single-handedly champion for change. According to a research, implementation of a new strategic initiative requires leaders at subordinate levels to reinforce it through allocation of resources, dealing with resistance, and convincing employees that the change is in their best interests (O'Reilly et al. 2010). Therefore, having a consistent message and course of action from mid-level managers to the senior executives is essential.

Summary

Overall, transformational initiatives are instrumental to organizational growth. Unfortunately, some companies are still grappling with change management issues, which is evident in the low success rates experienced by many enterprises. However, understanding the practice's success factors can aid in getting a winning formula to implement new initiatives efficaciously. Getting executive buy-in to support the proposed idea is crucial for a perfect head-start. Notably, senior executives have relevant resources at their disposal and the ultimate decision-making power. Secondly, effective communication is fundamental to successful navigation through the change management process. Open and candid conversations with stakeholders will help to win their support of the proposed idea. Besides, allowing employees to participate actively minimizes the probability of resistance to the new initiative. Most importantly, effective leadership can guide the organization through each step of the process. Notably, change programs often have organization-wide implications. As a result, the participation of leaders at all hierarchical levels is fundamental. Thus, change management is a collective effort that requires disciplined observation and implementation of all success factors.

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Learning for better life

Social Media and Covid-19 control in UAE – Prospects and Challenges

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Abstract

The term 'social media' describes computer and internet-mediated websites and applications which facilitate the creation or sharing of information, ideas, mass communication by governments, civil societies and influencers via virtual communities and networks. The Covid-19 pandemic and attendant social distancing measures undertaken by governments have popularized the utility of social media platforms for communication by major stakeholders, including those seeking to misinform the public on a large scale. As early as April 2020, the UAE's Telecommunications Regulatory Authority reported Twitter usage up by 22 per cent, Facebook by 17 per cent, YouTube by 16 per cent, and Instagram 12 per cent, mainly attributable to governments' March 2020 lockdown measures.

This Critical Review examines the potential benefits of using social media innovation systems in reducing the spread of Covid-19 in UAE through providing accurate health information, providing online social support, and combating disinformation as well as misinformation. Given the high penetration of internet and social media in UAE, social media platforms constitute a potentially effective platform for engaging with the public on Covid-19 control, provided safeguards are carefully implemented to reduce the risk of mis-infodemic. Commendable practices for using social media tools in Covid-19 control, as well as initiatives implemented by social media companies and UAE government to reduce misinformation risk, are reviewed.

Keywords: *United Arab Emirates; Social Media; Covid-19; Misinformation; Disinformation.*

Introduction

The first cases of Novel Coronavirus disease 2019 were reported by China to the World Health Organization (WHO) on 31 December 2019. On 30 January 2020, it was renamed Covid-19 and declared a public health emergency of international concern. On 12 March 2020, the World Health Organization designated Covid-19 as a pandemic, and stated: *"The Covid-19 outbreak and response has been accompanied by a massive infodemic: an overabundance of information – some accurate and some not – that makes it hard for people to find trustworthy sources and reliable guidance when they need it"*. The virus that causes Covid-19 is mainly transmitted through droplets generated when an infected person coughs, sneezes, or exhales. These droplets are too heavy to hang in the air, and quickly fall on floors or surfaces. The most common symptoms are fever, dry cough and fatigue. It is projected that, by February 2021, there will be at least 100 million global cases and two million deaths – 2% case fatality rate.

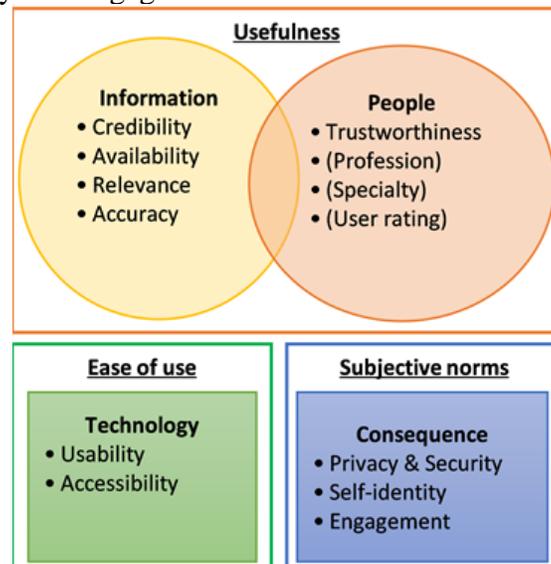
Since its notification, information and its sharing have been central to the Covid-19 debacle. China was accused of delaying information on the origins and transmission of the virus based on information received about symptomatic cases since at least 8 December 2019, 23 days before WHO was notified (Huang et al, 2020). As the Covid-19 pandemic intensified, social distancing measures resulted in increasing reliance on the internet communication platforms for routine health

and education activities as well as for maintaining communication about the pandemic. While office and conference communication platforms such as Zoom witnessed phenomenal growth since February 2020 - Zoom's user base in the UAE grew 900 per cent to reach 1 million within a month after the country authorized its use in March 2020 – it is the growth of social media communication platforms nationally and globally that have been most noteworthy. Between February and April 2020, 9.73 million people – 99% of total population - come online on social media daily. During the same period, UAE saw a 1.3% annual growth in internet users (The Media Lab, 2020).

Social media platforms are internet-based technology that facilitate sharing of ideas, thoughts, and information through virtual networks and communities. Such platforms include Facebook, Twitter and WhatsApp. In UAE as well as internationally, social media platforms are user friendly and inexpensive to access. Consumer health information needs vary with health issues. Accessing health information occurs not only by persons with specific health conditions and their caregivers and family but also by people with public health concerns. Surveys indicate most social media users – especially those aged 18 - 35 used social media more often when confined by Covid-19 lockdown, and such social media users are more likely to access sites of health professionals or credible health organizations (Samet, 2020; Pérez-Escoda et al, 2020). A study of UAE youth (aged 18 – 35 years) on their determinants of engagement with information on social media platforms revealed that 41% of respondents rely on reliability of Google search results and push notifications, 22% check for health information only from “reliable” social media sites, while 8% utilize intuition to ascertain reliability of health information (Awofeso, Yunis and Bamidele, 2019). The distinct advantage of social media sites is that they easily enable viewed information to be shared with large networks.

A framework for youth engagement with health information on social media platforms is shown in Figure 1.

Figure 1: determinants of youth engagement with health information on social media platforms.



With novel infections, the promptness of information provided to healthcare workers and health authorities remain key to preventing nosocomial and community infections. Infections from Middle East Respiratory Syndrome (MERS-CoV) coronavirus and Severe Acute Respiratory syndrome (SARS-CoV) among healthcare workers, averaged 21% of total confirmed cases. In Wuhan, China, where the Covid-19 virus infections were first reported, 1716 healthcare workers were infected by June 2020, representing 3.8% of confirmed cases. It is likely that inadequate information about the nature of SARS-Cov and MERS-CoV transmission put healthcare workers at higher infection risk (Xiao et al, 2020). A Hong Kong study which analysed the sharing of clinical information on the principles of airway management in Covid-19 patients via social media sites Twitter and WeChat, and concurrently via departmental (anesthesia) website recorded 63440 impressions and retweets on Twitter, compared with 8614 page views on the departmental website within the first 30 days of posting the infographic, a seven-fold access frequency on social media websites compared with the official university department website (Chan, Nickson and Rudolf, 2020).

Established risks of posting non-peer-reviewed Covid-19 information on social media include misapplication of contents to inappropriate contexts, limited access due to algorithm-driven filter bubbles that selectively display information based on user preferences, and early adoption of non-validated research or practice (e.g. hydroxychloroquine for Covid-19 treatment Khalid, 2020; The RECOVERY Collaborative Group, 2020), and the risk of future medical reversal. A particularly complex risk with regards to the use of social media platforms in disseminating public health information about Covid-19 is that such useful information need to compete for prominence with misinformation and disinformation by social media groups with different agendas. This article examines the prospects and challenges of social media use for public health sharing of accurate information with regards to Covid-19, and initiatives undertaken by the UAE government in particular to address challenges related to Covid-19 misinformation and disinformation.

Using Social Media for Addressing Covid-19 at Primary, Secondary, and Tertiary levels of prevention

Primary prevention

Primary prevention entails intervening to prevent Covid-19 infections, through measures such as vaccinations, altering risky behaviors (e.g. not wearing face mask or social distancing) and quarantining humans, and avoiding contacts with animals – such as bats - known to be associated with the disease. Social Media serves as an ideal medium for primary prevention, as public perceptions of Covid-19 risks are shaped depending on how information is communicated across social media platforms. For example, a blog article published on 14 October 2020 by "The Federalist" staff writer Jordan Davidson, which went viral on social media platforms, stated; “*CDC [US Centers for Disease Control and Prevention] study finds overwhelming majority of people getting coronavirus wore masks*”; *CDC study shows that more people who wear masks become sick with COVID-19 compared to non-mask wearers, therefore masks don't work or are making us ill*”.

The blog article was allegedly supported by a paper by Fisher et al titled; “Community and Close Contact Exposures Associated with COVID-19 Among Symptomatic Adults ≥ 18 Years in 11

Outpatient Health Care Facilities — United States, July 2020” published in September in the CDC’s MMWR. In refuting the flawed reasoning, the authors stated; “We are not aware of any of our data showing that wearing a mask increases the risk for Covid-19”. Similarly, Covid-19 vaccination misinformation is widespread on social media. Covid-19 vaccine-promoting organisations and public health authorities are working to curb its influence, but face obstacles. Role modelling, prompt correction and deletion of incorrect information on social media about Covid-19 vaccines, development and widespread use of tailored listening and credibility tools help to increase public confidence in Covid-19 vaccines (Steffens et al, 2020). Social media platform Pinterest has demonstrated leadership in protecting public health in this regard by only providing evidence-based information about vaccines to its users.

However, the extent to which social media platforms contribute to enhancing public health awareness and prevention during epidemic disease transmission is currently unknown. The bulk of information on social media related to Covid-19 is generated by the lay public, thus a risk exists that such information may be constrained with regards to accuracy, reliability or usefulness. By creating awareness of Covid-19 preventive measures such as masks, social distancing and vaccine uptake, the public will be protected against Covid-19. An October 2000 poll of about 1205 Americans conducted by CNN and SSRC indicated that despite vaccine trials reaching advanced stages, only 51% of Americans answered affirmatively to the question; “If a vaccine to prevent coronavirus infection were widely available at a low cost, would you, personally, try to get that vaccine, or not?”, a decline from 59% six weeks earlier (CNN-SSRS Poll 2020).

Even if a Covid-19 vaccine is 100% effective at preventing infection with the virus, if less than 95% of the susceptible population get it, then herd immunity may not be achieved. A randomized controlled trial involving 1093 pregnant women grouped to: a website with vaccine information and social media applications, or: a website with vaccine information only, or: usual care. Infants, once born, were then followed to age about 7 months to determine completeness of their vaccination status. Results indicated that mothers randomized to the vaccine information and web-based social media arm were more likely to vaccinate their children compared with infants who had only vaccine information and significantly more likely compared with mothers who received usual care only. However, a more recent study involving 824 participating gravid women did not confirm a significant influence of social media use on vaccine uptake (Glanz et al, 2017; Glanz et al, 2020). In contrast, according to a report by the Centre for Countering Digital Hate (CCDH), 31 million people affiliate with anti-vaccine groups on Facebook, with 17 million people following anti-vaccine accounts on YouTube.

These groups have been so effective with spreading misinformation on social media that recent CCDH surveys in the United Kingdom show that individuals who relied on social media for information on the pandemic were more hesitant about the potential vaccine and 16% of British people were unlikely to be vaccinated against Covid-19 – similar to a survey that revealed 18% of French people would refuse a Covid-19 vaccine -, while another 17% were unsure (CCDH, 2020; Megget, 2020). This small group have become adept at using social media platforms to amplify its messaging, to the detriment of the sub-optimal initiatives by the public health community to utilize social media tools to disseminate accurate information about, and stimulating enthusiasm for, the Covid-19 vaccines in development.

Secondary prevention

Secondary prevention includes those preventive measures that lead to early diagnosis and prompt treatment of a disease, illness, or injury. This should limit disability, impairment or dependency and prevent more severe health problems developing in the future. It is aimed at early disease detection and intervention prior to the onset of symptoms. Notably, up to 80% of current Covid-19 patients have no (or mild) symptoms at the time of diagnosis, which makes population-based (not just symptomatic) screening and early diagnosis all the more important since asymptomatic individuals are equally capable of spreading the infection (Ghandhi, Yokoe and Havlir, 2020). As at 13 January 2021 the UAE conducted 23 million Covid-19 tests since the outbreak, and diagnosed 236,500 cases - a positivity rate of about 1%, one of the lowest globally. Also, with 717 deaths, UAE's 0.3% case fatality rate for Covid-19 is the lowest among developed nations.

Partnerships with influencers on social media to raise public awareness about the need for Covid-19 tests among their followers is important. Public health agencies and social media influences may also post motivational and educational messages to keep the populace motivated and psychologically supported during the lockdown. For individuals who test positive, social media sites are able to provide information on self-assessment of symptoms and taking of appropriate actions. The platforms may also enable recently infected individuals to inform those they were in contact with within 2 weeks of diagnosis, using Bluetooth proximity tracking technology. Importantly, such exposure notification technologies need to adhere to strict data minimization and other confidentiality provisions. Using the potentials of frontier technologies such as artificial intelligence enabled chatbots, social media apps may be enabled to provide psychological first aid, and contribute towards addressing the stigma and related psychological problems associate with a Covid-19 diagnosis (Shah et al, 2020). Parallel with activities on established social media platforms, the National Emergency Crisis and Disasters Management Authority launched, in April 2020 an online platform named "Weqaya" (www.weqaya.ae), which was specifically designed to raise public health awareness, and provide information to the UAE public on preventative health and safety measures to curb the spread of Covid-19.

The most popular social media platform in UAE is Facebook, with 8.1 million subscribers, followed by WhatsApp with 7.8 million subscribers, and Twitter with 5.2 million daily users. These popular platforms are occasionally used to spread misinformation about Covid-19 cases in UAE (Zaatari, 2020). To combat such misinformation, the UAE implemented a fine of \$US 5500 for spreading Covid-19 fake news on social media and other electronic platforms. Social media platforms are also being increasingly used to promote fake cures for Covid-19, highlighting a strong need for online Covid-19 information surveillance (Mackey et al, 2020).

Tertiary prevention

Tertiary prevention approaches seek to effectively treat and rehabilitate those with clinical Covid-19 disease, thereby reducing complications and improving quality of life. An emerging issues with Covid-19 case management is the development, in about 35% of those treated, of long-Covid-19 – not fully recovering for several weeks or months following the start of symptoms that were suggestive of Covid-19. Its defining characteristic is profound fatigue (Tenforde et al, 2020). Research in Italy found that, among 143 patients whose initial illness was severe enough for them to be hospitalised, 87% experienced Covid-19 after-effects such as fatigue and shortness of breath two months following a PCR-negative Covid-19 retest (Carfi et al, 2020).

Social media provides a useful platform to study long Covid-19 patients. Such social media mediated long Covid-19 research might entail mining social media data such as from Twitter. A preliminary study using this approach followed up 150 eligible tweets from 107 users. The most common symptoms were fatigue, difficulty with breathing, increased heartbeat and chest pain (Banda et al, 2020).

Covid-19 social stigma is the negative association between a person or group of people who (are presumed to) share certain characteristics and Covid-19. A few arrests have been made of UAE citizens and residents who stigmatise vulnerable Asian and African workers as the spreaders of Covid-19. Stigma may undermine social inclusiveness and prompt possible isolation of groups, which might contribute to a situation where Covid-19 is more, not less, likely to spread. Unlike in other nations such as Mexico, India and Malawi where healthcare workers are stigmatized because of their presumed greater risk of contracting and harboring Covid-19 (Bagcchi, 2020), there is no evidence of stigma directed against healthcare workers in UAE. In fact, the reverse is the case. The infection rates and death rates among UAE healthcare workers are comparable to the general population – of the 1,688 UAE healthcare workers who got infected with Covid-19 as at May 2020, five (0.3%) died (Alhashmi, 2020).

Approaches for utilizing social media to address Covid-19 misinformation and disinformation

Disinformation and misinformation differ on intent - disinformation is generally considered to be the intentional creation or sharing of false or misleading information, whereas spreading misinformation is considered to be unintentional sharing. Analytically, discerning intent requires understanding the creator's context and can be difficult to prove without identifying creators or uncovering coordination of efforts. Both vices thrive on social media, and create apathy towards truth as well as exhaustion with the difficulty in discerning it amid informational chaos on social media platforms. In April 2020, the WHO launched an online platform named EPI-WIN (<https://www.who.int/teams/risk-communication>), which seeks to give everyone access to timely, accurate, and easy-to-understand advice and information from trusted sources on public health events such as Covid-19.

In December 2020, WHO launched a Global Risk Communication and Community Engagement Strategy (WHO/2019-nCoV/RCCE/2020.3), which aims to promote people-centred and community-led approaches that improve trust in government and other trusted sources of Covid-19 information while concurrently strengthening social cohesion in a social media environment in which Covid-19 misinformation is far more likely to be retweeted than Covid-19 facts.

The confluence of misinformation and infectious disease is not unique to Covid-19. Over the past 8 years, it has also contributed to the spread on Ebola and murder of healthcare workers in West Africa (Sawyer, 2020), as well as to vaccine hesitancy against measles (Burki, 2019). The increasing use of social media has however amplified the dis-infodemic associated with Covid-19. For instance, a recent survey of 21,000 Americans revealed the moderate correlation between regular use of social media platforms as primary source of news and likelihood of believing a false claim. Individuals using Facebook messenger or WhatsApp platforms to share and read news

articles were 26% to 31% likely to believe a false claim, and those who did were less likely to practice social distancing or receive Covid-19 vaccine (Covid-19 Consortium, 2020). In line with this survey, a Canadian study (Bridman, 2020) found that comparatively more Covid-19 misinformation circulates on Twitter compared with cable news media platforms, and that individuals exposed to misinformation on Twitter are less likely to adopt social distancing measures.

Social media influencers who engage in Covid-19 such as the ex-President of the United States, Donald Trump, have major adverse influence on efforts to control the disease due to the large proportion of their followers who “trust” any post they make. Covid-19 denial, misleading or false claims about the actions or policies of public authorities, including government and international bodies like the World Health Organization, constitute a large category of misinformation claims. Conspiracy theories such as the claim that Covid-19 is a biological weapon developed by China or that billionaire philanthropist Bill Gates is trying to promote Covid-19 vaccines as a means to microchip most of humanity are the most common. Addressing Covid-19 misinformation on social media requires concerted action from major stakeholders – leadership of social media organizations, national governments, civil society organizations involved in fact-checks, and the public health community.

Technology giants such as Facebook and Twitter need stronger policies on Covid-19 misinformation. Facebook exemplified such strengthening of regulations by banning, in October 2020, advertisements that discourage vaccines for any reason, not just vaccine “hoaxes” such as the false idea that vaccines cause autism. Facebook currently has a new Covid-19 information centre titled; “Get the facts” where it promotes articles that expose Covid-19 mis-information and flags misinformation posts. However, Facebook has not yet banned advocacy ads about government vaccine policies. Major technology companies need to fund credible Covid-19 fact-checkers, and promptly act on posts which have high potential to misinform the public about Covid-19 control measures.

National governments have important roles to play in designing laws to address Covid-19 disinformation on social media. In the UAE, there are three legal regulations governing the issue of transparency and spreading of misinformation on social media: Federal Law No. 5 of 2012, Federal Law No. 12 of 2016, and the Electronic Media Regulation of 2018. Such laws, effectively implemented, reduce incentives for misinformation on social media. In addition, national health authorities need to lead efforts to counter misinformation by improving their presence on social media platforms. For example, a study on social media presence or anti-vaccination and pro-vaccination groups indicated that although small numerically, anti-vaccination sites on social media platforms were three times as active as pro-vaccination groups during the 2018-2019 measles outbreak (Johnson et al, 2020). Governments also have key roles in enhancing population digital health literacy - the skills to search, find, understand, and evaluate health information from social media and other sources and apply the knowledge acquired to address or solve a health problem - of citizens and residents.

With digital health becoming more mainstream with the advent of the Covid-19 pandemic, it is important for the academic and public health community to enhance social media education and health communication skills in order to better engage with the public. Current government policies in UAE and many other nations generally limit social media involvement of healthcare professionals on health matters, in part because it relates to using mass media to discuss clinical

issues. Welcome policy changes by healthcare organizations and as the US Centers for Disease Control and Prevention (CDC) include the development and promotion of social media toolkits on Covid-19, which provide accurate messages and are customized for placement and sharing on Facebook, Twitter and Instagram by healthcare workers and any member of the public on their personal social media sites (CDC, 2020). A reconfiguration is required in order to optimise the positive aspects of social media in Covid-19 control, while reducing its adverse effects, including excessive social media use, which has been associated with depression and secondary trauma among residents of Wuhan, China, which endured several months of near-total lockdown at the start of the epidemic (Zhong, Huang, and Liu, 2020).

Finally, improving digital and health literacy, and promoting personal responsibility of social media users for solidarity in Covid-19 is important. Many social media users do not adequately reflect on the veracity of push messaging or sought information on the web. Studies show accuracy reminders such as “get the facts” flagging of social media posts tripled the level of cognitive reflection about such posts and dampened subsequent sharing intentions (Pennycook et al, 2020). An excellent example of this approach is Twitter’s flagging of this 11 October tweet from US President Trump: *“A total and complete sign off from White House Doctors yesterday. That means I can't get it (immune), and can't give it. Very nice to know!!!”*. Twitter’s flag of the message read; *“This Tweet violated the Twitter Rules about spreading misleading and potentially harmful information related to COVID-19. However, Twitter has determined that it may be in the public's interest for the Tweet to remain accessible.”* Clicking to share the message regardless is met with a “why you can’t share this” alert: *“We try to prevent a Tweet like this that otherwise breaks the Twitter Rules from reaching more people.”* Twitter directed those wishing to retweet the tweet to a “quote tweet” function, encouraging them to add their own commentary before propagating the President’s misinformation. By the time Twitter took action on this tweet about 9 hours following posting, the tweet already garnered 59,130 retweets.

Conclusion

The term infodemic describes the threats of Covid-19 misinformation amplification phenomena mainly through social media networks and its strong potential to speed up the epidemic process by influencing and fragmenting social as well as public health response. In the UAE and internationally, the public health community needs to engage with social media platforms to facilitate Covid-19 control from three fronts concurrently – (a) institute regulatory, technological and educational interventions to reduce Covid-19 misinformation; (b) revitalize the academic health research community as well as public health community’s online presence on social media platforms (especially web app platforms) in order to provide real-time to audiences that collectively number 1.8 billion daily users for the Facebook platform alone; (c) address problematic social media use and associated psychological strain including anxiety and irrational Covid-19 related fears. It is not invariably a psychological problem for people to be nervous, so long as such anxiety motivates them to stay safe, and they don’t cross into a full-blown panic or depression.

Covid-19 highlights the importance of studying the complex dynamics between media content consumption and action and social media platforms. The use of social media platforms has a moderate potential to influence awareness of evidence-based public health behavioral changes and

public protection against Covid-19. Public health authorities may adapt social media platforms as one of several tools to increase public health awareness through dissemination of brief messages to targeted populations. The skills and competencies of government agencies and public health authorities' use of social media will largely determine whether social media platforms are beneficial, destructive or reconstructive in effectively addressing Covid-19 pandemic.

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The Effectiveness of Using Multimedia Videos to Improve the Mastery of Vocabulary for Young Learners

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Abstract

Vocabulary is one of the most essential skills for teaching and learning a language. The purpose of this research is to examine the effectiveness of using multimedia videos in teaching new vocabulary for young learners. Past studies show that multimedia has various benefits for vocabulary learning, such as using videos to teach vocabulary help learners easily comprehend the meaning (Manurung, 2016). The present study was carried out using mixed methods. To investigate the effectiveness of multimedia videos, both quantitative and qualitative data were used to collect the data sufficiently and accurately. The participants of the study were 15 students from kindergarten level at a private school in Fujairah city in UAE. Four different types of data collection tools were designed and implemented including survey, a teacher interview, pre and post-tests, and field notes. An action plan was sat to make sure that the required data are collecting precisely and accurately. The purpose of this plan was to organize the data collection process through selecting particular days to implement the strategies. The findings indicated that there is a significant impact of multimedia videos on students' vocabulary acquisition and it increased their engagement and motivation.

Keywords: Language Learning, Vocabulary Mastery, Video Multimedia, Young Students

1. Introduction

There is no doubt that integrating technology in the educational settings has incredible effects on the teaching and learning process by giving educators and students more chances to upgrade or improve their skills and aptitudes (Harmer, 2001). Jastaniyah (2017) states that one of significant creations of technology advancing is Multimedia. It is defined as a combination of different content forms such as text, graphics, videos, animation, audio and interactivity (Curtis, 1984). Multimedia is one of the tools that instructors can use to teach vocabulary effectively (Khiyabani, Ghonsooly and Ghabanchi, 2014). Vocabulary is an important part of learning a language. Linse (2005) states that learners' vocabulary improvement is a significant part of their language advancement.

1.1. Research Purpose

The main purpose of the research is to examine the effectiveness of using multimedia videos to teach new vocabulary for kindergarten students in UAE. The desired objectives are as following:

- To explore how videos promoted young learners to maintain vocabulary.
- To investigate whether using multimedia videos can enhance the vocabulary mastery of the kindergarten students or not.
- To discuss how videos provide positive perception to learn vocabulary.

1.2. Problem Statement

Vocabulary has a powerful role to assist learners understand and use a language. However, more and more young learners are facing a challenge to acquire the vocabulary easily in another language. According to Swan and Walter (1984), “Vocabulary acquisition is the largest and most important task facing the language learner” (p. 7). Vocabulary retention is one of the most complicated parts of language learning (Holden, 1999).

1.3. Research Questions

The present study aimed to investigate the following questions:

1. Can multimedia improve the mastery of vocabulary for young learners?
2. What is the impact of video on vocabulary learning for kindergarten students?
3. To what extent does video assist kindergarten students’ to retain the new vocabulary and motivate them to use it?

1.4. Significance of the Study

Vocabulary represents one of the most important skills for teaching and learning language. It assists to improve all communication skills; reading, writing, listening, and speaking. Teaching vocabulary for young learners is essential because it is key to the child’s understanding and development. Vocabulary in many cases is considered more important than teaching grammar because it is the key to understanding what is heard or what is read in school (Hall, 2012). Once the child recognizes vocabulary, the context in which it is used is understood even if the grammar is incorrect (Nation, 2001). Learning vocabulary is the main tool for students in their attempt to use language effectively. This is why it is very important to teach students vocabulary using different methods and strategies that would help students recall the vocabulary and admitted it into their long-term memory (Nation, 2001). The current study focuses to address the impact of using multimedia videos to teach vocabulary. It is important in the field of education because it will give educators insight about the effectiveness of multimedia videos, which is an innovative strategy, to improve young learners’ vocabulary. Moreover, it has theoretical benefit that other people can use the results as reference while conducting a research in teaching vocabulary through using videos.

2. Literature Review

There have been several studies and research based articles that discussed the use of multimedia elements in teaching new vocabulary for students. Pusack & Otto (1997) state that there is great impact of utilizing multimedia technologies for language learning to facilitate vocabulary acquisition. In order to gain more information about the impact of using multimedia on teaching vocabulary, I have reviewed literature that provided foundation of knowledge on topic of my current study and helped me to identify some inconsistencies. Bolderston (2008) suggests that literature review can identify what is known (and unknown) in the subject area and help formulate questions that need further research. Literature review can also identify the relationship of each work in context to other work based on its contributions in the topic. It is the aim of this section to clarify what is known in the literature in the area of vocabulary and multimedia intersections.

2. 1. Theoretical Framework

The primary theory that serves as the bases of the current study is Richard Mayer’s cognitive theory of multimedia learning (Mayer, 1997). Mayer’s theory provides insights on how people learn from

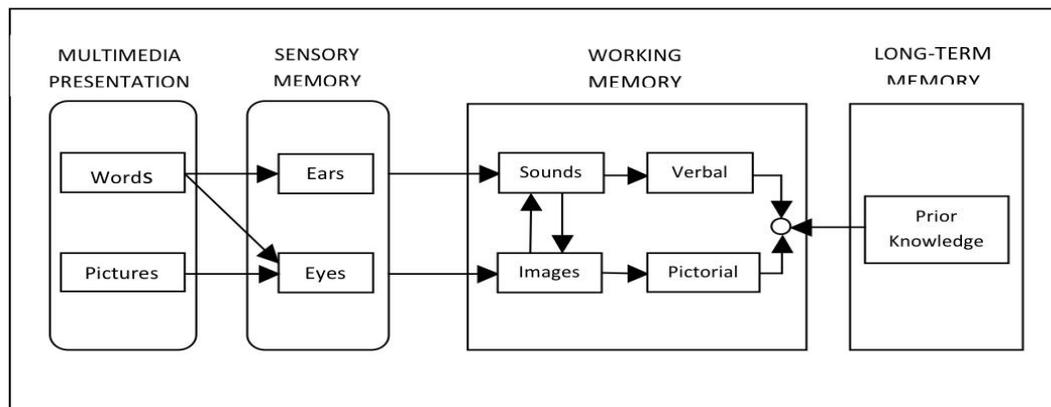
words and pictures. Through using multimedia, learners will be able to enhance their vocabulary better than just using written or spoken words. The main purpose of using multimedia in teaching is motivating students and encouraging them to actively involve in learning activities.

Mayer (2009) states that there are three main assumptions that cognitive theory of multimedia learning is based on as following:

- People receive information through two separate channels (verbal and visual).^[11]_{SEP}
- Each channel has limited capacity to process information for individual at one time.
- Processing information in an active process.

The connection between the three standards begins with the input of information from the two channels, the ears that get verbal data and the eyes that get visual data. There are three cognitive processes or steps that the both channels will go through in order to place meaningful learning in multimedia environment. To start, learners will select the verbal information (words) to process in verbal working memory, while they will choose the visual information (images) for processing in visual working memory. After that, learners will organize verbal information (words or sounds) into a verbal mental model and the visual information (images) into a pictorial mental model. The effectiveness of learning process will be impacted by the limitation of working memory. Finally, learners will integrate both verbal mental model and visual mental model the prior knowledge to construct new knowledge and save in long-term memory as schema.

Figure 1: Visual Representation of the Cognitive Theory of Multimedia Learning (Mayer 2001)



2. 2. Vocabulary Acquisition

Vocabulary is the collection of words that consist of two or more letters and indicates a meaning. It is a component of language; so teaching vocabulary is the process of transferring science from the teacher to the learner about the appropriate vocabulary in the subject matter. Several researchers have argued that vocabulary plays a major part in language learning. Hakim (2019) states that vocabulary has become a critical aspect of learning a language. Similarly, Khiyabani, Ghonsooly and Ghabanchi (2014) say that vocabulary is one of the fundamental features in language learning. Constantinescu^[11]_{SEP} (2007) stresses that vocabulary plays important role in second language acquisition and it obtained raised emphasis in the language-teaching curriculum. Vocabulary facilitates several language-learning skills such as reading, writing, speaking and grammar (Harmer, 2001). Manurung (2016) states that the mastery of vocabulary provides people with the

ability of speaking, reading, listening, and writing. Also, he says that vocabulary has significant role in producing meaningful language when it organized in correct structure. When children have strong vocabulary skill, they will be able to improve their language and use it properly.

Heriyanto (2018) states that vocabulary is an essential part of learning a language and the learners with lack of vocabulary cannot be able to understand written texts or transfer communications to others. of words.

Hakim (2019) argues that the first words that the young learners will acquire can serve as a deep foundation for better learning. However, according to Swan and Walter (1984), “Vocabulary acquisition is the largest and most important task facing the language learner”. Many students are facing difficulty in acquiring new vocabulary, which will affect on their understanding and learning of language. Manurung (2016) states that there are different reasons for why learners face difficulty to learn vocabulary such as the difference between written and spoken forms as well they need to learn large numbers of words.

Hakim (2019) suggests that language teachers have to use diversity and make teaching new vocabulary more interesting to provide students a lot of choices in what they learn to. Mthethwa (2018) states that it is important for students to be frequently exposed to new vocabulary through utilizing different forms and contexts in order to increase their receptive skills (listening and reading) and productive skills (speaking and writing), as well to growth the language inventory. Sun and Dong (2004) believe that one of the major components in teaching and learning new vocabulary is learning in context. Silverman & Hines (2009) say that teachers should implement innovative strategies and use technology to increase the vocabulary growth for young learners. There is no doubt that using technology assist to foster vocabulary acquisition for young learners.

2.3. Multimedia

Technology has a powerful role to facilitate teaching and learning process. Applying different technological tools and systems help to add a remarkable value to the educational field. Gilakjani (2012) states that through applying technology, the contents or concepts can be represented in various media format. One of the important creations of advancing the technology is Multimedia. Curtis (1984) defines multimedia is as a combination of different content forms such as text, graphics, videos, animation, audio and interactivity.

Mthethwa (2018) says that one of the common feathers of pedagogical practice in learning language is using a combination of text, sound, graphics, video or animation to teach vocabulary. He believes that implementing multimedia is becoming one of the new methods that teachers are exploring to improve learners’ vocabulary. Multimedia technology unfolds an authentic, enthusiastic and active learning style.

Khiyabani, Ghonsooly, and Ghabanchi (2014) state that one of the most prevalent purposes of implementing multimedia technology in the teaching progress is to help and support the instructor. Rusdi (2019) says that multimedia technology allows teachers to transform the education by expanded the learning space outside the walls of classroom environment. Multimedia permit learners to take more active role in the learning process and give an opportunity to access different resources based on their learning styles. Gilakjani (2012) clarifies that there are different tools of multimedia tools and the most common are visual, auditory, and kinesthetic in which students take in information. Constantinescu (2007) explains that multimedia can be utilized to develop a

comprehensive educational program that interests to visual, auditory and kinesthetic students and defeat contrasts in understudy execution that may comes from different learning styles.

Zhang (2012) states that multimedia has various strengths such as promoting personalized learning, providing more flexibility, enhancing concrete learning experiences, improving motivation, encouraging collaboration and providing effective and efficient teaching resources and materials. Undoubtedly, multimedia technology has increased students' enthusiasm to learn and improved their learning process. It has also established effective communication between learners and teachers.

Khiyabani, Ghonsooly, and Ghabanchi (2014) assert that multimedia is an effective and attractive tool that can be used in teaching and learning process to improve the vocabulary acquisition for all learners with different learning styles. Constantinescu (2007) concludes that multimedia is an extensive educational component for facilitating and fostering vocabulary acquisition. Multimedia videos affect on the process of language teaching and learning.

2.4. Videos and Language Teaching and Learning

Harmer (2001) states that "Video is the technology of electronically capturing, recording, processing, storing, transmitting, and reconstructing a sequence of still images representing scenes in motion". In addition, he states that using video in the classroom has many advantages such as students do not just hear language; they see it too, which affects on improving the teaching and learning process.

Video is an effective media that can be used in teaching and learning process. Manurung (2016) states the profit from using video rather than other types of media is in the integration of visuals and auditory. Young learners can't learn new vocabulary once it taught and they need to hear and use new vocabulary more and more until memorized them. When teachers use video that combines visuals and auditory, learners will easily improve their vocabulary knowledge. Manurung emphasizes that there are several reasons of using video enhance students' vocabulary and increase their engagement in the learning process learning as following:

- Video is an attractive media and learners enjoy learning the language through moving picture and the sound, which assist learners to engage in learning process.
- Through implementing videos, instructors will teach students in an interactive way through watching video that combines pictures to help them understand the meaning of words and also sound to practice how to read and pronounce it and followed by short quiz. As a result, learners will employ the words that they have and participate effectively in the learning activities.

2.5. Studies on Video and Vocabulary Acquisition

2.5.1. Videos to enhance students' engagement and motivation

A study by Manurung (2016) focused depicting students' engagement through using video to teach vocabulary. The participants were 30 students of II-A class. Qualitative method was used to collect data through using observation sheet. The results of the research showed that most learners can actively engaged and participate in the activities through using video. Furthermore, learners maintained positive behavior and followed teacher instructions. The findings of the study revealed

that using video to teach vocabulary is an effective way to encourage learners to engage and participate in teaching learning activities.

Similarly, Hakim (2019) focused on using YouTube in teaching vocabulary. The purpose of the research was to examine the effectiveness of using YouTube in teaching vocabulary and find out students' perception. Both quantitative and qualitative methods were used to collect data such as questionnaire and observation. The results of the research showed that using YouTube is an effective tool to teach vocabulary for young learners. In addition, using YouTube videos enhance learners' motivation to learn new vocabulary.

2.5.2. Videos to improve vocabulary acquisition

Silverman and Hines (2009) conducted a study that purposed to examine the effectiveness of video during read-aloud vocabulary instruction. The participants were eighty-five kids from pre-school through kindergarten. Non multimedia and multimedia were the two intervention conditions for this study. The results showed that multimedia has great impact to support vocabulary instruction. Learners who taught by using video learned more words than students who didn't exposed to multimedia video.

Another study by Heriyanto (2018) focused on the effectiveness of using video for vocabulary mastery. The purpose of the research was to investigate the improvement in vocabulary comprehension through using YouTube videos. The participants were a hundred learners at intermediate level and they aged ranged between 14-17 years old.

There were two groups of learner; the first group watched to videos in reading activities, whereas the second didn't watch to any videos in the reading lessons. Pre-tests and post-tests as well questionnaires were used to collect the data. The results showed that video has great impact to improve vocabulary comprehension. Learners who exposed to video exceeded students who didn't watch to YouTube videos. The findings of the study revealed that YouTube videos impact significantly in improving vocabulary acquisition and achievements.

In addition, Khiyab, Ghonsooly and Ghabanchi (2014) conducted a study to investigate the impact of using multimedia video on teaching vocabulary. The participants were 56 students and they were divided into two groups. The data collection tools were pre tests and posttests. Pre-test was designed to check students' memorization of the new vocabulary before using video, while the post-test was used to check whether the videos improve learners' vocabulary or not.

The results showed that there is an effective impact of using video in learners' vocabulary acquisition. The findings concluded that videos give learners deeper understanding and increase the retention of vocabulary knowledge.

Al-Seghayer (2005) focused on the effectiveness of multimedia on vocabulary acquisition in second language learners. The purpose of the research was to examine which of the image modalities is more effective in vocabulary acquisition, dynamic video or still picture. The participants were 30 ESL students. Multiple techniques were used to collect the data such as two types of tests: recognition and production, a face-to-face interview and questionnaires. The results revealed that utilizing video in teaching vocabulary is more efficient than using picture. Al-

Seghayer explained that video creates best mental image and make learners more curiosity towards learning as well enhance their concentration. Students learn and remember better when they are interested in the materials.

A study by Rusdi (2019) focused to determine the significance of using videos in vocabulary mastery. The purpose of the study was investigating the effectiveness of videos in enhancing students' memorization. The participants were 26 students at seventh grade. Pre-tests and post-tests as and questionnaires were used to collect the data. The results showed that interactive video multimedia have positive effect on students' vocabulary mastery. The finding revealed video can be used in the teaching and learning process to improve the ability of memorizing vocabulary.

Sydorenko (2010) suggests that implementing video in language learning environment can help to increase students' vocabulary acquisition.

In a similar line of inquiry, Manurung, (2016) states that through using videos, students can easily comprehend the meaning, pronunciation and the use of words that indicates activating cognitive stimulation.

2.5.3. Video provides positive attitudes and perception

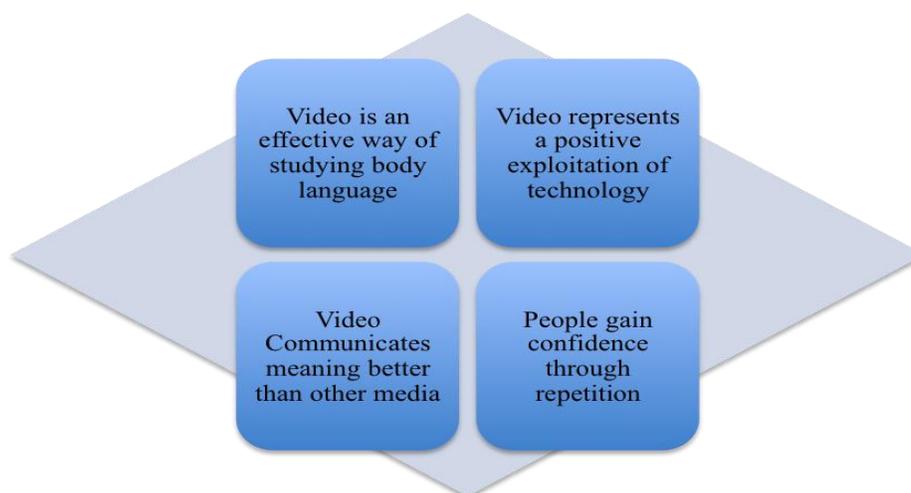
Hakim (2019) stated on the study that YouTube videos provide positive perception among learners. Using videos give learners more chance to learn proficiently and assist them to change the negative thinking patterns.

Also, Rusdi (2019) asserted that utilizing interactive video multimedia in classroom gives students very positive attitude towards learning vocabulary. Using video establishes a positive learning environment for the students.

2.6. Advantages and Disadvantages of Video

Gallacher (2003) adds some more obvious advantages of using videos in learning language as following:

Figure 2: Advantages of using videos in language learning



On the other hand, Manurung (2016) states that they're some demerits of using video in teaching and learning environment. The main disadvantage is the wrong employment of using videos in the classroom. Teachers cannot manage their classroom time when they use videos in classrooms. For example, when a teacher explains the lesson, he or she does not know how to coordinate his explanation with the use of videos. The distraction of the learning process that result from excessive use of low quality videos is one of the side effects of the videos in the classroom. The second disadvantage is video requires equipment so it is cost. Another con is video production needs more time and it is hard to edit.

2.7. Summary

To sum up, most researchers highlighted the significant impact of multimedia on increasing vocabulary mastery. They stated that teaching vocabulary through multimedia can help learners to memorize the words and motivate them to learning language easily and fundamentally by appropriate factors. In addition, using videos increase students' engagement and achievements. Most studies focus on the positive impact of using multimedia videos in the teaching and learning process. However, there are some gaps of using videos such as it may be a distraction if it not aligned with the purpose of the lesson. Also, videos require equipment and time to design, as well as the need technological skills. The current research will examine the effectiveness of using multimedia videos to teach new vocabulary for kindergarten students.

3. Research Methodology

This chapter is provides overview information about appropriateness of the research design, research design, setting and participants, data collecting technique (instrumentations) procedure of data collecting technique, and ethical considerations.

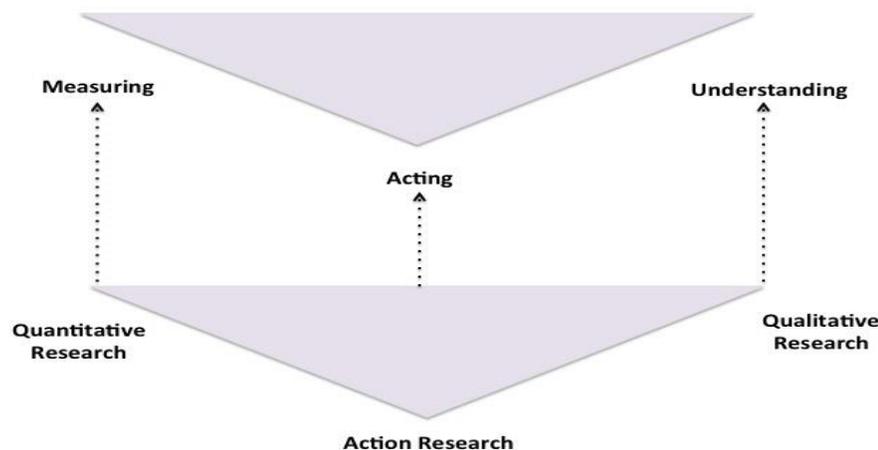
3.1. Appropriateness of the Research Design

There are different types of research designs and selecting the appropriate design is the most significant decision to make in determining the methodology of any research. The appropriateness of the research design depends on the situation and is determined by the type of the problem and availability of different resources.

As a result, I have decided to choose a mixed methods research by employing an action research, which its value for educational research has raised recently in the literature (Ponce, 2014). Action research can be defined as "A systematic inquiry conducted by teacher researchers ... to gather information about how their particular schools operate, how they teach, and how well their students (Mills, 2003, p. 5). I believe that action research is an appropriate approach to be applies in educational field, because it assists educators to develop practical solutions and address them quickly and efficiently.

Mixed methods research uses both quantitative methods (e.g. experiments, surveys) and qualitative methods (e.g., focus groups, interviews) as components of a research design (Creswell, 2009). Yilmaz (2013), mentions that qualitative research concerned in the process, context, interpretation, and meaning or understanding the phenomenon through inductive reasoning, whereas the

quantitative research concerned in outcomes, generalization, prediction using deductive reasoning. Ivankova and Wingo (2018) state that combining two methods assist to make more transferable results through integrating qualitative stakeholder engagement with quantitative outcomes.



In addition, Creswell and Plano Clark (2007) state that using mixed method research provides a comprehensive understanding of research problems than either approach alone or overcome the weakness of just one design. Furthermore, the researchers can use terms, pictures and narratives to add connotation to numbers. Finally, using mixed methods research helps to explain the findings and inform the action process: planning, implementation, evaluation, and monitoring.

Figure 3: The Appropriateness of the Research Design

3.2. Research Design

Research design refers to set of strategies and techniques to integrate different components in the study in order to ensure that addressing research problem and answering the questions effectively and efficiently.

There are different types of mixed methods research and based on my research questions, sequential explanatory design used to conduct the research. This design characterized by collection and analysis of quantitative data followed by the collection and analysis of qualitative data (Creswell, 2003). Sequential explanatory design helps to explain quantitative findings and examine specifically unexpected results from a quantitative method. It is an easy design to be implemented and the results easy to report. The main purpose of this research is to investigate the impact of using multimedia resources in improving vocabulary for kindergarten students.

3.3. Setting and Participants

The study is conducted in a private mixed school in Fujairah city in United Arab Emirates. The participants are 15 students from kindergarten level and their ages ranged between 5 and 6 years old. The students are from different nationalities and Arabic is their native language. Students had different learning styles and most of them are visual. I believe that teachers should consider students' learning styles and enhance students' learning strategies for their successful learning (Chiya, 2003). The participants were chosen according to their different performances and abilities using purposeful sampling, which means that the participants were selected to suit the purpose of

the study. They have different levels of motivation, different attitudes about teaching and learning, and different responses to specific classroom environments and instructional practices.

3.4. Action Plan and Procedures

An action plan was set to ensure data are collected accurately and precisely. The action plan included a timeline, the research purpose and questions, the lessons, the strategies, and action collection tools. It gave me an opportunity to be organized and accurate through selecting particular days to implement the strategies (see Appendix 1).

Different steps were followed in collecting the data. I found out some theories about utilizing multimedia elements to teach new vocabulary. The main theory was Mayer's cognitive theory of multimedia learning. It states that students learn more easily from words and pictures than just words.

3.5. Data Collection

In order to collect sufficient and accurate data for the research, I used both quantitative and qualitative methods. Four different types of data collection tools were designed, which are a survey, a teacher interview, pre and post-tests, and field notes.

3.5.1. A survey

A survey was designed to understand the participants' interest and assess their thoughts, opinions, and feelings about using multimedia elements (videos, pictures, digital storytelling) in the classroom and how that impact on their vocabulary acquisition (see Appendix 2).

3.5.2. Observations and field notes

The field notes were took to keep track of the student's improvement or lack, and to record the findings and to write the students responses to the videos to help elevate the next lesson. I observed the lessons and the field notes were written especially when applying multimedia elements in the classroom settings. As a researcher, I read the field notes as evidence to produce an understanding of the phenomenon being studied.

3.5.3. Pre-and post-tests

The third tool is pre-and post-tests. Pre test was designed to check students' memorization of the new vocabulary before implementing multimedia elements, whereas the post-test was used to check whether the videos improve learners' vocabulary (see Appendices 3 &4).

3.5.4. A teacher questionnaire

A teacher questionnaire was designed to examine how teachers use multimedia elements in daily sessions and what they think about using videos in the classroom as an instructional tool (see Appendix 3).

3.6. Ethical Considerations

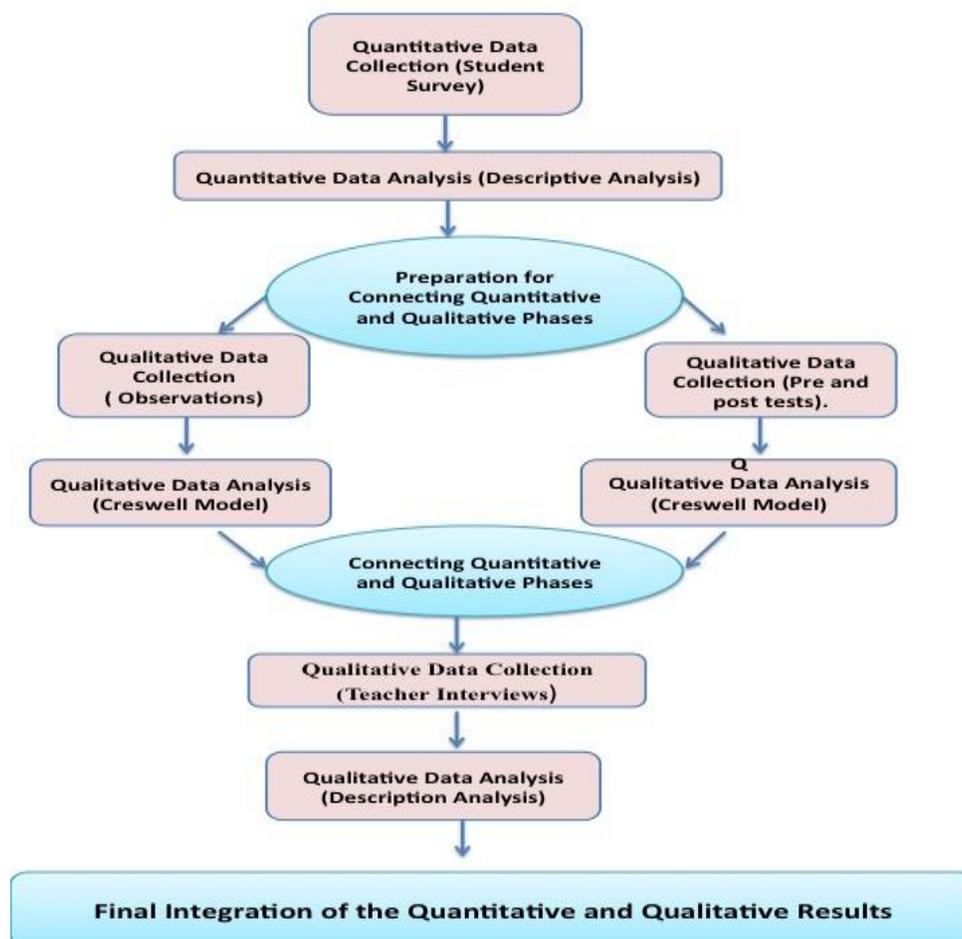
In order to conduct this research some ethical considerations have to be taken into account. Miller (2012) talked about the importance of ethical considerations when conducting a research. He believes that getting permission is essential before starting the observation (Miller, 2012).

To start, I took permission from the principal of the school to conduct this research with kindergarten students. In addition, a letter was sent to the parents to explain and clarify the significant of this research and what students are required to do to participate in it. Moreover, the parents were notified that their kids' names and identities would not be shown or revealed. All the data were stored in a confidential, password-protected folder that can't be shared only with others.

3.7. Data Analysis

As my study is a sequential mixed method design, I used various steps to analyze the data as illustrated in the figure (4):

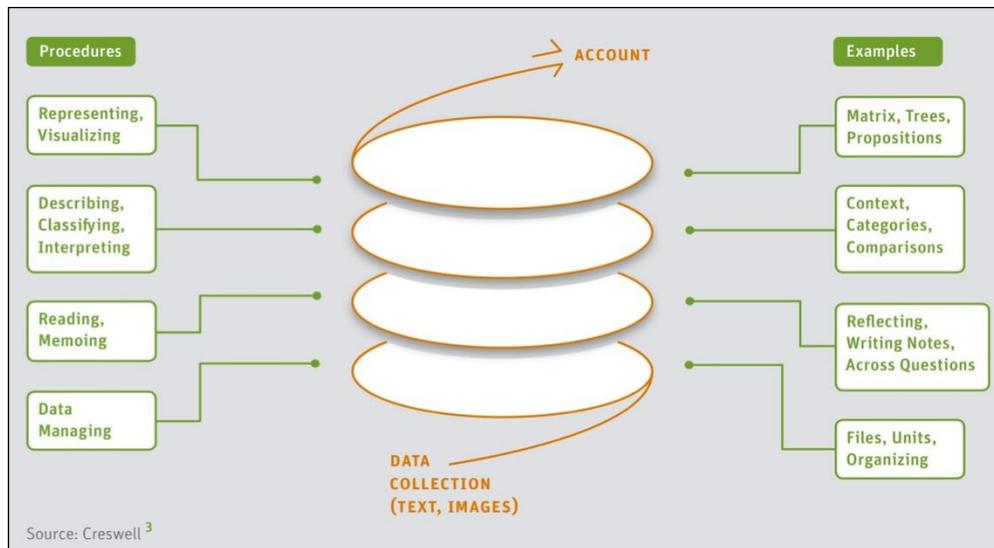
Figure 4: The Process of Data Analysis



The quantitative data were analyzed by using descriptive analysis, whereas qualitative data were analyzed by using Creswell Model. According to Creswell (2007), following data management by organize data into file folders or computer files helps to construct an organizational plan so that easily locate the data. Moving to reading and memoing. Researchers read entire transcripts several times to get an overall meaning and take notes in the margins of transcripts to be part of the database for analysis. Moving from the reading memoing to the describing, classifying, and interpreting.

Researchers code the data to describe the context of the setting. Then, develop codes or categories through some classification system and provide an interpretation from their perspectives. Finally, representing and visualizing, the researchers package the findings as text, tables, or figures (Creswell, 2007).

Figure 5: Creswell's Data Analysis Spiral (Creswell, 2007)



4. Results and Discussion

The data collected from the a survey, a questionnaire, observations and field notes, and pre-and post-tests revealed that multimedia videos influence on students' vocabulary acquisition. The results from the previous tools showed that students engage and involve effectively when using videos to teach new vocabulary.

4.1. Videos Motivate Students and Engaged Them

When multimedia videos were used to teach new vocabulary, students were motivate and engaged through the lesson. From my observations, students were motivated to lessons that involve videos and they were engaged. In addition, most teachers answered in questionnaire that when they using videos, their students are highly motivated. Moreover, almost all participants chose in survey that they feel more motivated when implementing videos. After analyzing the data, the results have shown that most students engaged very well and motivated while using videos to teach vocabulary. As a result, they will improve their vocabulary knowledge while they are motivated and engaged.

4.2. Videos Improve Students' Vocabulary Acquisition

Using videos helped students to acquire more vocabulary and keep them in their long-term memory. After analyzing the data from pre-and post-tests about checking students' memorization before and after using videos to enhance vocabulary. The results have shown that most students enhance their vocabulary after using multimedia videos.

5. Limitations

Although this study was carefully prepared, there were some limitations. First of all, the research was conducted in a difficult time because of coronavirus disease (COVID-19) that affects our whole life and prevents to collect data precisely. Another limitation was the number of English sessions in a week. I didn't have a chance to apply videos continuously, because teacher wanted to finish the curriculum before the final exam.

6. Conclusion

In conclusion, the study focuses on teaching vocabulary through using multimedia videos. The expected findings show that utilizing multimedia is a successful way of teaching the students new vocabulary and it generates more opportunities to improve students' learning effectively because it supports different learning styles. As a teacher, this study helped me to realize the significant of using multimedia videos in teaching and learning process and how it assists fostering students' vocabulary acquisition, as well gaining their motivation. It is necessary to provide teachers with some professional development sessions about the effectiveness of videos for young learners. Vocabulary should be taught to young students in more creative ways and based on the needs of students. In future, researchers have to use higher number of participants.

Presentation

https://prezi.com/p/w7n2r8s98v_u/the-effectiveness-of-using-multimedia-videos-to-improve-the-mastery-of-vocabulary-for-young-learners/?present=1

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Appendences

Appendix 1

Action Plan

Section	Objectives	Activity	Expected Completion Date	Other Related Information
Introduction	To engage readers' interest. To identify my topic, provide essential context, and indicate my particular focus.	Write 2- 3 paragraphs after reading several articles about my topic.	Week 4	Get feedback from my colleagues.
Problem Statement	To describe the issue currently existing which needs to be addressed.	Write a statement that identify the problem, describe who impacted by problem and discuss how the problem negatively impact them to achieve their goals	Week 4	Get feedback from my colleagues and teacher.
Research Questions	To generate the questions which the project aims to answer.	Do preliminary research on my topic Write questions that are answerable and not too broad or too narrow.	Week 5	Get feedback from my colleagues.
Literature Review	To gain an understanding of my topic that relevant and build my knowledge.	Search for literature using keywords about topic. Read the selected articles (15) thoroughly and summarize them. Organize the selected literature by looking for	Week 6	Get feedback from my colleagues and teacher.

		patterns and start write the literature review.		
Apparatus	To asses achieving the stated objectives of the study.	Write about variety apparatuses that help to conduct the study such as different multimedia elements.	Week 7	Get feedback from my colleagues.
Procedure	To provide detail description of all research activities and help researcher to follow the steps	Outline all study activities such as taking permission from principle, selecting the participants...	Week 7	Get feedback from my colleagues.
Methods	To select, process, and analyze information about a topic.	Identify the research method Select appropriate data collection tools Conduct strategies to analyze the data	Week 8	Get feedback from my colleagues and teacher.
Results	To answer the research questions based on the data	Write 2, 3 paragraphs to identify and analyze the results	Week 12	Get feedback from my colleagues and teacher.
Discussion & Conclusion	To interpret the study results and summarize it.	Write a paragraph to summarize the study results and the project generally.	Week 13	Get feedback from my colleagues and teacher.

Appendix 2




Circle a smiley face if your answer is "Yes" OR a sad face if your answer is "No":

Do you motivated to use the language in the classroom?	 
Do you face difficulty to learn and memorize new vocabulary?	 
Do you feel more engaged when using videos in the classroom?	 
Do you able to learn vocabulary better when using videos?	 
Can you improve your language skills by using language videos?	 
Do you think using video is meaningful to teach vocabulary?	 
Does using videos in the classroom has many benefits?	 

Link: https://drive.google.com/file/d/1RHHbn--h9wB1hNymmTTj_d_kIOIM7WbE/view?usp=sharing

Appendix 3



POST-TEST

• **Fill the gaps by choosing the correct word from the box below**

•	always	under	mosque	apartment
---	--------	-------	--------	-----------

- 1- The ball is -----the chair.
- 2- My friend Aisha lives in an -----.
- 3- I -----do my homework.
- 4- My brother usually prays in the -----

• **Circle the correct word**

	sport shop	swimming pool	city
	playground	tractor	traffic
	shopping mall	behind	village

Appendix 4

- **Draw a line between the word and its meaning**

nurse

A group of houses or buildings
that are together in an area.

neighborhood

A person who help sick or
injured people

sweet shop

A small shop that sells sweets

- **Write the missing letters**



y _ u _ g p _ o _ l _



f _ r _ e _

- **Circle the words that the best complete the sentences**

1- I want to be a -----

a- teach

b- teacher

c- teaching

2- The runners race inside a tall -----

a- building

b- build

c- builder

• **Draw a line between the word and its meaning**

bookcase

The outside part of the book

pencil case

A place to keep books

book cover

A small bag for holding
pencils, pens, crayons

• **Write the missing letters**



c _ pb _ ard



t _ bl _ t

Appendix 5A graphic consisting of a dark grey rectangular block on the left, followed by a large orange arrow pointing to the right. The word "QUESTIONNAIRE" is written in white, uppercase letters across the center of the orange arrow.

QUESTIONNAIRE

1-How often do you use videos in classroom?

- Always
- Sometimes
- Rarely
- Never

2- If never or rarely, justify your answer?

- Time is not enough
- Students are not motivated
- Videos are not useful

3-Do you believe that using multimedia provide a good learning atmosphere?

- Yes
- Sometimes
- No

4-When using videos, do you think your students are

- Highly motivated
- Motivated
- Fairly motivated
- Not motivated

5-Do you think the use of videos increases students' engagement?

- Yes
- No

6- Do you consider teaching vocabulary through videos as

- An educating strategy
- An entertaining strategy
- Both
- A waste of time

7- Do you think using videos can be useful for

- Teaching grammar
- Teaching vocabulary
- Teaching language skills (speaking, writing...)
- All of them

8- Where do you get the ideas for using multimedia in your classroom?

- Internet
- Books
- Own idea
- Other

9- Do you think the use of videos improves students' vocabulary knowledge

- Yes
- No

10- Do you find problems when using videos in the class?

- Yes
- No

If yes, what are they? (State two or three problems)

.....

.....

.....

The Effects Of Learning Environments On Students' Academic Performance And Future Careers.

Zahra Ali Allowatia,
HBMSU Learner

ABSTRACT

This research studies the effect of learning environments on students' academic performances. It investigates the the impact of learning environments on students and whether it enhances or diminishes their academic achievement levels. We will be touching and reviewing the previously conducted studies. Most of the presented studies have presented the methods that work best for such a research. In addition to the results that present the best learning environment. In this paper we will be listing the different journal/-articles that have been reviewed fro this research. A list of best used methods for recreating the study in the UAE. And the expected findings based on the previous research out of the new conducted methods. The aim of this research is to find the ways to enhance students' academic performances and strike for having thriving students despite their learning disabilities.

INTRODUCTION

Smart phones, smart TVs, smart automobiles, smart spaces, smarts homes and smart learning environments. With the world introducing an everyday life object with a technological technique twist, it is crucial to study the effect it has on the individual and the object's task. It is also crucial to investigate its current or future benefits on the society.

This research proposal will focus on the educational advancement that the word "smart" has added to it and will explore the effect it has on students' academic performances.

The proposal is divided in to three main sections that are literature review, methodology and the expected findings. The literature review section mentions 12 journal articles that discusses a similar subject and provides different experiments conducted that present the measures of the effect. The methodology section provides the two data collection methods used, both quantitative and qualitative. Each of which present the necessary process required to have the result aimed toward. And finally the expected finding section states the list of findings that are expected from the research process based on the information mentioned in the literature reviews and the methodology. The research will be conducted in two cities in the UAE. The cities chosen are Dubai and Sharjah since they hold the highest population among the UAE. In the process of the research, at least two universities will be studied.¹

¹ In reference to the current pandemic, many schools and universities have moved to a blended/online learning environments. Therefore, the data collection might widen to be considered of among the full country of the UAE.

LITERATURE REVIEW

In this literature review, we will review articles studying the impact of working and studying environments on student's academic performances and their future career. The review will investigate whether the new technology of learning environments affects the academic performances positively or negatively.

In addition, the review will include the factors and concepts that have been introduced to the market including live examples on the impact of co-working spaces on the market. The review will be divided into two different sections. The first will be concerning the affect of learning environments on academic performances. The second will be discussing the co-working spaces concept and its assistance in creating a networking platform.

Learning Environments

In the article *Effect of blended learning environment model on high school students' academic achievement*, the author presented a study that was conducted on high school students to understand the effect of the learning environment on their GPA. The study used two different methods that were experimented with. One was the regular in-class traditional learning method.

The other was a blended learning method that combines in-class sessions and “electronic learning or distance learning, using difference learning theories, methodologies and techniques in the same place and supporting the learning with various online technologies during the learning process in the classroom” (Kazu, I. Y. & Demirkol, M., 2010, p. 79). The study resulted in proving that the blended learning environment was “academically more successful” (Kazu, I. Y. & Demirkol, M., 2010, p.85). In addition to the success in the teaching technique of the combined methods, the GPA of the students showed that “The academic achievement average of the students who have studied in blended leaning environment has been found higher...” (Kazu, I. Y. & Demirkol, M., 2010, p.85).

This shows that, with the way that the world is changing, teaching technique should cope with this change. This will have a positive impact on the students' academic performances and will excite students toward education. The articles *Creativity in innovative projects*:

How teamwork matters (2007), *A Literature Review of the Factors Influencing E- Learning and Blended Learning in Relation to Learning Outcome, Student Satisfaction and Engagement (2018)*, *The learning impact of a virtual learning environment: students' views (2013)*, *The Impact of the Flipped Classroom Model on Students' Academic Achievement (2018)*, *Activity and Interaction of Students in an Electronic Learning Environment for Problem-Based Learning (2010)* present a similar study about the positive impact that blended learning environment have on the students' achievement levels verses the traditional learning environment.

Co-Working Spaces

In the article *Why People Thrive in Coworking Spaces*, the authors explain the main reasons behind the success of a co-working space concept. They mention that mainly it's because of the flexibility of such spaces. There are no guides of rules to how such space can be used and are no constrains

on the workers. They also study the impact of working in a co-working spaces and found that, “the combination of a well-designed work environment and a well-curated work experience are part of the reason people who co-work demonstrate higher levels of achievements than their colleagues.” (Spreitzer, G., & Bacevice, P., & Garrett, L., 2015). They conclude the article with a suggestion for all employers to consider the concept of co-working spaces and understand the benefits of such concept to be reflected in the traditional companies.

Similarly, the articles Coworking spaces: a new way of achieving productivity (2018), Effects Of Team Member Psychological Proximity On Teamwork Performance (2013), Teamwork Quality and the Success of Innovative Projects: A Theoretical Concept and Empirical Evidence (2001) discuss the ways that co-working environments are the best setting for a productive and successful outcome.

METHODOLOGY

Based on the research conducted, the methodology that is being suggested have been seen appropriate to the study and provided the necessary results to support or diminish the proposed theory. The methods proposed are of qualitative and quantitative methods.

The instrument to use are as follows and mentioned in details. The qualitative data will be collected using two methods: interviews and participant observation. The quantitative data will be collected using three methods: surveys, experiments and existing data. These methodologies are expected to be applied on students and coworking spaces in the UAE.

Qualitative Data

Interviews: The researcher will conduct 15 interviews, 2 of which are focus groups. The participants selected are based on their background and position in reference to the topic researched.

The first set of interviews will be conducted with 12 college deans/professors from at least two different universities. This portion will assist in documenting all the different currently used learning methods and foresee the impact on students’ academic performances.

The second set will be of 2 focus groups with (15 – 20 students per group) from two different universities. The interviews will be documented using a voice recorder that will later be transcribed manually and analyzed. The final interview will be conducted with a professional psychologist, who will also be involved in the research processes to present the scientific views and results on the proposed topic.

The first 12 interviews and the psychologist will follow a structured interview method; whereas the focus groups will follow a semi-structured interview method. Each interview will last for (35 – 45 minutes). This method will provide the researcher with insights on the learning environments provided, the observation of the educators and the students’ opinions and feedbacks.

Participant observation: the researcher will be observing 2 different scenarios; on-campus library and different student-friendly coworking spaces. For the library, the observer will be required to nominate an on-campus library and take about (2 – 3 visits) on a working day. observe the environment and the activity in place for (8 – 12 hours). Since the library is on-campus, an authorized letter maybe required.

The other one will be of at least 5 different student-friendly coworking spaces (this information will be based on research). The observer will be required to spend between (2 – 4 hours) in each space. This method will help the researcher better understand the different sets of learning environments and the way they work. Also based on the observation, the researcher can conduct an estimated understanding for the effect of each environment on students psychology during and after studying/working time.

Quantitative Data

Survey: the survey will be designed using an online website. It will consist of 20 questions; 15 closed questions presenting the customer segments (age group, preferred studying method², most used studying method, most used studying technique³, preferred setting⁴, hours spent per day) and 5 open questions reflecting the opinion and the experience of the respondent.

The type of questions will be a mix of multiple choices, multi-choices, ratings and short answers. The survey will be sent to 250 students using the university mailing list in each of the chosen university in the UAE. The data collection method used will be saved in the google sheets based on the website chosen. The surveyor will later use the drafted sheets to analyze the data.

Experiment: The method will be conducted using pre-post test experiment. The experiment will be applied on a set of 50 students, of which will be divided into two groups.

A pre and post tests will be designed having 30 multiple choice questions. Both set of groups will have the same pre and post test. The first set of group with 25 students will represent the traditional learning environment. The aim of this study is to understand if the academic achievement variables are dependent on the learning environments scenarios (independent variable).

This will be calculated using the ANOVA test. The type of test best used is the one-way test, that will be conducted multiply to study the variables effect separately. Then data will be collected and analyzed by linking the test to an excel sheet. The aim of this experiment is to present a calculated measurement for the effects of learning environment on students' academic performances within the UAE.

² Teamwork or individually.

³ Traditional (pen& paper) or digital (smart tech).

⁴ Home, library, (on-campus or public), co-working space, on-campus, café/restaurant.

Existing data: The existing data will be chosen upon the previously published studies created relatively to the researched subject. Also the data that will present the factors that are involved or have an affect on the subject matter. It will vary between existing online journal articles and recorder video interviews and talks. A minimum of 5 articles discussing or are related to the study in hand and 5 different recorder video interviews or professional/academic speeches. The data will be analyzed using note-taking and paraphrasing/quoting the information and the ways in which it reflects in the considered location. This method will assist in supporting the bases of the research and will add value to need of a similar study to take place in the UAE.

The methods considered to be used in the study will help the researcher better understand the weaknesses and strengths of the subject matter. It is also to help the researcher identify the pre-studied scenarios and the action taken towards them. Besides, the researcher will be able to narrow the number of targeted group using the sampling method to better present the solution of the occurring issue. In addition, the researcher will have a documented information for students, scholars and professional individuals and their takeouts and opinions on the subject matter.

EXPECTED FINDINGS

Based on the research conducted, the expected finding will be as follows:

- The researcher will be able to understand which audience that is being targeted in this research. Based on this information, the researcher will study the different scenarios that the targeted audience have as existing learning environments.
- The researcher will be able to collect the information about the most used, most preferred and the most found effective learning environment according to the students.
- The researcher will be able to provide a range of different learning situation scenarios and a detailed description of the environments created in each.
- The researcher will be able to explain the psychological effect (with the help of the professional psychologist analyses), and the physical effect (based on the experiments presented in the researched articles) of each learning environment on the students. In addition to differentiating between the different environments that enhance and diminishes students' academic performances.
- The researcher will have a consistent concept of a learning environment may be proposed to all academic institutes and educational organizations for a better academically achieved and highly ranked students globally.
- The observer will be able to identify the different elements⁵ that influence the learning environments.
- The researcher will be able to set a list and a scale for which of these elements enhance or diminish the learning experience.
- The researcher will have a calculated measurement of the different levels of effect. That way s/he will be able to specify the scale of importance for the proposed subject based on the percentage rate.

⁵ acoustics, playlist, location, views, people traffic, interior/exterior ambience..

CONCLUSION

In conclusion, this research represent the impact of the smart technology on the youth lifestyle and the ways it has influenced the educational system. We often find a debate about the advantages and disadvantages if technology. In this research we try to focus on the ways it has affected using studies and scientific research.

We believe technology has enhanced the systems and eased the teachings. But *has it impacted positively or negatively the students' performances and absorbance of information?* In addition, *did the technology create a gap between education and the youth due to the lack of an overlap or an integration between the two industries?* The question that remains and is the main reason of this proposal is, *what would happen if the two industries integrated and academia used technology to educate?*

The results of the literature review indicates that students seemed appreciative and thriving with this integration. Therefore, overlapping the two industries was the “smartest” way to increase productivity and raise the achievement level. All in all, smart learning environments have added value to education as the young generation seem to thrive using it, and are eager for education.

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Job Satisfaction and Its Impact on the Overall Performance of the Organization

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Abstract

The purpose of this research proposal is to describe and examine the relationship between job satisfaction and the overall performance of the organization, to identify the main determinants of job satisfaction, and to discover what factors help increase the level of job satisfaction. Besides, the study is aimed to determine the methods that can help enhance organizational productivity through job contentment. The sample of this research consists of the employees of one of the UAE (United Arab Emirates) banks. The data was collected online by means of a self-structured survey that consisted of 16 questions. The questions were related to various determinants of job contentment. A quantitative data collection design was used to analyze the level of job contentment. 10 participants aged 18 to 53 years old filled the surveys. The results of the sample analysis show that job satisfaction has a great impact on the overall productivity, as well as the organizational performance influences job contentment too. The study demonstrates that compensation, personal development, and the quality of work life affect job satisfaction level and, consequently, the performance of the employees. The objective of this project, thus, is to conduct greater research and examine the relationship between job contentment and general productivity of the organizations, namely in the banking sector of the UAE.

Keywords: *job satisfaction, overall performance, determinants of job contentment, employees, banking sector.*

Introduction

High job contentment is essential for organizational performance since it helps achieve organizational goals and satisfy the needs of employees and employers. Job contentment is a set of feelings, emotions, attitudes, and thoughts of the employees toward their work life. If an employee is satisfied with their job, they will be more productive and attain better results at work, thus the whole organization will benefit. However, if the employee is not satisfied with their work life, their productivity will decrease, and the organization will make losses. During the last several decades, the number of organizations in the banking sector is constantly growing in the UAE. Therefore, it is of high importance to enhance the employees' job satisfaction and keep business running in a competitive environment.

The objective of this research proposal is to investigate the connection between job contentment and the overall performance of the organizations to understand how the job contentment rate can be raised and what factors influence this rate. This research is relevant and new because there are not so many studies that examined the effect job satisfaction had on organizational productivity in the banking sector in the UAE. The majority of previous studies were focused on the banking sectors of India, Pakistan, Canada, Cyprus, Thailand, the United States of America, and other countries, but the information about the UAE organizations is insufficient. Thus, the research is important since it will help examine the causes of high job satisfaction among the UAE workers

and discover the factors that can motivate employees to work better. The research proposal has the following structure. The first section is the literature review that discusses different researches that were conducted within the last decade. The analyzed sources were published within the 2011-2019 timeframe. The next part describes the methodology design that will be used for the research. The last section summarizes the results of the investigation and offers expected findings, basing on the literature review and the preliminary research.

Literature Review

The reviewed literature can be subdivided into four groups. The first group explores different determining factors of job contentment. The second group examines the main aspects of job commitment. The third group of articles considers the engagement of the employees with their work. Finally, the last group focuses on the quality of work life and the role of the performance appraisal for job contentment.

Determining Factors of Job Contentment

Different factors influence the level of job contentment. Al-Buainain et al. (2019) distinguish interior and exterior determinants. Recognition, employee's responsibility, and work tasks belong to interior factors while "working conditions, income, and company policy" belong to exterior factors (Al-Buainian et al., 2019, p. 394). Ali et al. (2018) subdivide the determining factors of job contentment into personal and organizational. Personal factors are age, gender, qualification, and marital status, while organizational determinants are salary, promotion, recognition, rewards, relationship with colleagues and supervisor, etc. (Ale et al., 2018, p. 95). Other researchers define these factors as demographic and environmental (Abdulla et al., 2011; Kitana, 2017; Ouedraogo & Leclerc, 2013; Singh, 2012).

The literature review showed that environmental, or organizational factors have a greater influence on job contentment than demographic determinants. For example, Yadav and Khanna (2015) discovered that "75% employees and 72% employees respectively is not satisfied with the sanitary/washing facilities and changing room" in different branches of the Indian state banks (p. 47). One can see that even such an element of work life as a sanitary facility may have a negative impact on the employees' contentment and, in turn, lead to stress and lower productivity. Still, the major source of the employees' satisfaction is compensation or any financial reward (Singh, 2012; Abdulla et al., 2011; Ali et al., 2018). If the employees are highly satisfied and motivated, they will have a positive attitude toward their clients, which is especially important in the banking sector (Dhamija et al., 2019).

Other important factors influencing job contentment are roles and responsibilities at work. Abdulla et al. (2011) discovered that women were more satisfied with their work when they had good relationships with co-workers, clearly understood their responsibilities, and participated in different events at the workplace. The relationships with patients and customers were of high importance for dental practitioners of the UAE (Al-Buainain et al., 2019). At the same time, those dental practitioners were not satisfied with the lack of possibility of part-time work.

The study that involved the UAE banking sectors discovered that such personal determinants as age and gender had a great influence on job contentment too. According to Kitana (2017), young people were more pleased with their occupations and more energetic and ready for changes than older workers (p. 8). The same study showed that women were more content with their careers than men, and the level of their pleasure did not depend on salary. Finally, the work environment and social setting had a great impact on job contentment too (Ouedraogo & Leclerc, 2013).

Aspects of Job Commitment

The researchers identify job commitment with professional attachment, pleasure, and loyalty of the employees toward their job (Kerdngern & Thanitbenjasith, 2017; Qureshi et al., 2019). There are three aspects of job commitment: normative, affective, and continuous. The most influential is a normative commitment, which can be seen when a worker stays at work for moral and ethical values (Qureshi et al., 2019). Affective commitment occurs when a person is emotionally connected to the organization or co-workers. Continuous commitment occurs when an employee realizes that staying with the company will bring more economic benefits than leaving it.

Engagement of the Employees with Their Work

If the workers are highly engaged with their work, they will be more satisfied and productive. The research showed that in the UAE, employees' participation in the public sector is significant because it has a positive impact on their productivity and satisfaction and leads to the overall organizational performance (Singh, 2016). Work in a team is also crucial for job contentment (Hanaysha & Tahir, 2015; Suwaidi, 2019). The research by Jabeen et al. (2018) demonstrates that the quality of work life of Emirati women can be improved with the help of different "challenges at work and development of human capacities" (p. 361). Thus, organizations should create challenging conditions and promote the professional growth of employees to improve job contentment and productivity.

Human resource practices are also part of the employees' engagement. Suwaidi (2019) distinguishes such practices as effective face-to-face communication, compensation and reward systems, and various methods of enhancing output and productivity. Organizations should try to minimize "a Monday-to-Friday sort of dying," making the employees feel comfortable at work (Suwaidi, 2019, p. 1461). Organizational policies and guidelines should be easy to comprehend and implement too (Abdulla et al., 2011).

The Quality of Work Life and Performance Appraisal

The quality of work life has a great impact on job contentment. If the quality of work life is high, the employees will have a lower stress level; therefore, the risks of their turnover will decrease (Dhamija et al., 2019). Moreover, if the basic and high needs of the employees are satisfied, the quality of work life will be improved too, which will lead to better overall performance. According to Maslow's hierarchy of needs theory, until the basic needs of the workers are met, these workers will be pleased with their jobs (Kerdngern & Thanitbenjasith, 2017). Another research showed that most of the respondents "were dissatisfied with the process of grievance handing" at their work in the State Bank of India (Yadav & Khanna, 2015, p. 47). Consequently, when their claims and offers are not taken into consideration, their job contentment decreases too. Thus, team leaders and supervisors should be able to distinguish the workers' needs and create positive conditions for these needs' satisfaction.

Many employees usually perceive performance appraisal negatively. Nevertheless, if they see that their labor is treated fairly, their attitude to appraisal and supervision improves (Ibeogu & Ozturen, 2015). At the same time, the researchers found no connection between job contentment and performance appraisal. Another research showed that when employees had a good leader or supervisor, the quality of their work improved, and they were more satisfied (Kerdngern & Thanitbenjasith, 2017). Having an open-minded and resourceful supervisor stimulates workers to perform their job faster and add creativity to the working process, which leads to job contentment and better productivity (Suwaidi, 2019).

The review process showed that organizational productivity and job contentment are closely interrelated. Most of the studies focused on the impact of the work environment and compensation on the employees' satisfaction with the job. However, they often ignored the reasons for the workers' dissatisfaction, which is also of high importance for organizational performance. Besides, the lack of information about job contentment in the UAE demonstrates that there is a need to investigate this subject in the desired geographical scope. The reviewed literature focused only on the contentment of female workers in the UAE, so further research on male satisfaction is needed. This research proposal is an attempt to discover the association between job contentment and organizational productivity in the banking sectors of the UAE.

Methodology Design

The research proposal will use a quantitative descriptive research method. This method is suitable for the current research since it focuses on the description of the current status of an identified variable. In the research, the dependent variable will be job satisfaction while independent variables will be different determinants of job contentment. The descriptive method is the best choice for this research since it allows to develop a hypothesis only after a thorough analysis of the data.

Participants and Sampling

The participants of this research will comprise of the workers of the UAE banking sectors. It is important to have respondents of different age groups, marital statuses, and other demographic characteristics, both males and females. Since it will be problematic to gather the responses from all employees of the analyzed sector, a non-probability convenience sampling will be utilized in this study. This method means that the researcher gathers and analyzes data from those participants who are conveniently available at the required moment. It is planned to distribute at least 100 self-developed questionnaires online or personally.

Methods of Data Collection and Analysis

The main method of data collection will be a self-developed questionnaire/survey. The survey will consist of multiple-choice questions and Likert scale ratings (from 1 to 5 points, where 1 is not satisfied and 5 is very satisfied). The first part will gather information about some personal determinants, like age, gender, and marital status, and the second part will focus on job contentment. The main advantage of this method is that it can be easily and quickly developed and distributed among a big number of participants. Besides, it is cost-effective, especially if it is distributed electronically. This method also allows to gather and analyze large data.

However, the main disadvantage of survey questionnaires is that some questions can be biased, and the answers will be biased respectively. Besides, respondents may skip some answers, which will lead to some gaps in data analysis. Nevertheless, these disadvantages can be turned into advantages if the survey is made properly, and all fatigue and biased questions are excluded from it. Thus, all questions should be short and clear, and they should not contain any hint at the supposed response. In such a way, the respondents will be more likely to answer honestly and objectively.

To analyze the results of the research, several methods can be used. The data can be analyzed manually or with the help of software. The responses can be categorized into groups and quantified accordingly. Cross-tabulation can be used to divide questions and answers into groups. The top question will be defined first to understand how many people responded in a particular way. For example, the research question is *What is the relationship between job contentment and general organizational productivity?* The main survey question may be *How do you agree with the statement that overall organizational performance depends on job satisfaction?* If the majority of answers are affirmative, a possible hypothesis will be that organizational productivity depends on the employees' job contentment. All other responses can be calculated in a similar way. Excel can be used to calculate percentages.

Conclusions and Expected Findings

The central objective of this research is to examine the relationship between job contentment and the overall performance of the organization. Since one of the goals of the research proposal is to determine how to enhance the overall productivity of the organization, the expected results will allow the researchers to identify the determinants of job contentment and understand how these determinants can be used for productivity enhancement.

The literature review allowed me to develop the theoretical background for future research. The preliminary research was aimed to examine from which of determinants the workers of one of the UAE banks were most satisfied and which determinants made them dissatisfied. In such a way, the results of future research can be used by the bank managers and supervisors to improve their employees' satisfaction and, consequently, enhance the overall productivity.

In this research, the determinants of job contentment are subdivided into two groups: personal and organizational, or demographic and environmental. The first group includes some background information about respondents, such as age, gender, marital status, and education. The second group involves everything that can be related to the organizational environment and work life: compensation, rewards, promotion, relationships with co-workers and supervisors, working time, benefits, events, engagement, and work itself. Each of these determinants has an impact on job satisfaction, either great or small. The estimated results will help to understand whether the determinants of job contentment are the same for the employees of the UAE banking sectors, or they differ from the data taken from other countries.

Based on the literature reviewed and the results of the small preliminary survey, one can conclude that organizational productivity and job contentment are interrelated and interdependent. All previous researches showed that compensation has the greatest impact on the employees'

contentment. The preliminary survey supports this statement and supplements it with the idea that personal development at work is also of high importance for the workers' satisfaction. Such determinants as marital status, education, gender, as well as stress, organizational policies, and performance appraisal were not as important for the employees' job contentment and overall performance. However, the preliminary survey showed that some respondents found organizational policies and appraisal system demotivating. Thus, even though the number of such respondents is small, their thoughts should be also taken into account.

The results of the preliminary research show that women are less satisfied with their jobs than the men in the UAE banking sector. Besides, single and widowed women are less satisfied than married women. Such a result differs from the data from the literature review that showed that women were usually more satisfied than men. However, since the number of participants in the preliminary survey was too small, the results should not be taken seriously. The responses may depend on the current mood of the participants or the day of the week or any other factor, so there is a need to repeat the survey and distribute it to a greater number of employees. In conclusion, the research proposal is aimed to demonstrate the importance of achieving job contentment in banking sector organizations as a top priority.

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Appendix

Survey

Dear Participants,

Date .../.../2020

This survey is designed to study the relationship between job satisfaction and general performance. The survey is aimed to better comprehend the quality of working processes in the UAE banks. I kindly request you to answer the questions honestly and sincerely because only your personal experience can help us better comprehend the factors that influence job contentment.

All your responses will be anonymous and kept confidential. The data will be used only for the current research. You will receive the results per email after the survey analysis.

We are grateful for your efforts and time. Thank you for collaboration.

Cordially.

1. **What is your gender?**
 - a. Male
 - b. Female
2. **What is your age group?**
 - a. 18 – 25
 - b. 26 – 32
 - c. 33 – 39
 - d. 40 – 46
 - e. 47 – 53
 - f. 54 and above

3. What is your marital status?

- a. Single
- b. Married
- c. Divorced
- d. Widow

**4. Rate your satisfaction level of several factors of your current job:
(Very dissatisfied) 1...2...3...4...5 (Very satisfied)**

- a. Compensation 1...2...3...4...5
- b. Working hours 1...2...3...4...5
- c. Team work 1...2...3...4...5
- d. Possibility of part-time work 1...2...3...4...5
- e. Personal development 1...2...3...4...5
- f. Medical benefits 1...2...3...4...5

**5. The management of the organization is supportive of me:
(Strongly demur) 1...2...3...4...5 (Strongly consent)**

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

**6. Rate your contentment level with your relationship between time at work and not at work:
(Very dissatisfied) 1...2...3...4...5 (Very satisfied)**

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

7. Is stress at work affecting your overall performance?

- a. Not at all
- b. Slightly
- c. Moderately
- d. Very
- e. extremely.

8. How often are you engaged in team work?

- a. Very often
- b. Sometimes
- c. Rarely
- d. never

**9. The organization policies and strategies encourage me to do a good job:
(Strongly demur) 1...2...3...4...5 (Strongly consent)**

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

10. My relationships with other colleagues and team members have a positive impact on my job satisfaction:
(Strongly demur) 1...2...3...4...5 (Strongly consent)

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

11. How are you coping with the daily workload?

- a. Unsatisfactory
- b. Poor
- c. Fair
- d. good enough
- e. perfectly

12. My suggestions and feedback are always taken into account by the supervisors and team leaders:
(Strongly demur) 1...2...3...4...5 (Strongly consent)

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

13. I feel that the corporation appreciates my aptitude:
(Strongly demur) 1...2...3...4...5 (Strongly consent)

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

14. I feel safe and protected in my present job:
(Strongly demur) 1...2...3...4...5 (Strongly consent)

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

15. I would recommend this company to other workers as a good place to work:
(Strongly demur) 1...2...3...4...5 (Strongly consent)

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

16. How would you rate your company as a place to work on a scale of 1 (the worst) to 10 (the best)?

1 ... 2 ... 3 ... 4 ... 5 ... 6 ... 7 ... 8 ... 9 ... 10

I really appreciate your time and collaboration. Please, make sure that all questions are answered. Thank you!

Interview

The purpose of this interview is to understand how satisfied you are with your current job and how your satisfaction rate affects your general performance. All your responses will be kept anonymous and will not be disclosed. Your employer, team members, or other colleagues will have no access to your answers. The data you provide me with will be used only for the study. If you want to know the results, you can contact me per email, and I will send you the analyzed data.

Now I will ask you five questions, so the interview will not take long.

- 1. What gives you satisfaction in your current job position?**
- 2. Please, tell me how do you see your perfect work setting.**
- 3. If you could change something in your company, what would it be?**
- 4. What do you think about your current workload?**
- 5. Do you like better working in a group or independently?**

I really appreciate your time and collaboration. Thank you for joining us, your opinion is very important to us.

Strategies in increasing employee's satisfaction commitment and loyalty at the public and private sector in the UAE

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1 Abstract

Nowadays, the private and public sector in the UAE faces lots of challenges with the appearance of a dynamic environment. One of the obvious challenges for a business is to have a satisfying work environment to manage these challenges, achieve organizational objectives and remain in the competition. Job satisfaction is an essential pillar upon which the institution or organization depends on achieving success and superiority over other organizations. The job satisfaction process is considered as a continuous link that is connected with each other. Although the worker's ability to production increases with the appearance of an appropriate atmosphere for work.

The aim of this research proposal is to determine factors that increase employee satisfaction, analyse the impact of job satisfaction on employee loyalty and commitment and determine strategies to increase the level of satisfaction, loyalty, and commitment in the UAE. Specifically, the research has been undertaken to determine the importance of job satisfaction to the organization, measure the different aspects of job satisfaction on job performance among the employee of the public and private sector in the UAE and indicate what Emirate firms need to do to increase their employee's job satisfaction, commitment and loyalty. The research proposal consists of the introduction, the second stage will be a review of the literature, a set of information has been used to cover all aspects of job satisfaction. In this research proposal, a quantitative design methodology approach has been covered. The next section will be about the expecting findings, finally, the references that have been used during conducting the research proposal and conclusion.

It's expected from the research proposal that the amount of salary and incentive an employee received at the organization will affect positively job satisfaction. Also, it's expected to find that working hours affect employee job satisfaction levels negatively. There is a strong relationship between job satisfaction and employee's working hours. Although, the findings of the research proposal show that training programs will enhance the job performance of the workers within the organization in the UAE, in contrast.

Keywords

Job Satisfaction, Commitment, Loyalty, United Arab Emirates, Job Performance

2. Introduction

2.1 Back Ground of the Study

Nowadays, private and public sector in the UAE faces lots of challenges with the appearance of a dynamic environment. One of the obvious challenges for a business is to have a satisfying work environment to manage these challenges, achieve organizational objectives and remain in the competition. Organizations implement strategies to provide a work environment where the factors of job satisfaction prevail. Different researches have been conducted on the topic of job satisfaction, because there is a strong relationship between job satisfaction and its effect on increasing production capacity, building customers satisfaction, reducing staff absenteeism, expansion the level of commitment and loyalty of an employee and these results positively on achieving organizational goals and objectives. In addition to that, it's important for an employee to arrive at the stage of generating his own motivation and a desire to provide his best performance and achievement in the work. Employees reach a high level of satisfaction when they feel stable and progressed continuously without the presence of any complications and obstacles, a very comfortable working life requires effort from both senior management and employee.

2.2 Structure of The Literature Review

Organization seeks to implement different strategies to increase employee job satisfaction which result in enhancing individual and institution performance. Different academic resources and research documents have been conducted to address different aspects of employee job satisfaction. Particular employee attitudes toward job satisfaction, loyalty, and organizational commitment are of the main interest in the field of Human Resource Management. This research proposal will illustrate more on the importance of job satisfaction and its impact on employee loyalty and commitment. Although to demonstrate the factors that increase employees job satisfaction and commitment level. This research proposal shows a strong relationship job satisfaction and job performance and productivity. Satisfying the needs of employees will increase the commitment level of employees. Furthermore, the results of the study shows that the level of employee performance could be increased by training.

This research proposal consists of six main elements. First, it starts with an abstract that briefly outlines what the proposal is about and specifies the purpose of the research. The second section includes the introduction which consists of a background of the study, structure of the literature review and definition of job satisfaction and job performance. The third part will be about the literature review, this framework covers the relationship between job satisfaction and job performance, factors that increases employee satisfaction within the private and public sectors in the UAE, Impact of employee satisfaction in developing employee commitment and loyalty. Although this part determines the different strategies to increase job satisfaction, loyalty and commitment. The fourth section is about the methodology which illustrates the proposed methodology of research. The next point which was covered is the expected findings of the research proposal. Finally, is the reference and citation that have been used in the research proposal.

2.3 Definition of Job Satisfaction and Job Performance

Job satisfaction is a positive feeling an employee feels about his job, because of fulfilling his need, desire at the workplace and it's describes individual's exaptation from the institution (Locke, 1968 as cited in Randeree & Chaudhry, 2012). In addition to that, it has been indicated by researchers that job satisfaction is a positive or negative feeling that an employee has towards his job (Odom et al., 1990 as cited in Randeree et al., 2012). "Furthermore, Mosadeghrad (2003) stated

that employee job satisfaction as an attitude that people have about their jobs and the organizations in which they perform these jobs. Methodologically, we can define job satisfaction as an employee's affective reaction to a job, based on a comparison between actual outcomes and desired outcomes” (Mosadeghrad, 2003 as cited in Randeree et al., 2012).

Job performance refers to the degree of achievement and completion of the task that makes up the individual’s job (Ibrahim, Mohamed, Al Sejini, Sabri, Al Qassimi, and Abdul Aziz, 2004).

Many points can enhance and improve job satisfaction such as: -

1. Findings a high paying job in either the private or public sector (Shallal, 2011).
2. According to Shallal (2011) female employees should have childcare facilities in their work placement.
3. Shallal’s (2011) study suggests that Increasing worker's allowance should be upon experience gained and not just education.

2.4 Hypotheses

For the purpose of the development of the research and analysis the following hypotheses are developed:

H1: There is a positive relationship between the job satisfaction and job performance.

H2: Job Stability/ security is positively correlated with employee satisfaction.

H3: Monetary compensation leads to job satisfaction.

3. Literature Review

3.1 Relationship Between Job Performance and Employees' Job Satisfaction

Several studies have been conducted to determine the relationship between job performance and job satisfaction, a review of previous studies specifies the existence of three different opinions on the relationship between job performance and job satisfaction. The first and oldest view rejects the presence of relationship between job satisfaction and job performance. High level of job satisfaction among employee results either on high or low job performance and productivity and vice versa, low job satisfaction accompanies either on high or low job performance and productivity (Brayfield and Crockett, 1955 as cited in Ibrahim et al., 2004).

The second view comes in favor of the relationship between job satisfaction and job performance as satisfaction leads to a better performance of an employee. Herzberg et al. (1959) are considered the strongest supporter in favor of this point (Herzberg as cited in Ibrahim et al., 2004). There are two main factors affect the feeling of satisfaction and dissatisfaction among employees. Hygiene factors considered to be the first set of factors which consists of, salaries and benefits, company's policies, interpersonal relations, supervision, working condition and international relation affects job dissatisfaction. “Absence of hygiene factors (extrinsic factors) contributes to job dissatisfaction but their presence does not contribute to satisfaction” (Ibrahim et

al., 2004). Motivators appear to be the second factor that affects satisfaction among employee at the organization which consist from, characteristics of work itself, recognition, responsibility, achievement and professional growth increases the level of job satisfaction and thus are the main elements related with performance (Herzberg et al., 1959 as cited in Ibrahim et al., 2004).

The third point of view presents an argument to emphasize that job performance leads to job satisfaction. The main core point of the view is that performance and effort are the main attributes of job satisfaction (Lawler and Porter, 1967 as cited in Ibrahim et al., 2004). Their model illustrates that the linkage of performance and satisfaction is referred by rewards and the perceived quality of rewards. It has been assumed that the rewards define the level of satisfaction of works at the institution (Lawler at al., 1967 as cited in Ibrahim et al., 2004).

3.2 Factors Increase Employee Satisfaction Within the Private and Public Sectors in the UAE

3.2.1 SALARY and Incentive

One of the most determinant factors of job satisfaction is salary and incentive. Employees at the organization show great interest in wages, allowances, salary, recognition, financial rewards, and fringe benefits. In addition to that, in the UAE employees are highly focused on salaries and incentives because it determines the living standard of individual's and its impact in achieving stability and sense of security for the individual (Aksu and Aktas, 2005 as sited in Abdulla, Djebarni, and Mellahi, 2011).” Furthermore, reward and recognition can provide for both intrinsic and extrinsic motivation. However, growth gained from getting intrinsic rewards out of interesting and challenging work provides the greatest influence” “Herzberg 1987, p. 118 as cited in Marchant, 1999).

3.2.2 MONETARY Compensation

Monetary compensation affects positively job satisfaction. Although there were few measurements to determine the monetary compensation such as pay raises, pay level, pay structure, administration and advantage level (Williams and McDaniel, 2007 as sited in Otoum et al., 2010). It has been indicated that reward and benefits are continuously foremost in the mind of an employee, as it demonstrates loyalty and productivity among employees in addition to job satisfaction (Miller, 2007 as sited in Otoum et al., 2010).

3.2.3 ORGANIZATIONAL Policy and Strategies

Organizational policy and strategies consider as one of the main factors affecting job satisfaction. Organizational strategies and policies, having regulations and rules, setting moral values, reducing bureaucratic, paying attention to external and internal customers and providing a clear job description. The appropriate procedures and policies ensure a better understanding of employee to organization goal, instate of being ambiguity which leads to frustration and dissatisfaction (Locke, 1976 as sited in Abdulla et al., 2011).

3.3 Impact of Employee Satisfaction in Developing Employee Commitment and Loyalty

3.3.1 EMPLOYEE Commitment

It has been assumed by the researchers that there is a positive relationship between the dimension of organizational commitment and satisfaction on job security, In addition to job satisfaction and employee performance (Yousef,1998). This essentially implies that workers are committed to the organization if they are satisfied with job security and this will lead to a better performance of the individual. According to Yousef (1998) study “there are several attributes that determine satisfaction on job security such as job level, monthly income, education, marital status, tenure in present organization and tenure in present job”.

Yousef (1998) further points out that, if expatriate staff are satisfied with job security they do their best to achieve company objectives. Furthermore, foreign expatriate’s cares about work security more than middle eastern employers and local staff. For example, foreigners take into account salary and job security before accepting any job. This indicates that increasing institution commitment by a foreign employee is all because of their satisfaction with job security, from this perspective the supervisor should focus on the influence of national culture while taking decisions regarding the satisfaction of their workers about the security of their jobs which enhances job performance and organizational commitments (Baker and Abou-Ismael,1993 as cited in Yousef, 1998).

3.3.2 EMPLOYEE Loyalty

It has been assumed by the researchers since the 1960s that organizational commitment and employee loyalty has been raised as one of the most important issues to be discussed. Different studies have been conducted to understand the effect of job satisfaction on loyalty. There are three-tiered mentally meaning of employee loyalty which is “the variety of obligation types that loyalty can imply and anticipates the potential for asymmetrical loyalty configurations between employers and employees” (Hart and Thompson, 2007 as cited in Ibrahim and Al Falasi, 2014)

Employee loyalty to the company refers to employees who are dedicated to the growth of their company and consider the company's interest as if it is their personal interest, have strong feelings of care, responsibility, cohesion and have a strong desire to invest their energies or even personal sacrifice for the welfare of the company (Turkyilmaz et al.,2011 as cited in Ibrahim et al., 2014). Although working in a positive atmosphere and proper workplace environment results to enhance individual’s attitude, increase the level of job satisfaction and job involvement between co-workers, which affect positively on the organizational performance (Suliman and Harethi, 2018).

3.4 STRATEGIES TO INCREASE THE LEVEL OF EMPLOYEE JOB SATISFACTION, LOYALTY AND COMMITMENT

3.4.1 MANAGEMENT Style (Employee Engagement)

In order to achieve job satisfaction, there are several aspects and methods organizations may obtain like, management style (Tam and Zeng, 2014). Description of a manager that has been taken after a consultative type considers as the most favorite style between the staff. It consists of three main processes which are, listening, considering, and consulting. The analysis of the Tam et al. (2014) report shows that workers lean toward their voices and opinions to be heard and to participate in decision making. For that, supervisors must seek to create confidence among their employees and empower them to construct pride within the job they have been assigned, by giving them the authority of decision making for the task they perform.

3.4.2 PARTICIPANT Decision Making

This practice aligns with empowering employees, empowerment means giving group members the responsibilities and authority for decision-making (Dubrin, 2007 as cited in Tam et al., 2014). This practice allows employees to create competence, have a sense of responsibility and self-determination among the staff (Dubrin, 2007 as cited in Tam et al., 2014). Participant decision making a method used by supervisors allowing their employees to have the power of making a decision (Kazi, 2009 as cited in Al Nuaimi, Chowdhury, Eleftheriou, and Katsioloudes, 2015). Implementation of participant decision making methods increases the job satisfaction level of individuals among the organization (Kazi, 2009 as cited in Al Nuaimi et al., 2015).

3.4.3 LEADERSHIP Style

leadership is a leader's method of providing confidence and support to encourage an employee to achieve organizational goals (Kim and Maubourgne, 1992 as cited in Randeree and Chaudhry, 2007).” Leadership is not only found among people in senior positions but is needed at all levels in an organization and can be practiced to some extent even by a person not assigned to a formal leadership position” (Dubrin, 2004 as cited in Randeree et al., 2007). There is a different aspect of leadership such as bureaucratic, laissez-faire, transactional, charismatic, situational, democratic, autocratic, participative, and transformational leadership (Mosadeghrad, 2004 as cited in Randeree et al., 2007).

It has been assumed by the Randeree et al. (2007) that managers must use different leadership styles for different situations as it is not appropriate to use a specific leadership style to achieve effective forms of organizational behavior. Although leaders should know when is it suitable to use a particular approach, as it's very important to have an accurate approach to achieve organizational goals and objectives (Rad & Yarmohammadian, 2006 as cited in Randeree et al., 2007). It has been addressed by Randeree et al. (2007) that a good leader can increase the job satisfaction level of his employer.

4. METHODOLOGY DESIGN

The primary data of this study will be collected from either the public or private sectors in the UAE. The random sampling approach will be conducted and the questionnaires of the study would be distributed among the employees. The study instrument would be developed in both

Arabic and English languages to allow employees of different nationalities to be part of these questionnaires. The sample size of this research expected to be approximately 500 participants of different emirates. A full-time employee from three managerial level top, middle and lower would be selected to fill out the questionnaires. A close-ended question survey with multiple choice answer options would be distributed. The online questionnaire would be used to collect the statistical data and feedback from the employee. The study tool would be a questionnaire consists from 25 questions on job satisfaction such as factors that increase employee satisfaction within the private and public sector in the UAE, the relationship of job satisfaction and employee loyalty and commitment and strategies used to enhance the job satisfaction, employee loyalty and commitment with private and public sector in UAE. A Likert with five or seven-point scale method would be used to measure employees' level of agreement, the choices range from strongly agree to strongly disagree. The collected primary data would be analyzed using SPSS software, for the final report statistical report with correlation, comparison of means and statistical significance of findings will be presented.

The quantitative approach would be more suitable to research on the topic of job satisfaction, as we would like to test hypotheses such as the relationship between job satisfaction and job performance, look at the causes and effect of job satisfaction and make prediction on the strategies could be implemented by UAE organizations to increase employees job satisfaction. In addition to that, the quantitative approach allows measurement of satisfaction level among employees using large and randomly selected people which allows participating of an employee from different nationalities, age and gender. Furthermore, the form of the data collected would be based on precise measurement using structured and validated data collection instruments such as the Likert scale.

On the other hand, a quantitative method helps in identifying a statistical relationship, for example, the higher rate of job satisfaction will result in a high rate of job satisfaction. Although there are four types of quantitative research design such as the descriptive, correlational, comparative and experimental. The descriptive method would be used to describe the different factors of job satisfaction, also the correlation approach would be conducted to determine the linkage of job satisfaction and employee loyalty and commitment. Moreover, quantitative research consists of independent and dependent variables. Job satisfaction and organization goals are dependent variables, in contrast, salary, incentive, monetary compensation, employee loyalty and commitment considered as independent variables.

5. Expected Findings

An employee has a need or desire with different motives that results in behavior to satisfy this need. Satisfaction can't be achieved without paying attention to the needs of individuals. Therefore, it would be necessary to study the needs and determine their importance. Achieving satisfaction has a major role in increasing the effectiveness of the performance of individuals and organizations, this can be accomplished by motivating employees and notifying them with the stability and security of the individual. Job satisfaction in the physiological and security level of individuals would be achieved through what an organization is going to offer from wages, rewards, health insurance and medical care to their employees. As far as for the higher needs, it will be satisfied through other factors that lead to job satisfaction, such as delegation of authority,

participation in decision-making, and the ability to achieve effective contribution to the organization.

It's expected from the research proposal that the amount of salary and incentive an employee received at the organization will affect positively on job satisfaction, as employee at the organization show great interest in wages, allowance, salary, recognition and financial rewards as it determines the living standard of individuals. Rules and regulations of the organization may affect the job satisfaction positively, managers from private and public sector in the UAE ensure the existence of a work environment which will be characterized by justice and equity to preserve the right of individuals. The findings of the research proposal shows that training programs will enhance the job performance of the workers within the organization in the UAE, in contrast, the high job performance of an employee will result in increasing the rate of job satisfaction. It's expected to find that working hours affect employee job satisfaction levels negatively. There is a strong relationship between job satisfaction and employees working hours, for instance, long working hours will decrease the productivity of employees which will result in decreasing job satisfaction. Identifying the needs of workers would be an important issue for the manager, his success depends on the extent of his understanding of those needs and motives in order to provide the appropriate incentive to satisfy it.

6. Conclusion

In conclusion, job satisfaction is a set of nice and positive feelings that the employee feels towards his work because his requirements and needs were fulfilled. Satisfaction can't be achieved without paying attention to the needs of individuals. Therefore, it would be necessary to study the needs and determine their importance. In addition, this paper highlights and analysis several factors that contribute to employee satisfaction with their jobs, such as, positive work environment, reward and compensation, motivation salary and increment, and good relationship of the employee with their managers. In order to increase the effectiveness, efficiency, job commitment and productivity of employees within the private and public sectors of UAE, an organization needs to satisfy the needs of its workers. Different strategies have to be implemented by the organization to create a positive environment, motivate the workforce, and will encourage the employees to work hard to reach organization goals and objectives. One of the most obvious strategies implemented by organizations are management style, participant decision making and leadership style.

Although an employee needs to arrive at the stage of generating his own motivation and a desire to provide his best performance and achievement in the work. Employees reach a high level of satisfaction when they feel stable and progressed continuously without the presence of any complications and obstacles, a very comfortable working life requires effort from both senior management and employee. Moreover, working in a positive atmosphere and proper workplace environment results to enhance an individual's attitude, increase the level of job satisfaction and job involvement between co-workers, which affect positively the organizational performance. In this paper, the resources from different Journal articles studies confirmed the relationship between employee satisfaction in improving the loyalty and the commitment of the employees and determines the strategies used by different private and public organizations to reach the satisfaction of the individuals.

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Through this research, I have learned a lot regarding job satisfaction and it helped me in analyzing how to increase the job satisfaction and commitment level. I hope this research paper will help in a better understanding of job satisfaction and commitment in the UAE.

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FOOD SUPPLY CHAIN MANAGEMENT FOR RESTAURANTS

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ABSTRACT

Introduction: *The menu can be considered the foundation of the control process of Food Supply Chain Management for a restaurant. The process of constructing a menu is ongoing, dynamic, and based on expectations of the operation's present prospective guests-its target market.*

Objectives: *Employing an Integrated Enterprise (Restaurant) approach can lead to improved flow of food, services, information, and financial flows from suppliers to customers. Using this approach can help reduce and/or eliminate the duplicative process, as well as wasteful processes, and ultimately improve overall enterprise performance (profitability).*

Methods: *An Integrated Enterprise (Restaurant) approach was used that considers the flow of food and services, information, and financial flows from suppliers to customers and how foods and services are distributed in integrated supply chain environments in order to reduce and/or eliminate the duplicative process.*

Results: *Among some of the factors that lead to improved flow of food, services, information, and financial flows are that a menu team must be organized and should involve the chef, the food and beverage manager, front line employees, and salespersons. There should be availability of basic ingredients, which can be affected by seasonality or market conditions, etc. The management team must give feedback and information concerning inventory information, listings of seasonal foods, best buys, and quality and availability. Proper record keeping is emphasized, as well as the formula given for physical inventory along with perpetual inventory. It is stressed that the Food Service Industry needs excellent service and ambience. Among the basic concerns of food production are the requirement of all standard cost control tools (standard recipes, standard portion sizes, etc.); training personnel to constantly comply with required food production procedures; minimizing wasted food; and food wastage.*

Conclusion: *Employing an Integrated Enterprise (Restaurant) approach can ultimately lead to guest satisfaction and repeat customers and improve a restaurant's overall enterprise performance (profitability).*

Key words: *Integrated Enterprise approach, food service industry; management*

1. THE MENU

The Menu is the foundation of the control process of Food Supply Chain Management for a restaurant. The process of planning never ends; the final menu is never achieved. Rather, the process is ongoing, dynamic and based on expectations of the operation's present prospective

guests-its target market. A properly planned and well-designed menu stimulates sales and increases guest expenditure, because whenever a menu is presented to a guest, a sales transaction begins. The menu not only creates but also reflects the operation's image.

1.1 Menu planning

As Wieland and Rey state, the Manager must take into consideration the following factors to have an efficient and effective menu which is appealing to the guest, easy to read, and targets items which have a higher profit margin.

- a) A menu team must be organized and should involve the chef, the food and beverage Manager, front line employees and sales persons, so as to ensure that there is full input and suggestions from those persons who come into direct contact with the guests and therefore receive first hand feedback. The chef and production staff, on the other hand, knows how easy or complicated it is to produce the specific dish in the time and the quality required.
- b) The availability of basic ingredients, which can be affected by seasonality or market conditions, etc. must be considered. So must the necessity of adequate equipment and space be taken into consideration, as well as the number of efficient personnel required and the knowledge, skills and attitudes they must possess.
- c) The management team must give feedback and information concerning inventory information, listings of seasonal foods, best buys and quality and availability.
- d) The management team must also have the figures for the food and beverage cost per portion plus other information connected to this, sales history and production records.
- e) The new suggestions and items must be introduced by the manager.

Use of standard recipes, production procedures and time limits need to be addressed. Training of staff must be discussed and the final presentation of the food to be set before the guest agreed on. The team should discuss all matters carefully and should not be afraid to offer their input.

1.2 Menu's influences

As far as Ninemeier is concerned, the menu has an impact on every aspect of a food and beverage manager's job, as well as the operation itself. For example, the menu influences:

- **Products.** The food products must be controlled as they are bought.
- **Equipment.** Equipment must be available to prepare products required for the menu. The menu must be based on available equipment and resources so that no one station is overloaded or underutilized.
- **Layout and Space.** Adequate space and facilities are required for both staff and equipment to produce the number of items listed on the menu. The physical facilities must be adequate for the purchasing, receiving, storing, issuing, production and serving of every item on the menu.
- **Staffing Requirements.** Employees must be available to produce and serve all items. As a menu becomes more complex, greater demands may be placed upon the staff.

- **Production requirements.** Food items required for the menu must be produced constantly. Product quality, staff productivity and skills, timing and scheduling, and other kitchen functions are all dictated by the menu.
- **Dining Service requirements.** The manager of a restaurant must carefully plan how products will be served to the guests. The menu affects the skill levels required for service personnel along with equipment, inventory and facilities needed in the front of the house.
- **Sanitation management.** Management must consider menu items in light of possible sanitation hazards. Once potential hazards are identified, risks can be reduced. Policies and procedures must be planned and produced. This is required by law, as well. HACCP regulations need to be installed, practiced and maintained.
- **Cost Control Procedures.** Careful cost control procedures must be followed, as more expensive products are served and service styles dictated by the menu become more complex, as guests desire a “dining experience,” not just a “meal.” Ensuring good cost control methods is essential so as to ensure that the business remains profitable.

2. FOOD SUPPLIER SELECTION

For the Food Supply Chain Management to be maintained, it is vital that the Food and Beverage Manager is both knowledgeable and capable in all areas of his work and that he /she is able to choose the various suppliers carefully and methodically. Essentially, the food and beverage manager bases supplier evaluations on the following factors: adequate supply, reasonable prices, prompt delivery, service, value for money, steady, constant quality, quantity and availability, good sanitation and HACCP procedures.

2.1 Considerations

The F&B Manager, in selecting the supplier, must weigh a number of considerations. Not every supplier who carries the needed product is appropriate for the food and beverage operation. To determine which supplier will be able to fulfil the needs of the operation, the following areas need to be checked:

- **Location** – delivery time, transportation costs, and unexpected delays may be reduced if the supplier’s facility is close to the food and beverage operation.
- **Quality of the supplier’s operation** – sanitation, in-house processing, handling of orders, and quantity and quality of items stock need to be assessed.
- **Technical ability of the supplier’s staff** – good salesperson are more than order-takers. They know their products and can help the operation resolve problems involving the products they supply.
- **Value** – the need for reasonable prices related to product quality.
- **Compatible attitudes** – a good working relationship between the food and beverage operation and the supplier requires mutual beliefs about ethics and fair treatment of both the customer and supplier.
- **Honesty and fairness** – these traits must be seen in the ongoing business relationship and in the supplier’s reputation.

- **Delivery personnel** – their appearance, attitude, and courtesy contribute to the impression formed by the operation.

While longstanding relationships with suppliers can help in future dealings, managers should be careful not to get too comfortable with their suppliers so as to avoid the danger of allowing standards to slip. Therefore, it is appropriate to periodically review the selection of suppliers and assess their performance in meeting a restaurant's expectations.

3. PURCHASING DEPARTMENT

Purchasing is the most essential factor towards the success of a restaurant. This involves decision-making concerning necessary products, as well as knowledge of how these can be purchased at the lowest possible prices and agreement on good payment terms.

3.1 Food and beverage manager

The Food and Beverage Manager is the head of the purchasing department and, as such, must have the abilities needed for effective management of a restaurant. He/she must be knowledgeable about purchasing and have the following characteristics:

- Technical knowledge: he/she should be experienced in all aspects concerning food: food grades and prices, specification of quantities, etc.
- He must be aware of the production methods.
- He should be familiar with the market trends and be alert to new products and to shifts in market availabilities.
- He must be able to use formulas to determine the portions.
- He must perform his duties properly, with honesty and integrity.

3.2 Purchasing objectives

The following are the major objectives for the proper functioning of the purchasing department:

1. Maintain an adequate supply so that there is no hazard of running out of products during service.

2. Minimize investment. It seems that this conflicts with the first objective. However, a buyer has to minimize, if possible, the investment necessary for the acquisition of supplies so that the cost of the products offered by the restaurant is reduced.

3. Maintain the quality of the materials needed for the proper function of the restaurant. It can be difficult to maintain standards set by the enterprise, because the quality of the necessary materials changes from day to day. Moreover, there can be other unexpected problems, such as sudden electricity outages at storage facilities (freezers, deep freezers, cold rooms, etc.), which can potentially undermine the quality of the products.

4. Negotiating and obtaining the lowest possible prices. The management expects the food buyer to obtain the lowest EP cost and the best possible price.

5. To maintain the company's competitive position. One of the main concerns of the management is to sustain a competitive position compared to similar companies.

3.3 Purchasing procedure

The purchasing cycle involves the following procedures:

- The Food Service Manager completes a requisition form when it needs items.
- The storeroom responds to a requisition by issuing required products to the user department.
- When products in inventory reach a predetermined reorder point, the storeroom forwards a purchase requisition to the purchasing department.
- The purchasing department orders required products from the supplier, perhaps using a purchase order. Purchasing personnel send a copy of the purchase order to the receiving and accounting department.
- The supplier delivers the products to the receiving department, along with a delivery invoice or bill.
- The receiving department places products in the storeroom and forwards the invoice, perhaps with other documents, to the accounting department according to the policies and procedures of each establishment.

After further processing of necessary documents, the accounting department sends payment to the supplier. The purchasing cycle is repeated every time products are ordered.

3.4 Menu determines purchasing needs

Menus determine products that must be purchased. If the items are not needed, they should not be purchased. Likewise, in beverage operations, purchasing needs are affected by menu design. Many Managers feel, unnecessarily, they must offer an extremely large selection of various call brand products, which may spend most of their time on the shelf.

3.5 Specifications define quality

Standardized recipes should be used in order to ensure quality, control and uniformity for each menu item. Standardized recipes can be very useful for the following reasons: 1)They facilitate uniform quality and taste; 2)They give predictable yields. Also, this knowledge effects portion control, since the number of servings from a particular recipe is determined in advance; 3)They require less supervision and less trained help, because anybody in the restaurant can use the standardized recipes. This is an important factor because it reduces labor cost; 4)Standardized recipes facilitate food cost control, because the quantities and kinds of ingredients are known in advance; 5) Wastage is avoided; 6) They create independence because the operation is not dependent upon a single employee for the production of the various items; 7) Staff training is minimized and so is the need for constant supervision.

4. RECEIVING DEPARTMENT

Another important stage in the process is receiving. Receiving is not just concerned with the accepting or rejecting of the merchandise but must also ensure that the received goods meet the quality, quantity, size and price specifications set by the company.

4.1 Essentials for receiving

- The personnel working at the receiving department must be equipped with the following four skills: intelligence, integrity, interest and information. A receiving clerk who is conscientious and spends enough time detecting supplies that in any way do not meet the specifications set by the company is an outstanding member of any management team.
- The most essential element allowing the proper completion of the receiving procedure is the well-planned receiving area. The location must be convenient for delivery trucks and other delivery equipment and close to the storage facilities so that the movement of the products takes less time and effort. For sanitary purposes, the receiving area must have a floor that can be easily scrubbed and rinsed and have adequate drains. There must be accurate scales; thermometers needed to check the temperatures of frozen and refrigerated products; and special rule measures useful to check the thickness of specific products. In addition to these, inspection tables, container-opening tools and hand trucks are necessary.
- A proper copy of the purchase specifications should be available to the receiver so that he may sort out any problems which may arise during the inspection of the products. Also, he must be equipped with a purchase order that shows the quality, size and price of the items. In addition, the specifications for the main necessary items should be posted on the wall near the scale so that the clerk can check weight, size and quantity.
- If possible, the receiving department should direct the suppliers so that they make their deliveries at specified times. This makes it easier to have a qualified receiver available and helps avoid confusion when too many deliveries come in at the same time.
- The management should check the receiving area and stores on a regular basis. The temperatures for cold stores should be checked at random, as must the cleanliness of the food storage areas and the temperatures which exist in these areas.

The receiving clerk should be periodically evaluated in order to avoid any inconsideration, unscrupulous or unprofessional behaviour.

4.2 Steps in the receiving process

Control procedures should be incorporated into the receiving process through several steps:

a. Check incoming products against the purchase order. To avoid accepting items the restaurant did not order, receiving partial or no deliveries of required products, receiving items of unacceptable quality or paying a price higher than agreed upon, compare incoming products against an in-house record.

b. Check incoming products against standard purchase specifications. Whether receiving 96-ounce lemons, chilled poultry or fresh seafood, receiving staff must confirm that the correct product is, in fact, being delivered and that the food and beverage operation is getting what it pays for.

c. Check incoming products against the delivery invoice. The supplier provides the delivery invoice, which becomes the basis for subsequent payment claims. A definite policy must be developed, implemented and enforced for measuring, weighing or counting all incoming products to ensure that the proper quantity of product is delivered and subsequently charged for. Likewise, price information on the invoice should be verified by reviewing the purchase order.

d. Accept incoming products. Once the delivery invoice is signed, ownership of the products is transferred to the property and the products become the responsibility of the food and beverage operation.

e. The receiving clerk moves the incoming products to storage immediately after having checked the quantity and quality of the goods received. The security of the goods is a concern as theft can be a problem. Items which need refrigeration must be secured and moved immediately to the cold rooms and refrigeration areas so that spoilage or deterioration can be avoided.

f. Completion of the daily receiving report and any other necessary documents must be carried out. The daily reports are used for several purposes, for instance, to separate beverage costs-liquor, beer, wine, soda from food costs. This information is also needed for the income statement which isolates sales and "costs of goods sold" categories for these items and to add up the value "directs" in a daily food cost assessment system.

g. Every time a delivery invoice is modified, a request-for credit memo is necessary. For example, if deliveries do not include the full quantity specified on delivery invoice, are refused because of quality problems or are rejected for any other reason, this is noted on the request-for-credit memo.

5.STORING CONTROL

If deliveries are left unattended in receiving areas, refrigerated and frozen products can easily deteriorate in quality, and dishonest employees may have opportunities to steal. As soon as received products are moved to and placed in storage areas, their quality and security can be ensured by control procedures built into the property's storage system. The principles of effective storage systems for both food and beverage products are focused on three primary concerns: keeping products secure from theft; retaining product quality; providing information necessary for the financial accounting.

5.1 Security aspects of storage

The food storeroom personnel should incorporate into storage control the following procedures:

- **Limited Access:** Allow only authorized personnel to enter storage areas. This policy is best met by keeping storage area locked except when products are being issued.
- **Lockable Storage Areas:** It should be possible to lock the freezer, dry storage and liquor storage areas. Cages, compartments or sections of walk-in refrigerators should also be available for lockable storage.
- **Effective Inventory Control Procedures.** Control expensive and "theft-prone" items by using a perpetual inventory system.

- **Central Inventory Control.** At the end of a shift, items in workstation storage areas should be put back in central inventory control.
- **Design and Security.** Design the storage areas with security in mind. For example, walls should extend to the ceiling and doors should be properly constructed and lockable. There should be no windows.
- **Lighting and Monitoring.** Adequate lighting is necessary in storage areas. In addition, many operations use closed circuit television systems to monitor storage areas.

5.2 Storage procedures

The storeroom personnel should follow these procedures in order to maintain quality of food products in storage:

- **Purchase Proper Quantities:** A major problem with the purchase of larger-than-necessary quantities is that often products remain in storage areas for long periods of time. The additional time is frequently accompanied by deterioration in quality.
- **Rotate Food Stocks.** Items which have been in storage for a long period of time should be used first. This concept is referred to as first-in, first-out (FIFO).
- **Store Foods at the Proper Temperatures.** Use accurate thermometers in storage areas to ensure that refrigerated storage temperatures are kept between 32°F and 45°F, dry storage areas are kept between 50°F and 70°F, and frozen items are kept in freezers with temperatures of 0°F or below.
- **Clean Storage Areas.** Foods must be kept in clean storage areas. Routine scheduled cleaning of all storage areas is necessary.
- **Ensure Proper Ventilation and Air Circulation.** Items should be kept off the floor and away from walls to permit air circulation. Normally, items should be stored in their original packing containers. Items which absorb odors (such as flour) should be kept away from items which give off odors (such as onions). Store food in air-tight containers or in covered containers.

6. RECORDKEEPING PROCEDURES

6.1 Physical inventory

Physical Inventory is defined as the actual counting and valuing of all merchandise in the storage area. The main purpose of conducting a physical inventory is to calculate the total product cost of the month, and through the actual count to check and reconcile the balances on bin cards (perpetual inventory). The restaurant management should keep a daily Storeroom Inventory Control card in order to obtain the accurate Food Cost. The formula is the following:

A. The opening goods inventory at the beginning of day 1, plus the storeroom purchases during day 1 equals to the total number of the available goods in the storeroom for day 1.

B. The total number of the available goods for day 1, minus the goods requisitions for the day 1, equals to the opening goods inventory for day 2.

Under normal circumstances, inventories should be conducted once a month, for cost control purposes, and taken by two people. However, the management can conduct physical inventories whenever accurate goods cost figures are needed.

Certain errors may occur when the inventory is taken:

1. Items may be received at the end of the period and not be included with the rest of the goods purchased that day.
2. Miscalculation of prices because of uncertainty concerning the size, grade or quantity of an item.
3. Miscounting due to carelessness.

6.2 Perpetual inventory

A perpetual inventory keeps purchases and issues constantly recorded for each product in storage so that the balance is always available. It takes considerable time and money to maintain a perpetual inventory. Generally, perpetual inventory is most successful when is conducted with the help of a computer, especially in this day and age where many computer programmes have been created which connect all the phases, from purchasing right through to issuing, and allow greater ease in controlling the system. They also allow one to have information concerning stocks at any time, which makes ordering simpler. Furthermore, it is easier to maintain overall control and safety from pilfering. However, all systems need to be kept up and maintained for the best results.

The advantages of using a perpetual inventory are:

1. Improved guidance of buying.
2. Avoidance of over or under-buying. It is easier to see how many goods have been used and how many will be needed.
3. Constant inventory figures.
4. The quantity fluctuations of the items are monitored.
5. Circulation of the old items. The storeroom clerk is able to observe which items have not been used, so that they can be incorporated into the menu.

7. ISSUING DEPARTMENT

Issuing is the process in which the necessary goods are supplied to the preparation area. The specific process includes the control of the goods prior to being sent to the preparation area, provides information concerning the accounting of the cost of the goods and, in some cases, provides information useful to the perpetual inventory system.

7.1 Issuing objectives

The objective of an effective issuing system can be met by using techniques available to the restaurant's food and beverage operation, including the food requisition/issuing form. The restaurant's well designed issuing system has the following objectives:

- To limit access to storage areas to authorized staff members only.
- To match items removed from storage with actual production requirements.
- To access quantities and costs of products removed from storage. This recordkeeping becomes important when updating perpetual inventory record and assessing costs of issues in order to calculate food costs.

8. PRODUCTION CONTROL

The production of food is the key to the success of the Supply Chain Management for Food Service, because the property must deliver a quality food product that meets the customer's wants and needs. A Food Service Industry that has excellent service, ambience and cleanliness will not be successful if food production procedures do not incorporate basic food preparation principles. Therefore, the relationship between the food service and kitchen personnel must be paramount.

8.1 Planning cost control during food production

The primary concerns of managers during the time of food production are: 1) to make quality food ingredients available for food production, and 2) to develop procedures that will ensure the property's quality requirements are met. However, there are basic concerns that must be mentioned at times of food production. These are the following:

- Consistently require that all standard cost control tools (standard recipes, standard recipes, standard portion sizes, etc.) be used.
- Ensure through proper supervision that only the amount of food actually needed for production is issued.
- Train personnel to constantly comply with required food production procedures.
- Minimize wasted food.
- Monitor and control employee eating and drinking practices.
- Make sure that items taken out of storage that are not used in production are put back in secure storage areas.
- Inspect and approve items to be discarded because they have spoiled in storage or were not properly prepared.
- Match production records with sales records to assess which products generate pounds.
- Make sure that weighing and measuring tools are available and always used.
- Carefully study systems for managing equipment, layout and design and energy usage. Implement any procedures that can reduce costs without sacrificing quality standards.
- Evaluate the effectiveness of communication and coordination activities between different work sections and departments.
- Maintain production records and use them for revising quantities of items to be produced in the future. This can cut down on the amount of leftover food.

- Make sure that labor-saving convenience foods or equipment items are, in fact, reducing labor costs.
- Recruit, train and use personnel who are genuinely concerned about preparing and offer high-quality products that meet the property's standards. Management concerns about "good" food will enhance quality control.

9.FOOD SERVICE CONTROL

9.1 The serving control point

Green states that "the quality of the service determines the success or failure of a restaurant," which results in a fluctuation of the profits of a Food Service Industry. The guest's impression concerning the food is influenced by the service he/she enjoys. Even though good service cannot replace a poorly prepared meal, sometimes a delicious meal is ruined by poor service standards. Therefore, serving activity is critical from a cost control standpoint, because the responsibility for the menu items changes from the kitchen to the dining room. The activity may enhance or detract from the quality of food or beverages products. Many factors affect the quality of service in a catering business, according to Ninemeier. These include:

- The communication and cooperation between the kitchen and dining room personnel
- The flow of products
- The menu
- The design and layout of kitchen and dining room
- The style of service. Standards of service vary greatly with the type of establishment

10.THE RELATIONSHIP BETWEEN THE FOOD SERVICE STAFF AND THE GUEST

The control procedures are important between the food service and guest. Fundamentally, guests' concerns lead the way to control procedures. The waiter must realize that the guest has needs, wants, desires and expectations that must be addressed during the dining experience. Important components of dining, such as timing, accuracy, merchandising and work practices, affect the guest's experience and satisfaction.

10.1 Guests' serving concerns

Guests want and need courteous attention, the correct order, cleanliness, attention to detail and freedom from problems. The following issues should be taken into consideration for a successful food service industry:

- The service process must be properly timed.
- Waiters must know the menu, the daily specials, the brands of beverages in stock, and the ingredients and production methods for food and beverage products offered.
- Waiters must know how to use the proper procedures for serving food and beverages efficiently.
- Waiters must deal with people in a tactful, courteous manner; friendly but professional.

10.2 Food service staff

Ironically, although service personnel are often the lowest paid and most poorly trained of all employees in a food and beverage operation, waiters are the business from the guests' perspective. For most guests, the waiters are the only employees of the food and beverage operation with whom they come in contact. They represent the management to the guests.

10.3 Food server responsibilities

Food servers must meet and greet the guest. They are the business's salespersons, using the most powerful marketing tool, the menu, to please the guests and, simultaneously, generate income from the property and for themselves.

Accuracy. The correct order must be taken and served, giving attention to specific details required by the guest.

Selling techniques. The servers should know which menu items to recommend – often those with higher contribution margins. These items are the more profitable ones for the property.

Servers influence guest perceptions. Since servers greatly influence the guest's perceptions of the business, waiters must be alert to the guests' needs. If the guest seems in a hurry or wants a more leisurely dining experience, the waiter should react accordingly. Likewise, the server must know when to present the check. If servers remain alert and cooperate, they can reduce the possibility of guests walking out without paying.

Simplifying work practices. This reduces labour costs and increases guest satisfaction. For example, when refilling water glasses or coffee pots at one table, servers should do so for other guests, too.

Main responsibilities. Service staff has two primary responsibilities: **1)** to deliver products to the guests when they want them and **2)** to ensure that all guests have what they want throughout their visit to the restaurant. Service personnel should know the following:

- Be knowledgeable about the food service operation.
- Know how to perform all the duties required of them.
- Consistently greet every guest with a smile and warm welcome. Practice the spirit of hospitality.

- Be able to answer all the questions posed by guests.
- Be neat, clean and well groomed.
- Be able to handle all the potential conflicts with tact and skill.
- Be alert to any guest who needs assistance.

These principles of excellence and the responsibilities discussed above in dining service can be summed up by the phrase: "Treat the guest the way you would want to be treated if you were the guest."

11. Conclusion

A menu is the basis for planning purchases, production, cost and working out one's profit margins. By tracking what the best-selling and slow selling items are, one can make the necessary adjustments towards better service, better purchasing, storing production etc. Menu making is an art, but while creativity is important, so is practicality, bearing in mind, how certain items need to be stored, issued, prepared and what areas and equipment are required assists one in ensuring quality, quantity, time required for production and service, as well as cost. Following an integrated restaurant enterprise approach will ensure guest satisfaction and repeat customers and improve a restaurant's overall enterprise performance (profitability).

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Teachers perception of online teaching

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Abstract

The study (Teachers perception of online teaching) focus on teachers' perception during the stage of changing ministry of education in UAE the type of teaching to online teaching in all schools as a result of Covid19. The study answers these questions: how the teachers understand the important of the distance education goals. Also, the similarities and difference between the objectives of the UAE education policy for the distance education. In addition, strengths and weaknesses of online teaching from the teacher's point of view and the development programs they need.

The study population is the teachers working in distance education in the United Arab Emirates that we are going through "Coronavirus" during the educational sessions in this year (2020).

The study is based on the random sample of 50 respondents which was selected using random sampling technique, there are 70% males and 30% females in the sample population.

The sample population for this research is the teachers teaching in the government and private distance education schools. The sample size for this research is 50 respondents. These respondents have been selected using simple random sampling technique. The data collected came from a survey has been analysed using descriptive statistic techniques using Microsoft excel.

The results of the study revealed that the teachers are satisfied from the existing distance education goals of the education policy and the objectives set by the government to act according to these policies. Majority of the teachers in the sample population have stated that online teaching has helped the government for the achievement of the goals of distance education online teaching has also helped in increasing the importance of the distance education among students. The teachers have assessed that it is due to online teaching in distance education their performance have been improved because distance education programs.

The findings results of the data indicate that UAE government still needs for further study of distance education and online teaching in UAE: evaluate the distance education to improve it, High use of information technology in online teaching, determine the challenge that facing teachers in online teaching, provide support to the teachers such as professional development training of distance education.

Teachers perception of online teaching

Part I: Introduction

The current era is characterized by a tremendous amount of knowledge and information, technical progress, rapid changes, and fundamental changes in scientific and technical applications, which led to it being called the information age (Melzer P., 2019).

Perhaps it has become recognized that it is necessary to use what is known as educational methods and modern technologies related to educational work at a distance, to better achieve the goals of education and to achieve physical distancing in the current Covid 19 pandemic situation.

Online teaching technology is one of the advanced technologies that has a positive impact on the life of contemporary man. Therefore, contemporary educational trends in developed countries have adopted technology and style as one of the modern, fast and feasible methods for implementing educational programs and achieving their goals. (Perrier &

Silveira, 2016). On the other hand, teachers have many technical issues also while using Microsoft teams and Learning Management System (LMS) as contacting the technical support is a challenge by itself.

Then the methods of online teaching and learning have developed in recent times, an exciting development, especially after the emergence of modern technologies based on online teaching and learning. There are many studies that have dealt with the importance of using computers and online teaching, and the effect of using educational software in education, where online teaching has become an extremely important necessity for the state to establish a clear national information plan that defines its development goals and what it should do in order to meet the challenges of the times in light of the spread of viral pandemics even in future (Friedjungová & Jiřina, 2018).

The lessons should be fun and entertaining, to the extent that they are able to arouse students' attention and interest, which creates a desire to pursue education, especially when we talk about the field of educational lessons on the Internet, so this point affects the work of the teacher on the Internet in particular. (Wang & Others, 2019).

Study Problem

In following up studies that indicate deficiencies and frequent errors in teaching, which emphasized that the traditional method of teaching neglects individual differences between learners.

Also, following a single pattern, lack of diversification in training, and lack of ability to stimulate the learner may lead to learning feeling bored, and not following what the students shows.

As I am a school principle, I think the main challenges that teachers have during virtual classes are communicating effectively, guiding students' knowledge, promoting individual learning, engaging students with content, ensuring content accessibility, maintaining academic integrity and meeting students' need on all levels.

All these issues must be addressed by teachers to adjust to online teaching, seeking to develop or choosing suitable teaching approaches. Teachers play a social role in maintaining students' interest and engagement in active learning activities.

Online teaching is one of the necessities of the educational process, and it is not a luxury, or just a treat, or entertainment, but rather to face the sharp increase in the number of learners that the usual schools cannot accommodate all of them, and it is also believed that this education is a good reinforcer of traditional education, so this method can be combined With regular teaching, he will be supportive of it, and in this case, the teacher may refer teachers to some media-based activities or assignments.

There is also the need to pay attention to online teaching by making educational software part of the curriculum, as it is one of the modern technologies that facilitate effective delivery of curriculum content, which requires the interest of the responsible authorities

to develop future plans commensurate with the rapid developments in the field of online teaching. (Melzer P., 2019). The profession of the teacher is looking for a mixture of multiple roles, including research leader, designer, mentor, facilitator, evaluator and guide to learning, especially since with the Covid 19 pandemic.

Considering the aforementioned, the problem of the study is determined by the importance of using online teaching and need of online professional development is being achieved more widely. The new technologies have enabled the delivery of instruction at lower cost than in face-to-face settings, but teachers still feel their need for more professional development in the areas of online-course design and content-related technology integration and the innovative abilities of the teachers also.

Objectives of study

The study aims to:

1. .Identify the importance of distance education goals from the teachers' point of view.
2. .Identify the extent to which the objectives of distance education have been achieved from the teachers' point of view.
3. .Identify the priorities of the objectives of distance education from the teachers' point of view.
4. .Identifying the obstacles to achieving the objectives of the distance education stage from the teachers' point of view.
5. .Analyzing the priorities of the objectives of the distance education stage in comparison with recent global trends.
6. .Reaching the most important proposals that help activate the objectives of distance education.

Importance of study

The importance of this study stems from the importance of the distance education stage itself, as it deals with a large segment of society, and with a critical age in the life and growth of students, and its importance stems from the importance of the goals as a basis upon which this stage is built, to achieve the lofty goals to which the general policy of education aspires by UAE. As well as what you always need the objectives of any project or program in the process of evaluation and review.

This study is also distinguished by its importance and timing due to the recent move in the UAE educational policy towards joining the distance education stage to the general formal education ladder. This educational move is represented in the official speech of the Ministry of Education, and in the interaction of the Supreme Council for Education Policy, which has recently been studying the decision to include this stage on the UAE education ladder. Perhaps it would be superfluous to say that an evaluation study of the objectives of distance education and the identification of the extent to which the objectives of this stage have been achieved, the problems facing their achievement, and the suggestion of solutions to activate these goals are the necessary data for making this decision. (Açıkgül and Aslaner, 2020).

Study questions

1. .What are the most important goals of distance education in the United Arab Emirates from the teachers' point of view?
2. .To what extent are the objectives of distance education stipulated in the UAE education policy achieved from the teachers' point of view?
3. .What are the priorities for the objectives of distance education from the teachers' point of view?
4. .What are the obstacles to activating the objectives of distance education in UAE from the teachers' point of view?
5. .What are the similarities and differences between the objectives of the UAE education policy for the distance education stage compared to recent trends in the field of distance education? What lessons can be drawn from this comparison?
6. What the strengths and weaknesses of online teaching for teachers?
7. What development programs teachers need for online teaching?

Part II: Literature Review

Distance education means that it is a method or tool used by the teacher to teach students outside the boundaries of the classroom walls via the Internet, and by employing specific technology that acts as a platform for the learning and teaching process. In principle, distance education is based on a set of apparent elements, the most prominent of which are material, curriculum, teachers, teachers, and direct and indirect technological means of communication. Also, there are internal elements that move and control the process of integrating and using technology in education, most remarkably is the e-learning strategy followed, theoretical and practical knowledge of technology and teaching subjects. (Lipton B., 2020).

Despite this bifurcation of terminology, there remains a great consensus among researchers in this field that it flows into a single piece of paper, and its principle is basically summarized, which is that the learning and teaching process takes place with the help or by means of digital electronic technologies and platforms, which provide interactive tools that facilitate the design, implementation, presentation and delivery of materials Educational for the recipient. The main goal of the emergence of distance education is to meet the needs of education in a more flexible way and with multiple technologies in order to obtain academic degrees from well-established educational institutions. (Tabach and Trgalová, 2020).

However, the success achieved by the experience of distance education in the UAE, the evaluation of this experience is very necessary, and although it is not the first time that a distance education system has been implemented in the country, as previously mentioned, it is definitely the first time that this system is applied to all students in all educational stages, which provides a complete opportunity to identify what deficiencies that may have occurred in this experiment, which must be worked on avoiding.

The Ministry of Education did well when it announced that it would undertake a comprehensive evaluation of the implementation of the "distance education" system for all public and private schools nationwide, based on the recommendations of the Education and Human Resources Council. There is no doubt that this step comes within the framework of educational efforts aimed at monitoring the performance of schools and teachers, and to ensure the effectiveness of their implementation of "distance education" plans. (Agyei and Kafyulilo, 2019).

In the beginning teachers thought that communication through the system would be a challenge, so they made sure to know that everyone is connected to the Internet and have devices that enable them to enter and absorb the system, but after that we were able to overcome the challenges and the Ministry of Education and Higher Education did not shorten and provided iPads and (Broadband) devices for those who do not have internet at home, the majority have phones to use to enter the lessons. These challenges were remedied and we overcame them from the beginning. As for the system, it was easy and flexible, and there were no difficulties in entering it, conversations and inquiries between students and teachers and following up on notes. The teachers send thanks and praise books to students to encourage and motivate them, and now there is a competition, which is a kind of motivation between students and to respond. (Wang Y., 2020).

Ultimately, after Coronavirus and the return of things to education nature, the study seat is very important for students, the educational process, and direct communication between the student and the teacher is very important, and also these are all issues that we refer to as educational and behavioral values so that we can do the student. If Coronavirus continues more than the expected period, then this is a reality and we have become more adapted to the new situation, whether it is teachers, students, parents, school administrations, coordinators and others. (Lipton B., 2020).

Summary of Literature Review

Government should encourage small and medium-sized companies to create platforms and applications for learning, or even for local culture. As for the role of school s managers, it is based on choosing the best of these platforms and applications and training their teachers on them. The entire experience of e-learning was a surprise, as it was only method that was available during pandemic, and an important and effective experiment that speeded up its implementation, and it had positive aspects that need to be invested and increased, and negatives that need to be improved and modified. (Lipton B.,2020).

It is imperative to reduce school day hours in traditional education, by transferring some subjects to e-learning, to allow teachers to pay attention to their others activities, because takes time from the teacher's day, with reducing the daily exams, especially the daily ones, as some exceed three exams on the same day, which causes psychological stress, while investing some school activities in developing talent and implementing some practical missions. (Agyei and Kafyulilo, 2019).

Final thoughts, the research field in Teachers perception of online teaching still not addressed all side of distance learning in proper way because the sudden implementations. As a result of COVID-19 situation, many countries move to distance learning so they need to evaluate the Approaches and method used during online learning and learn from leading educational organization which have more experience in this context such as HBMSU as a leading organization in online education.

Study methodology:

The study followed the descriptive and analytical approach in its implementation, according to the following steps:

Study Population and Sample:

The study population is the teachers working in distance education in the United Arab Emirates that we are going through "Coronavirus" during the educational sessions for the academic year for the year 2020.

The study is based on the random sample of 50 respondents which was selected using random sampling technique. The sample population for this research is based on the original study community which has been categorized into government distance education and eligibility distance education.

Characteristics of the study sample individuals:

The most important demographic characteristics of the sample population related to the variables of the study have been analyzed

Gender

Table 1 shows the gender of the sample respondents Table (1): Gender

<u>Gender</u>	<u>Frequency</u>	<u>Percentage</u>
Male	35	70
Female	15	30

The above table describes that there are 70% males and 30% females in the sample population. That means out 50, there are 35 male respondents and 15 female respondents.

Nationality:

Table 2 has described about the nationality of the sample respondents. The table has described the number/frequency and the percentage of the sample respondents.

Table (2): Nationality

Nationality	Frequency	Percentage
UAE	25	50
Non-UAE	15	30
Did not Specify	10	20

The above table has described that 50% teachers of the sample population are Local teachers as their nationality is UAE. 30% teachers of the sample are non-UAE as they have come from other countries. 20% teachers of the sample did not specify their nationality.

School type

The table 3 has described about the type of school where the sample respondents are working as the teachers. The table has described about frequency and percentage of the sample respondents.

Table (3): the type of school

<u>School type</u>	<u>Frequency</u>	<u>Percentage</u>
Government	35	70
Private	10	20
Did not specify	5	10

The data indicates that there are high number of teachers working in the government distance education institutes. The percentage of teachers working in government distance education institutes are 70%. The percentage of teachers working in private distance education institutes are 20%. 10% respondents did not specify where they are working.

Academic qualification

Table 4 has described about the academic qualification of the teachers working in these government and private distance education institutes.

Table (4): Academic qualification

<u>Academic qualification</u>	<u>Frequency</u>	<u>Percentage</u>
Bachelor	10	20
Intermediate diploma	10	20
M.A	20	40
M Phill	5	10
Doctorate	5	10

The above table has made this clear that 20% teachers in the sample population holds bachelor's degree. 20% teachers in the sample population holds intermediate diploma. 40% teachers in the sample population holds Masters' degree. 10% teachers in the sample population holds doctorate degree.

Specialization

The table 5 exhibits the specialization of the teachers in a particular field through frequency and percentage.

Table (5): Specialization

Speciality	Frequency	Percentage
Education	40	80
Another speciality	10	20
Did not specify	0	0

The data has indicated that there are majority of the teachers in the sample population which are education specialist. From 50 respondents, 40 are specialized in education. There are total 80% respondents specialized in education. Remaining 20% have another specialty.

Nature of work in the schools

The table 5 exhibits the nature of work in the schools for the teachers through frequency and percentage.

Table (6): The nature of work in the school

Nature of work	Frequency	Percentage
Teacher	48	96
Administrative	1	2
supervisor	1	2
Did not Specify	0	0

The table 6 indicates that the sample population of this research study consists of majority of participants who worked as teachers in the government and private distance education institutes. There are 96% participants working as teachers in the institutes. There are only 2% participants working as administrative employees and another 2% respondents working as supervisors in those distance education institutes.

Number of years in the school

The table has described about the working experience of the participants in this research in numbers as well as in percentage.

Table 7 Working experience

<u>Number of years in the school</u>	<u>Frequency</u>	<u>Percentage</u>
1-4 years	2	4
4-9 years	14	28
9-12 years	14	28
<u>More than 12 years</u>	<u>20</u>	<u>40</u>

Table 7 describes that there are 2% teachers in the data set who are working in these distance education institutes from 1-2 years. There are 14% teachers in the data set who are working in these distance education institutes from 4-9 years. There are 14% teachers in the data set who are working in these distance education institutes from 9-12 years. There are 20% teachers in the data set who are working in these distance education institutes from more than 12 years.

Study procedures:

The research study has adopted primary data collected method for collection of data for this research study. The sample population for this research is the teachers teaching in the government and private distance education schools. The sample size for this research is 50 respondents. These respondents have been selected using simple random sampling technique. The data collected came from a survey has been analyses using descriptive statistic techniques using Microsoft excel.

Table (8): Pearson correlation coefficients to measure the relationship between each statement and the total degree of the distance education goals axis (investigation, importance)

Investigation		Importance	
Phrase number	Degree of correlation coefficient	Phrase number	Degree Correlation coefficient
1	.6237 **	1	.5354 **
2	.3799 **	2	.5874 **
3	.5441 **	3	.4092 **
4	.4910 **	4	.5753 **
5	.5216 **	5	.6705 **
6	.5070 **	6	.6333 **
7	.5649 **	7	.6188 **
8	.6797 **	8	.6276 **
9	.6004 **	9	.6448 **

**Statistically significant at the level of significance.)0.01(

Table (9): Pearson correlation coefficients to measure the relationship between each statement and the total degree of the distance education planning axis (investigation, importance)

Investigation		Importance	
Phrase number	Degree of correlation coefficient	Phrase number	Degree of correlation coefficient
1	.7982 **	1	.5029 **
2	.8317 **	2	.7638 **
3	.6216 **	3	.7334 **
4	.6898 **	4	.5334 **

**Statistically significant at the level of significance.)0.01(

After applying the tool, a correlation coefficient (Pearson) was used to measure the relationship between each statement, and the total degree of the axis to which it belongs in relation to the two degrees of importance and verification of them, and it appeared that the correlation of all the statements with their axes was statistically significant at the level of significance (0.01) This is shown in Tables (8 and 9).

The Pearson correlation coefficient was also used to measure the relationship between each of the phrases of the fourth axis (difficulties) with its five dimensions, and this measurement resulted in a statistically significant correlation between the total score of the axis and all the statements, as well as the presence of a statistically significant correlation between the total score of the axis and the five dimensions as shown in Table (10). It turned out that all the statements were statistically significant at the level of significance (0.01) except for the relevance of the expressions of the fifth dimension (curriculum), which was statistically significant at the level of significance)0.05(.

Table (10): Pearson correlation coefficients to measure the relationship between each statement and the total score for each dimension of the difficulty axis

Phrase number	Degree of correlation coefficient				
	First dimension	Second dimension	Third dimension	Fourth dimension	Fifth dimension
1	.5453 **	.6517 **	.7893 **	.6715 **	.6875 **
2	.5733 **	.6278 **	.7979 **	.5035 **	.7030 **
3	.4846 **	.7340 **	.8634 **	.5464 **	.4436 **
4	.6669 **	.4917 **	.7381 **	.6038 **	.6506 **
5	.5972 **	.7414 **		.5055 **	.6680 **
6	.6698 **	.7061 **		.5108 **	.6419 **
7	.6247 **	.6679 **		.5684 **	.7541 **
8		.5345 **		.5077 **	.6169 **
9		.5732 **		.6900 **	.5479 **
10		.6050 **		.5191 **	
11				.5709 **	
12				.4433 **	
The link Axle	.7312 **	.7783 **	.6872 **	.8536 **	.7724 *

**Statistically significant at the level of significance)0.01(

Stability of the study tool:

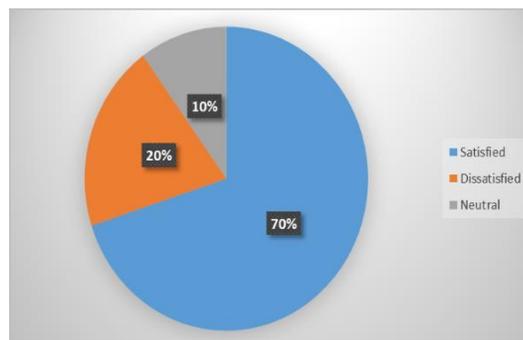
The stability of the study tool was calculated through the reliability coefficient (Cronbach's Alpha). The total stability of the study tool axes was (0.9252), which is a coefficient of reliability that qualifies the reliability of the results of this study and the generalization of its results. The reliability scores for each of the dimensions of the study axes are high, as shown in Table.)11(

Table (11): Cronbach Alpha Stability Coefficients

The axes and dimensions of the study tool	The degree of stability
Second axis (objectives of distance education)	
Investigation	.7817
Importance	.8089
Second axis (planning education distance)	
Investigation	.7643
Importance	.7178
Fourth Axis (difficulties)	
Supervision	.7518
Virtual environment	.8269
The role of family	.8374
Administrative procedures	.8384
School curricula	.7796

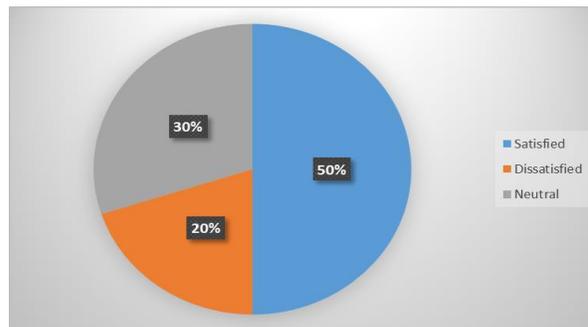
Analyze and discuss the study results

- Perception of teachers for online teaching and importance of distance education
 1. Distance education helps the students to continue their education with focus on their overall development in the normal conditions and as per the requirements of the modern society.



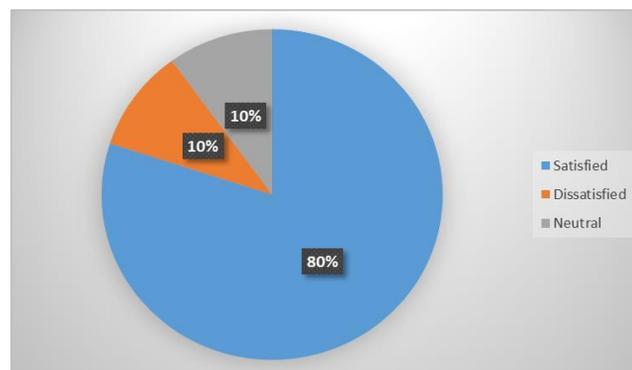
The results of the statistical analysis have proved that there are 70% respondents who are satisfied with the statement that distance education helps the students to continue their education with focus on their overall development in the normal conditions and as per the requirements of the modern society. There are 20% respondents who are dissatisfied with the statement that distance education helps the students to continue their education with focus on their overall development in the normal conditions and as per the requirements of the modern society. There are 10% respondents who are neutral with the statement that distance education helps the students to continue their education with focus on their overall development in the normal conditions and as per the requirements of the modern society.

2. Distance education provides education opportunities to every individual.



The results of the statistical analysis have proved that there are 50% respondents who are satisfied with the statement that distance education provides education opportunities to every individual. There are 20% respondents who are dissatisfied with the statement that distance education provides education opportunities to every individual. There are 30% respondents who are neutral with the statement that distance education provides education opportunities to every individual.

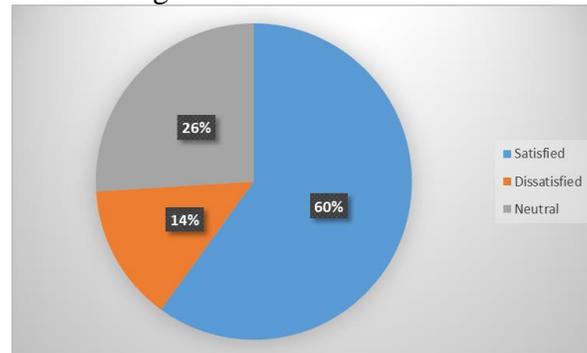
3. Online teaching has made the distance education more effective as compared to the offline delivery of content to the students.



The results of the statistical analysis have proved that there are 80% respondents who are satisfied with the statement that online teaching has made the distance education more effective as compared to the offline delivery of content to the students. There are 10% respondents who are dissatisfied with the statement that online teaching has made the distance education more effective as compared to the offline delivery of content to the

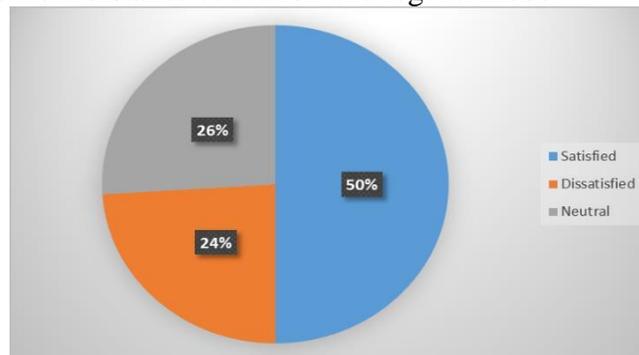
students. There are 10% respondents who are neutral with the statement that online teaching has made the distance education more effective as compared to the offline delivery of content to the students.

4. In online teaching, quality of content delivered to the distance education students is same as the offline teaching.



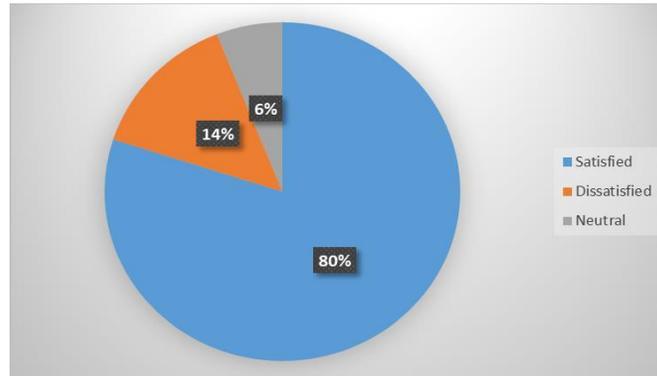
The results of the statistical analysis have proved that there are 60% respondents who are satisfied with the statement that in online teaching, quality of content delivered to the distance education students is same as the offline teaching. There are 14% respondents who are dissatisfied with the statement that in online teaching, quality of content delivered to the distance education students is same as the offline teaching. There are 26% respondents who are neutral with the statement that in online teaching, quality of content delivered to the distance education students is same as the offline teaching.

5. There is no difference between the level of concept clarity of the students studying online from distance education and regular mode.



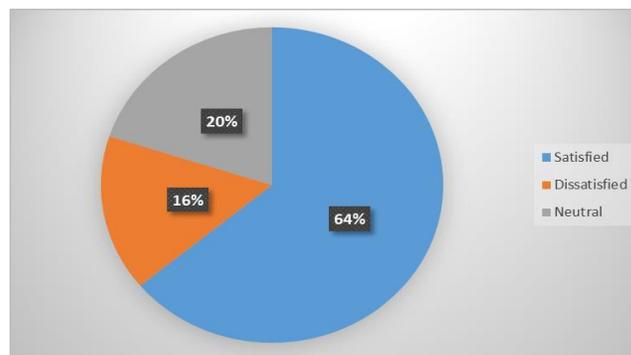
The results of the statistical analysis have proved that there are 50% respondents who are satisfied with the statement that there is no difference between the level of concept clarity of the students studying online from distance education and regular mode. There are 24% respondents who are dissatisfied with the statement that there is no difference between the level of concept clarity of the students studying online from distance education and regular mode. There are 26% respondents who are neutral with the statement that there is no difference between the level of concept clarity of the students studying online from distance education and regular mode.

6. Online sessions in distance education has helped in the improvement of the teacher's performance.



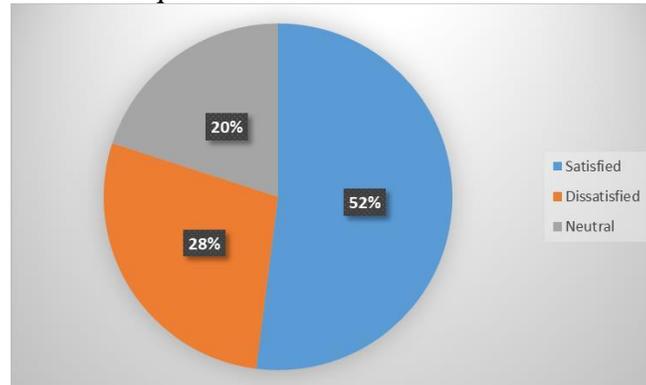
The results of the statistical analysis have proved that there are 80% respondents who are satisfied with the statement that online sessions in distance education has helped in the improvement of the teacher's performance. There are 14% respondents who are dissatisfied with the statement that online sessions in distance education has helped in the improvement of the teacher's performance. There are 6% respondents who are neutral with the statement that online sessions in distance education has helped in the improvement of the teacher's performance.

7. Online mode of teaching would help in achievement of the goals of distance education.



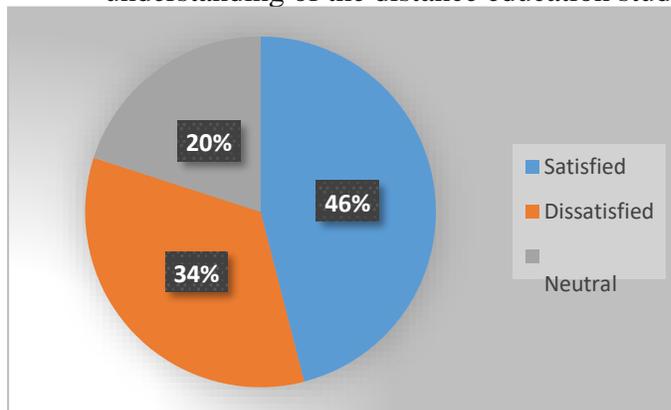
The results of the statistical analysis have proved that there are 64% respondents who are satisfied with the statement that online mode of teaching would help in achievement of the goals of distance education. There are 16% respondents who are dissatisfied with the statement that online mode of teaching would help in achievement of the goals of distance education. There are 20% respondents who are neutral with the statement that online mode of teaching would help in achievement of the goals of distance education.

8. Online mode of teaching is the best method to fulfill the needs of distance education as well as the requirements of the students.



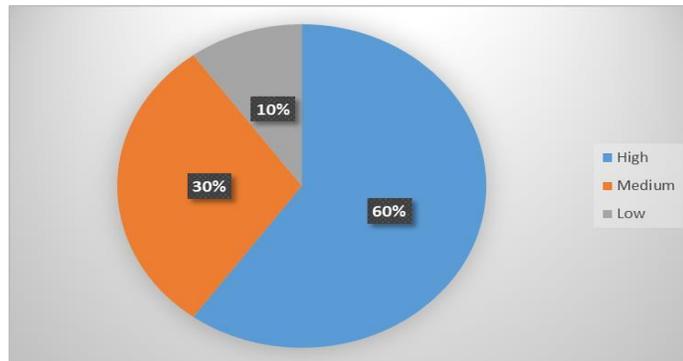
The results of the statistical analysis have proved that there are 52% respondents who are satisfied with the statement that online mode of teaching is the best method to fulfill the needs of distance education as well as the requirements of the students. There are 28% respondents who are dissatisfied with the statement that online mode of teaching is the best method to fulfill the needs of distance education as well as the requirements of the students. There are 20% respondents who are neutral with the statement that online mode of teaching is the best method to fulfill the needs of distance education as well as the requirements of the students.

9. Online teaching has helped in the vigilance of the behavior and level of understanding of the distance education students



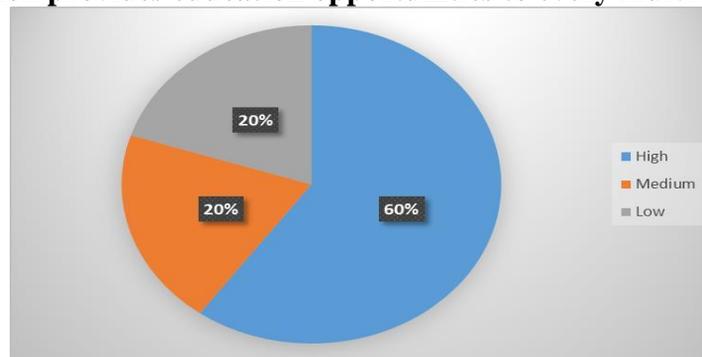
The results of the statistical analysis have proved that there are 46% respondents who are satisfied with the statement that online teaching has helped in the vigilance of the behavior and level of understanding of the distance education students. There are 34% respondents who are dissatisfied with the statement that online teaching has helped in the vigilance of the behavior and level of understanding of the distance education students. There are 20% respondents who are neutral with the statement that online teaching has helped in the vigilance of the behavior and level of understanding of the distance education students. Perception of teachers for extent of the objectives achieved for online teaching and distance education

1. Distance education helps the students to continue their education with focus on their overall development in the normal conditions and as per the requirements of the modern society.



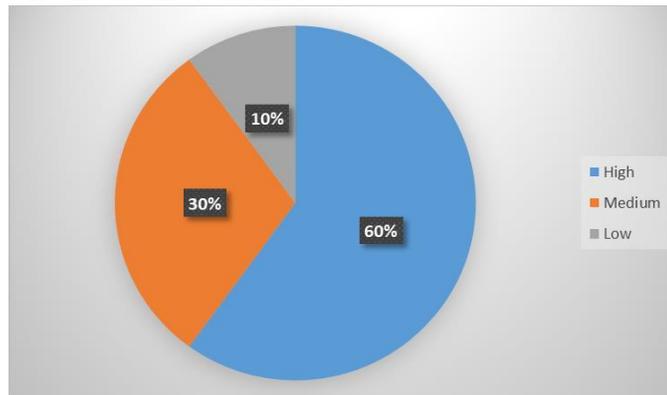
The results of the statistical analysis have proved that degree of achievement of 60% respondents is high with the statement that distance education helps the students to continue their education with focus on their overall development in the normal conditions and as per the requirements of the modern society. Degree of achievement of 30% respondents is medium with the statement that distance education helps the students to continue their education with focus on their overall development in the normal conditions and as per the requirements of the modern society. Degree of achievement of 10% respondents is low with the statement that distance education helps the students to continue their education with focus on their overall development in the normal conditions and as per the requirements of the modern society.

2. Distance education provides education opportunities to every individual.



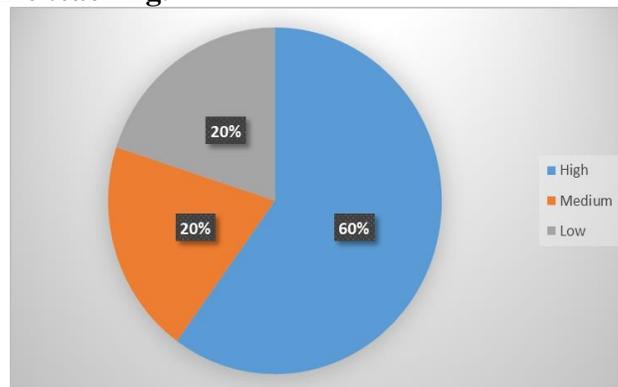
The results of the statistical analysis have proved that degree of achievement of 60% respondents is high with the statement that distance education provides education opportunities to every individual. Degree of achievement of 20% respondents is medium with the statement that distance education provides education opportunities to every individual. Degree of achievement of 20% respondents is low with the statement that distance education provides education opportunities to every individual.

3. Online teaching has made the distance education more effective as compared to the offline delivery of content to the students.



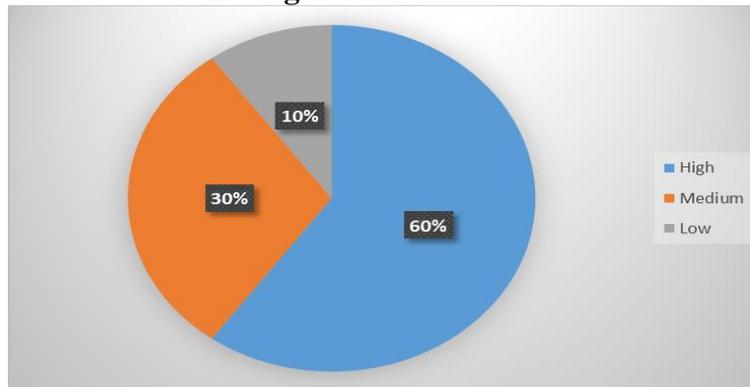
The results of the statistical analysis have proved that degree of achievement of 60% respondents is high with the statement that online teaching has made the distance education more effective as compared to the offline delivery of content to the students. There are 30% respondents who are dissatisfied with the statement that online teaching has made the distance education more effective as compared to the offline delivery of content to the students. There are 10% respondents who are neutral with the statement that online teaching has made the distance education more effective as compared to the offline delivery of content to the students.

4. In online teaching, quality of content delivered to the distance education students is same as the offline teaching.



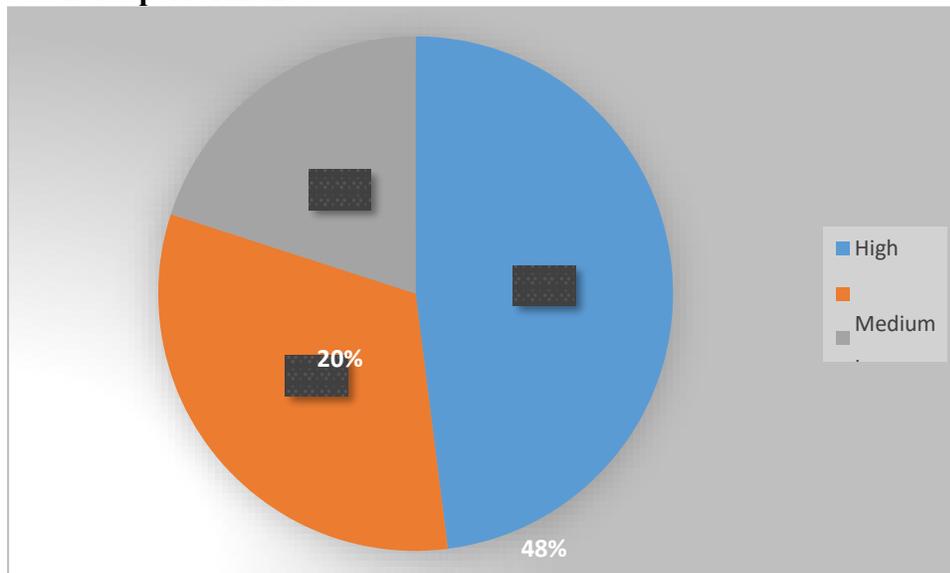
The results of the statistical analysis have proved that degree of achievement of 60% respondents is high with the statement that in online teaching, quality of content delivered to the distance education students is same as the offline teaching. Degree of achievement of 20% respondents is medium with the statement that in online teaching, quality of content delivered to the distance education students is same as the offline teaching. Degree of achievement of 20% respondents is neutral with the statement that in online teaching, quality of content delivered to the distance education students is same as the offline teaching.

5. There is no difference between the level of concept clarity of the students studying online from distance education and regular mode.



The results of the statistical analysis have proved that degree of achievement of 60% respondents is high with the statement that there is no difference between the level of concept clarity of the students studying online from distance education and regular mode. Degree of achievement of 30% respondents is medium with the statement that there is no difference between the level of concept clarity of the students studying online from distance education and regular mode. Degree of achievement of 10% respondents is low with the statement that there is no difference between the level of concept clarity of the students studying online from distance education and regular mode.

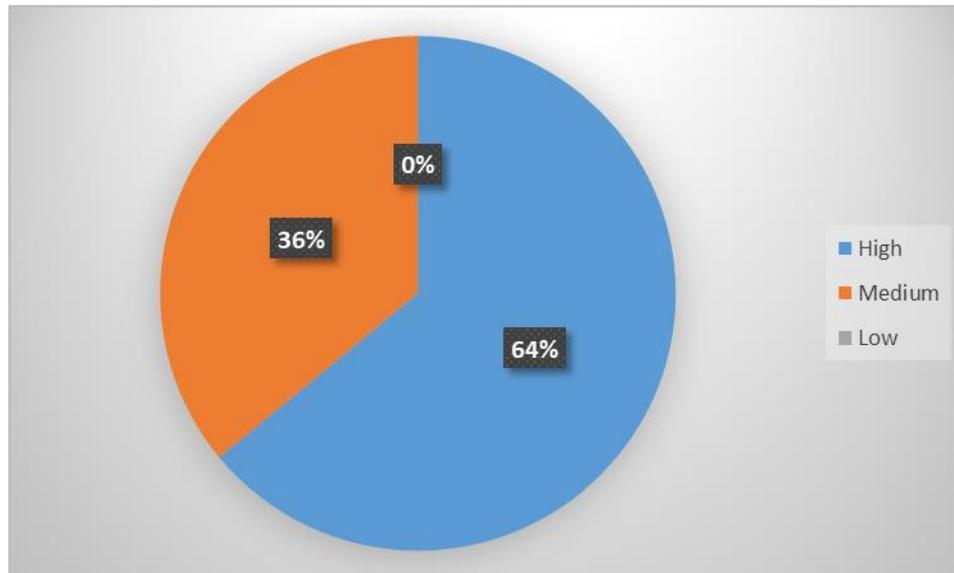
6. Online sessions in distance education has helped in the improvement of the teacher's performance.



The results of the statistical analysis have proved that degree of achievement of 48% respondents is high with the statement that online sessions in distance education has helped in the improvement of the teacher's performance. Degree of achievement of 32% respondents who is medium with the statement that online sessions in distance education has helped in the improvement of the teacher's performance. Degree of achievement of 20% respondents who is low with the statement that online sessions in distance education

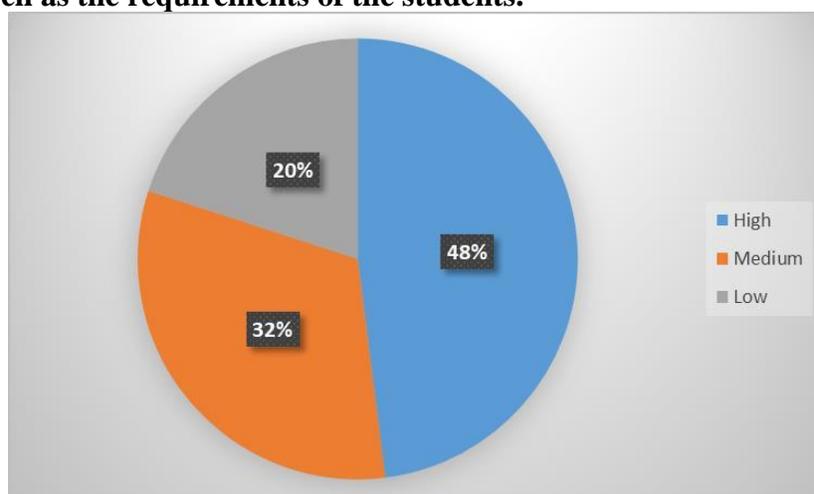
has helped in the improvement of the teacher's performance.

7. Online mode of teaching would help in achievement of the goals of distance education.



The results of the statistical analysis have proved that degree of achievement of 64% respondents is high with the statement that online mode of teaching would help in achievement of the goals of distance education. Degree of achievement of 36% respondents is medium with the statement that online mode of teaching would help in achievement of the goals of distance education. Degree of achievement of 0% respondents is low with the statement that online mode of teaching would help in achievement of the goals of distance education.

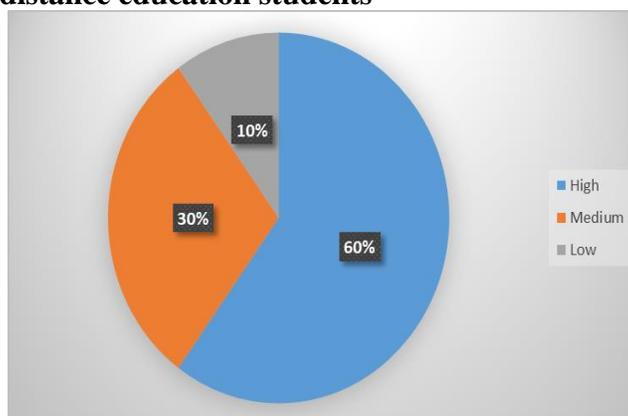
8. Online mode of teaching is the best method to fulfill the needs of distance education as well as the requirements of the students.



The results of the statistical analysis have proved that degree of achievement of 48% respondents is high with the statement that online mode of teaching is the best method to fulfill the needs of distance education as well as the requirements of the students. Degree

of achievement of 32% respondents is medium with the statement that online mode of teaching is the best method to fulfill the needs of distance education as well as the requirements of the students. Degree of achievement of 20% respondents is low with the statement that online mode of teaching is the best method to fulfill the needs of distance education as well as the requirements of the students.

9. Online teaching has helped in the vigilance of the behavior and level of understanding of the distance education students



The results of the statistical analysis have proved that degree of achievement of 60% respondents is high with the statement that online teaching has helped in the vigilance of the behavior and level of understanding of the distance education students. Degree of achievement of 30% respondents is medium with the statement that online teaching has helped in the vigilance of the behavior and level of understanding of the distance education students. Degree of achievement of 10% respondents is low with the statement that online teaching has helped in the vigilance of the behavior and level of understanding of the distance education students.

Recommendations

From the above analysis, it can be concluded that the teachers are satisfied from the existing distance education goals of the education policy and the objectives set by the government to act according to these policies.

Majority of the teachers in the sample population have stated that online teaching has helped the government for the achievement of the goals of distance education online teaching has also helped in increasing the importance of the distance education among students. The teachers have assessed that it is due to online teaching in distance education their performance have been improved because distance education programs through online mode have added to the quality of education.

But from the results of the data, it has also been analyzed that UAE government still needs to make efforts for the further improvement of the distance education in UAE through online teaching. Following are some recommendations for the improvement of distance education and online teaching in UAE.

- Evaluate the distance education to improve it.
- It should be compulsory for the distance education students to attend all theonline classes.
- Using different programs that help teacher to follow and make sure studentsare participating during online classes such as paddled, Nearpod, ...
- Students should open camera during online classes.
- High use of information technology in online teaching can make the onlineteaching pattern more effective.
- Determine the challenge that facing teachers in online teaching.
- Provide support to the teachers such as professional development training ofdistance education.
- It should be compulsory for all the teachers to make records of theperformance of distance education students.
- Online classes under distance education mode should be provided accordingto convenience of the students.

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Appendix:**The questions of the survey:**

1	Gender
	Male
	Female
2	Nationality
	UAE
	Non-UAE
	Did not Specify
3	School type
	Government
	Private
	Did not specify
4	Academic qualification
	Bachelor
	Intermediate diploma
	M.A
	Mphil
	Doctorate
5	Specialty
	Education
	Another specialty
	Did not specify
6	Nature of work
	Teacher
	Administrative
	supervisor
	Did not Specify
7	Number of years in the school
	1-4 years
	4-9 years
	9-12 years
	More than 12 years
	Importance of Distance Education
8	Distance education helps the students to continue their education with focus on their overall development in the normal conditions and as per the requirements of the modern society
	Satisfied
	Dissatisfied

	Neutral
9	Distance education provides education opportunities to every individual
	Satisfied
	Dissatisfied
	Neutral
10	Online teaching has made the distance education more effective as compared to the offline delivery of content to the students
	Satisfied
	Dissatisfied
	Neutral
11	In online teaching, quality of content delivered to the distance education students is same as the offline teaching.
	Satisfied
	Dissatisfied
	Neutral
12	There is no difference between the level of concept clarity of the students studying online from distance education and regular mode
	Satisfied
	Dissatisfied
	Neutral
13	Online sessions in distance education has helped in the improvement of the academic performance of the students
	Satisfied
	Dissatisfied
	Neutral
14	Online mode of teaching would help in achievement of the goals of distance education.
	Satisfied
	Dissatisfied
	Neutral
15	Online mode of teaching is the best method to fulfill the needs of distance education as well as the requirements of the students.
	Satisfied
	Dissatisfied
	Neutral
16	Online teaching has helped in the vigilance of the behavior and level of understanding of the distance education students.
	Satisfied
	Dissatisfied
	Neutral
	Degree of achievement of Distance Education goals

17	Distance education helps the students to continue their education with focus on their overall development in the normal conditions and as per the requirements of the modern society
	High
	Medium
	Low
18	Distance education provides education opportunities to every individual
	High
	Medium
	Low
19	Online teaching has made the distance education more effective as compared to the offline delivery of content to the students
	High
	Medium
	Low
20	In online teaching, quality of content delivered to the distance education students is same as the offline teaching.
	High
	Medium
	Low
21	There is no difference between the level of concept clarity of the students studying online from distance education and regular mode
	High
	Medium
	Low
22	Online sessions in distance education has helped in the improvement of the academic performance of the students
	High
	Medium
	Low
23	Online mode of teaching would help in achievement of the goals of distance education.
	High
	Medium
	Low
24	Online mode of teaching is the best method to fulfill the needs of distance education as well as the requirements of the students.
	High
	Medium
	Low
25	Online teaching has helped in the vigilance of the behavior and level of understanding of the distance education students.
	High
	Medium
	Low

Ketogenic diet impact in diabetes care

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Abstract

The purpose of this Proposal project is to assess the effect of the ketogenic diet on diabetic management. The specific objective of this report is to determine the benefits and risk factors associated with the ketogenic diet in diabetes care and to provide the suggestion for enhancing the diabetic management. The section of the literature review presented an in-depth overview of research articles related to the subject matter of research. It explained the real cases of diabetic patients that have consumed the keto diet and experienced fruitful outcomes.

The research method and design were chosen for the relevant research project comprise of positivism philosophy, primary data collection based on qualitative and quantitative data as the mix-research design has been selected for the accomplishment of research objectives. The researcher has developed two types of research instruments, an open-ended survey for the collection of primary information via interview and a collection of quantitative data from the close-ended questionnaire survey. It is assumed that integration of mixed research will be advantageous for the better realization of research issues and ensure the achievement of research objectives in an efficient manner.

The expected outcomes revealed that the keto diet could lead to weight loss more quickly in contrast to another method of diets more prolifically and efficiently. Overall, it has been concluded that the Ketogenic diet can complement the appropriate diabetic care. The accessible literature seems to be insufficient for exploring the relationship between diabetic care and the keto diet. The relevant gap needed additional future research for better generalization of outcomes.

Keywords: Ketogenic diet, diabetes care, Keto diet, nutritional ketosis, cardio-vascular

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1. Introduction

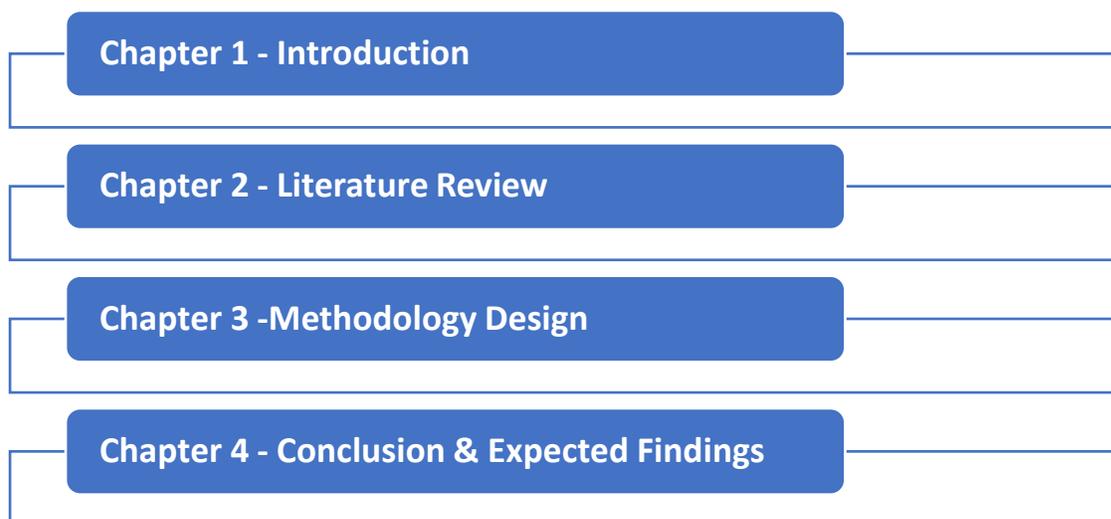
1.1 Background & Importance

The Ketogenic or Keto diet is useful for the preservation of controlled diabetes levels. It is composed of high fat and reduced plan of consumption of carbohydrates. Keto diets intend for the reduction of blood sugar level and weight loss. It is perceived as one of the suitable and effective weight management methods (Mawer, 2018).

(Haziq, 2019) asserted that a low diet of carbohydrates is effective for lessening insulin resistance. Insulin resistance is recognized as a more dominant symptom of diabetes. The lower quantity of glucose decreases the inflammation and enriches the vulnerability towards insulin. Diabetes is a chronic and long-standing disease that restrains the processing and accumulation of high content of sugar for triggering extensive issues of health (Kiernander, 2020). There are different types of diabetes such as Type 1 diabetes, Type 2 diabetes, and GDM (Gestational Diabetes Mellitus).

1.2 Structure of Proposal

Figure: 01-Structure of the Research proposal



1.3 Research Issue

In UAE a greater prevalence rate of type 2 Diabetes is found that affected about 17.3% population of the UAE (ICLDC, 2020). By taking an account of the brutality of Diabetes, this research intends to examine the effect of the Keto Diet for evaluation of risk and other factors related to Diabetes care. The UAE embraces the national agenda for restriction of Diabetes prevalence from 19% to 16.4% by the year 2021 by emphasizing the keto diet (Ahmed, 2019). Therefore, it is essential to maintain control of obesity, preserve sugar levels, and enhancement of diabetes care (Guo, et al., 2019).

The research invigorates the Keto diet and intends to the identification of its impact on Diabetes. A research gap entails that minimal research is conducted on the effect of the Keto diet on diabetes care. The outcomes of this research will be used for the fulfillment of the gap and provide implications for escalation in the knowledge body for diverse stakeholders, for instance, medical researchers, scholars, and students.

1.4 Purpose of Research

- To determine the impact of the ketogenic diet in diabetes care.
- To examine the benefits and risk factors associated with the ketogenic diet in diabetes care.
- To suggest improvement in the impact of the ketogenic diet on diabetes care.

The next section presents the critical discussion on empirical studies and evaluation of past literature.

2. Literature Review

According to (American Diabetes Association , 2019), Diabetes disease requires ongoing medical care and relevant risk mitigation strategies. Effective medical care and self-management are required to cure diabetes and avoidance complications. The Ketogenic diet can supplement the appropriate diabetic care (Mayo Clinic, 2019: Evert et al., 2019). The analysis of the Literature Review is presented in the following sections.

2.1 Impact of Keto Diet on Diabetes Care

UAE is currently experiencing more prevalence of Diabetes as well as obesity. The government has adopted significant initiatives for the mitigation of antagonistic outcomes of Diabetes (Akle, et al., 2018). The disorder in eating and psychology resulted in the induction of Diabetes among the younger population (McRitchie, 2019) .

The contemporary approaches are emphasized on self-management by providing better support for psychological outcomes and enhancement in clinical outcomes. In this sense, the Keto diet has become a facilitator for the management of diabetes (Powell, Corathers, & Streisand, 2015: Gorin & Kennedy, 2019: Nazario, 2019). The low carb diet can be greater or higher in fact or protein that doesn't lead to nutritional ketosis because of the greater content of protein and carbohydrates. Ketosis can be used for the prediction of a carb-restricted diet based on its ketogenic ratio.

Table 01: Diet classifications

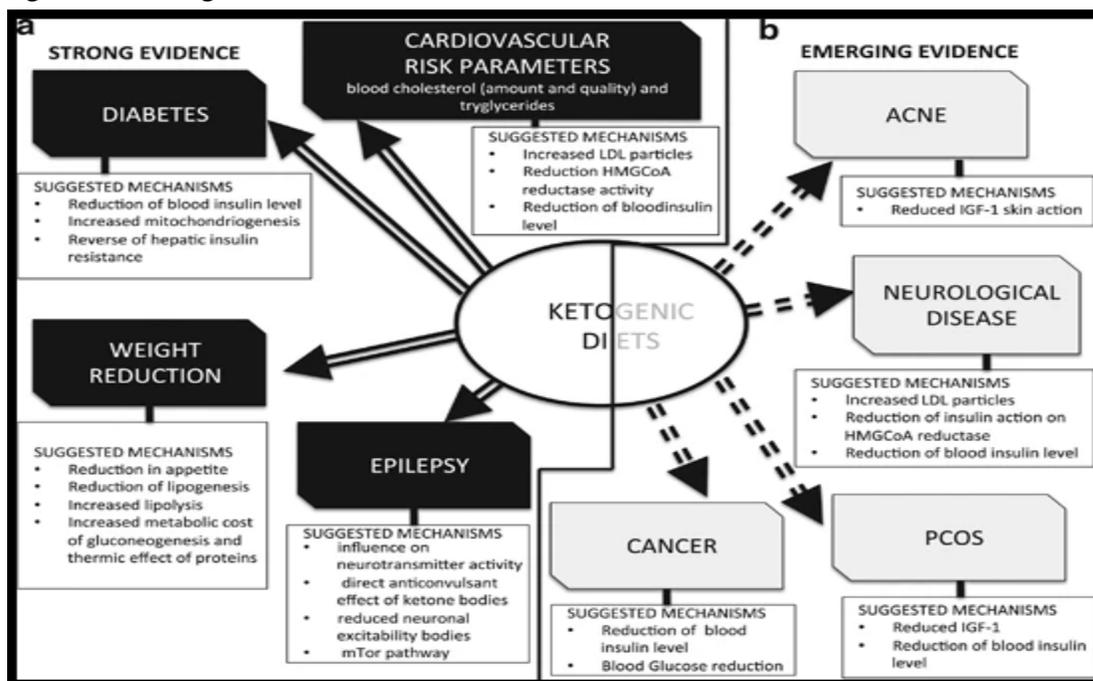
Diet description	Ketogenic	Calories/d	CHO % TDE	Protein % TDE	Fat % TDE
VLCHF/KD	Yes	>1000	<10* (<20-50 g/d)	~ 10% TDE (1.2-1.5 g/kg)	70-80% TDE
Low-CHO	No	>1000	10-25† (38-97 g/d)	10-30% TDE	25-45% TDE
Moderate-CHO	No	>1000	26-44† (98-168 g/d)	10-30% TDE	25-35% TDE
High-CHO	No	>1000	45-65† (169-244 g/d)	10-30% TDE	25-35% TDE
Very-high-CHO	No	>1000	>65† (>244 g/d)	10-30% TDE	25-35% TDE
VLCaID‡	Varies	<800	Varies	Varies	Varies
Classic KD	Yes	Varies	3	7	90

CHO, carbohydrate; VLCHF/KD, very-low-CHO, high-fat ketogenic diet; VLCaID, very-low-calorie diet; PSMF, protein sparing modified fast; TDE, total daily energy.
 *Typically the amount of CHO required to induce ketosis in most people.²²
 †Based on 1500 calories/d, an energy intake considered hypocaloric for most individuals.
 ‡VLCaIDs vary in macronutrient composition—some may be ketogenic if CHO content is low enough; others may not be if CHO content is >50 g/d. The PSMF is a subset of VLCaIDs and is typically higher in protein to spare LBM with a macronutrient composition of <20 to 50 g CHO/d, 1.2 to 1.5 g/kg protein/d, and <10 to 15% TDE fat.

(Kirkpatrick, et al., 2019)

(Paoli, et al., 2013) evaluated that impact of the ketogenic diet is well established for the case of epilepsy treatment, weight loss, type 2 disease, and cardiovascular disease. The author found that it is also subjected to greater risk factors, for instance, saturated fats, weight, biomarker, and inflammation as the effect of consumption of low carb diet. It is found that low carb can lead to a greater level of circulation of ketones that are associated strongly with the reduced hepatic output of glucose. It entails that greater ketones levels are connected with the favorable impact on glycaemic control in diabetics. (Paoli, Rubini, Volek, & Grimaldi, 2013) cited that Boden conducted in-patient research for Type 2 disease via inpatient study among people that were consumed low carb(lower than 20g per day) for two weeks. The results entail that plasma glucose reduces and also dramatic enhancement is observed towards the sensitivity of insulin.

Figure 02: Ketogenic Diets



(Paoli, et al., 2013)

The researcher determined the impact of risk for cardiovascular disease (CVD) type 2 diabetes. It comprises nutritional ketosis reinforced by sustainable restriction of carb for one year by the adoption of non-randomized control research design. CVD is recognized as the main reason for death in adults suffering from type 2 diabetes. In patients, glycemic control can be improved significantly by ongoing care intervention referred to as CCI (Continuous Care Intervention). The researcher examined the risk factor of CVD in type 2 diabetes patients for the research design based on a one-year non-randomized control design. The sample size for this research comprises 262 that fall in the CCI group. Furthermore, the sample size for the Usual Care group is found for 87 that recruited independently for tracking the progression of type 2 disease. Statistical tests were applied based on factor scores and results are found to be statistically significant. The results implied that treatment based on continuous care comprised of nutritional ketosis among diabetic patients enhances the CVD risk biomarkers after one year. Besides, blood pressure and inflammation were also declined (Bhanpuri, et al., 2018).

Westman et al (2018) deployed the keto diet for the management of type 2 disease. In recent times, type 2 diabetes attained an epidemic component. The people influenced by type 2 disease due to diabetes demonstrated that restriction of carbohydrate and weight loss can enhance obesity, type 2 disease, and hyperglycemia. The reduction in taking of carbohydrates to a particular level lower than daily 50 g can lead to a greater level of ketogenesis for providing fuel across the body. The maintenance of glycaemic control during exercise can pose adequate challenges for diabetic patients having type 1 diabetes. Adequate variation is found in athletes having type 1 diabetes disease by consideration of competitive context. The low carb keto diet can be used for minimization of excursion of glycaemic. A case study of 37 years old male having type 1 diabetes is considered that commenced about 4000 km cycle in Australia for twenty days consequently and consumed a keto diet. The glycaemic stability has been observed that recommended that adaptation of fat can weaken the swings of glycaemic and decreases the reliance on consumption of carbohydrate at the time of exercise for the preservation of euglycemia (Nolan, et al., 2019).

Cox, et al(2019) examined the impact of keto diets on the potential reversal of type 2 disease whereas clinical depression can be ameliorated. The prescription of keto-diet clinically, patient-oriented education about nutrition and HIIT (high-intensity interval training), and psychotherapy can lead to modulation of adequate enhancement for clinical biomarkers related to type 2 disease and clinical depression. A quantitative survey technique has been selected. A PHP-based questionnaire has been formulated (The Patient Health Questionnaire 9) in addition to a qualitative clinical interview method for examination of mental status and found an evident change in depressive symptoms of patients. In the same manner, MSC (Metabolic Syndrome Compliance Questionnaire) and GSE or (General Self-Efficacy Questionnaire) are considered. The case study comprises 65 years old female having 26 years of type 2 diabetes as well as MDD (major depressive disorder). Doctors prescribed the keto diet to this patient as well as a 45-minute psychotherapy session. The main goal of intervention consists of enhancement insensitivity of insulin, sustained control on glycemic, and decreases the risk of CVD. The outcomes of intervention comprised of 12 weeks are found to be statistically significant. The intervention of treatment comprises of 12 weeks would serve as the functional reversal of 26 years of diabetes, and weaken the depressive disorder and lead to the empowerment of patients with the novel experience of success and hope.

(Saslow, et al., 2017) stated that the keto diet is favorable for weight loss. It can be attained by efficient metabolism and glycaemic control. However, it is also argued that the keto diet doesn't

provide a long-term weight loss solution. It lacks support and cumbersome to alter the habits of eating. The regain of weight is daunting for the enduring sustainability of the keto diet.

2.2 Keto Diet and Diabetes Management

The keto diet plan monitors the lessening of gradual carbs intake that is less than 50 Gram per day while exploiting the protein intake. (McRitchie, 2019) asserted that the keto diet is complementary where the body starves for carbohydrates and the liver yields therapeutic fuel for the body in form of Ketones. The UAE has also accepted the Keto diet as a complementary item for diabetes management and diabetes care and doctors endorse it for a healthy lifestyle with Type two Diabetes (T2D) (Nowais, 2018).

Substantial confidence in medication for Diabetes has been replaced with keto diets owing to its cost-effectiveness and nourishing value where through ketosis body uses fat as an energy source and drops the mainstream reliance on sugar and glucose. The intervention of the keto diet in diabetes care is much valued because depriving the body of carbs results in fat decline and usage as an energy fuel where the relationship between Diabetes and Ketogenic diet was analyzed as progressive (Fraysier, et al., 2018).

2.3 Areas of Conflict

2.3.1 Ketoacidosis

Despite the sophisticated emphasis on the keto diet, Ketoacidosis has to turn out to be a discouraging concern for hyperglycaemic patients as the keto diet becomes unsafe when the body amasses too much ketone. The secretion of acid as a by-product for fat burn can cause harm to the liver, kidneys, and brains (Macmillan, 2019).

2.3.2 Keto Flu

The tempted keto flu owes to loss of electrolytes and insufficient preservation of water, while unavoidable food deprivation upsurges cravings. The societal impacts of the keto diet recommend avoiding social gatherings for adjusting their cravings, and they trust more on a diet relatively than dine out and social affiliations (Ketologic, 2019).

2.3.3 Loss of Nutrients

The main depressing factor is the damage of vital nutrients as the keto diet selects fewer carbs, containing some fruits, vegetables, dairy products, and deprives the body of indispensable nutrients. The liver and kidney difficulties, stomach problems, and gallstones are more conjoint risk factors, where supporters of the Keto diet are more prone to like (Nazario, 2019). Furthermore, Diabetes patients that are following a keto diet plan are more disposed to consume saturated fat which is disadvantageous to their health and increases the dangerousness for cardiovascular diseases and heart complications (Fischer, 2018).

2.3.4 Types of Keto Diet

Categories of Keto diet combine Classic Ketogenic diet (High in Fat and Low in Carbs with a proportion of 4:1 or 3:1) were fewer than 130 grams of carbs. The subsequent disparity of the Keto diet is a medium-chain triglyceride (MCT) as paralleled to (LCTs). The third discrepancy is low glycaemic index treatment (LGIT), permitting fat and proteins in the diet. The last variant of the Keto diet is the modified Adkins Diet (MAD), consenting more fats and proteins (Fraysier, et al., 2018).

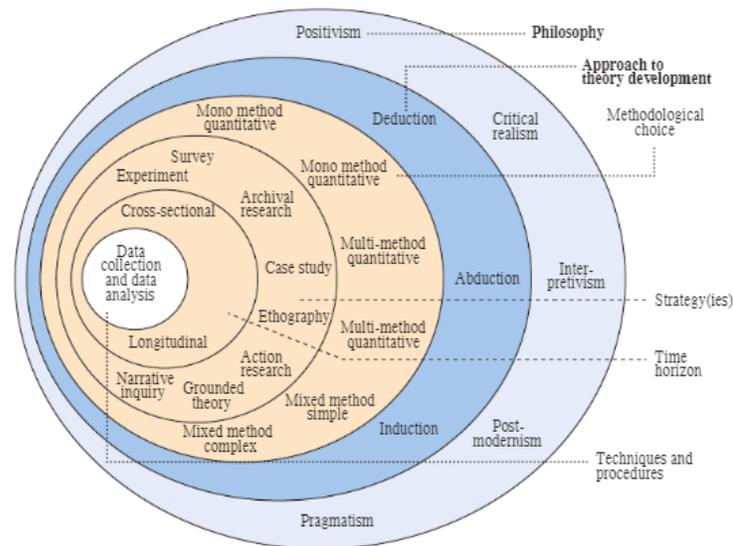
2.4 Controversies and Gaps in Literature Review

Very little research work is available on the subject matter of keto diet and types 1 diabetes. A literature gap is found related to the generalization of keto diet research on diabetes. The accessible literature also entails the advantages of the keto diet and highlights the requirement of future research for the elucidation of benefits of the keto diet in long term regarding the management of diabetes (Doheny, 2018; Thomas, 2019; Panzarella, 2019). The available literature seems to be inadequate for the evaluation of the usefulness of the keto diet for the care and management of diabetes. The relevant gap required additional examination for the specification of gender for better generalization of outcomes. In the next section, research methods and design will be presented.

3. Methodology Design

According to Leavy (2017) research design comprises a well-structured framework. It aims for the elaboration of different tools for the collection of data for addressing the purpose of research and ascertain the accomplishment of research objectives. The research method aims to provide a specification for strategies for meeting the objectives of the research. A research onion framework has been selected for the identification of suitable methods of research.

Figure 03: Data Collection and Analysis methods



(Edmonds & Kennedy, 2016)

The research onion technique is useful for the organization of the research as well as the development of research design based on the step-by-step research layers. (Creswell & Poth, 2016) stated that the research method is useful for prioritization of interpretation of research methods. This project aims to realize the affiliation of the keto diet and its effect on diabetes care. Diabetes has become a chronic disease across the UAE that required investigation for the deployment of outcomes for Diabetes Care.

Positivism philosophy seems to be highly suitable for the achievement of research objectives (Bryman, 2016). Positivism philosophy revealed the stances of natural science and was based on objective assumptions. Knowledge can be acquired by observation for the determination of regularities of events that is relied on functional and casual relations.

The research approaches can be distinguished into deduction and induction approaches. The deductive approach intended to direct functional control and knowledge whereas the inductive intended for controlling the information by structural use (Sekaran & Bougie, 2016).

Table 02: Deduction and Induction emphasizes

Deduction emphasizes:	Induction emphasizes:
<input type="checkbox"/> Scientific principles moving from theory to data	<input type="checkbox"/> Gaining an understanding of the meanings humans attach to events
<input type="checkbox"/> the need to explain causal relationships between variables	<input type="checkbox"/> a close understanding of the research context
<input type="checkbox"/> the collection of quantitative data	<input type="checkbox"/> the collection of qualitative data
<input type="checkbox"/> the application of controls to ensure validity of data	<input type="checkbox"/> a more flexible structure to permit changes of research emphasis as the research progresses
<input type="checkbox"/> the operationalisation of concepts to ensure clarity of definition	<input type="checkbox"/> a realization that a researcher is part of the research process
<input type="checkbox"/> a highly structured approach	<input type="checkbox"/> less concern with the need to generalize
<input type="checkbox"/> researcher independence of what is being researched	
<input type="checkbox"/> the necessity to select samples of sufficient size in order to generalize conclusions	

(Creswell & Poth, 2016)

The reason for selecting the deductive method is to investigate the keto diet implications for Diabetes care which is a matter of general concern. The benefits and of the deductive approach are based on time-saving, coverage of extensive scope of research methods.

The methods selected in most of the empirical studies are based on randomized control design based on longitudinal research design by consideration of statistical research methods (Bhanpuri et al 2018). Cox, et al (2019) tested the impact of keto diets on the potential reversal of type 2 disease via PHQ based questionnaire survey technique.

The purpose of Qualitative research methods aimed to the interpretation of human behavior by adopting different techniques such as Interviews, Focus groups, observation, document analysis, and others (Mligo, 2016). On the other hand, quantitative research methods deliver an opportunity for researchers to trust numeric data for objective measurement of outcomes. Suitable methods for quantitative method comprises of survey designs. The tools for collecting quantitative data favor questionnaires survey design (Harvey & Land, 2016).

To explore the impact of the keto diet on diabetic care, mix research design will be used. The research will encourage qualitative data through interviews and further accommodates the previously available literature for understanding the impact of a keto diet on Diabetes care. The quantitative methods will incorporate the survey design. It is believed that integration of mixed research will be useful for better realization of research issues and objectives in an efficient manner. The qualitative survey instrument comprises of open-ended questionnaire whereas the quantitative questionnaire survey instrument consists of Likert scale-based questions (Refer to Appendices for research instruments).

A purposive sampling tool will be used for the collection of primary data for both qualitative and quantitative research design. The purposive sampling will be used based on the specific experience of knowledge as the focal point of empirical inquiries. The sample size for quantitative research comprises 50 respondents that are diabetic and prefer to take the ketogenic diet in UAE. On the

other hand, the survey for a qualitative interview is five dieticians or nutritionists working in UAE. The benefits of both instruments are summarised as follow:

Table 03: Advantages and disadvantages of different qualitative survey methods

Closed-Ended	Open-Ended
Advantages	
<ul style="list-style-type: none"> • Enhance consistency of response across respondents • Easier and faster to tabulate • More popular with respondents 	<ul style="list-style-type: none"> • Allow more freedom of response • Easier to construct • Permit follow-up by interviewer
Disadvantages	
<ul style="list-style-type: none"> • May limit breadth of responses • Take more time to construct • Require more questions to cover the research topic 	<ul style="list-style-type: none"> • Tend to produce responses that are inconsistent in length and content across respondents • Both questions and responses subject to misinterpretation • Harder to tabulate and synthesize

(Sekaran & Bougie, 2016)

The choice of both instruments will be useful for a better evaluation of the impact of the keto diet on diabetic care. For evaluation of primary qualitative information, the conceptualization method will be adopted whereas, for analysis of quantitative information, a statistical test will be applied.

4. Conclusion & Expected Findings

This research aims to explore the risk and benefits of the keto diet, particularly for diabetes care. The research gap entails that insufficient research is available on the effect of the Keto diet on diabetes care. The evaluation of the literature review reveals that Diabetes has become an apprehensive concern for the preservation of dietary control and medical care. It is found that balance of insulin, weight loss, and netter metabolism level and maintains control on the level of blood sugar is essential for diabetes patients. It is also found that a significant association is observed between the keto diet and diabetes care. The keto diet can restrain the consumption of carbohydrates and lead to the encouragement of fat and the body utilizes lipids and fats for energy fuel. The high fat and low carb diet leads to weight loss more quickly in contrast to another method of diets more productively and efficiently.

On the other hand, few people would reveal their apprehension for the adverse impact of the keto diet. The keto diet would cause sustainability, Ketoacidosis, and keto flue in long term. A literature gap related to the generalizability of the keto diet has a profound effect on the management of diabetes that required additional investigation and research work. The expected outcomes will provide perceived benefits and risk related to the keto diet for diabetic care and provides the suggestion in the viewpoint of diabetic patients. The findings will also be helpful for individuals those are health conscious which include sports person, dieticians, doctors, actors and so on.

Furthermore, the findings will also be helpful for the companies to encourage their workforce to maintain their health. Besides, the findings will also be helpful for hospitals and healthcare organizations at the same time.

The diabetic patients would pay slightly higher prices that lead to enhancement of life quality and effectiveness of diabetic care. The findings will also pinpoint some adverse impacts on diabetic care. Using the findings of this research study, people individually as well as organizations including healthcare and hospitals can establish unique and healthy diet programs for patients. The government can also learn from the findings of this research study to promote healthy living standards among people, which will further assist the government to save annual costs which are spent on healthcare. Overall, it is concluded that the keto diet could support people with diabetes and lower sugar level in the blood. It can also be argued that consumption of high protein fat would enhance the amount of bad cholesterol that can poise the risk for development of the disease of the heart. As important nutrient sources are missed in a low-carb diet, there is the chance of not getting enough minerals and proteins. However, the benefits of keto diets are greater as compared to adverse impacts.

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Appendices

Questionnaire Survey for Qualitative Interview

Dear Research Respondent,

I am conducting an academic research project on the topic of “Ketogenic diet impact in diabetes care”. I have selected a qualitative interview method for the primary data collection method. You are allowed to withdraw at any point in time. Anonymity and confidentiality will be maintained.

Thanks

Best regards

Questionnaire Survey for Interview

1. How long have you been consuming a ketogenic diet?
2. In your viewpoint, what is the impact of the ketogenic diet on diabetes care?
3. What is your perception of the risk and benefits of the ketogenic diet in diabetes care?
4. What are your recommendations related to improvement in the ketogenic diet for diet care?
5. Do you believe that there is a misrepresentation of saturated fats as the reason for bad health?

Questionnaire Survey for Quantitate Survey

Dear Research Respondent,

I am conducting an academic research project on the topic of “Ketogenic diet impact in diabetes care”. I have selected a quantitative questionnaire survey method for the primary data collection method. You are allowed to withdraw at any point in time. Privacy, anonymity, and confidentiality will be maintained during the entire research project.

Thanks

Best regards

Quantitative Questionnaire Survey

1. What is your Gender?

- a. Male
- b. Female

2. What is your Age group?

- a. 15-25
- b. 26-36
- c. 37 -49
- d. 50-59
- e. Above 60

3. What is your Marital Status?

- a. Married
- b. Unmarried
- c. Divorced

4. What is the highest level of education you have completed?

- a. High school
- b. College
- c. Bachelors
- d. Master's program
- e. Other, Please Specify

5. Do you consider yourself as the health conscious person?

- a. Yes
- b. No

6. Do you experience some positive impact of Ketogenic diet?

- a. Yes
- b. No
- c. I do not Know

7. Can you pay a slightly high price for Ketogenic diet?

- a. Yes, I would
- b. I may
- c. No, I will not

8. Keto diet would offer several potential advantages for diabetes management?

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

9. Ketogenic diets are acknowledged as a powerful tool of management for type-1 diabetes?

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

10. Keto diet can enhance the quality of life of a diabetic patient?

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

11. Keto diet does not provide long-term solutions for weight loss?

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

12. Keto diet is not aligned with nutritional guidelines?

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

13. Keto diet would have some adverse effects on diabetes care and management?

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

(References list of all sources used, listed alphabetically and in Harvard style)

Impact of Fresh Graduate Programs on UAE Nationals Employment

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Abstract

In a country like the UAE, the growth of the workforce numbers is increasing remarkably due to the openness and continues developments in the country, leading to minimizing the number of available job vacancies in several sectors. The purpose of this research is to investigate the link between the practice of implementing national fresh graduate training programs and the problem of unemployment in the country. Currently, both education standards and the labor market are exposed to continues changes that have caused the noticeable growth of the numbers of highly qualified university graduates. As a result, due to the increasing number of graduates compared to the reduced number of vacant jobs, a large percentage of UAE national graduates are still unemployed, leading to an expansion of the unemployment rates in the country. The increase in the unemployment rates can cause some serious effects on the individual's mental health. Moreover, this problem can hold a negative effect on the community. Fresh graduate programs might be an effective way for inexperienced graduates to obtain a decent starting point of their professional career and to strengthen their development and growth levels. Such programs could also have several advantages to the organization as they could help in expanding the energy, motivation, and new talent to the workplace.

An online survey was distributed among previous trainees who have successfully completed their training programs. Participates were chosen from multiple private organizations. Moreover, HR specialist and team leaders were interviewed to seek their feedback and opinions in addition to their perspectives regarding the Emiratization programs. The sample size was a number of 200 employees, 5 HR specialists and 4 team leaders in multiple private organizations. Based on the current evidence and research, the implementation of fresh graduate programs was found to be strongly associated with the reduction of unemployment rates of national fresh graduates in the UAE. Overall, most feedbacks and opinions of previous trainees' experience of graduate programs were shown as positive.

Key Words: Emiratization, Unemployment, Recruitment, Graduates Program, HR Development.

Introduction

Currently, education and labor market are exposed to constant changes leading to increasing the pressure on universities to develop the highest possible number of qualified graduates. According to UNESCO, that is. Between the years 2004 and 2016, the total number of Emirati students enrolled in bachelor's degree programs abroad more than doubled (Aljanahi, 2017). Thus, due to the increasing number of fresh graduates compared to the reduced number of vacant jobs, a large percentage of UAE national graduates are still unemployed, leading to an increase in the unemployment rates in the country. The increase in the unemployment rates can cause some serious effects on individuals such as stress, depression, and mental illnesses. Moreover, this problem can also negatively affect the community. Fresh graduate programs can be an effective way to provide a good starting point for inexperienced graduates on their professional career in

addition to strengthen their development and growth levels. Such programs could also have several advantages to the organization as they could help bring energy, ambition, and new talent to the workplace.

The main aim of this research is to highlight the importance and measure the impact of such programs for both organizations and UAE nationals, in addition to emphasize their role in reducing unemployment rates in the UAE. This research proposes that implementing graduates' program can lead to providing the best fit opportunities for those individuals since they will be able to contribute positively to the overall performance of the organization. The research further discussed the best attribute for selecting the candidates for such programs including qualifications, personal skill, GPA and pre working experience. This research can benefit individuals, organizations, and decision makers to set up effective programs within the organization to focus on the development of the local human capital which considered as an essential factors of the UAE's economic and cultural growth. The questions presented are:

- 1- Are fresh graduates' programs helping in increasing the percentage of qualified employees in the organization?
- 2- How can fresh graduates' programs effect the Emiratization in the organization?
- 3- Are fresh graduates' programs considered as a helpful tool to develop and retain new employees?

The main Research Objectives are as followed:

- Highlight the importance of graduate programs in UAE's organization.
- Define whether graduate programs are worth the financial resources of organizations or not.
- Determine if graduate programs can reduce the rates of un-employment in the UAE.

Literature Review

The environment of business in the UAE is continuously exposed to multiple changes in the past years especially with the advanced technologies and the development of the quality of services and strategies, leading to a drastic increase in the competition level between organizations (Yara Zeid Zraigat, 2019). In order to compete with other organizations the main focus should be on the labor and their job performance which means that any organization aiming to succeed should firstly invest on its human capital. Abdullah and Al-Ali agrees that the environment of business, labor market is also going through changes. Thus, due to the changing demand of the workplace and lack of job opportunities it eventually led to an increase in the unemployment rate for national university graduates in the UAE (Alshaiba Al Ali, 2011). This literature review will include the review of the problem of unemployment, unemployment factors, benefits of fresh graduates to organizations and lastly the concept of Emiratization.

The issue of unemployment

The UAE economy is faced with both structural and cyclical unemployment (Sherif, 2013). Labor demand and supplies where no longer in step with on another because of the economic changes. National job seekers are not able to find the position that aligns with their needs and qualifications at the acceptable wage rate. Most fresh graduates are aiming to start their job career in the government sector instead of the private for numerous reasons, thus not being able to find such an opportunity will have them faced the three-part employment decision which is choosing the private sector as a long-time career (Aljanahi, 2017). Daleure supported this fact by saying that others choose to start their career in the private sector for a temporary period or remain unemployed until finding a good offer in the public sector (Daleure, 2016). Unemployment is a serious issue that can affect the individual's behaviors.

According to the research done by J. Blake, the findings were that such issue can have severe health effects including the increase of stress levels unlike the ones who got a job opportunity, their happiness and satisfaction levels were found to be more stable (Turner, 1995). Unemployment rates are in a continuous increase among national fresh university graduates, therefore having a higher rate of unemployment will have a negative impact not only to individuals but also to society. According to a study conducted by Tabutin and Schooumake in 2005 there are multiple factors that led to having an increasing percentage of university graduates in the UAE (Dominique Tabutin, 2005), which will be discussed in the following section.

UAE Nationals Unemployment Factors

The first factor is the high number of graduate's comparing to lower job vacancies due to the growth of population. Young Emirates fresh graduate from different universities and colleges statistics are growing yearly creating a pressure on the existing Emirati workforce that are less educated and technologically advanced (Daleure, 2016). Moreover, due to health care improvements and the increased number of family sizes, youth population has become bigger than it was 10 years ago (Al-Ali, 2008).

The second factor is the Preference of expatriates on nationals. Most available jobs in the private sector are preferred to be taken by expatriates instead of UAE national. According to Al Ali, some employers in the private sector believe that nationals are not able to compete with the professional expatriate labor (Al Ali, 2013). Aljanahi agrees with this statement by believing that expatriates can sometimes be the ideal choice to recruit due to "the explosive growth the countries experienced through commercialization of their natural resources" (Aljanahi, 2017). Being a highly qualified expatriate does not always associate with working for a higher wage rate, expatriates can be willing to work for less compensation and tend to be more flexible in accepting changes that might occur in the work environment while national workers may not usually accept such types of changes (Toledo, 2013). In addition, Toledo research finds that UAE nationals would not accept most of the jobs that are taken by semi and low skilled expatriates unlike some developed countries that depends on local to fill these kinds of positions at the wage offered.

Third factor is the lack of experiences and training. According to Yara Zeid and Prof. Rashed Training is an essential tool for organizations to focus on because it will help in increasing the production, improve the work focus for employees, achieve better quality service, increase communication, ensure the overall effectiveness improve the employee's motivation and commitment levels (Yara Zeid Zraigat, 2019). However, since most university graduates have never had any real on the job experience other than their work placement, they could face difficulties in applying to a variety of offered jobs as the majority of offers often require job experience that starts from a year and above.

The fourth factor is the demand of higher wages by UAE nationals. Toledo believes that due to the economic changes and the increasing cost of living in the UAE the demand of higher wages by national labor is increasing as well. (Toledo, 2013) suggest that the solution of unemployment can be resolved if UAE nationals were willing to accept job offers for less conditions and lower wages as a starting point of their professional career.

Lastly, the fifth factor is the preference of public than private. UAE nationals believe that career opportunity and wages in the private sector are lower than the ones offered in public sectors (Al-Ali, 2008) , “ As of 2009, Emirati nationals were also mostly concentrated in the Public Administration, Defense and Social Security” (Bel-Air, 2015). As said by Aljanahi, job security in public sectors tend to be higher than private, he believes that “When Emirati nationals are hired in the public sector, they are guaranteed the job for life (Aljanahi, 2017)”.

Benefits of fresh graduates to the organization

Staff skills and attributes are important elements that determine the overall performance levels of the organization (Dăneci-Pătrău, 2016), having fresh graduates means having an individual with high levels of motivation and willingness to learn. Thus, with the right HRM practices such as an effective learning and development programs, rewarding and recognition, new joiners will be able to perform their duties efficiently with the aim of achieving the organization goals and objective. It is essential for successful organizations to continuously enhance and improve the skills of their personnel. According to the economic Lester Thurow believed that “In the 21st century, the education and skills of the workforce will end up being the dominant competitive weapon”.

Fresh graduates programs in the UAE.

National fresh graduate programs can be defined as training programs that are mainly designed for inexperienced employees with the purpose offering them the opportunity of enhancing their learning and development skills and abilities with the aim of being fully prepared for their future role and responsibilities given by their employer. These programs are conducted in a specific time frame of which is mostly between 12 to 24 months. The main purpose for such programs is to increase the level of Emiratisation in the organization and to ensure that graduates are ready to work in public and private sectors (Alshaiba Al Ali, 2011). According to Alshaiba, Alali and Abdullah M, the motives behind such programs were created because of lack of graduate's employment skills, need of training graduates in certain skills related to the organization in the perspective of employers, weakness of preparing graduates for employment policies and actions in

addition to the need of revising, evaluating, and restructuring of learning institutions work placement courses. Multiple companies in the private sector are applying this method in recruiting and attracting national graduates such as Alfuttaim, Emirates Airlines, Altayer, Emaar and Dubai tourism. Moreover, several banks are also applying this method like Emirates NBD, Noor bank, Commercial Bank of Dubai, and HSBC middle east. Most of the mentioned organization apply such method since its essential to have high skilled UAE nationals in the organization to enable it to have better understanding and services to its customers (Aljanahi, 2017).

Emiratization

Emiratization policy has been implemented in the UAE by the ministry of labor for over a decade, such policy will indeed have both effectiveness and challenges to organizations to attract possible candidates to private and public sectors (Anuradha Reddy, 2019). The main goal of such policy is to increase the number of UAE national employees in the country's market of labor. The policy of Emiratization in the country is not achieved completely However, the government of UAE has been giving effort to revive this policy (Randeree, 2009). Thus, more organizations choose to invest in programs like national fresh graduates to enable them to increase the level of Emiratization among the staff. However, organizations relay on certain criteria's when choosing their potential candidate such as having bachelor's degree that is relevant to the field, GPA, personal skills and the fluently of English language. According to Khaleej time newspaper, UAE cabinet approved on multiple resolution to support Emiratization, one of them was setting a target to "provide 20,000 job opportunities for Emiratis in strategic sectors including civil aviation, telecommunications, banking, insurance and real estate development sectors over the next three years, with an average of 6,700 jobs" (Khaleejtimes, 2019) , such resolution sounds promising to achieve the needed goal of the country and to provide the support for ambition national job seekers.

Methodology

For this specific research, the quantitative data collection consisted of a survey that includes 13 questions (see Table1). Participates were chosen from multiple private sector organizations that are employed in multiple fields including retail, banking, Tourism, and customer service. The Survey was designed to seek the feedback of previous trainees who have successfully completed their Graduate training program for UAE nationals offered by multiple private sector organizations in the UAE Such as CBD, ENBD, RAK Bank, Noor Bank, AL Futtaim and Dubai Tourism.

The organizations chosen has been implementing the practice of fresh graduate programs since multiple years. The main aim of the survey is to measure a variety of views and opinions to quantify and gather relevant data from participants to explore the effectiveness of fresh graduate programs. The surveys were conducted online by the selected participants. On the other hand, the qualitative data collection consisted of interviews deigned for HR specialists and Team leaders in these selected organizations (see Table2). The interviews were conducted through online conferencing calls through Microsoft teams.

The main purpose for choosing online surveys and questioners is because they are less time consuming, lower in cost, convenient and it is easier in getting fast and efficient results. Online

surveys will include multiple questions for national employees who have been chosen to be a part of a Training program in the UAE.

Results are analyzed based by their feedback and satisfaction about these programs. Questions about the impact of the program on their personality, skills, learning, and abilities were discussed. Moreover, the results indicate the preferences of UAE national graduates to public or private sectors in addition to their reasons and motives of why they decided to choose such programs to start their career journey. Other questions in the survey were about their recommendations for the next generation of graduates who will begin their career journey by applying to fresh graduate programs. The sample size was minimum since 5 to 6 organizations were selected. The number of the survey participants is 200 employees.

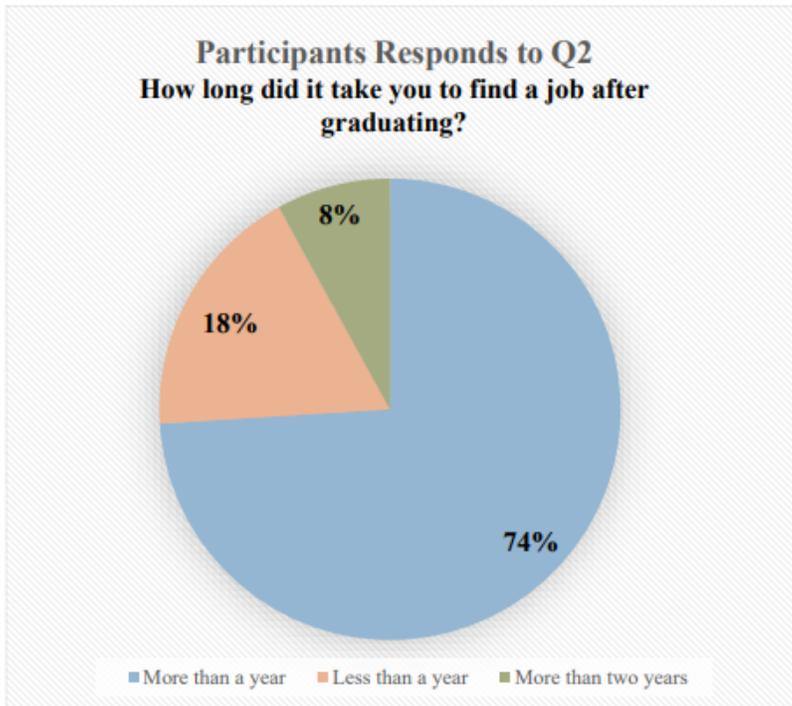
To add up, the interviews of HR specialist and team leaders in different private organizations aimed to collect structured qualitative data that are based on the interviewee's responses and opinions. Another aim of these interviews was to investigate the managers perspectives, views, and benefits of having such programs in the organization. This chosen method is suitable for the research due to its ability to get an accurate information and analysis of the data which can support the hypothesis of the research. Results of the surveys and questioners were used as an indication to show and prove the validity of such programs and whether it is a reliable HR practice in recruiting or not.

Results and Discussion

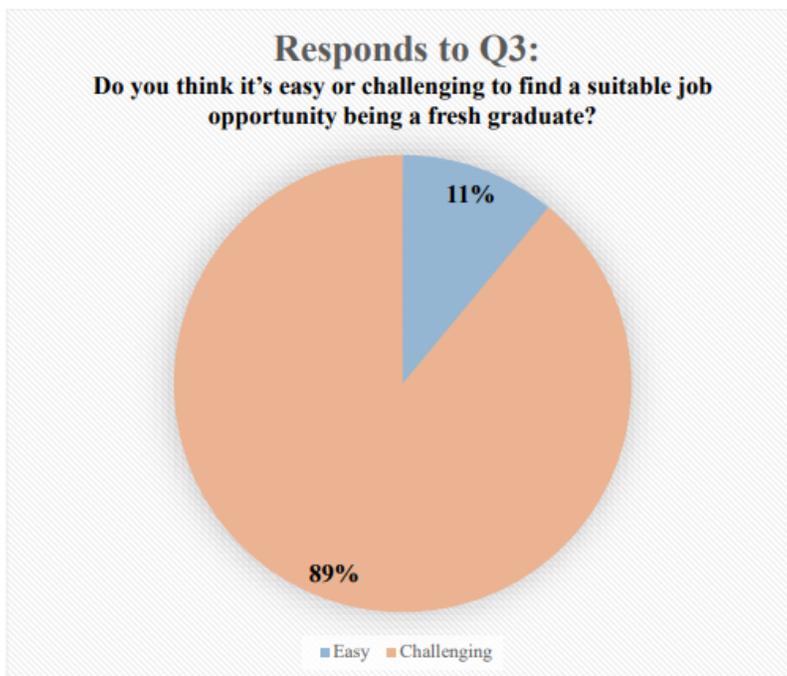
An in-depth review of the literature revealed the importance of graduate programs method in attracting fresh graduate UAE national. The evidence of this method's effectiveness is found by the implementation of multiple organizations to these kinds of program which indicates it might be because of the positive influence on its staff as well as the overall productiveness levels. However, due to the low number of researches that are dedicated to the problem of unemployment in the UAE, further research should be implemented to seek the employees' feedback regarding these employment practice. And whether it can help in downsizing the problem of high national unemployment rates in the UAE.

Alternatively, according to the conducted surveys, Participant's responses will be discussed based on the most relevant results that are directly related to answering the research questions and achieving its objectives. Firstly, results reveal that more that 70% of the participants required more than a year to find the suitable job opportunity (See Graph1), Which supports the facts that due to the previously mentioned factors of unemployment's, it is now more challenging to university graduates to get hired which is also proven by the participants response of Q3 that enquire if its challenging or easy to find a suitable job. (Graph2) shows that 89% of the participants choose the option of challenging rather than easy (see Graph2).

Graph 1

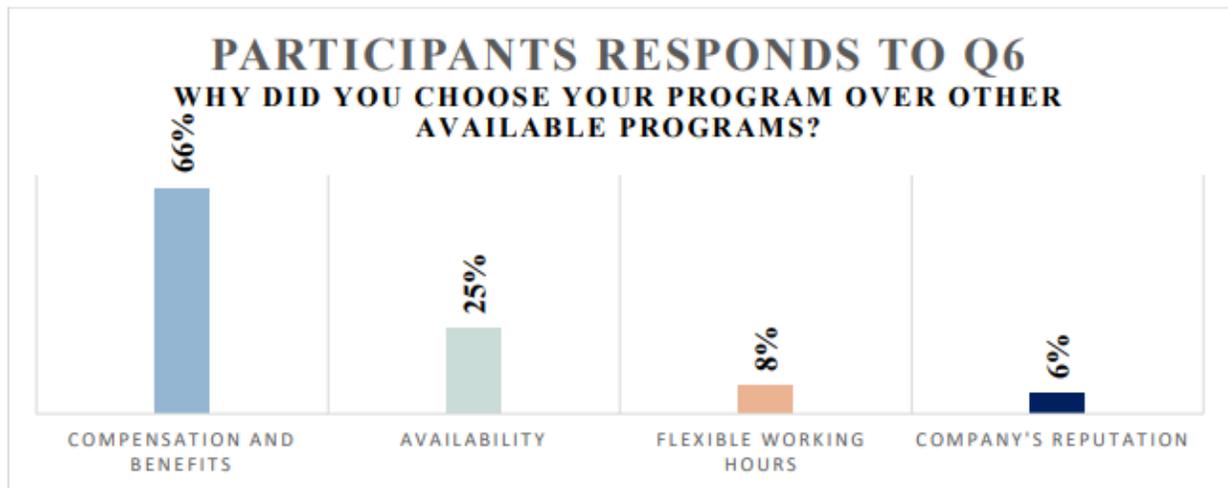


Graph 2



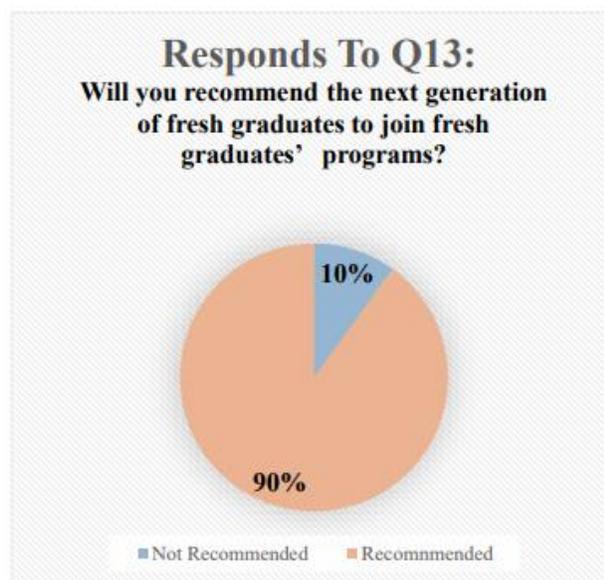
Secondly, most of the selected candidates were attracted to such programs because of several factors including the offered compensation package following by the availability, flexible workinghours, and reputation of the chosen organization. (See Graph3).

Graph 3



Thirdly, the majority of the participants agrees that they will recommend this program to the next generation that will be joining the offered programs by their organizations. Such results sound extremely promising for the next generation of graduates who are considering the option of joining a training program as a first step of their professional career. (See Graph4).

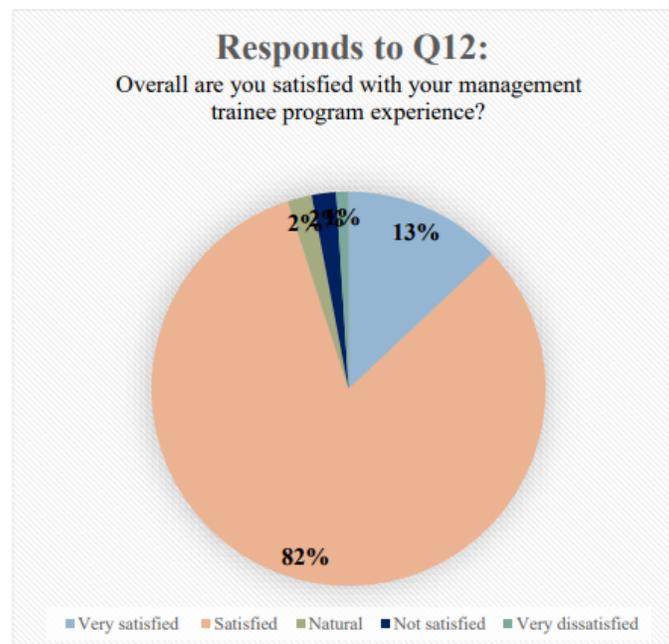
Graph 4



In addition, Graph 5 below indicated that most of the ex-trainees were overall satisfied with their experience of the graduate program at their selected organization (See Graph5). The pie chart shows that more than 80% of the participants were satisfied following by 13 % who were very satisfied. Less than 3% believe that their satisfaction levels were natural. 2% were not satisfied with the overall experience while the remaining 1% were very dissatisfied. Such results indicate the positivity and efficiency of experiencing the graduates program. The high levels of the ex-trainee's satisfaction act as an indicator to the positive effectiveness and possibly of having a sustainable practice to the develop the national workforce.

The results of Graph 4 are directly related to the result analyzed in Graph 3 for the reason that most employee's satisfaction levels are associated with multiple HRM practices. Beside training and development, employees are also satisfied of their jobs because of the offered compensation and benefits , flexible working hours job security , organizational justice and the overall organizational behavior and environment.

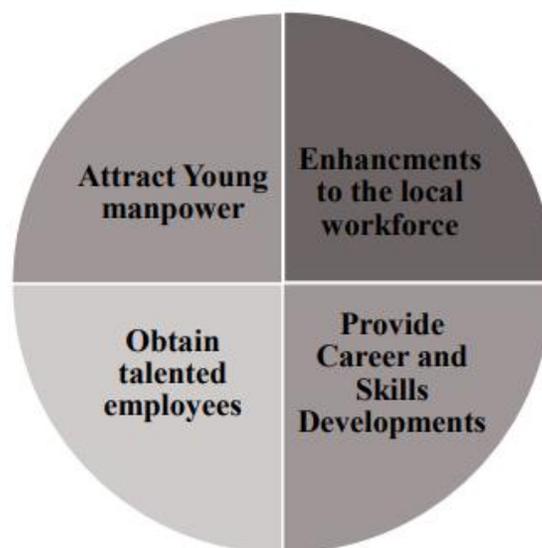
Graph 5



Furthermore, the findings indicated the overall effectiveness of these programs as most participants believed the fact that these programs can provide a good starting point and development opportunity for their career journey. On the other hand, the results of the interviews shows that the chosen HR specialist and team leaders agrees that such programs would assist and benefits organizations by attracting young manpower, enhancing the local workforce, developing professional skills and abilities in addition to providing the organization with the advantage of obtaining and retaining young and talented individuals with great potentials. (See Graph 6).

Additional comments that were taken from the interviews state that, in order to launch a successful and beneficial training program, the organization must take into consideration the new trends and practices applied in the training and development field including the training material, on the job training and rotations. Its essential to include a diverse set of actions in order to maximize the growth and development of individuals. Additionally, during the selection process, organizations should focus on discovering talented employees by integrating various selection methods such as interviews, assessment centers, group activities and presentation. By being diverse in the selection method, recruiters can be able to define and select the best fit position for candidates depending on the available options.

Graph 6: Benefits of Fresh Graduates program to organizations based on interview results.



Conclusion

Unemployment is significant issue in the field of Human resource management that has increased on occurrence of the increasing number of national graduates per year. The goal of this research was to prove the effectiveness of applying graduate programs in attracting UAE nationals to the organization whether it was in private or public sector. According to the literature review, multiple factors of unemployment were discussed consisting of: Higher number of graduates, preference of expatriates, lack of training, demand of higher wage and lastly preferring public or private sector.

The reviewed literature suggests that there are advantages associated with the use of fresh graduates' programs in the organization on the condition of choosing the right candidates depending on specific criteria.

The benefits of having inexperienced employees in the organization was also mentioned throughout the literature. Current research supports the implementation of graduate programs. Nevertheless, to help in justifying the use of such programs in more organizations through HR departments, more research supported by strong methodologies need to be applied. Alternatively, regardless of the research limitations faced such as the low sample size of participants, the difficulties in conducting interviews due to the unavailability of the interviewees and the lack of research dedicated to the subject of employment. This research outcomes can assist in proving the fact that fresh graduates' programs can indeed reduce the rates of unemployment in the UAE. Such statement was based on both literature reviews and methodology results discussed earlier. To sum up what has been stated earlier, the research questions has been answered, Fresh graduate programs can contribute to increasing the percentage of highly qualified employees in organizations, increase the Emiratization levels and lastly the practice of applying such programs by both private and public organizations in the UAE can be considered as helpful tool to develop and retain its human capital.

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Appendix

No	Phrases	Options				
1	How many job interviews did you had?	One	2-5	More than Five		
2	How long did it take you to find a job after graduating?	Less than a year	More than a year	More than 2 years		
3	In your opinion, do you think it is easy or challenging to find a suitable job opportunity being a fresh graduate?	Easy		Difficult		
4	How did you hear about this program?	Career website	Social media	Career fair	MOHRE	
5	Before joining your program, were you looking for a program or a normal job?	Looking for a normal job	Looking for a program	Did not mind any.		
6	Why did you choose your program over other available programs?	Training period	Salary and benefits	Working hours	Companies' reputation	Availability
7	Do you agree that 12-month period is enough time for such program?	Strongly agree.	Agree	Nether agree nor disagree	Disagree	Strongly disagree.
8	According to your experience, did you face any difficulties during the program?	YES		NO		
9	According to your experience, which part of the program stand out the most to you?	Training sessions	On the job experience	Final program project	Other	
10	What skills were affected the most at the end of the program?	Time management skills	Leadership skills	Management skills	Flexibility skills	Teamwork skills
11	Are you supporting the idea of having an assessment at the end of the program?	YES		NO		
12	Overall are you satisfied with your management trainee program experience?	Very satisfied	Satisfied	Natural	Not satisfied	Very dissatisfied
13	Will you recommend the next generation of fresh graduates to join fresh graduates' programs?	YES		NO		

TABLE 2	
	Interview Question
1	Why do you think it is important for fresh graduates to start their career journey by joining such programs?
2	What are the benefits of conducting such program in the organization?
3	What are the criteria's of choosing the possible candidates of the program?
4	Do you believe that such programs will be beneficial for the organization and employees not only on a short-term basis but also long-term?
5	As it has been mentioned in the career website for your organization any bachelor's degree is needed, do you believe that such a condition can be somehow challenging to the new joiners?
6	How can this program effect the development process of the new employees?

Learning Theories in Online Technology

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Abstract

Learners' engagement in online learning environment is one of the most critical challenges that educators face in networked education. In order to ensure a successful learning approach, all learners must have equal opportunities to participate in the learning process and this requires instructors to design well-structured courses including the learning outcomes, activities, and assessments. In this paper, learners' engagement in the online global professional development program or the MOOCs (Massive Open Online Courses) will be focused on by working with an organization that is willing to have its employees feel more confident about their productivity at work and to has them have a good life-work balance at the same time and in order to assure the success of their learning journey the online course should be more engaged and have interactive activities. This will be done by offering a learning plan structured based on the pieces of researches mentioned in the literature review and follows Gagné's Theory of Instruction which includes 9 main events to achieve a successful design of the online course.

Keywords: *online learning, learners' engagement, online courses, MOOCs, productivity, life-workbalance*

Introduction

Online learning has become a developing technology utilized by most instructors in their learning institution regardless of the age level of the learners and their profession. Massive Open Online courses or what is referred to as MOOC presented a great solution providing free easy to access tremendously varied online courses.

According to a report of distance education enrollment at US institutions of higher education (IHE), the rate of increase in the percentage of students learning online was 9.6% in 2002 and up to 29.7% in 2015 (Allen & Seaman, 2017). However, to ensure the success of any online course, one needs to ensure a high level of engagement. In our case, as a group of instructional designers, we were requested to come up with a learning plan and engage employees of a company in an online course that can improve their productivity and efficiency levels in the workplace. Many factors are to be taken into consideration as prerequisites before designing teaching and learning strategies to effectively engage and support learners. As instructors, we are supposed to use a

learning approach that will enable all adults to have the opportunity to participate in the learning process in order to enhance success and efficiency (Buelow, Barry & Rich, 2018). The use of learning design ideas in MOOCs for adults is vital because it will enable the instructor to maintain focus (Gay & Betts, 2018). A learning plan in the learning process is very crucial for every instructor, for it enhances the success of the adult learner and even the instructor in achieving the objectives and the set goals for a particular course (Harasim, 2017). The learning plan will address the potential gaps in the learning process, where we, as instructors, will be in a position to identify the strengths of our learners. Moreover, the plan will address gaps in knowledge and skills among the learners. This paper aims to present effective facilitation strategies used to enhance online adult engagement through MOOCs and constructivism. It explains the design of an online course that applies constructivism. Specifically, we will incorporate effective engagement strategies through the eye of constructivism into the online course to impact the learners. In the following sections, we present a review of the literature about the increasing number of online courses, enrolling learners in these types of courses, and what are the suggested solutions to overcome the issues of engaging the learners.

Literature Review

There will be four themes in this literature review: the increasing number of learners' enrollment in the online course and the MOOCs, the challenges of having the learners engaged in these courses, the suggested solutions by the researchers to overcome these challenges based on the learning theories of online technology, and choosing the best practices and solutions from these pieces of researches. The focus will be on 3 pieces of researches and they were chosen because they collected a massive amount of quantitative data with significant feedback about students' engagement and this is found in (Gay & Betts, 2018) paper page 112, also, the useful methods offered by (Buelow et al., 2018) page 316 and the exact rate of courses' completion in the research paper of (Jordan, 2014) page 147.

learners' engagement in the online global professional development program

Most organizations follow a systematic approach to develop the performance of their employees to ensure the quality of their productivity and to accommodate the rapidly changing requirements in the careers of the 21st century.

These organizations find the online courses good opportunities to develop the skills of the employees especially knowing the fact that they can be enrolled automatically and complete them at their own pace, as a result, these course considered convenient, flexible, and time-saving, therefore, (Jordan, 2014) in her research found that the average MOOC enrolls around 45,000 learners, a similar finding was highlighted in the research of (Gay & Betts, 2018) they found that the enrollment of the online courses increased since the beginning of the 21st century, very close research done by (Buelow et al., 2018) found that approximately 31.6% students took online courses.

However, (Jordan, 2014) discovered that few of the enrolled learners complete these MOOCs,” The average MOOC course is found to enroll around 43,000 students, 6.5% of whom complete the course” (P.147). The feeling of not being included, isolated, and not socially involved was a highlighted issue among the learners in these types of courses. The Course completion is not considered as an accurate indicator of the learner’s engagement, thus instructors must include specific characteristics to their online courses to enhance the active learning, especially knowing that these MOOCs are students’ centered and they are the application of the constructivist theory which can be observed when the students are active learners and the teachers’ role is less compared to the behaviorism and cognitivism, “The teacher must understand the students’ pre-existing conceptions and guide the activity to address, build on and refine pre-existing conceptions.” (Harasim, 2017).

Therefore, many methods are suggested to increase the learners’ engagement, including open-ended questions, this method will stimulate the learners’ thinking process and motivate them to be more interested especially in the professional development courses for the employees when most of them are forced to complete these courses as a part of the job requirements. Also, creating a MOOC with specific characteristics that are found as results of a survey done by (Buelow et al., 2018), these characteristics are: Students (1) have fun in an online classroom, (2) connect ideas from prior experiences and knowledge, (3) change the way they understand an issue or concept, and connect their learning to societal problems or issues. (Buelow et al., 2018).

In this assignment, and based on the above literature review, we will create a learning plan that ensures adult learners’ engagement in professional development online courses. The course will be about increasing productivity at work which will include the methods mentioned above by Buelow and taking into consideration the principles of the learning theories and their technological application as mentioned in the book of Linda Harasim: (learning Theories and Online Technology).

Learning plan

In the following task, we will create an online learning course about increasing productivity at work and how the employees can prioritize their tasks based on the nature of the assigned duty and make full use of their time taking into consideration the life-work balance. To ensure their full engagement with the course we followed the suggested methods in the literature review and the principles of the learning theories in online education especially Gagné’s Theory of Instruction which is the main application of the cognitivist learning theory “The issues that he addressed were how to determine what skills and knowledge are required for someone to perform a particular task or job effectively”. (Harasim, 2017). “Gagne’s model of instructional design is based on the information processing model of the mental events that occur when adults are presented with various stimuli and focuses on the learning outcomes and how to arrange specific instructional events to achieve those

outcomes.” (Khadjooi, K., Rostami, K., & Ishaq, S., 2011, P.116). Gagné’s Theory of Instruction includes nine main events:

1. Gain attention.
2. Share the objectives
3. Stimulating Prior knowledge
4. Present content
5. Practice
6. Provide guidance
7. Provide feedback
8. Assess performance
9. Enhance retention and transfer to the job

As shown above, Gagne's model of instructional design has a structure and systematic flow of steps that can make the instructional design process very easy and smooth.

Introduction: (Gain learners’ attention and share the objectives)

At the beginning of the course, learners will need to know why they are asked to have this course, what are the outcomes, the content, and the duration of the course so they can plan their day accordingly. All this information will be included in one short, attractive video that ends with learning outcomes. Please click on the picture below to watch the trailer video of the course.



In order for our company to excel in today's ever-changing world, we're excited to announce a new

Professional Development Online Course

that will make it easy and simple for us to grow, evolve, and innovate.

Or visit: <https://www.powtoon.com/s/efQgY7514GL/1/m>

Access skills Questionnaire: (prior knowledge)

Before designing the learning plan we will test the learners' access skills and their expectation from the offered course by sharing a survey with the target learners to ensure the quality of the course, presenting new knowledge to the enrolled learners, and having their interest in the course which is the starting key success of their engagement in the course. We chose a random sample (ten employees) and collected the quantitative data from them, the link to the survey:

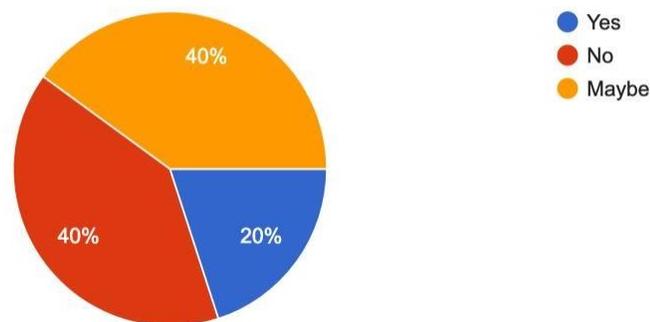
<https://docs.google.com/forms/d/1Wfmep6SQ9n0ibvm6VDj1Hg6BzDRil48UkVBSBEFBqw/edit?usp=sharing>

Based on the feedback of the survey, we found the following quantitative data:

- 1) 40% of the respondents cannot complete their assigned tasks on time and a similar percentage shows that they are not sure, as shown below:

Do you complete all the assigned tasks on time?

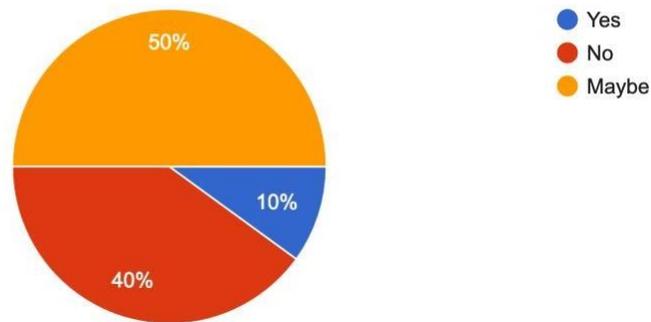
10 responses



- 2) 40% of the respondents don't know how to prioritize their tasks and 50% are not sure, as shown below:

Do you know how to prioritize your tasks?

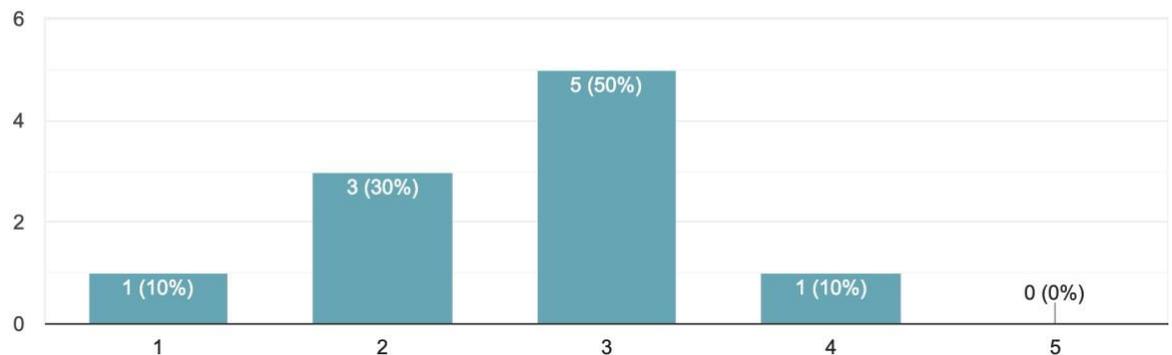
10 responses



- 3) 50% of the respondents have a rate of 3 out 5 in terms of having a life-work balance and 0% are having perfect life-work balance. As shown below:

On a scale of 1-5, how would you rate your life-work balance?

10 responses

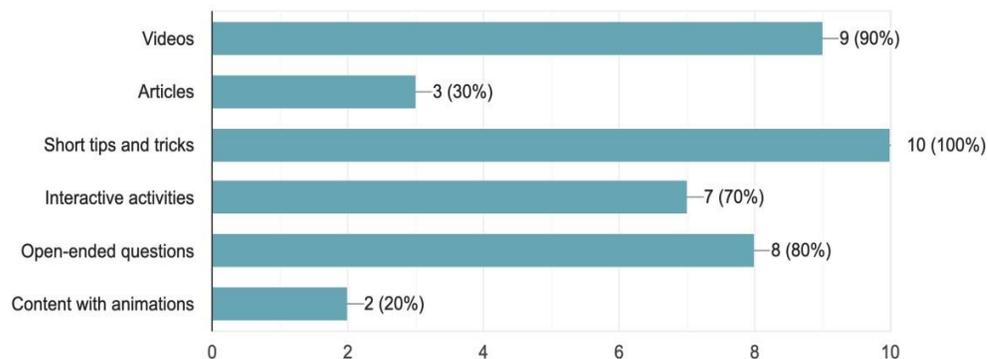


- 4) New skills and more knowledge about the topic were the main answer to this question “what do you expect to learn from this?”
- 5) 100% of the respondents prefer to have tips and tricks in the content of the course and 90% goes for videos, as shown below:

In General, What type of activities or materials do you find them interesting in the online courses?

choose all that apply

10 responses



Analysis: DDDM of the questioner

Based on the qualitative data we collected from the random sample, our data-driven decision making will be: creating an online course that focuses on how to increase productivity at work and help the employees to have a good life-work balance, the content of the course will include mainly videos, tips and tricks, and open-ended question, the aim of this activity was to be able to create a suitable course that aligns with the learner's needs and current skills level which will help to gain their interest in the course and make it more engaging.

Activities

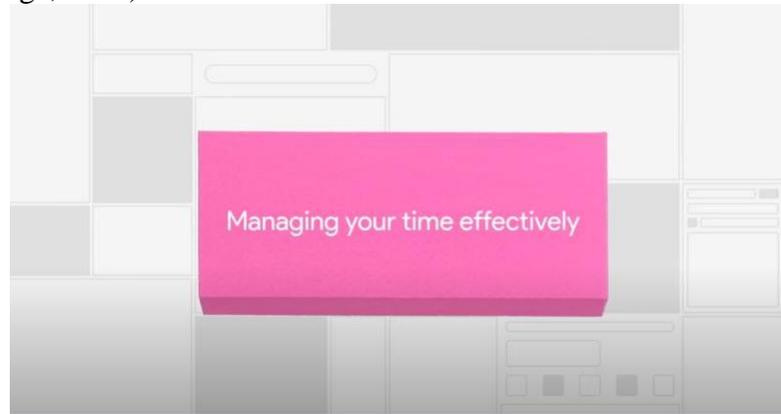
According to the feedback from the survey, our course will contain mostly videos, short tips and tricks, and open-ended questions, keeping into consideration the access level of the enrolled learners in terms of rating their life-work balance which is 3 on a scale of 5. The activities will be divided into two main parts, part one is the content of the online course which are considered as (present content) based on Gagné's Theory of Instruction this will take approximately an hour and part two will be the application and reflection after completing part one and this will take a week as mentioned in the trailer video. The content of part one will include the following:

Present content

Video

“Constructivism seeks to tap into and trigger the student's innate curiosity about the world and how things work”. (Harasim, 2017). Therefore, at the beginning of the course, the learners will watch an attractive, short video that includes animation, music, and short sentences, this will trigger the learners' attention to the content of the video without having

them board because long tutorial videos can lead to boredom rather than engagement. Please click on the image below to watch the video or visit: <https://youtu.be/nmYIVDZOeRI> (Google Digital Garage, 2017).

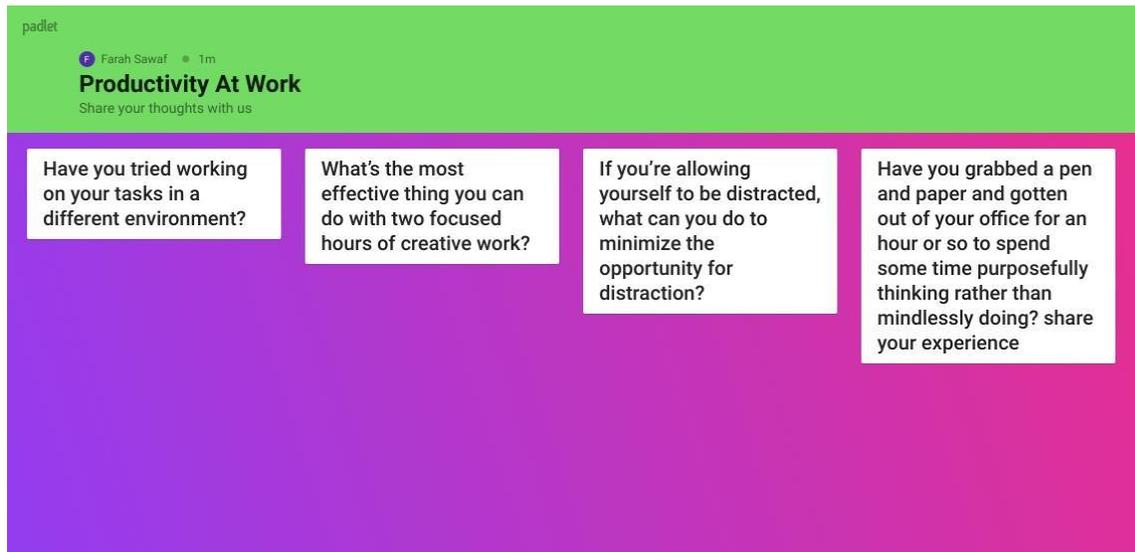


Tips and Tricks (provide guidance)

Although the video above has presented great ideas about organizing the work tasks, learners must dive deep into the concept and explore more related ideas, thus in this part, we will help the learners to call the stored information and connect them with the new ideas that are represented in this part of the activity, the tips will include some suggestions about the Apps that the employees can use to organize their daily to-do list, and to make it easy for the employees who have basic digital competency we will suggest friendly use apps at this stage such as Google Keep. This app can capture any input with a different format and organize them in one checklist, the user can arrange these inputs based on priorities per day, per week, or per assignment. Also, the users can import/export these checklists to other Google Apps such as Google Docs and Google Slides. When the learners find effective suggestions that are applicable, easy to be used, and available for free they will be more engaged and interested in our course. Which can lead to the desired results and the outcomes of the course.

Open-ended questions (practice and provide feedback)

As suggested in the literature review, one of the methods that help to increase the engagement of the learners is open-ended questions, we will create a Padlet that includes the following questions and asks the learners to put their thoughts into it. <https://padlet.com/farrooham/bm4sgj6q648zfy27>



Using a collaborative platform like Padlet will not only ensure engagement but also collaboration, brainstorming ideas, and sharing best practices. We focused on the collaboration part here to enhance social learning which is an active learning approach that represents student-centered learning. Also, it is connected to “Social constructivism” which emphasizes how meanings and understandings grow out of social encounters. (Harasim, 2017). In this activity, we will provide immediate feedback on each answer and ask the learners to give feedback to each other as well.

Assessment (assess performance)

At the end of this course, the learners’ understanding of learning outcomes of the course will be assessed and measured, here we will give them 5 tasks based on the nature of their work, these tasks including meetings, tasks with a deadline, admin work, and tasks that can be escalated to teammates and ask them to list these tasks based on their priorities and impacts of completing them on the work quality and the organization workflow. The learners will have a timeframe of one working day to complete these tasks successfully. And then they should not do any work-related assignments after the end of the working hours. We will ask them to use (Google Keep) to complete the assessment and then share their results by exporting the data to Google Docs and share it with us. This will be the formative assessment of the online course.

Reflection and application (enhance retention and transfer to the job)

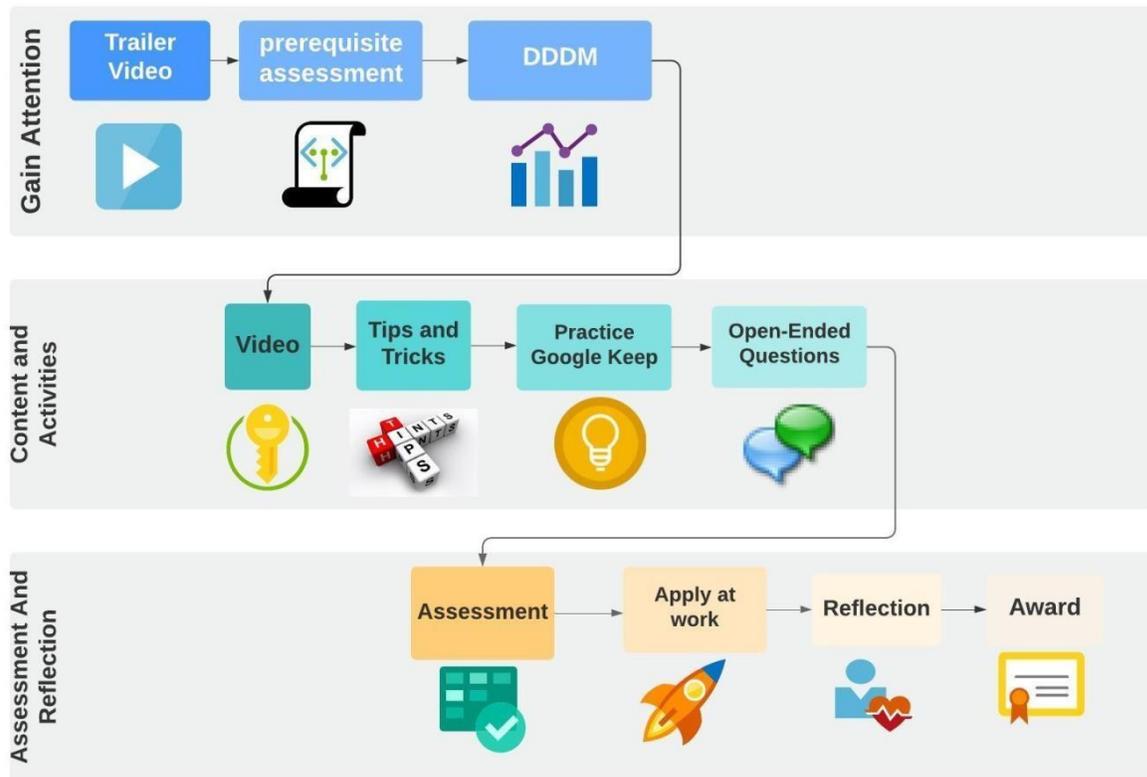
As mentioned in the trailer video, the learners will have a one-week duration to apply the knowledge and skills gained from the professional development online course, at this period we will keep observing their performance in terms of productivity and quality of their work, this will be measured by the line managers as well. Also, and we will hear from them and their families and friend and check what kind of impact does this course have on their personal life, and whether their life-work balanced has been improved or not and what kind of support do they still need in this matter. By the end of this part, the learner will award a certificate of completion of the online course successfully. And this will be the summative assessment of it.

Illustration of the learning plan

In order to successfully visualize and construct our learning plan, we will create a concept map that will include all the activities of part 1 and part 2 of the professional development course, the concept map will help also to organize our ideas and identify the learning gaps if there are any. We will use the Lucid chart App to design our learning plan illustration as follows:

Concept map

The following concept map represents the learning plan for the “Increasing Productivity At Work” online professional development course.



<https://app.lucidchart.com/invitations/accept/1dfec97b-8d18-4446-8425-9bd93f8b9dd9>

In the above concept map, we illustrate the learning plan of part one and two, we divided our concept map into three main events:

1. Preparation period (gain attention): this period is before the release of the online course which includes sharing the trailer video that includes the purpose of enrolling the employees in this online course and what are the learning outcomes. Also, assessing their current knowledge and skills will be during this period followed by the data-driven decision-making process which will be used to create the instructional materials according to its results.
2. During the course (Content and Activities): at this period, we will present the content of the online course based on the learning outcomes and the DDDM, these materials are Google Garage video, Tips and Tricks, using Google Keep and the open-ended questions.
3. After finishing the online course (Assessment and reflection): At this period the learner's understanding of the online course will be measured in three ways, theoretical assessment, application at work and the reflection, and collecting feedback from the line managers, family members, and the employees themselves.

At the end of applying the learning plan successfully, the learners will be awarded completion certificates.

Conclusion

From the evidence provided, the development of Online courses enhances the learning process since it is convenient for learners. Therefore, this learning program can be used to educate adults, especially the employees, to develop an interest in participating in professional courses required to be completed by their employers. Besides, constructivism learning theory supports the connection of learning with personal knowledge and experiences that promotes reflection and improves the learning experiences and outcomes. These two aspects will facilitate self-initiated learning development among adults and employees to engage willingly in professional courses. Constructivism learning theory supports adult learning since it enables learners to develop self-reflection, connect ideas from prior experiences and knowledge, change the way they understand an issue or concept, and connect their learning to societal problems or issues. (Buelow et al., 2018).

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Hotel Risk Management

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Abstract

Introduction: Risk management is an increasingly important topic for hotel operators when one considers the soaring costs of lawsuits and insurance.

Objectives: This study looks at the way in which hotel operators can effectively manage risk and insurance coverage through getting maximum mileage out of every insurance-premium dollar by purchasing only the types and amounts of insurance that are needed and eliminating duplication and excess coverage.

Methods: By effectively managing risk and insurance coverage, the hotel operator is able to get maximum mileage out of every insurance-premium dollar by purchasing only the types and amounts of insurance that are needed.

Results: There are four steps in the risk and insurance management process that a hotel manager should follow: Risk Identification- which includes asset or property risks, income risks, legal liability risk, and losses of key persons; Risk Measurement and Evaluation, i.e., projecting the frequency and severity of losses; Risk Reduction or Elimination-eliminating or reducing risks by making procedural changes or by means of loss-prevention programs; and Risk Finance Determination- ensuring there are enough funds available after any loss to function and maintaining a reasonable level of income.

Certain types of insurance are necessary in order to control a hotel's property risks: Fire Insurance, Liability Insurance, Umbrella Liability, Worker's Compensation, Life Insurance, Crime Insurance, and General Insurance. Optional coverages can include extended coverage to cover property damage, vandalism and malicious mischief, glass insurance, sprinkler leakage, problems with boilers and machinery, and earthquakes.

Conclusions: Organizations can create a risk-aware culture by establishing risk management objectives that are measurable and establish accountability; establishing an infrastructure for risk management; empowering business areas/departments to be responsible for managing risk in accordance with the organization's risk management approach—reward risk optimization initiatives; communicating commitment to risk optimization by the board and its committees; communicating and training management and staff in risk identification and avoidance techniques; and continually identifying and filling gaps in the risk management process.

Key words: Risk management; insurance coverage; hotel operations

1. Introduction

The contemporary hospitality and tourism industry, like other companies today, is characterised by complexity and volatility. As a result, no business can fully understand and precisely forecast the processes taking place in the background. Nor can it predict the future of its operations or the consequences of decision-making. Uncertainty is a constant feature of any economy; thus, every business undertaking is burdened with risk. Risk in business is inescapable and objective. It is an immanent characteristic of all processes (Bednarska, 2004, p. 43).

Therefore, risk management is an increasingly important topic for hotel operators when one considers the soaring costs of lawsuits and insurance, that is, higher deductibles and increased premiums for less coverage. Before the 1980s, insurance premiums were considered a routine cost of business. Suddenly, owing to a number of factors-among them generous court awards and poor management of insurance companies-insurance premiums doubled and tripled for all types of businesses and professions, especially in health care and medicine.

When insurance is purchased, the possibility of a large loss is traded for a relatively small but certain premium. By effectively managing risk and insurance coverage, the hotel operator can get maximum mileage out of every insurance-premium dollar by purchasing only the types and amounts of insurance that are needed, eliminating duplication and excess coverage (Yee, p. 426).

In view of the above, risk management becomes more and more important. With the progression of globalisation and more and more intense competition in the tourism market, the need for professional diagnostics and active risk control in the hospitality industry is an imperative.

According to Business Dictionary.com, risk management is the identification, analysis, assessment, control, and avoidance, minimization, or elimination of unacceptable risks. An organization may use risk assumption, risk avoidance, risk retention, risk transfer, or any other strategy (or combination of strategies) in proper management of future events.

Some traditional risk managements are focused on risks stemming from physical or legal causes (e.g., natural disasters or fires, accidents, deaths, and lawsuits). Financial risk management, on the other hand, focuses on risks that can be managed using traded financial instruments.

The objective of risk management is to reduce different risks related to a preselected domain to the level accepted by society. It may refer to numerous types of threats caused by the environment, technology, humans, organizations, and politics. On the other hand, it can involve all means available to people, in particular, a risk management entity (person, staff, or organization).

2. The Risk Management Process

There are four steps in the risk and insurance management process that a hotel manager must follow (Gee, p. 427):

- 1. Risk identification**
- 2. Risk measurement and evaluation**
- 3. Risk reduction or elimination**
- 4. Risk finance determination-how much risk to retain and how much to insure**

The risk management procedure is illustrated in figure 1 below:

Figure 1: Risk Management Procedure



2.1 Risk Identification

This is the key to the entire analysis process. It involves a thorough review of all business assets and resources -- human, financial material, and environmental. Then a list of the potential exposures to loss is compiled.

The risk identification process may be relatively simple or highly complicated, depending on the size and scope of the hotel and its operations. Some elements of risk are easily identified, such as ordinary hazards which may be caused by impaired facilities, sidewalks, and equipment. Other types of risk, for instance, possible negligent acts by employees, are less obvious.

The main categories of risk are:

- **Asset or property risks.** These are highly visible and include loss exposure to fire, explosion, crime, or natural disasters, such as hurricanes, floods, or earthquakes.
- **Income risks.** Income loss usually accompanies property loss and may occur if business is interrupted by an accident. In these cases, the loss is twofold: loss of revenue because of business interruption and additional expense to rebuild or repair. To identify income risks, the risk manager (Appendix A) considers the effect of an equipment breakdown, a power failure, or the loss of a key employee or supplier, as well as other factors that could stall operations.
- **Legal liability risk.** These are harder to identify but can be more devastating. Huge awards are being won in consumer and other individual lawsuits and in class action suits. A hotel is liable to its employees, its guests, and, in some instances, to the general public, such as when its transportation vehicles are on the road. To identify these exposures, a hotel risk manager must consider all possible contingencies: What if a guest or employee falls down the stairs and sues? What if a guest breaks a tooth on a olive pit while eating olive pie?; What if a guest gets injured while swimming?
- **Loss of key persons.** A key person is one whose skills, knowledge, or special qualities are not easily replaced and whose presence is essential to the reputation or visibility of the hotel. The loss of a key person can, therefore, be costly to a hotel. In the case of an owner, it can mean closure. Obviously, identification of such risks is important.

Many hoteliers strive to improve their risk management programs by training supervisory personnel and other employees to identify potential risks or hazards. Employees might be designated “unit

risk managers” in each area of a hotel. For instance, “unit risk managers” in the kitchen, restaurants, and public areas could report problems that they and their co-workers uncover. Risks to guests or employees might be posed by new or defective equipment, poor lighting or walkways, floors, doors, or other facilities in disrepair.

2.2 Risk Measurement and Evaluation

The objective here is to project the frequency and severity of losses. Some large hotel companies maintain detailed computer-based data on all their losses, including such information as location, time, cause, and financial impact. In many industries, incident reports have become a key element in identifying loss trends. Trends also can be disasters in national statistics on types of losses, records of natural disasters in certain geographic areas, and studies of judicial decisions in liability cases. Located in an earthquake area, the Cyprus Government Office, for instance, keeps charts of earthquake patterns and meteorological data of hotel areas for internal safety and security planning purposes.

Hotels may be able to apply information available through trade associations and obtain guidance from their insurance agents or brokers, who should have experience in commercial risk management. Insurance companies usually are happy to provide whatever guidance they can.

2.3 Risk Reduction or Elimination

Some risks, especially those pertaining to physical safety, can be eliminated simply by making procedural changes. Risks that cannot be eliminated can be reduced by means of loss-prevention programs. Controlling losses cuts insurance costs and reduces the often-hidden costs of losses that are difficult to measure, such as the value of management time devoted to restoring normal operations after a major loss.

For instance, fire exposure can be limited by smoke and sprinkler systems and by enforcement of no-smoking rules in hazardous areas. Burglary and vandalism can be discouraged by installing spotlights and alarm systems and by employing security officers where appropriate. Employee injuries can be reduced through preventive maintenance of equipment and work areas, especially kitchens, and by posting clearly written instructions for the operation of equipment (Appendix B). Employees should also be required to use safety precautions in hazardous areas.

One of the most rewarding loss-control projects is training personnel to think in terms of accident and loss avoidance. Teaching personnel how to deal with accident victims can also pay dividends in terms of reduced liability exposure. When injured people are treated rudely or with indifference, they are much more likely to seek retribution.

Meticulous maintenance is an important loss control measure. Many insurance companies have loss control departments staffed with engineers and safety experts. Often, their services are available to commercial policyholders to help reduce losses. Using these services may reduce premiums, because the insurer is likely to pay in claims.

2.4 Risk Finance

The goal of risk finance is to have enough funds available after any loss to function and maintain a reasonable level of income. Financing decisions center on how much risk a hotel is willing to assume and how much risk it will transfer to someone else.

In some cases, the hotel operator might decide that the company can absorb certain relatively small recurring losses. In other cases, a hotel may have experienced certain kinds of losses so infrequently that management is willing to absorb them when they occur.

For example, assume the drivers of a hotel's transfer vans have established exemplary safety records. Their routes are over quiet streets with no traffic congestion and the vans are almost fully depreciated. The company decides to eliminate collision insurance and absorb the cost of possible damage to the vehicle, for, in assuming this risk, potential costs are minimal. Liability insurance, on the other hand, is retained because the risk of liability growing out of injury to others or damage to their property remains the same regardless of the value of the vans.

When a hotel engages a contractor for repairs, alterations, construction, or some ongoing service such as maintenance, the hotel manager should make certain that the contractor has appropriate and adequate insurance. To protect the hotel, the manager should consider requiring a hold-harmless agreement covering specific risks, and ask for full documentation, such as comprehensive contracts and certificates of insurance.

The best way to manage risks in the hospitality industry is to try and estimate the expenses associated with the risk and then to distribute the risk so that all can attempt to make a profit but stand together in the likely event of a loss. It also pays for hospitality and allied industries to invest in increasing tourist locations so that better returns can be generated from events.

3. Types of Insurances

According to Gray and Liguori (p.176), a hotel owner must consider the following types of insurances in order to control its property risks:

- Fire Insurance
- Liability Insurance
- Umbrella Liability
- Worker's Compensation
- Life Insurance
- Crime Insurance
- General Insurance

3.1 Fire Insurance-Building and Contents

When the same individual or company both owns and operates a hotel, both building and contents are usually included under one fire insurance policy. If the owner and operator are not the same, each should insure his own property. Tenants owning contents usually have an insurable interest in any improvements made to the property, and this interest may be covered in the same policy as the contents.

There are Optional Coverages that may be added to the building and/or contents policies, including the following: Extended Coverage; Vandalism and Malicious Mischief; Glass Insurance; Sprinkler Leakage Insurance; Boiler and Machinery Insurance; and Earthquake Insurance

3.2 Liability Insurance

Hotels are particularly susceptible to claims for alleged injuries. The lobbies, corridors, guest rooms, and bathrooms are all potential danger spots. It is impossible to monitor every action of the many people -- general public, guests, and employees -- that pass through these areas every day. Obstructions on the floor, carpets cut or frayed, and chipped fixtures are just a few of the many hazards that can and do lead to accidents. Thus, a hotel should buy the broadest liability coverage that is available, i.e., a comprehensive general liability policy. In addition, most hotel operators add by endorsement some of the optional coverages offered by insurance companies.

Comprehensive policy insures a hotel against all claims for injuries sustained on the premises or resulting from a hotel's business activities by any person other than an employee performing his or her duties. When a hotel owns and operates automobiles, either for the convenience of its guests or for business purposes, it is advisable to purchase automobile insurance from the same company to provide overlapping coverage. Some of the usually insured optional risks are these:

1. Product liability protects against claims for bodily injury or property damage caused by the consumption of food, beverage, or other products processed or sold by the hotel operator.
2. Garage coverage is necessary where a hotel maintains a garage or parking lot for the convenience of guests and the general public. Two specific types of coverage are necessary:
 - Automobile garage liability protects against any liability for bodily injury and property damage to others caused by an accident on the premises.
 - Garage keeper's legal liability covers for fire or theft of stored vehicles.
3. Automobile insurance should be carried for any motor vehicle owned by a hotel and operated for the convenience of the guests or as part of the hotel operation. All available coverage should be obtained, including the following.
 - Liability insurance against claims from guests or the general public for bodily injury or property damage resulting from the operation of business automobiles, trucks, or buses.

- Comprehensive insurance against loss by fire, theft, or other physical-damage hazards, including glass breakage.
- Medical payments to guests or others, except employees, who are injured while riding in the hotel-owned vehicles.
- Non-ownership (contingent) liability coverage can be included by endorsement. This covers the liability of a hotel whenever an employee's car is used for hotel business. If the hotel occasionally hires cars to transport guests or for any other business purpose, coverage for any liability arising from that use should also be included under this endorsement.

3.3 Umbrella Liability

Umbrella liability insurance is now commonly used for several reasons. Settlements, and particularly awards by juries in cases involving personal injuries, have become exceedingly generous, almost unreasonably so. Primary liability coverage is costly and it is difficult to insure against all contingencies. As a result, umbrella insurance is almost essential for complete protection. It provides excess limits and protects hotels from all exclusions and gaps in its primary liability policy or policies. This coverage becomes effective only when the limits in the primary liability policies, including workmen's compensation, have been exhausted or a claim develops from a risk that was not covered. This is the most economical way to obtain high-limit and broadened liability coverage and virtually eliminates any danger of "catastrophic" losses.

3.4 Worker's Compensation

This legally mandatory coverage provides for the cost of medical care and weekly payments to employees suffering job-related injuries or payments to dependents of employees killed at work, regardless of fault.

It is mandatory in many countries and provides compensation in amounts as prescribed by law.

3.5 Life Insurance

To reduce the financial loss resulting from the death of a key employee, hotel companies can buy insurance on that individual's life, naming the business as the beneficiary. In the event of death, the hotel business can use the proceeds to offset any resulting financial loss.

3.6 Crime Insurance

In order to properly service their guests, hotels must keep large sums of cash on hand at all times. Cashiers in many locations -- front office, restaurants, bars, garages, and so on -- need sufficient funds to meet the guests' normal requirements and, in addition, the general cashier must keep a substantial cash reserve to replenish these funds. Thus, the hotel is susceptible not only to employee theft, but to armed robbery as well. Many insurance companies offer blanket crime policies, which offer complete coverage on a package basis. Individual policies are also available. Total coverage

for the full amount of these losses has become almost non-existent, since premiums would be too high, so most policies include a deductible.

The following are the principal risks and types of coverage required to insure against them. They are listed separately to describe them more easily, not to imply the need for individual policies.

1. Money and securities insurance covers losses in or away from the premises caused by destruction, mysterious disappearance, or theft, other than by an employee, of any money and securities belonging to the hotel. Coverage can also be broadened to include damage done to premises and equipment, loss of securities in safe-deposit boxes, or forgery of outgoing instruments.

2. Hotelier's liability insurance against loss due to any damage or destruction of guest property within the premises or in the custody of the hotel. The legal liability of the hotel as defined by the statutes is usually posted in the front office next to the elevator door on each floor and in other conspicuous places throughout the building.

3. Miscellaneous coverage is also available for money orders and counterfeit paper currency, depositors' forgery and legal liability over the statutory amounts for property deposited by guests in the safe-deposit boxes.

3.7 General Insurance

Insurance policies are available to cover practically every conceivable type of loss. Only through a careful study of the requirements of each property can proper coverage be assured. Some hotels, particularly the older ones, have valuable paintings, etchings, or tapestries hanging in their lobbies or other public areas. Others may display statues or other works of fine art. These hotels should consider a "fire arts" policy, which insures them against all risks with minor exclusions. There is also available a musical-instrument floater to cover any such items owned by the hotel. Losses due to damage or destruction of valuable papers and records, caused by an insured hazard, may also be covered. Hotels insuring against these risks usually include losses from accounts receivable that become uncollectible owing to damage or destruction of records.

A type of coverage that should be included in every well-planned insurance program is business interruption or use-and-occupancy insurance. Serious fires or other catastrophes resulting from insured hazards can partially or even completely halt the operation of the hotel. With this type of coverage, the hotel is reimbursed for the loss of earnings, continuing charges, and expenses, including payroll, until the premises are restored and business resumes. Payroll may be completely covered, covered for a specified number of days, or excluded.

4. Managing Insurance Costs

4.1 Coverage

Insurance costs represent a major cost item of expense, yet few executives can properly evaluate the insurance requirements for their hotel. Thus, they must rely on and accept the recommendations of an insurance buyer, an outside broker, or a member of the hotel's staff. Entrusting this function to an otherwise qualified person who has no hotel experience can lead to complaints by top executives: "We spend thousands of Cyprus pounds for insurance, yet whenever we incur a somewhat unusual loss, we are not covered", a Cypriot hotelier stated.

To entirely avoid this situation is almost impossible. No broker can, or would try to, cover every conceivable risk. In the last few decades, premiums for full coverage have risen so rapidly as to be almost prohibitive. As a result, many hotel operators have become self-insurers, by participating in any losses through the use of deductibles. Some of the major hotel chains have even discontinued coverage on certain risks and assumed full liability for claims arising from them. Under these plans, the hotel operators assume full responsibility for any claim settled for less than the amount of the deductible. On settlements exceeding that amount, the insurance company pays only the excess, with the operators paying or absorbing the full amount of the deductible. Obviously, the larger the deductible, the smaller the premium.

A well-planned insurance program can substantially reduce expenses. The first step is to list the major classifications and amounts of insurance required for proper coverage. Then, the various options offered with each type of insurance should be carefully analyzed, the risks evaluated, and the possible losses compared to the premiums. The recommendations to management should be accompanied by a detailed explanation of how the amounts listed for both total coverage and deductions, if any, were arrived at. The report should also list any known uninsured risks and, of course, the reasons for not insuring against them—for instance, that coverage was not available, or costs were considered excessive. Only with all the facts can management make an intelligent decision and avoid being surprised by the expense resulting from a claim or loss (Gee, p. 430).

4.2 Planning

Planning should be started four or more months before coverage expires, with the goal of developing a clearly articulated insurance package, assembled with the help of an agent, broker, or another adviser.

4.3 Control

Efforts should be made to do more at the hotel to reduce or eliminate loss exposures. One way to do this is by strengthening employee training. For instance, losses from armed robbery, employee theft, mysterious disappearance of money or securities, and the like, are normally immediately ascertainable and therefore require no estimate of further settlements. However, all policies related to liability or theft share a common denominator. Losses, and therefore premiums, can be reduced

at very little additional cost through employee training programs. Only management participation and active interest are needed to ensure their success (Gray and Liguori, 1980, p. 183).

Most accidents are caused by human error and are avoidable. Carelessness, failure to remove obstructions or report hazards because of lack of interest or inability to recognize them, and improper work habits in lifting or carrying heavy objects can all cause accidents. A hotel manager can assign the overall responsibility of the personnel manager to initiate, coordinate, and supervise these training programs. Well-trained employees are less accident-prone and contribute more to public safety than do poorly trained workers.

Upgrading equipment and facilities, installing or improving fire and crime prevention and detection systems, installing more sophisticated locking systems, and preparing contingency plans for emergencies can also help reduce or eliminate loss exposures. Reductions in insurance premiums include discounts for installation of loss-reduction and safety devices and systems.

4.4 Eliminating Duplication

The resort's insurance portfolio should be purged of all duplications of coverage. For example, umbrella or excess liability policies set minimum requirements for the insured's other liability coverages. Coverage beyond these minimums means that the resort pays for unnecessary insurance.

4.5 Self-insuring

The hotel should consider the economic feasibility of increasing its own risk retention simply by assuming larger deductibles that bring bigger discounts. Careful consideration, however, must be given to the costs versus benefits of accepting more risk for lower premiums.

4.6 Enhancing Buying Power

For hotel chains, buying power can be enhanced by grouping all properties together. Small, independent properties may be able to obtain similar benefits by working through trade associations or by persuading other operators to join in forming a buying group. With enhanced buying power, a hotel could have bargaining strength to win discounts from insurers, particularly if it can show how administrative and business acquisition costs will be reduced. Even if grouped together to enhance buying power, however, most insurance must still be calculated and purchased on a property-by-property basis, taking into account the peculiarities of each hotel's physical structure and operations. Figure 2 lists the steps involved in purchasing insurance economically.

Figure 2. Buying Insurance Economically

1. Decide which of the different kinds of risk protection will work best and most economically for you.
2. Cover your largest loss exposure first, the less severe or more frequent as your budget permits.
3. Make proper use of deductibles.
4. Review your insurance periodically.
5. Check the market occasionally to see if you are getting insurance for a reasonable price.
6. Analyze insurance terms and provisions.
7. Insure the correct exposure.
8. Investigate whether or not you can assume certain administrative duties required by your policies.
9. Buy your insurance in as large a unit as possible.
10. Have your agent check to see that your exposures are stated so that you are eligible for the lowest available rates.

5. Conclusion

Risks are inherent in every facet of hospitality operations and can range from turnout of clients to the risks associated with litigation as a result of personal or property damage. Risks need to be carefully considered with regard to and the probability of their having an impact on an organisation. However, it is best to spread the financial risk amongst businesses and to present a united attempt to attract tourists and clients to the hospitality industries.

Most important, a successful, well-executed strategy can bring about increased customer comfort and, ultimately, higher revenue. Successful hotel organizations take calculated risks to achieve their objectives. They weigh opportunities against threats and act decisively. In other words, risk management can become a strategic competitive advantage to help hospitality organizations shift their focus from crisis response and compliance to evaluating risks in business strategies proactively.

Some critical success factors that should be included in a risk management program include (Queiroz, 2001, p. 2):

- The need to create a risk-aware culture throughout the organization;
- Establish risk management objectives that are measurable and establish accountability;
- Establish an infrastructure for risk management;
- Empower business areas/departments to be responsible for managing risk in accordance with the organization's risk management approach—reward risk optimization initiatives;

- Communicate commitment to risk optimization by the board and its committees;
- Communicate and train management and staff in risk identification and avoidance techniques; and
- Continually identify and fill gaps in the risk management process.

Hotel guests demand high-quality goods and services at competitive prices, while investors expect outstanding performance and growth from their stocks. This puts heavy pressure on hotel owners, boards, and management, who can no longer rely on old, established strategies and practices. They need to do a better job of taking and managing risks at the hotel property level.

APPENDICES

APPENDIX A – Risk & Security Manager

POSITION: Risk & Security Manager*

DEPARTMENT: Safety & Security

REPORTS TO: General Manager/Executive Assistant Manager

SECURITY:

- Directs and administrates the operation of the Hotel’s Department.
- Oversees patrol of premises by security personnel to discourage intrusions and detect activities or conduct detrimental to the security of persons and property.
- Reports to management any distributing or hazardous conduct, fraud, theft, or violence on the part of guests, patrons, or employees.
- Confers with department heads concerning security measures and employee conduct.
- Works closely with Credit Department, Auditor, and Assistant Manager regarding suspect guests, bad checks, or fraud. Procures warrants for the arrest of persons defrauding the hotel or misappropriating property. Represents the hotel in court proceedings, assisting legal council as necessary.

SAFETY:

- Formulates, administrates and, evaluates the effectiveness of the safety program, making necessary changes and recommendations in the accident prevention programs.
- Submits directly to the General Manager regular reports on the status of the overall safety of the hotel.
- Acts in an advisory capacity on all matters pertaining to safety as required for the guidance of management in all departments.
- Makes personal inspections and supervises inspections by his staff and by special employee committees for the purpose of discovering and correcting unsafe conditions or unsafe work practices before they cause accidents.

- Assists supervisors by disclosing principal hazards and unsafe practices which necessitate training of employees.
- Controls and supervises all fire prevention and firefighting activities.
- Sets standards for all safety equipment and personal protective clothing used within the hotel property as per the National Institute of Occupational Safety and Health.
- Approves designs of new equipment regarding safety and liability.
- Recommends provisions for safety in plans and specifications of new building constructions and/or repair remodelling of existing structures.

* Source: This information was obtained from the Hilton International Corporation.

APPENDIX B

General Safety Precautions

According to Ninemeier (1986), the following general safety precautions should be used by all food service employees whenever they work with food service equipment:

- **Make sure that lighting is sufficient.** Use good lighting -- at least 30 foot candles in all work areas.
- **Make sure that ventilation is sufficient.** Use adequate ventilation (hood and filters) for all working equipment.
- **Inspect equipment.** Conduct regular and detailed inspections of all food service equipment as an integral part of ongoing preventive maintenance programs. These inspections should be made by people from the equipment supply company or by utility service personnel.
- **Make sure that all equipment conforms to codes.** Ensure that when purchases are made all electrical equipment and connections conform to the national electrical code requirements. Likewise, all gas connections should conform to national, state and local requirements.
- **Cool equipment.** Normally, cool cooking equipment before cleaning
- **Be careful with gas equipment.** Use special precautions when lighting gas cooking equipment.
- **Properly maintain equipment.** Improper maintenance can lead to unsafe working conditions.
- **Disconnect equipment.** Equipment should be disconnected from power sources before cleaning whenever possible.
- **Follow correct equipment operation procedures.** Do not take shortcuts when operating potentially hazardous food service equipment.
- **Train new employees.** They should be carefully supervised during orientation and early training periods to ensure that proper procedures are followed and that they are not using shortcuts which violate basic safety procedures. Employees should know how to use, maintain, and clean equipment.

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Learning Theories for Online Education

Hessa Alshamsi, Dhababa Almazroei, Salman Hussain, Hanifa Aldarmaki, and Huda Alyammahi
HBMSU Learners

Introduction

The new school model adopted by the U.A.E. in education applied in the first cycle curriculum, requiring students to move to the next grade with their peers regardless of their failure in the exam. In addition to that, this model considers that meeting all students' educational needs is the school's responsibility. For teachers, this new model follows a comprehensive, student-centered methodology.

Statement of Purpose

We conducted a study on students' level of grades (1-4) in the Arabic language in reading and writing skills in the academic year 2019-2020. During this study, we collected information about our students' level through (class observations - student work - questionnaires - parent interviews - analysis of student test results). It was noticed that 60% of the students in the first cycle in grades (1-4), both males and females, and their ages ranged from six to nine years old, have weakness in reading and writing in the Arabic language. The Arabic language teachers indicated that they took into account individual differences in the classroom environment through worksheets, extra resources, and student-centered strategies. They felt a slight improvement in the students reading and writing skills, which confirms that more support will benefit them. A questionnaire distributed to parents and students indicated that the main reason for students' weakness in the Arabic language is their unwillingness to read due to duties, study burdens, exams, and the absence of element suspense enthusiasm in education.

The curriculum expects students in for Cycle 1 grade (1-4) to be competent in literacy learning. At this stage, students are expected to engage the curriculum materials actively, draw meaning, and express their understanding of the literature provided through such forms as writing comprehensive essays. Therefore, this learning plan intends to address this learning gap by improving the Cycle 1 grade (1-4) students' literacy reading and writing skills.

This project aims to activate electronic resources in education, specifically gamification, to improve reading and writing Arabic for the first cycle grades. Our idea is to use the Nahla wa Nahil platform to improve students' learning in Arabic, improve teaching quality, and determine students' achievement and motivation.

Problem Statement

Learning design aims to bridge the literacy gap of elementary students from grade (1-4) in the U.A.E. The design aims to provide a robust learning environment where students can easily catch up with the curriculum, keeping up with the literacy curriculum's requirements and elements, including reading and writing.

The curriculum expects students in Cycle 1 grade (1-4) to be competent in terms of literacy learning. Students are expected to engage in proper reading and writing actively, engage literature presented to them, analyze and summarize the short stories presented, and construct cohesive essay writings from their curriculum materials. At this stage, students expected to engage the curriculum materials actively, draw meaning, and express their understanding of the literature provided through such forms as writing comprehensive essays.

Therefore, this learning plan intends to address this learning gap by improving the literacy skills of the Cycle 1 grade (1-4) students through improving their reading and writing skills.

The objective of Learning Design

This learning plan (gamification) aims to equip Cycle1 grade (1-4) students with the matching literacy skills as stipulated in the k-12 curriculum. Gamification will help students improve their analytical and deductive skills and comprehensive reading and writing skills.

Part One: Literature Review & Nahla wa Nahil Platform

The debate about the prevalent literacy gap among elementary students in the U.A.E. has been on the rise. While the country's education system continues to improve, there are still concerns about whether this improvement is reflected in students' literacy levels as it is in the Arabic subject.

Recent efforts by the government have seen the U.A.E. education system progressively shifted from public education institutions to private entities to improve the country's overall education outcomes. These efforts aim to attract foreign skills and human resources necessary to improve the country's education system. Of particular interest is how these foreign skills could improve learners' literacy skills across the U.A.E.

Interestingly, drawing from theories provide a clear framework upon which such learning plans can be designed. Pioneer learning theories such as cognitive and constructivism have focused on improving literacy gaps in the traditional face-to-face learning. For instance, cognitive theory stresses the role of the student's mind in his or her ability to write and read (Anderson, 2011). This theory stresses the student's cognitive development and abilities to grasp and improve their literacy skills. Social constructivist, on the other hand, sees learning as a collaborative effort between the student and the teacher (Anderson, 2011).

In this sense, mastery of literacy skills can mostly be achieved through constructive engagement between the students and the teachers. The two collectively create knowledge and help each other explain and discuss literacy concepts (Anderson, 2011). These traditional theories have proved useful in improving the literacy gap in the traditional learning setting.

However, with the increasing shift to online education, the need for new learning theories to provide a context within which literacy skills can be improved while learning online has increased. The Blending with Pedagogical Purpose Model is one such theory that has emerged to provide a framework for implementing online education (Bosch, 2016; Picciano, 2017). The theory stresses a blend of technology and pedagogy. It stresses the need for the two stakeholders, the teachers, and students, to interact with one another within the integrated/blended system. Together with its components, the model can improve students' literacy skills in online education.

The model is set upon an integrated technology and pedagogy system, yet pedagogical activities and objectives drive the approach. This author's proponent sees this modality of integrating technology and pedagogy as the most appealing to a wide range of students (Picciano, 2017).

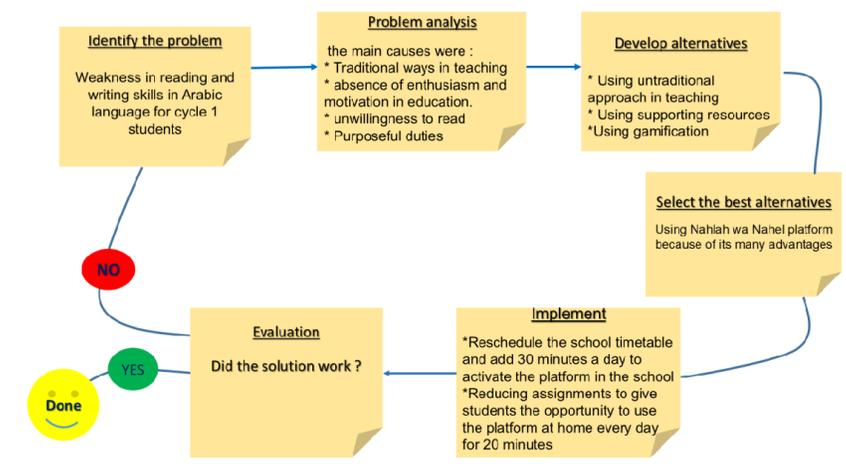
In this model, six primary pedagogical goals and approaches to attaining them define the learning process. These goals and approaches include content, social and emotional engagement, dialectic and questioning approach, evaluation, collaboration/student-generated content, and reflection. Here, pedagogical goals such as content consumption are attained through meetings (for instance, through zoom) and dialectic or questioning like the case with discussion boards.

In online literacy learning, course/learning management systems can provide rich visual contents that can prove useful in passing literacy skills to students. For instance, in the Nahla w Nahel platform, the module's canvas can be loaded with rich visual materials such as videos, texts, audios, and games, helping students learn literacy skills. Such an integrated learning system reveals the technology's effectiveness with a pedagogical purpose model in facilitating online learning of literacy skills.

Our plan

We can summarize our plan by using solving the problem cycle, as shown in figure 1.

Figure 1 - Solving the problem



Nahla wa Nahil Platform (Learning design theory)

The use of gamification in general and specifically the Nahla wa Nahil platform is supports the theories of education. For example, in the Nahla wa Nahil platform, students are rewarded with points, certificates, promotion from one level to a higher level. These incentives motivate them to respond to reading, and writing, which changes the student's behavior towards reading and writing for the better (Baranek, 1996).

This aligns with the behavioral theory, which focuses on stimuli and response. The platform also allows the students to solve many different assessments according to their levels and individual differences. These worksheets are based on the processes that occur in the mind, such as remembering, understanding, application, evaluation, analysis, and synthesis (Bloom levels). The cognitive theory focuses on the processes that occur in mind between the stimuli and the response. Nahla and Nahil platform teacher encourages students to solve the existing activities and use the resources on the platform, and his role is a guide and directing to them only. Students can ask questions, send them to the teacher, and add comments. Then the teacher can respond to students' inquiries and reflect on their works.

This applies to constructivism theory, which considers learning to discover and construct new ideas and experiences. Social constructivist, on the other hand, sees learning as a collaborative effort between the student and the teacher (Anderson, 2011). In this sense, mastery of literacy skills can mostly be achieved through constructive engagement between the students and the teachers. The two collectively create knowledge and help each other explain and discuss literacy concepts (Anderson, 2011). These traditional theories have proved useful in improving the literacy gap in the traditional learning setting.

However, with the increasing shift to online education, the need for new learning theories to provide a context within which literacy skills can be improved while learning online has increased. The Blending with Pedagogical Purpose Model is one such theory that has emerged to provide a framework for implementing online education (Bosch, 2016; Picciano, 2017). The theory stresses a blend between technology and pedagogy and stresses the need for the two stakeholders, the teachers, and students, to interact with one another within the integrated/blended system. Together with its components, the model can improve students' literacy skills in online education.

Prerequisite

Learners must have essential reading and writing skills in order to complete the lesson successfully. Similarly, Learners are required to have the necessary computer skills to be able to navigate through the platform, "Nahla w Nahel."

Learning Objectives

By the end of the lessons, learners at level (1) will be able to:

1. Recognizing all alphabets with long and short elongated letters
2. Writing simple words contain 3-4 letters.
3. Reading sentences consist of 3-4 words.

Assessment Plan

Learners will be assessed regularly where upon completion of a particular reading level, the teacher will send an assessment to the student. The student must record the text and answer the questions to determine the student's suitable reading level.

Teaching and Learning Activities

- Learners will engage in several activities.
- Reading and writing: First, learners will actively participate in class activities by reading the assigned stories and related work. Upon completing a certain reading level, learners will be required to take some assessment that will involve writing and oral presentation of the recordings through the Nahla w Nabil platform.
- Educational games: Learners will also be required to participate in educational games to earn points as they progress. This will precipitate class competition and learners' willingness to read more stories as they accumulate points.
- Assignment: Students will read stories sent to them as an assignment by their teacher and earn points and 'knowledge-power' if they read the stories and complete their activities.

Why do we have to use gamification?

Gamification motivates students to learn by using game elements in learning environments to achieve maximum enjoyment and participation by attracting learners' interest to continue learning. In the educational context, gamification can affect the student's behavior by motivating him to attend class with greater desire and longing, focusing on useful educational tasks, and taking the initiative. What distinguishes gamification and makes it more acceptable is its possession of four freedoms, as mentioned in the World Summit of Governments (Oxford Analytica, 2016), which are:

- Freedom to Failure: Games allow mistakes to happen without consequences.
- Freedom to experiment: games allow discovering new strategies and information.
- Freedom to take different positions: the games encourage players to see problems from a different perspective.
- Freedom to exert effort: Games allow for phases of intense activity and relative stagnation.

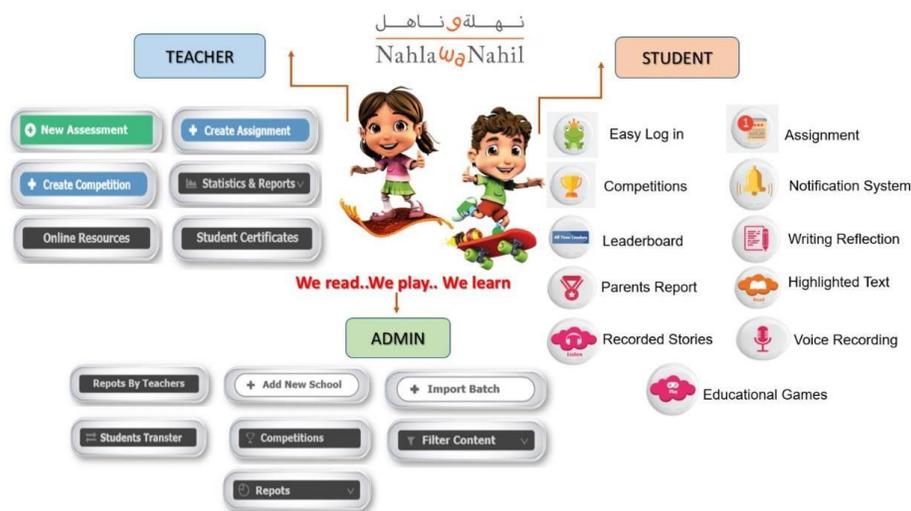
What is the special in the Nahla w Nahel platform?

The platform is an application to teach reading, writing in Arabic. It is an interactive application characterized by many stories and books in the Arabic language (1000 stories). This platform is intended for the teacher, student, and parent. It presents games that develop thinking, increase language inventory, address low reading, writing, and increase the language inventory for students in grade (1-4). The Nahla wa Nahal platform create a competitive environment among students to develop learning and understanding skills. The teachers can push their students to continue reading to develop their skills by assessing the student's level in reading skills and assigning each student according to his/her level to read the stories classified in the platform. They can also use the reading class platform to help students raise the linguistic outcome through the missing letter game.

Arabic language teachers created this platform. The aim is to provide the most appropriate content for all elementary students according to their reading level to develop their reading, writing, understanding, and comprehension of the Arabic language. Teachers can monitor the progress of the student through several methods, including Track

The extent of its use of the platform, the student's evaluation, graphs of each class that summarizes the level of development of the students reading level and their use of the platform in the form of numbers and data. Teachers can also direct the platform to meet the individual needs of each student. On the Nahla wa Nahal platform, teachers get detailed reports and statistics on their students' performance. They can also find the number and titles of stories that their students have read and solved to their questions, listen to their audio recordings, know their favorite topics, and many other information types. The teacher can print these reports and keep them in their file for later use.

Figure 2 - Nahla wa Nabil Platform



Teaching and Learning Activities

Learners will engage in many activities. Such as:

Reading and writing: First, learners will actively participate in class activities by reading the assigned stories and related work. Upon completing a certain reading level, learners will be required to take some assessment that will involve writing and oral presentation of the recordings through the Nahla wa Nabil platform.

Educational games: Learners will also be required to participate in educational games to earn points as they progress. This will precipitate class competition and learners' willingness to read more stories as they accumulate points.

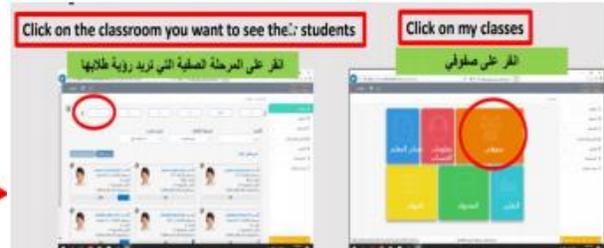
Assignment: Students will read stories sent to them as an assignment by their teacher and earn points and 'knowledge-power' if they read the stories and complete their activities.

Teacher's guide in using Nahlah wa Nahel platform

1. Sign in through the Diwan website
2. Click on Nahla wa Nahel



3. The teacher control panel will open for you. To see your class posts click on my classes.

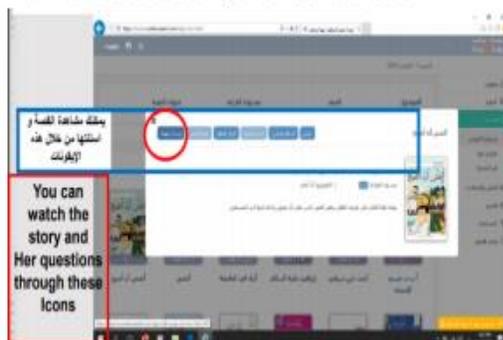


4. To set a task (story) for students, click on the content, and then collect records.

5. Choose a story and click on it.



6. To set the task, click Send a task.



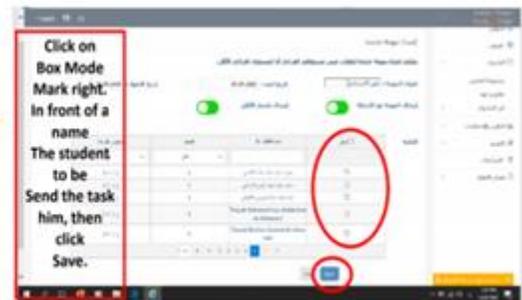
7. Select to send the task without or with questions.



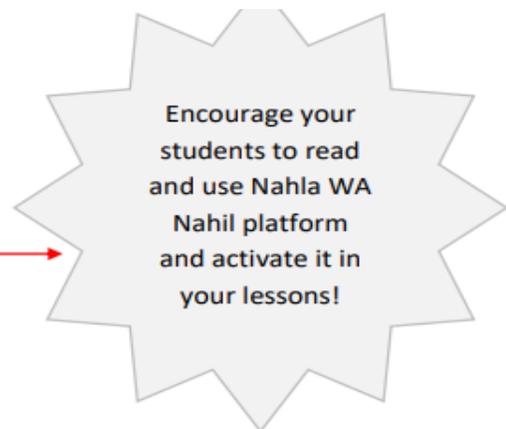
9. To issue thank you certificates to students, click on the teacher's sources and the student certificates.



8. Select the students to send the task to them.



10. to issue, thank you for certificates to students. Click on the teacher's sources and then the student certificates.



Conclusion

Overall, enhancing literacy skills among elementary students during this age of online learning is still a process under development. Interestingly, frameworks such as the Technology with Pedagogical Purpose Model have been brought up to provide guidelines on how best students can learn literacy skills through the online education system. The framework stipulates a blended system where technology and education are integrated, yet learning is directed by educational goals and needs instead of technological aspects. Under this framework, content is best passed through visualization in the form of videos, games, and texts, all of which are made available on course management systems through technology.

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Acceptance of Using 3D Printing Prior Internal Organ Surgeries in UAE

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Abstract

This research focuses on the acceptance levels of using 3D printing prior to internal organ surgeries by surgeons in UAE hospitals. The world has reported an increase in the use of 3D printing technology in the medical field. Researchers have identified 3D printing technology as a game changer in preparation for a surgery, patient education and student training (Aimar et al, 2019). However, there is low usage of 3D printing technology in Dubai hospitals a problem that has not been investigated. Previous studies have focused on the use of 3D printing technology in other parts of the body but not internal organs. There is a knowledge gap on the usage of 3D printing technology by internal organ surgeons in UAE, which necessitated this study. The study seeks to determine whether surgeons prefer using 3D printing for educational, training and preparation for internal organs compared to other imaging methods (Ganguli et al, 2018). The study also seeks to determine why there is low usage of 3D printing technologies for internal organ surgeries by surgeons in the UAE. The study seeks to collect data from surgeons in UAE hospitals to understand the reason for the current acceptance rate of 3D printing technology for internal organs surgeries. The project reviews literature that comprises of 20 journal articles. The articles have been grouped into five themes that include; liver, cardiac, neurosurgeries, planning and surgical training and patient education. The project will use quantitative approach and rely on survey as data collection tool. The surveys comprise of closed ended questions and Likert scale questions in order to determine the attitude and extent to which the research participants agree or disagree with the research questions. The surveys will be administered online whereby respondents can fill them at their own time and email them back to the researcher. The project seeks to determine the advantages and disadvantages of using 3D printing technology for purposes of planning internal organs surgeries. It will also determine some of the limitations surgeons face when using 3D printing technology for preparation of a surgery, patient education and training other surgeons. The study proposes that the use of 3D printing technology will be helpful in training and preparation for a surgery by internal organ surgeons and patient education (Garcia et al, 2017). The study seeks to investigate the reason for low acceptance rate of 3D printing technology by surgeons in UAE hospitals with a special focus on its benefits and drawbacks. Quantitative approach provides organized and standardized data that will make it easier to analyze and present findings. The study will use survey as the data collection tool for primary data. The survey will be administered to 14 participants located in different regions in the UAE. This study is significant because of the importance of delivering quality care and treatment of patients in UAE. Healthcare is a key focus of the government in improving the livelihoods of its residents in the UAE (Bastawrous et al, 2018). This study will provide important insights that will be used by government and health department in improving surgeries results and excellence in the country. Surgeons will have an opportunity to voice their views about the topic, which will help the government to come up with intervention measures to improve the usage of 3D printing technology in preparation and planning of internal organ surgeries (Shi et al, 2015). The project will analyze and present the data using percentages and tables for purposes of understanding the findings and conclusions by medical professionals, general public and government officials.

Keywords: 3D Printing Tezchnology, Internal Organs, Surgeons Acceptance Prior Surgeries, UAE.

Introduction

The research seeks to determine the acceptance of 3D printing prior to internal organ surgeries in the UAE. The level of acceptance by patients for education, medical experts in surgery planning and training will be the major parameters for this research. UAE has been coping with globalization and world medical technologies, 3D printing prior internal organ surgeries is vital to be accepted and implemented in order to avoid mistakes and prepare for uncertainties during surgeries. The study seeks to fill knowledge gaps in regard to the use of 3D printing in planning and training surgeons and educating patients prior to surgery. The problem is associated with the unique anatomy of the body organs and lack of clear understanding for training and preplanning a surgery. As a result, surgeons in UAE consider 3D printing prior surgical procedures involving internal organs such as liver, cardiac and neurology as high risk which necessitates a literature review research.

Other imaging methods such as CT scan and MRI do not offer clear images to train and prepare surgeons or educate patients of their families about surgery procedures (Ganguli, 2018). There are very few studies that focused on acceptance of 3D technology prior to internal organs in the UAE. Most of them focused on 3D technology in different contexts, focused on different variables and used different methodologies. The study will review credible literature on the research topic to gather knowledge about emerging issues and trends in 3D printing. The review also seeks to identify knowledge gaps on the topic and opportunities for further research.

The study seeks to understand the drawbacks of using 3D printing technology through fulfilling the research objectives and its related questions mentioned below:

Research Objectives

1. To analyze the acceptance of the usage of 3D printing pre plan internal organ surgeries.
2. To determine the reasons affecting the doctors to accept the usage of the 3D printing technology in internal organ surgeries.
3. To recommend the advantages and effectiveness of using the 3D printing technology as a pre plan in internal organ surgeries.

Research Questions

1. What are the conditions that affect the doctors from accepting the use of the 3D printing technology prior internal organ surgeries?
2. To what extent will 3D printing technology prior surgeries guide doctors?
3. What are the limitations that doctors could face while using 3D printing technology in internal organ surgeries?

Literature review

3D Printing Technology in Liver Surgery

Liver surgery has been increasingly been considered a risk procedure because there lacks proper understanding of its anatomy (David, 2016). Liver surgeries are on the rise as a result of diseases such as liver cancer and other conditions that are associated with an individual's life style. There

are four articles that will be reviewed under this section to understand their focus, methods and findings in order to understand the reason for current levels of acceptance of 3D printing technology prior to internal organs surgery in the UAE. Witowski et al (2017) focused on new applications of 3D technology in liver surgery as a result of rapid growth of the technology. The article's method involved a review of fourteen articles that focused on applications of 3D printing and their impact on clinical proceedings.

The article found out that 3D technology is on its early stages in application to liver surgery, but current uses cited that the technology has been very effective in preoperative planning and student and patient training. Bangeas et al (2019) studied role of innovative 3D printing moles in management of hepatobiliary malignancies. The sources used in this article were accessed from different reputable databases such as ScienceDirect and PubMed. Bangeas found out that the leading use of 3D printing in liver surgery is for preoperative learning and training of students. However, the author mentioned that high cost and time requirements to develop 3D images of the liver could be the major reason for its level of acceptance.

Garcia et al (2015) focused use of 3D printing materials and their use in medical education. The article focused on internal organs whereby the article associated low acceptance rate with the rigidity of printing materials, which means they are not flexible or elastic compared to the body tissues. The article suggested future research on creation of composites through manipulation of material properties to create patient specific models that have tissue and anatomical fidelity.

David et al (2016) in a study on 3D hepatic modeling focused on preoperative planning of hepatic resection. The article associated the increased popularity of 3D printing in the medical field with increased research in the hepatic 3D modeling. The study found out that research has come up with breakthroughs through innovations that have improved the accuracy and reliability of 3D imaging technology preparing and planning for liver surgeries. The article used a systematic review method to analyze evidence presented by sources that were retrieved from Medline and PubMed databases. It found out that 3D printing in liver surgery is yet to be fully exploited and associated the low acceptance rate with high cost of the technology. The study found out that high-end healthcare providers who can afford this technology rely on it to prepare for surgeries, educate patient about their liver conditions and training of students about how the liver functions, its structure and how common diseases can be diagnosed.

3D Printing Technology in Cardiac Surgery

Qasim mentioned that the existing heart constructs need some improvements to incorporate all aspects of the heart anatomy. He suggested acceptance levels of 3D printing models in healthcare is likely to increase in future when better models will be developed through advanced technologies and innovations. Shi et al (2015) focused on the benefits of 3D printing technology such as saving on tooling costs, reduction of wastes through additive manufacturing, less weight of the images because of simple designs and production. He also focused on restricted build size, limited materials, post processing and high cost associated with large volumes for mass production as major disadvantages of 3D printing.

Shi et al (2015) and Qasim et al (2019) both focused on 3D printing acceptance in cardiac surgeries. Shi centered on applications of 3D technology in cardiac surgeries where the study found out that application of 3D technology in cardiac surgeries is limited because of the complexity of the cardiovascular system. Both articles discussed the progress of 3D printing in cardiac surgeries and some of the benefits delivered by the technology and challenges to its acceptance.

Wasim et al (2019) focused on ability to develop flexible designs, rapid prototyping, and ability to print on demand, environmental friendliness and cost effectiveness as key benefits of the technology. Marija et al 2017 studied about future directions of 3D technology in cardiac surgeries. The article associated the increased use of 3D printing in cardiac surgeries with latest innovations that have made the materials produced by the technology more reliable. The article suggests medical teaching and surgery planning are the reasons for high acceptance of the technology on cardiac surgery. Valverde (2017) argues that 3D printing is useful in heart diseases scanning, surgical planning and simulation of structural interventions. The article discusses the elements required to develop a 3D material, which include image modalities, quality requirements and the 3D printers available. The article also mentions that 3D printing technology has impacted medical education, physician training and surgical planning for heart related interventions. All the articles under this theme were very detailed and presented reliable findings that will be used to understand use of 3D technology in cardiac surgeries. They also cited the benefits of the technology and challenges facing its acceptance by patients, surgeons and students for use in cardiac surgery learning and planning.

3D printing Technology in Neurology Surgery

Li et al (2018) focused on the clinical value of using 3D printing in neural surgery. The article involved a trial whereby forty patients were enrolled for an experiment that involved use of 3D printing to guide surgery. The article considers important aspects that were learned and planned prior the surgery such as blood loss, surgery time, accuracy of the procedure and function outcome. The article found out that surgery time and blood loss reduced for surgeries that used 3D printing material for planning. The article also found out use of 3D printing technology in neural surgeries is effective method compared to other imaging methods. It also cited increased use of the technology as a result of better surgery outcome and clear planning of the surgery because of its ability to imitate and compare to the real tissues and brain anatomy.

Ngan et al (2019) conducted a study on the strategies for neural surgeries using 3D printing technology. The study found out that neurosurgeons who use 3D printing technology have achieved tremendous success when it comes to determining alternative surgery strategies. He recommended that neurosurgeons should consult with experts and involve multidisciplinary professionals when planning for surgery using 3D printing technology. The study found out that neurosurgeons that use 3D printing images are likely to come up with better surgical strategy compared to those that use other imaging techniques that are accepted in healthcare.

The study also connects the surgery with limb amputation and disabilities caused to patients and how they can be improved. The study found out that 3D printing has significantly contributed to proper and better planning of surgeries, better patient education and training of students. Both studies aimed at determining the acceptance rates of 3D printing in neural surgeries and focused

on applications and challenges. The articles also considered the benefits of 3D printing technology and how they have affected its acceptance rate. The article used different methods whereby one involved literature review of credible sources on the topic while the other used experiment method of collecting data. These articles provide information about 3D printing applications, which will help in understanding and studying about issues related to its acceptance in UAE when it comes to internal organs surgeries.

3D Printing Technology in Planning and Surgical Training

There are many articles that focused on this theme that were used to inform the study. This is because the main reason for using 3D surgeries prior to internal organs surgery is to help surgeons understand anatomy of the organs, plan and prepare for the surgery in a thorough manner. Youssef et al (2015) conducted a study on the applications of 3D printing technology in urological practice. The article focused on the role played by 3D printing in improving training and planning of surgeries. The study found out that the technology is capable of manufacturing low cost and customizable surgical devices that could be used to train and plan for a surgery. Ganguli et al (2018) researched about 3D printing for preoperative planning and surgical training.

The study focused on surgeon's training and experiences impact on success of surgeries. The study aimed at determining whether surgeons are aware of 3D technology and whether they have used it in their career. Most of the surgeons who participated in the study agreed to have heard of 3D printing technology and its benefits for surgery planning and training. Most of the participants who do not use 3D frequently cited unavailability of the technology, lack of proper training about the technology and cost issues. Most of the research participants agreed that 3D printing is more reliable compared to other imaging methods in surgery planning and training. The article mentions that anatomical complexity of surgeries sites determines how useful 3D printing technology could be applied in surgeries. The article discusses about 3D printing techniques and recommends the most suitable for specific organ surgeries.

Takeoka et al (2019) focuses on the use of 3D printing in regeneration of esophagus. The study found out that the use of 3D printing has helped surgeons in learning more about esophagus and preparing them for its surgery. Bastawrous (2018) conducted a study on principles of 3D printing and clinical application for abdomen and pelvis surgeries. The article associates the increased use of 3D printing with the improvements in technology and reduction of costs. The study found out that 3D printing has contributed to surgical planning, education, personalized medicine and changes in modeling. Bagaria et al (2018) studied about the contribution of 3D technology to the future of orthopedics and found out that the technology will reduce surgery time and reduce blood loss and overall success of the surgery as a result of better learning and planning.

3D Printing Technology in Patient Education

Aimar et al (2019) conducted a study on the role of 3D printing in medical applications. The article assessed various 3D printing technologies and their application surgery planning for patient education. The study assessed different 3D printing technologies to determine their effectiveness in patient education. The study found out that technology and innovations are very useful

developing 3D images and materials that could be used to educate patients. The study found out that patients prefer simpler medical terms being used on 3D printing technology for them to understand how organs work and how surgeries will be performed. It also found out that patient have a higher understanding of surgical procedures as a result of use of 3D technologies. Li et al (2017) researched about the role of 3D printing technology in anatomy education and surgical training. This article discussed about recent expansions and availability of 3D printing and their contribution to medical education.

The study compared traditional ways of patient education such as MRI and CT to 3D printing to identify the benefits and trends in patient education. The study found out that patient education is important for them to make medical decisions and the use of 3D printing provides better understanding of the surgical procedures. Nicole et al (2019) studied about the use of 3D printing technology in developing kidney and prostate cancer models and its impact on patient education. The study involved a review of several articles on the topic which found that identifying a patient-specific 3D model improves the value of patient education. Kamarul et al (2018) argues that the future of surgery in regard to patient education depends on 3D printing and future innovations around the technology. Tavar (2017) studied about access of 3D printing technology for surgery in Dubai hospitals. The study found out that access to 3D printing technology in Dubai hospitals has been on the rise as a result of an initiative to develop and expand its use for purposes of educating patients and preparing surgeons. The study also found out that the use 3D printing technology will cut down cost, reduce risk and improve quality of surgical services through patient education.

Methodology Design

Although both methodologies (qualitative and quantitative data collection instruments) were designed for this research, however, only quantitative method (Survey) was more suitable to conduct. Quantitative method is used to collect and quantify data on attitudes, behaviors and opinions (Fisher, 2010). This makes it very reliable when conducting a study to determine the acceptance of 3D printing technology for planning internal organs surgery. Surveys are easier to use when collecting data from a large number of participants who are busy and hardly have free time for an interview. It also helps a researcher to obtain honest responses because of the anonymity status it gives to research participants. Medical department is very sensitive specifically internal organ surgeries which require the use of a method that provides valid and reliable data.

Participants and Sampling

Quantitative method seeks to collect measurable data that can be used to formulate and uncover patterns. This study uses quantitative method because of its focus on validity and reliability of data collection, analyzes and entire research process (Fisher, 2010). The survey will be administered to 14 internal organs surgeons working major hospitals across the all the seven Emirates that form the UAE. The sample-size is narrow for this type of research because of its diversity. This study seeks to generalize the findings to a large population size that comprise of internal organ surgeons in the UAE (Fisher, 2010) and aims at obtaining measurable data to formulate facts and discover patterns on the use of 3D printing technology for internal organ surgery planning and preparations.

Data Collection Method

Surveys are more reliable when it comes to collection of data from a huge number of participants compared to other data collection tools. This is because surveys offer a better description of characteristics of the population that is involved in the study and also the research variables. This makes it easier for the respondents to understand the research questions for the research to obtain expected or anticipated results (Fisher, 2010). Primary data was collected from surgeons who are the respondents for this project using yes or no questions and Likert scale questions. The survey questions consist of two main parts; the first part focus on collecting the demographics of the respondents including their background information, age, gender, career position and their experience in their current job positions. The second section aimed at collecting any information related to acceptance of 3D printing technology in planning and preparation for internal organs surgeries such as; patient education, training of health workers, comparison to other imaging technologies and availability of 3D printing technology in UAE hospitals.

The questions are simple and precise which makes it easier for the respondents to understand and fill them without bias (Fisher, 2010). The Likert scale questions have been used to collect data on attitude and opinions of the respondents on the research questions and topic with multiple-choice questions and Likert scale ratings (from 1 to 5 points, where 1 is strongly disagree and 5 is strongly agree). A researcher may use online surveys to avoid interrupting surgeons who provide essential services in the community and also to reduce the cost collecting data (Fisher, 2010). The survey will be administered online so that surgeons can respond to them at their convenience and resend them after they have completed. Surveys can also be administered online making them very cost effective compared to other data collection tools.

Data Collection Analysis

The study aims at analyzing the acceptance of 3D technology in pre-planning internal organ surgeries which requires valid and reliable data that is backed by statistical approved methods. Data collected will be analyzed using simple statically methods such as percentages. Percentage is a reliable method of analyzing and presenting data because it is easier to consider all the variables of research. It also makes comparability of data and variables easier offering a viable perceptive for the audience to view the problem and understand the findings. Percentages offer clear and detailed analysis of the data collected which makes it easier for the researcher to organize and present information.

Conclusion & Expected Findings

In order to identify the elements, stages and issues from the qualitative data analysis, the study research questions and objectives were used. The core objective of this study is to investigate the acceptance of 3D printing technology prior to internal organs surgery among UAE surgeons. Since one of the goals of this proposal is to determine how to improve acceptance of 3D printing in planning and preparation for internal organ surgeries, the expected results will enable researchers

identify causes of low acceptance rate of 3D printing and how they can be used for acceptance enhancement (Kamarul et al, 2018).

The literature review identified knowledge gaps in existing research building a theoretical background for future research. The research aimed at evaluating the determinants of 3D printing technology acceptance among UAE internal organs surgeons. Based on the theoretical background, the results of future research can be used by government and health institutions to implement measures that will improve the acceptance of 3D printing technology and success of internal organ surgeries.

The results of the pilot research indicate that there about 65% male internal organs surgeons in UAE compared to females. The research shows that most internal organ surgeons in UAE have between 7 and 10 years of experience. 35% of the respondents have 1-5 years of in internal organ's surgeries while another 35% of the respondents have 6-15 years of experience. The results of the study also show that 100% of the internal organ surgeons in UAE have used 3D printing to plan and prepare for surgeries before, with most using it regularly once or twice a week. The preliminary result of the study shows that most hospitals in the UAE have 3D printing technology available for use.

The results also show that most internal organ surgeons in the UAE have been educated and trained on the use of 3D printing technology on planning and preparation for surgeries. The results of the preliminary study also show that 71% of the respondents agree that 3D printing technology is a better technique when preparing for internal organs surgeries compared to other methods of screening.

Based on the results of the initial survey and literature review, one can conclude internal organ surgeons mainly use 3D printing technology to educate their patient, train core-workers, prepare and plan for a surgery (Garcia et al, 2017), where the result proved that more than 92% of the surgeons use 3D printing technology for training, planning, preparation and patient education. One can also conclude that all of the internal organ surgeons prefer 3D printing technology over other imaging alternatives because of the clarity of images. It also shows that 57% of the respondents agree that the cost of 3D printing technology is the challenge most surgeons are facing to convince patient to use them for planning their surgery.

These results concur with the data from the literature review that showed most internal organ surgeons have used 3D printing before and mainly use it to prepare, plan and patient education (Youssef et al, 2015). The results of this research concur with the literature reviews that the acceptance levels of 3D printing technology prior to surgery is influenced by various factors such as quality of images, variety of models, integration with body organ structures and tissues and overcoming of complexities of body organs and systems. Findings of the study are supported by the literature on the inaccessibility of 3D printing, high costs and lack of training among medical experts as the main reasons for low levels of acceptance rates for the technology. Findings of the study are also supported by literature that acceptance levels of 3D technology could be improved through investing adequate funds to avail the technology, educating patients and training medical professionals on their use and benefits.

The results of the study imply that future innovations are likely to improve the quality of 3D images enhancing surgeons prepare and plan for surgeries adequately. However, the number of respondents or sample is very small compared to the target population, which means these results are not final. There is a need to repeat survey with a larger number of respondents in order to capture and obtain conclusive information in regard to the acceptance of 3D printing technology for planning and preparation of internal organs surgeries among UAE surgeons. The study proposes areas for further research such as influence of 3D printing on surgeon decision making, how innovations will impact imaging and surgery planning, comparison of 3D printing acceptance in develop and less developed economies and the impact of 3D innovations on surgery planning, training and patient education and training in order to fill knowledge gaps on the topics.

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Student Engagement: A vital component in an era of online learning

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Abstract

During the unprecedented times in the year 2020, Coronavirus disease (Covid19) has taken over or brought changes to each and every aspect of our lives. Hundreds of thousands of people have fallen victim to the disease in different ways, be it losing the job, losing family and friends to the disease, catching the virus and going through the ordeal and surviving. Hence, all aspects of our lives were affected. Educational institutions were one that had to bring an overhaul to the whole approach in providing the services and Villa College, the first private college in the Maldives, established in the year 2007, was no exception. Most of our programmes had to be changed to an online platform overnight. Even if it was not a completely new experience for us, we faced numerous challenges in engaging our students. Therefore, the study aimed to explore what is meant by student engagement according to students and lecturers of Villa College. Furthermore, the study also intended to determine the extent and the means by which the students are engaged during online teaching. Thus, the study would contribute to assess the challenges in engaging students and ways they can be resolved. The methodology used was a qualitative, case study approach. Data was collected through interviews and observations. The interviews were conducted online via google forms. Purposive sampling was used in the study. The sample consisted of 36 participants, 12 lecturers and 24 students. The sample included 2 lecturers teaching undergraduate and postgraduate programs from various disciplines. Respective lecturers and 2 students each, from their classes were interviewed. Data had been analysed using thematic analysis. Student engagement was seen as the amount of interaction the lecturer has with the students. Based on the findings, it can be concluded that less than half the class were engaged during the online sessions in most cases. However, it was interesting to note that regardless of the negative beliefs regarding online learning in general, some lectures had demonstrated exceptionally effective strategies in delivering lessons, even in modules with complex content. It was also discovered that the number of students did not have a major role in student engagement, as demonstrated by our lecturers.

Key words: *Online learning, student engagement, tertiary education, challenges, strategies*

Introduction

The Republic of Maldives is an island nation which has 1192 islands scattered over 90,000 square kilometers. The geographical nature of the country holds lots of challenges in providing equitable services to all the people residing in 200 islands across the country. With a population of over 374 thousand people, a fifth of the country lives in the capital city Male' (National Bureau of Statistics, 2018). At the stage of a developing nation yet, a lot of prominence is given to the education sector compared to the many areas of development. Education is provided starting from the foundation stage and continues up to higher secondary education which is accessible to students across Maldives. Maldives has two National universities and a number of private colleges that offer high quality education.

Villa College, a private institution that was established in the year 2007, offers programmes at undergraduate and postgraduate levels. The college functions on trimester-basis and has intakes at January, May and September each year. Even before the formal lockdown was announced in the

country, preparations for remote learning had been in progress at Villa College and audio recordings of lectures were made to cater to this urgent need for online learning. Lecturers were provided the basic knowledge for teaching using the online mode of delivery. However, due to sudden changes, the required extensive and in-depth training with regard to effective pedagogy in teaching online could not occur before the lockdown.

Even though the college had ensured that classes were conducted with no interruptions to the schedules even at the time of the lockdown, lecturers were faced with the major issue of being doubtful about who had been in class throughout and how attentive they had been. Questions arose regarding the effectiveness of this mode of delivery, especially in terms of student engagement.

Student engagement becomes an important area of study as it is very much related to the retention of students in online courses (Brunton, Brown, Costello and Farrell, 2018; Kahu and Nelson, 2018; Martin and Bollinger, 2018, Tinto, 2003; Thomas, 2012). Furthermore, the study on student engagement online learning is worthwhile as “when shifting to online contexts, engagement takes on different manifestations, due to the lack of face to face contact and the ways in which teaching and learning are mediated through technology” (O’ Shea et al., 2015, p. 43). In addition to this, student engagement has been proven by researchers to show increased academic success (Commissiong, 2020; Garcia and Valle, 2020; Willmot and Perkin, 2011).

Existing studies on student engagement have explored various forms of engagement either through means of Learning Management Systems or through their interaction with either the content or the lecturer or with other learners (Martin and Bollinger, 2018). Other studies have focused on the interactions between the learner and the community, etc. However, for the purpose of this study, we have only focused on student engagement pertaining to interactions that occur between the instructor and the learners. Furthermore, since most research conducted focuses either on teacher or administrator perceptions (Barbour, 2010), this study has explored students' engagement from both lecturers' and students' perspectives.

Although there is abundant research on students' engagement in higher education, done internationally (Commissiong, 2020; Kahu, 2011; Martin and Bollinger, 2018; Shu, Zhao and Wan, 2012), there is a dearth of literature on student engagement done locally, thus making the study one of significance. This study addresses the gap in literature by exploring student engagement in use by undergraduate and postgraduate programs of Villa College, a private higher education institute in the Maldives.

The study aims to explore what is meant by student engagement, according to students and lecturers of Villa College. Furthermore, the study also intends to explore students' engagement by studying the mediums or approaches used by lecturers in engaging students during online teaching. Thus, the study would contribute to assess the challenges in engaging students in online learning and the means by which they can be resolved. The following research questions were used to guide the research:

- What do students and lecturers across Villa College understand by ‘student engagement’?
- To which extent/the degree students are engaged during online classes?
- What are the mediums or approaches used by lecturers in engaging students during online teaching?
- How do we overcome the challenges in student engagement?

Literature Review

Student engagement

While student engagement is a well developed term used in face-to-face contexts, the term is still an emerging concept when it comes to online and distance learning. The need for student engagement may vary from maintaining students' interest to maintaining discipline in physical classrooms. Similarly, with the change in the mode of teaching from conventional methods to online, the need for student engagement too is in demand.

'Student engagement' though it has a straight-forward literal meaning, is perceived differently by different people who are engaged in implementing this. The definition of the word depends on the position one has in the education system and their motivating interests (Harrington, Sinfield and Burns, 2016). Student engagement as agreed by several researchers (Fredricks, Blumenfeld, and Paris, 2004; Gibbs and Poskitt, 2010) is a multi-faceted construct, which comprises of three key dimensions which are namely behavioural, cognitive and emotional engagement (Louwrens and Hartnett, 2015).

Student engagement due to its diverse meanings and nature has been a difficult construct to measure (Fredricks et al., 2004; Carter, Reschly, Lovelace, Appleton, and Thompson, 2012). One way of measuring online student engagement is through the Learning Management Systems that are used in educational institutions (Ali, Hatala, Gašević, and Jovanović, 2012). When using these types of measures, the 'hits' on a webpage or the posts or reads on discussion forums are considered.

Student Engagement and Academic Performance

The more students are engaged in the process of their learning, there would definitely be more opportunities that provide them a better understanding of what is being learnt. This results in students performing better in their academic endeavours. Several studies support the idea that student engagement has a positive relationship with students' performance (Carini et al., 2006; Kuh et al., 2008; Rajabalee, Santally and Rennie, 2019).

Strategies used for Students' Engagement during Online Learning

As student populations are diverse and contemporary higher education being a complex process, the practices adopted in student engagement cannot be fixed to a certain method, as it all depends on the context in which it is being implemented. The accessibility of the online learning mode caters to an array of students across ages and contexts. Therefore, inclusive teaching practices are vital for engaging students throughout their learning (Warren, 2002).

The common assumption in teaching and learning that can be adapted to all contexts would be one that involves creative and innovative ways to support and challenge students academically. Therefore, teachers or lectures have to be cautious in addressing and catering to the needs of the students, as they demand value for money to meet their notions of 'good' teaching. These coexist alongside the judgements from peers as well as their managers.

One interesting model put forth by the UK National Union of Students (NUS) and Higher Education Academy (HEA) advocates the forms of Students' Engagement as a 'ladder of student

participation' (NUS and HEA, 2011). This model highlights four important aspects, *Consultation*, *Involvement*, *Participation* and *Partnership*. Out of these four, what relates to our study is Consultation and Partnership. Whilst *Consultation* refers to a more feedback role of the student by providing them with the advantages of being listened to their experiences to enhance their learning, *Partnership* takes the form of a 'process' of engagement where all stakeholders, involving the students collaboratively engage to gain from the process of learning and working together.

Gerstein (2012) suggests the 'Flipped Classroom Approach' as a means of engaging students in the teaching and learning process. In this approach the subject matter previously delivered through lectures are provided as preparatory work and students devote their time in class for more collaborative and highly participatory learning activities. It is also evident that engaging in classes could be made possible by planning activities that would enable them to get to know their peers and develop their social presence (Barbour and Bennett, 2013). Peer mentoring (Hattie and Timperley, 2007; O'Neill, 2009) and personal tutoring (Thomas, 2012) also have been suggested as key players for more in-depth engagement by students in their learning.

Lessons based on students' interests could be one factor that increases student engagement (Renninger and Hidi, 2011). According to a study done by Wood (2012), including fun activities in lessons is also one way to engage students as they are found to be hard to give up on.

A very important finding by Louwrens and Hartnett (2015) states the level of engagement from the part of the lecturer being key to the engagement of students in learning. The lack of lectures reminding the students to participate, encouraging, guiding and motivating the students could result in low engagement from the students. Gayton and McEwen (2007) further emphasises on this by stating that instructors' presence in online courses is required in terms of actively involving students in their courses. Most importantly, the rapport between the instructor and the students are inevitable for facilitating students' engagement (Dixon, 2010).

Studies by Revere and Kovach (2011) and Banna et al. (2015) have also found that traditional technologies for engaged learning, such as discussion boards, chat sessions, blogs, wikis, group tasks, or peer assessment, have served well in promoting student-to-student interaction in online courses. Also using videoconferencing or chatting in synchronous activities, and discussion boards in asynchronous activities; is said to increase student engagement by enhancing student-to-student interaction (Banna et al. 2015). Furthermore, according to Everson, Gundlach, and Miller (2013); and Tess (2013), using social media such as viber, whatsapp, etc is a very practical way to increase student engagement. Abrami, Bernard, Bures, Borokhovski and Tamim (2011) suggest that learner-to-content interaction can be increased by watching instructional videos, interacting with multimedia, and searching for information.

Theories

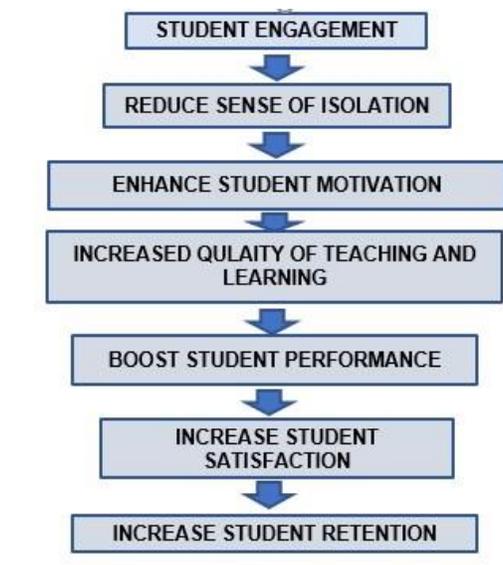
There have been frameworks that provide principles for students' engagement. However, most theories were based on student engagement in face-to-face classrooms. Therefore, Moore's Interaction framework was the main theory chosen for this study, as it involved types of interaction required for effective online classes. The interactions identified include (1) *learner-to-learner*

interaction (2) learner-to-instructor interaction, and (3) learner-to-content interaction (Farrell and Brunton, 2020).

Conceptual framework

The below attached diagram summarises our framework for the study. Studies have shown that engaging students in their learning can reduce their sense of isolation, especially at a time of online learning, where they hardly get to see or contact their peers. Thus, the feeling of belongingness through students' engagement increases their motivation, which increases the chances for quality teaching and learning to occur that enables higher performance in their studies. This leads to increased satisfaction, as the value for money is met, and thus, contributes largely to student retention.

Figure 1: Conceptual framework



Methodology

The paradigm on which this study is based is an interpretivism. as the study is about the students and lecturers feeling towards engagement in online classes. The study using a qualitative approach is best for this study because it allows for the students and lectures to express themselves. Case study was deemed an appropriate methodology for this study because case studies are best conceptualized by the bounded phenomena of interest and not by methods (Schoch, 2019). The bounded system in this case is the online classes at Villa College for the degree and masters programmes. All classes were conducted in the same mode (Google Meet) and used the student Learning Management System, Moodle.

Context and participants

Even before Covid-19, Villa college had taught using online mode due to the issue of traveling for students from different islands. However, back then the medium used was True-conf complemented by Moodle. The materials for the classes like slides and videos and tutorials are uploaded before the beginning of the class to Moodle. In addition to the lectures, students also get assistance from the administrative officers for technical issues and academic assistance from the course or programme coordinators.

Purposive sampling was used in the study. The sample included 2 lecturers teaching undergraduate and postgraduate programs from FSL, FBM, FES, FICT and SHS each. Also, an additional two lecturers, one each, were taken from CFS and IRI. Therefore, a total of 12 lecturers were interviewed. Students were selected from the respective classes of the lecturers in the selected sample, making it a total of 24 students.

The lecturers who agreed have been working in Villa College for a range of 1-8 years. For most of them this is the first time teaching in this mode. Student participants consisted of students from the age range of 20-40 years.

Data collection and analysis

Data collection procedures comprised individual semi-structured student interviews and a google form for the lecturers. Student interviews were conducted over google meet. A google form was shared with lecturers focused on how teachers had set up their online class, and their perceptions of online student engagement. The interviews were transcribed and analysed for themes. The google forms were also compiled and analysed for themes. similar themes were found in both.

Observations were also used as a method for data collection, where lesson recordings of the previous semester were viewed for observation. In order to analyse the level of engagement, one lesson of each of the lecturers in one subject that they teach was observed. Statistical data relating to different modes of interactions were noted and tabulated. Detailed field notes of the activities/interactions and lecturers' strategies in engaging students were also analysed into themes. Initially, for 4 lessons, both researchers watched the same lesson and compared notes and then each researcher observed the other 4 lessons.

Results

1) What do students and lecturers across Villa College understand by 'student engagement'?

One main idea emerged from both the student and lecturers as per their understanding of 'student engagement. All lecturers included the term 'participate' in their answer to the understanding of student engagement in online classes.

Active participants instead of passive listeners- L4

Getting students to participate in discussions, encouraging them to ask questions, respond to questions - L9

Students actively participating in their learning process - L7/L12

In addition, it was noted that some lecturers made a distinction between interaction with other students and interaction with lecturers. So it is very clear that lecturers want the students to interact with the lecturer as well as other students in the class.

Interaction between students and teacher- L1

Getting students to participate in discussions, encouraging them to ask questions, respond to questions - L6

In a similar way, the students explained their understanding of the term. For most students it is the active participation during the online class.

Active involvement and interest in learning in a collaborative manner with the lecturers- S 14

The level of attention and interest students show in the classes - S 5

In the class time in between lecture and student's communication level of the class - S 4

Interest and passion that students are shown while learning - S 17

2) To which extent/the degree students are engaged during online classes?

Students' perceptions of the degree of their engagement online was another important focus of this investigation. An in-depth analysis of the student comments in the google forms was considered, along with their comments from the interviews.

When asked to rate from a scale of 1 to 10, how engaged they were in class, 7 students said that they were fully engaged in class. Even though there were no students who said that they were not engaged at all, two students had chosen 3 and 4. This shows that they do not feel that they are much engaged in the lesson.

However, in yes or no questions about whether they feel they are engaged or not, 3 students have indicated that they are not engaged in the lessons at all. One student who has given 8 on the scale of engagement has said that s/he does not feel that s/he is engaged in class.

When asked for the reasons for lack of engagement several responses were there.

I tried to get involved and ask questions but then I never got an exact answer - S 1

Could not pay attention all time - S 8

No engaging activities are carried out during lectures - S 14

Engagement can be seen through something that the teacher says, shows or does that students feel that they are engaged. Students have identified asking oral questions as the most frequent method.

Do ask questions - S 2

Asking questions regarding the lesson - S 8

Student presentation, sharing prior knowledge and experiences, asking questions to separate - S 10

Getting oral questions and explanations with real life examples - S12

When lecturers were asked about the level of engagement in their online class, we did not get a specific answer or irrelevant response and it felt that the lecturer was reluctant to specify either high or low level of engagement.

I have just started teaching here this semester -L12

My classes are interesting and students learn many new concepts based on the contents covered - L11

However, there were two lecturers who directly replied that the student would say that the engagement is good.

From the observations it was observed that 2 lectures did not use any device/application or ask any questions, not have an activity throughout the one-hour class. However, from the observations it was seen that of the 12 lecturers observed 9, constantly kept asking questions for students to answer verbally. However, only a few students were responding and the lecturers were very concerned.

Any questions? Are you there?- L 3

Say something, children - L 7

Are we clear? Is it clear? Am I clear?- L 8

However, the type of questions used were as above, which shows lack of effective questioning skills being used.

3) What are the mediums or approaches used by lecturers in engaging students during online teaching?

Many lecturers said that they use different mediums in order to try and make the lessons more engaging as just showing a slide and talking for the whole hour. As such lecturer 1 and lecturer 4 use menti, kahoot and padlet. Whereas lecturer 5 and 7 says they ask questions for students to answer orally.

When asked the same from the students, most agreed that all teachers asked oral questions and some lectures asked the student to write answers or questions during the online class. The responses from both students and lecturers are confirmed from the observations of the lessons done. 4 lecturers used Whiteboard, two lecturers used polls and another lecturer used an in-built application in the system.

4) How do we overcome the challenges in student engagement?

The results showed that while the lecturers and most students believed that online classes were going smoothly, there were inconsistencies about the level of participation from both parties. Therefore, it is important to find ways to improve the student participation. In response to how to make the lessons more engaging, students said to include more videos. From the observations of 12 lessons we did not observe any videos being used.

By showing video presentations - S 13

Including videos would be a good thing in my view - S 16

This is as good as it is. and if video is one, I guess it would be more effective - S 17

Some students also suggested including other applications. From observations we already saw a few lecturers using different applications.

Visual aids. Games. Field trip -. S 6

Use online interactive tools (slido, kahoot, QuizBreaker) for quizzes or open discussions in between lessons during the lecture - S 14

One interesting idea that arose from the study is the relationship between the lecturer and student, this was an answer given on how to increase the student student engagement in class.

Lecturers need to show more care - S 5

However, both students and lecturers mentioned a way to assess the engagement using the Student Evaluation of Teaching and Learning (SETL). This has been stated in their responses.

Discussions

While lecturers understood the term student engagement as ‘participation’, the students had perceived the term more as ‘interaction’. This is in line with findings from literature stating that the meanings can vary depending on the person implementing it (Harrington, Sinfield and Burns, 2016). Also in-depth analysis of the data agrees with the idea that the meanings deciphered by our respondents also cover the aspects of Behavioural engagement, Cognitive Engagement and Emotional Engagement (Fredricks et al., 2004; Gibbs and Poskitt, 2010; Harris, 2008).

There were discrepancies in the level of participation when the data of both lectures and students were compared. The lectures did not agree totally with the students’ notion that most students participated in class. Lecturers have highlighted the challenges they had in getting the students involved during lessons. The findings from observations support the claim of teachers regarding the lack of response from students when asked questions in class. However, the participation level can be ranked as good, as 70% students participating was perceived as good in a previous study (Piryani, 2019). Nevertheless, the judgement is different as there were vast differences in participation in the classes of different lectures and varied greatly on their approaches (Martin and Bollinger, 2018; Muir, Trilea, Elphinstone and Huynh, 2020).).

It is worthy to note that lectures used a variety of applications in teaching, which had facilitated students’ engagement. This being supported by literature (Banna et al. 2015; Everson, Gundlach and Miller, 2013; Stevere and Kovach, 2011; Tess, 2013), is also evident from the findings of the study as students had requested the need for that. Moreover, using anonymous responses for student

participation was highlighted as important by one of the lecturers, and using self-assessment strategies was another crucial finding from the study. The role of anonymity in increasing student engagement is also advocated by Muir, Trilea, Elphinstone and Huynh (2020). Research by Martin and Bollinger (2018) has emphasised on the use of self-assessment strategies to foster students engagement.

The challenges that exist are plentiful. Students had complained of the necessity for better relationships among lecturers and students, and to also use videos to make the lessons more dynamic. A good rapport between lectures and students are deemed as essential (Revere and Kovach, 2011; Tess, 2013) and the use of videos have been said to make the lessons more fun, and thus engage students (Dixson, 2010).

It is evident from the findings that not many lecturers are competent in engaging students using appropriate approaches. Therefore, the need for training is recommended as a crucial finding from the study. Moreover, more mechanisms for monitoring teaching could be practiced through SETL (Students Evaluation of Teaching and Learning) - a feedback taken from Villa College at the end of every semester. Moreover, it is also necessary to use varied forms of assessments as suggested by Garcia and Valle (2020). Building a good rapport between students is also required as a strong step towards student engagement.

Conclusion

Under circumstances like Covid-19, where online learning remains the only choice, it is important for all key players in education to be mindful of the challenges that may arise and develop proactive strategies that could sustain the same ethos as that of face-to-face learning. The findings of the study on Student Engagement during Online Learning conducted at Villa College revealed three important findings to be highlighted.

Firstly, the fact that some lectures, despite the technicality of the subject or the number of students in a class had demonstrated commendable levels of student engagement, is to be acknowledged. Secondly, the efforts by some lectures that were perceived to be means of students' engagement were merely regular call outs of 'Are you there?' and 'Am I clear?' which were not very much appreciated and accepted by students. Thirdly, a very limited amount of students were actively participating in classes even where continuous interaction seemed to be evident. Thus, it can be concluded that, on average "Student Engagement" is an area that most lecturers are not very aware of, and there is a dire need for rigorous professional development and monitoring to be established in order to maintain the student retention rates.

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Sick Building Syndrome

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Abstract

A home is a person's shelter, haven, and comfort. It is where you feel is safest place for you and your family but, sometimes there is a hidden hazard lurking in the shadows of your residence. Sick Building Syndrome (SBS) is a phenomena of building occupants experiencing ill health symptoms that seems related to the time spent in a specific room, zone or throughout the building where the illness or causes are unidentified specially in high dense offices. Symptoms may vary from fever, chills, cough, chest tightness, muscle aches and allergic reactions.

SBS causes may range from building design flaws to micro-organism and other external factors such as volatile organic compounds or contaminants associated with tobacco smoking. It is important to understand the characterization of the contaminants to limit sources responsible for SBS in each building.

There are two main criteria for the existence of SBS in a building: (a) at least 20% of buildings users are concerned about an identical medical problem (b) that identical medical problem is observed for at least 2 weeks. Early signs of SBS could be noticed by analyzing the issues, complains and observations addressed by the building occupants or by a routine air sampling to evaluate Indoor Air Quality "IAQ". If findings were found to have a resemblance with SBS causes or symptoms, the owner or building keeper must perform a thorough investigation via conducting a 'walk-through' routine scheduled inspection and establish a cause-and-effect relationship between symptoms and IAQ.

Before attempting or administering any change to rectify or maintain IAQ, operators must first be familiars with the domestic and national IAQ standards and protocols and abide to them to ensure total compliance and avoid fines.

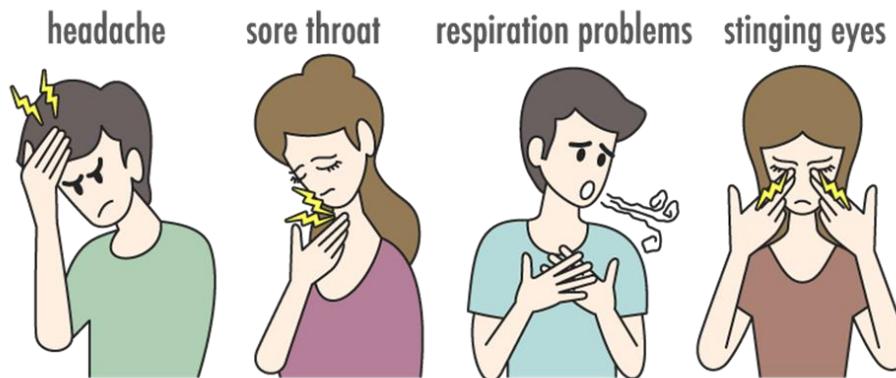
To avoid the problems related to inadequate ventilation the American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) recently revised ventilation standards to a minimum outdoor air flow rate of 15 to 20 cfm/person in office spaces and 60 cfm/person in smoking lounges and 8.4 air exchanges per 24 h.

Introduction

Sick Building Syndrome (SBS) refers to the phenomena of building occupants experiencing ill health symptoms that seems related to the time spent in a specific room, zone or throughout the building. No specific illness or cause can be identified. Building occupants often express their dissatisfaction with the quality of the overall indoor environment in the building. (Joshi. 2008)

World Health Organization (WHO) defined SBS as: "an excess of work-related irritations of the skin and mucous membranes and other symptoms, including headache, fatigue, and difficulty concentrating, reported by workers in modern office buildings resulting in a major cause of sickness absenteeism and lost productivity among the workers". (Ooi, Goh, Phoon, Foo & Yap. 1998).

Figure 1. SBS symptoms (Radon, 2012)



Methods and Materials

Data collection in this research was from a secondary resource of previous online published studies, journals, and articles. Search engines used to look for the information were Google Scholar, PubMed, Research Gate and HBMSU online library. Keywords used included Sick Building Syndrome, SBS, Healthy Buildings, Indoor Air Quality, HVAC and IAQ regulations in the UAE.

Definition

World Health Organization (WHO) defined SBS as: “an excess of work-related irritations of the skin and mucous membranes and other symptoms, including headache, fatigue, and difficulty concentrating, reported by workers in modern office buildings resulting in a major cause of sickness absenteeism and lost productivity among the workers”. (Ooi, Goh, Phoon, Foo & Yap. 1998).

Sick Building Syndrome (SBS) refers to the phenomena of building occupants experiencing ill health symptoms that seems related to the time spent in a specific room, zone or throughout the building. No specific illness or cause can be identified. Building occupants often express their dissatisfaction with the quality of the overall indoor environment in the building. (Joshi. 2008)

Symptoms

According to Joshi (2008) the occupants may suffer a non-specific illness without a specific identifiable cause, such as:

- Nausea
- Irritation of the eyes, nose and throat
- Mental fatigue “difficulty in concentration”
- Headaches

- Irritation “eye or throat or skin”
- Dizziness.
- flu-like symptoms
- Increase in asthma attacks
- personality changes

Hazards of SBS

Biological contaminants may contribute to cause fever, chills, cough, chest tightness, muscle aches and allergic reactions. This is extremely dangerous in a high dense office because airborne diseases can spread rapidly from one worker to another which can also spread throughout the building air-conditioning systems e.g., Legionnaire's disease due to legionella organisms. Joshi (2008).

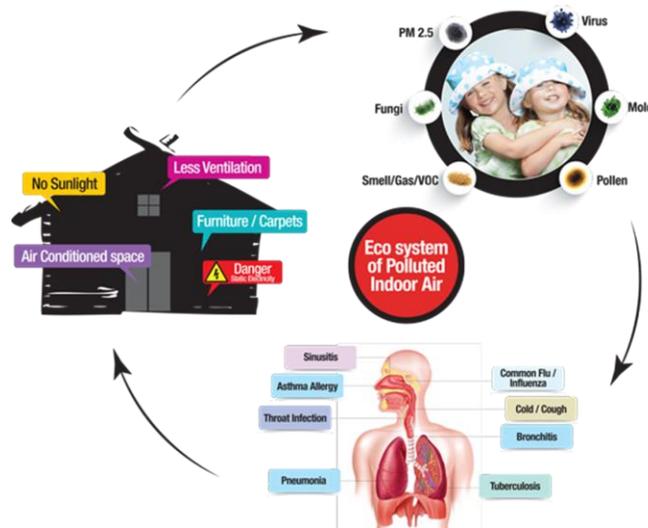
Figure 2. (Black mold in air vents, n.d.).



Causes of SBS

The causes of SBS may range from building design flaws to micro-organism. Stolwijk (1991) classified indoor air contaminants as:

- Contamination with a biological origin including bacteria and fungi, the toxins produced by micro-organisms, pollen or house dust mites, or proteins shed by people, pets, or pests.
- Volatile organic compounds are associated with a range of building materials, finishes, cleaning agents, cosmetics, and consumer products.
- Contaminants associated with tobacco smoking.

Figure 3. (SBS, n.d.)

The characterization of the contaminants is important to limit sources which are involved and how much they are likely to emit, concentrate and produce in a variety of settings in order to effectively reduce emissions and concentrations in the building environment. (Stolwijk. 1991).

According to Joshi (2008) and Stolwijk (1991) the source of the main contaminants responsible for SBS are:

1. Chemical contaminants

- Contaminants from outdoor sources “enters due to the poorly located air intake vents, windows and other openings”.
 - Motor vehicle exhaust.
 - Plumbing vents and building exhausts.
 - Combustion byproducts.
 - Radon, formaldehyde, asbestos, dust and lead.
- From indoor sources. The volatile organic compounds (VOC) are the most common contaminant. VOC sources mostly are:
 - Adhesives, upholstery, carpeting, copy machines, manufactured wood products, pesticides & cleaning agents.
 - Environmental tobacco smoke & respirable particulate matter.
 - Combustion byproducts from stove, fireplace and unvented space heater.
 - Synthetic fragrances in personal care products or in cleaning and maintenance products also contribute to the contamination.

2. Biological contaminants

- The biological contaminants that breed and spread in stagnant water include pollen, bacteria, viruses, fungus, molds, etc in which has accumulated in humidifiers, drainpipes and other places or materials with the building capable of collecting and preserving moisture.
- Insect and bird droppings can also be a source of biological contamination.

3. Inadequate ventilation

- Building over population, low ventilation efficiency and renovation using strong contaminant sources.
- Inadequate maintenance of HVAC systems.
- Inadequate training of operators of complex building systems.
- Condensation or leakage of water.
- Low employee morale.

4. Electromagnetic radiation

High magnetic fields generated by extensive wiring with improper grounding and electromagnetic radiation from appliance such as PCs, microwave and TVs which ionizes the air, which have been linked to cancer.

5. Psychological factors

Researchers have found a correlation between SBS and employee's negative behavior like work stress or dissatisfaction and poor communication.

6. Poor and inappropriate lighting with absence of sunlight, bad acoustics, poor ergonomics and humidity.

SBS and COVID-19

The policy of quarantine at home during the Covid-19 pandemic contributed in increasing SBS in buildings with poor ventilation due to the increase of many activities such as cooking and office work through telecommuting (such as a printer). In addition to the use of various disinfectants, especially chlorine-based compounds in indoor spaces. In addition, SBS causes Covid-19 like symptoms which may spread panic and stress among residents (Hosseini, Fouladi-Fard, & Aali, 2020).

PREVENTION AND CONTROL

Measuring tools

There are many ways to assess a building checking for possible signs of SBS which as Stolwijk (1991) mentioned may include one or all of the following:

1. Occupants; their observations can effectively act as early detection tool thus they should be given instructions toward whom inquires, and complaints should be addressed to.
2. Conducting a 'walk-through' routine scheduled inspection of the problem areas such as photocopiers, insulation & cleaning materials and collected information should be documented as per the following:

- a. Operating personnel should acquire a written schedule of inspections.
 - b. A logbook should be filled after every inspection and occupants' inquiries and complaints must be recorded as well.
 - c. Regular review of the logbook should help identifying the possible source of the problem.
 - d. Operating personnel, occupants' contact person tenants and owners should have access to the lo book.
3. Routine air sampling to evaluate IAQ and identify contaminants.
 - a. measurement of temperature, humidity, air movement and other comfort parameters.
 - b. measurement of formaldehyde, carbon dioxide, carbon monoxide, ozone and respirable particles.
 - c. examination of the ventilation system efficiency.
 - d. conduct tests for biological organisms in any water in the system.
 4. Establishing a cause-and-effect relationship between symptoms and IAQ.

Prevention

Before attempting or administering any change to rectify or maintain IAQ, operators must first be familiar with the domestic and national IAQ standards and protocols and abide to them to ensure total compliance and avoid fines.

To avoid the problems related to inadequate ventilation the American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) recently revised ventilation standards to a minimum outdoor air flow rate of 15 to 20 cfm/person in office spaces and 60 cfm/person in smoking lounges and 8.4 air exchanges per 24 h. (Joshi. 2008)

Domestically the Dubai Municipality standard for IAQ is mentioned in the following table:

Figure 4. Ibrahim. (2015)

Sampling Schedule	Type of Samples	Maximum Acceptable	Sampling Duration
Initial test completed by 31 December 2011.	Formaldehyde	< 0.08 ppm	8- hour continuous monitoring (8 hour time-weighted average [TWA])
	Total Volatile Organic Compound (TVOC)	< 300 micrograms/ m ³	
Further testing within 5 years of last compliant test.	Respirable Dust (<10 microns)	< 150 micrograms/ m ³	
	Ozone	0.06 ppm (120 micrograms/ m ³)	
	Carbon Dioxide	800 ppm (1440 microgram/ m ³)	
	Carbon Monoxide	9 ppm (10 micrograms/ m ³)	
	Bacteria	500 CFU/ m ³ (Algar plate)	
	Fungi	500 CFU/ m ³ (Algar plate)	

Best prevention and controlling practices according to Joshi (2008) and Ibrahim. (2015) are:

1. Increase the ventilation rates and air distribution to meet the local standards.
2. Routine maintenance to remove or modify the source of pollutant such as replacing water-stained ceiling tiles and carpets, checking of HVAC systems, minimizing the use of electronic items ...etc.
3. Environmental tobacco smoke “according to the Local Order No 11- 2003, smoking is prohibited in all public areas”.
4. Allowing time for building material in new areas to off-gas pollutants before occupancy.
5. Prevent or limit the use high pollutants materials. All buildings must follow the rules regarding the limits of Volatile Organic Compound (VOC).
6. Prevent and block sources of micro-organism by monitoring humidity and water leakage and make sure that the HVAC must be able to dehumidify at 1%.
7. Apply air cleaning methods e.g. use of frosted glass and skylights that give access to natural light, terrace gardens and indoor plants that absorb carbon monoxide and formaldehyde from the air as well as using air filters to minimize the size of pollutants.
8. Education and communication; air quality is a mutual responsibility therefore air quality management program should spread the knowledge of standards and precautions to and allow all to alert operators of any possible hazard or problem as soon as it is noticed.
9. Legislation, abiding to local and international rules and standards.

10. Research facilitation of IAQ throughout construction, operation & maintenance practices, and good design:
- Site status; choosing the right location for residential and industrial areas in harmony with the surrounding.
 - Construction concepts; environmental building material, waterproof and well ventilated and ensuring a proper wiring system.
 - Interiors; a matching color and lighting with the surrounding is an important element, thermal insulation should be balanced with heat retention

Conclusion

To sum up everything that has been stated so far, Sick Building Syndrome is a phenomena of building occupants experiencing ill health symptoms when spending time in a specific room, zone, or throughout the building. It occurs in buildings with low and poor maintenance status, zones or areas within the building with poor ventilation and adequate lightening and dense buildings where occupants use lots of electrical appliances and chemicals like disinfectants.

Early detection requires occupants to be vigilant to its signs or causes and report it to the building operator or owner. It is also important to check if other building occupants suffer from the same illness or symptoms (physically or mentally) specially when there is no clear cause for it.

To keep our homes and offices safe, the building must be routinely inspected for any water leakage, avoid using strong chemicals, confirm the efficiency of ventilators and check the indoor air quality in response to the local HVAC guidelines and rules.

Finally, in view of quarantine at home during the Covid-19 pandemic, it is advised to limit the use of electronics, chemicals like disinfectants, and ensuring that the space in use is well ventilated with adequate lighting.

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TEACHERS' PERCEPTIONS OF THE ELEMENTS OF MOTIVATION IN AN EFL CLASSROOM – A QUALITATIVE DESCRIPTIVE STUDY

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Abstract

English language has always been a topic of hot discussion. Especially, in the Gulf regions, where English is taught as a foreign language, learners cannot give the required attention and importance to it primarily because most subjects are taught in Arabic and due to the ultimate importance given to core subjects like Math and Science. Students' motivation to learn English has been debated, too. Motivation provides the primary impetus to initiate second language (L2) learning and later becomes the driving force that strengthens its long-term implications on learning.

The interest to score high and learn from the English language has significantly dropped in recent years. This low motivation could be a result of several factors like the subject materials, teachers' attitudes towards their pupils, teaching methods and social factors like students' interests, and preference for their mother tongue over English. English somewhere, remains in the background. This study aims to uncover some reasons for this reduced importance given to the subject along with how students' motivation can be maintained and upscaled using different strategies. This qualitative study attempts to arrive at a rich description of the participants and their perceptions on student motivation towards EFL learning in the UAE public secondary school context.

Six English teachers teaching at public secondary schools in the Emirates of Sharjah and Ajman were interviewed and descriptive data were generated through semi-structured interviews which revealed that students' motivation in learning English has seen a remarkable shift from demotivation to slightly motivated due to reasons like new and enhanced curriculum, English speaking English language teachers and the variety of strategies that teachers employ to retain their learners' interests in English. This effect is also doubled with the English medium of instruction of some subjects and the globalized status of English as a language of communication. English is considered difficult when compared with Arabic. Teachers' opinions and perceptions also reveal that English learners now seem to have understood the long-term implications of this language, especially in college education, studying abroad and when visiting English-speaking countries.

The results reveal that motivation levels have definitely increased in the last couple of years, and some common strategies are more likely applicable and used with success in most secondary schools. If motivated intrinsically, students can be encouraged to participate and excel in this language. Furthermore, teacher participants went on to agree that a variety of activities and newness in teaching strategies prompt students towards participating more and thus learn better. English language learners are more interested in classes that have motivated and understanding teachers. The data collected and interpreted, therefore suggest that motivation is instrumentally triggered in the UAE secondary educational context. Encouraging and experienced teachers also bring a huge difference to this learning process.

Key words: *student motivation, second-language learning, intrinsic motivation, academic performance, descriptive analysis*

Introduction

Motivation is widely used in the context of social sciences, psychology and educational studies. It provides the primary impetus to initiate second language (L2) learning and later becomes the driving force that strengthens its long term implications on learning. Significant motivation research has actively been done within the study of second language acquisition (SLA) in the past decade. Motivation is greatly influenced by either a great joy or a creative moment or a major problem, threat or an emergency. It can simultaneously turn attitudes into many directions (Maslow 1970). A peculiar characteristic of the human organism, according to Maslow (1970) is that the domination of a certain characteristic leads the individual to extremely higher motivation levels. Swain and Burnaby's study on parents (1976 in Dornyei and Ryan 2015) affirms that perfectionist tendencies, for example significantly correlated with L2 learning performance. Motivation to learn a second language depends on the extent or the desire to which the individual tries to learn the language. As Lucas (2010) says that learners who are intrinsically motivated in reading and speaking are also intrinsically motivated through knowledge and achievement. Once students discover advantages of the language and how learning and mastering the language can help them survive in a world full of emerging demands, the desire to learn English increases and eventually leading them to master the skill.

Effective teachers are those who constitute goals and instill the need and attitude to achieve goals in their students, that will sustain long-term involvement in learning. Ames (1990) talks about how students' self is intricately tied up with their self-efficacy and academic progress. Given the condition, they will be willing to try and persist on difficult tasks thus boosting their motivation to perform better in their English classrooms (Ames 1990). Being motivated is to be moved to do something (Ryan and Deci 2000). A student who is motivated to learn and master skills understands the potential value of those skills and is willing to learn with the best of his intentions and interests. Students' motivation can be triggered by the motivational strategies that teachers employ in their language classrooms. Factors like teachers' positive behaviour, giving learners autonomy in their own learning or stimulating learning tasks can lead to positive motivation towards positive academic or worldly outcomes. In a positivistic experimental study by Alqahtani (2016) on 117 Saudi EFL teachers reveal that most EFL teachers considered factors like positive teacher behaviour, familiarizing learners with second language culture and values, pleasant classroom atmosphere and encouraging learners' self-confidence from the many were more stimulating and motivating strategies successful with students.

Motivation in second language learning can be triggered by various other factors like context where the language is being taught, its relative importance in usage and communication, the effects of globalization on the importance of English, the place of English in the curriculum and more. Researchers like Ushioda (2011) regard globalization and the dominant status of English as a key factor in L2 motivation. Other like Murray et al. (2011) suggest that motivation is a working system in SLA and that it varies from time to time with no restrictions to the educational context The

goal of teaching English in the Arab countries has been generally stated to have produced a culturally competent citizen through the ability to write, speak and understand English efficiently (Abd-el-Jawad 1987 and Al Batal 1988 as cited in Drbseh, Majed 2015).

This ability impacts students' success and failure in their learning. Mahrooqi and Denman (2014) investigated 100 Omani university students' sources of motivation in the Omani EFL context and found that socio-cultural and school contexts and peer pressure were dominant sources of motivation whereas teachers and students' own attitudes were major sources of their demotivation. This study primarily focuses on finding out and interpreting teachers' perceptions of their students' motivation and demotivation to learn English in the EFL context in the UAE public schools. English learners in the Gulf are not very motivated to learn English. They don't intend to learn an additional language as they don't speak the language (Khaleej Times 2013). Lack of career guidance is also one of the reasons for their demotivation. With this purpose, this study intends to find out what motivates today's English learners and what strategies are most commonly applied in the secondary public school contexts by EFL teachers.

Literature Review

English Teaching in the Arabic-speaking context in the UAE and Student Motivation

English is a dominant language not only in the UAE but in the MENA region. Its importance in the curriculum has been immense considering its economic globalized status. It is not only the national language of many countries but also a language of communication in most parts of the world. English language education has gained a lot of progress in recent years due to the strong and growing conviction of the government that mastery in this language is vital to the country's economic growth, especially in the international sectors. All students must learn English, says the UAE Education Ministry. Considering the struggles of the students scoring in the English language, students in the UAE are not exempted from taking English into their courses (The National, 2012).

English is being embraced by educational institutes, companies and schools which has led to an increase in the proficiency levels of its users. Students who study English need to maintain their interest levels. The desire to learn English can sometimes dominate students internally as well as externally. Teachers and educators are going out of their ways to make life easier for non-English speaking students (Khaleej Times 2017). Since the later decades of the 20th century, L2 learning has been increasingly characterized by the linguistic and socio-cultural diversity of English as well as the association of the learners' self with the language's ethnicity. Gardener (1985) implies a psychological approach to learning English with a sincerer and a personal interest in the people and the culture of the target language.

The study of student motivation in L2 in the past 50 years has taken a new direction towards understanding how teachers can heighten motivation in their students and classrooms. L2 Motivation researchers link second language learning to be much more than a communication code

and more related to a person's own identity. This theoretical shift from the notion of integrative motivation to the internal domain of self and identity is remarkably highlighted by Dornyei (2009) as the emergence of the L2 Motivational Self-System. Researchers like Norton (2000), Pavlenko (2002) and Coetzee-Van Rooy (2006) (as cited in Dornyei and Ushioda 2009) have emphasized on the integration of the language learner with the language learning context. The L2 motivational self-system emphasizes on higher levels of L2 motivation along with a stronger ideal L2 self-combined with pragmatic motives to learn and master the L2. This theory is characterized by the imaginative interplay of self-identities of the learner with the resultant purposive behaviours that mark his/her intentions to master the language. Learners feel congruent with important social identities thus empowering the role of imagination in L2 learning. Martinović (2017) and Jakovac and Kamenov (2012) (as cited in Martinovic 2017) have studied Dornyei's motivational model to explain difference among language learners. Martinović & Poljaković's (2010) study on English language learning and its motivation in non-language learners of a university found that motivation was mostly affiliated with positive attitudes towards the teacher and positive feelings towards the L2 learning.

L2 Motivation and Students

Motivational strategies according to Dornyei and Ushioda (2009), as exerted by teachers, should endure positive effects. This process can involve four aspects, namely the goal, the effort, the desire to attain the goal and a favourable attitude toward the activity of learning the language. English teachers have to deal with the stress of low motivation levels, especially with slow learners and on how to create attractive learning atmospheres for them. This low motivation could be a result of several factors like the materials, teachers' attitudes towards their pupils, teaching methods and social factors like students' interests, and preference for their mother tongue over English. This can affect students both intrinsically and extrinsically. Intrinsic motivation involves an inner interest in the subject material, the challenges involved and the attitude toward accepting and conquering the challenges. It involves learning the language for the inherent satisfaction of one's own self and curiosity. Extrinsic motivation, on the other hand, affects from external factors. It could be a fear of the education system, external rewards like the material benefits of the achievements due to language acquisition, or because the student has personally identified with the value of learning the language. These factors affect students in the Gulf the most than any other region mainly because students here identify more with Arabic than English and that an intrinsic attachment with the language is rare but only possible when students realize the material benefits of learning such a foreign language.

Gardener and Lambert (1972) differentiate between two kinds of motivation. Integrative motivation occurs when the learner is more culturally involved and wishes to learn more about the cultural community in an open-minded way. In contrast, instrumental motivation occurs when the purpose of language learning reflects more utilitarian values of linguistic achievement. So the drive to improve academically and to improve one's self is instrumental motivation. The latter, in the

case of this study, has been the case with the learners learning the English language. Studies have revealed a marked relationship between the utilitarian purpose of English language learning and Arab learners' negative attitude towards English and its domains. EFL learners are more inclined and interested in learning English extrinsically and instrumentally.

In a study by Gholami, Allahyar and Rafik-Galea (2012) in the Iranian, high-school EFL context reveals that instrumental integration is a dominant motivation type among 59% of the high-school EFL learners. This implies that most students are inclined to learn English and excel due to reasons such as achieving high scores, passing exams and having a better chance of getting into renowned universities. Out of the 100 EFL Omani learners who were interviewed, 49% of the learners were motivated due to their association with English from their schooling years. 25% were more extrinsically motivated to learn English as they loved learning English and also because they had to learn for academic benefits (AlMahrooqi and Denman 2014).

Teachers' perceptions of Students' Motivation

According to teachers, providing more autonomy and freedom of interest and choice to students will influence motivation to a higher extent. Teachers' perceptions of their students' motivation and what strategies affect their motivation is key towards understanding L2 learning and motivation. A study on 200 Hungarian English teachers was conducted by Dornyei and Csizer (1998) to understand what motivational strategies best influenced their English language learners in the classroom. Teachers perceived clear instructions, good rapport with students, encouraging self-confidence among their students along with learners' autonomy and interest towards the subject were some crucial elements of language learning that increased learners' motivation to learn English.

Teachers as direct contributors to influencing motivation to learn English has also been studied by McCombs (1997). McCombs reveals that the teaching style and the patterns of interaction have either a positive or a negative effect on students' motivation. Students respond positively to well-organized courses taught by enthusiastic instructors. McCombs (1991) also studies the relationship between students' motivation, self-efficacy levels and task mastery goals towards student achievement and learning outcomes. Furthermore, with regards to learner-centered activities and its effect on students' evaluation and assessment, McCombs further asserts that more autonomy given to students along with preference to learner-centered beliefs lead to enhanced students' motivation and performance in assessment. Some relevant empirical studies on teachers' perceptions of what motivational strategies are useful among their learners are those of Dornyei and Csizer (1998), Cheng and Dornyei (2007) and Alrabai (2010). In the empirical study conducted by Alrabai (2010), 119 Saudi EFL teachers were surveyed to rate motivational strategies in the order of their importance. Encouraging learner autonomy, attractive learning tasks and raising student expectations of the task outcomes were rated in the highest order.

UAE students are ambitious to study abroad as well as the desire to speak fluently in public with English speakers. Hence, their interests and reasons to learn English should be studied from this perspective. Gardner and Lambert (1972) and Spolsky (1969) found that the integrative aspect of learning a foreign language leads to higher proficiency scores. In another study by AlShehri and Etherington (2017) on Saudi EFL teachers showed that motivational strategies that fostered higher academic outcomes mainly motivated EFL learners. Lukmani (1972) demonstrated that among Marathi speaking Indian students learning English in India, instrumental motivation to learn English played a substantial role.

This was because English was considered a global communicative language for the students and can be acquired successfully for international success. Al Ta'ani's (2018) study on Emirati EFL learners' instrumental and integrative motivation at Al Jazeera University in Dubai reveal that the students had high levels of both the motivation with instrumental motivation surpassing slightly over the other. With this theoretical background, this study further intends to investigate and understand the perceptions of expat teachers of their learners' motivation to learn English, strategies that motivate them, instrumental and integrative motivations that play pivotal roles in the public secondary schools and how the same can be enhanced in the long-run.

RESEARCH Questions

The following are the questions that this paper aims to study:

1. How do English teachers perceive their learners' motivation in EFL lessons?
2. What are some of the reasons, according to the teachers, that demotivate learners from learning English?
3. What strategies do teachers make use of to enhance or encourage their learners' motivation to learn English?
4. How can students be kept motivated to learn English which would also help with improved academic performance?

Methodology

This is a qualitative descriptive study. A qualitative research is naturalistic. It interprets and makes sense of the meanings people bring to them (Denzin and Lincoln 2005). Qualitative research also explores the problem and discovers issues underlying them thus highlighting the various dimensions and characteristics of the problem. To understand this particular social and cultural context, a qualitative methodology is most suitable as it allows for the complexities and differences of the secondary school context in the realm of English language learning to be explored and studied in good detail. Data is derived from semi-structured open-ended interviews which gave a

further descriptive sketch of the instrumental and integrative motivations that encourage Arabic speaking English language learners. Another distinctive characteristic of a qualitative study is that it allows for an in-depth data analysis of the naturally shaping knowledge during the course of the study. Interactions and perspectives are diverse. There could be multiple realities based on the participants' perspectives but in the end, a generalization could be reached which could be a representative of the larger population. As a qualitative descriptive study, this is a comprehensive summarization of specific events experienced by the participants. It is more of description of a phenomenon and less of interpretation. It is a description of the motivational strategies at play that are most used in the public secondary school contexts to motivate English learners. This study is also characterized by simultaneous data collection and analysis.

Validity and Reliability in qualitative research are the integrity in the application of the methods. It is also the precision with which the findings are presented.

This study, with the help of its chosen participants' similarities in their teaching backgrounds and the research questions, addresses the credibility, transferability and dependability of its findings (Guba 1981 as cited in Gay, Mills and Airasian 2012). The stability and objectivity of the data were very carefully maintained by the researcher.

Method

Information was collected through open-ended semi-structured interviews. Teachers had opportunities to elaborate on the issues and express their experiences and feelings freely.

Qualitative research observes behaviour in everyday situations. Interviews not only ask questions but also bring out hidden motives and ideologies those held by the participants. Carolyn Baker (1982:109) (in Silverman 2001) argues that interviews are attempts to portray individual identities wherein the interviewee and the interviewer construct and represent their own versions of the world they live in. In this study the participants talk about motivation strategies that best suit the individual teachers involved along with specific reasons that lead to demotivation in their students. They are an authentic exchange of subjective experiences. The ideas expressed in interviews can have a direct impact on the knowledge that the researcher wishes to access. Hence, probing questions were asked to direct participants towards the target. All interviews were audio-taped and transcribed (Appendix B).

Participants

Six female English language teachers who had different educational and professional backgrounds were chosen and who had at least 3 years of teaching experience in the UAE public secondary schools. They were chosen through purposeful sampling. Their UAE teaching experience was crucial for the study to have diverse interpretations of what they thought about their students' motivation to English was and what could help them best to motivate their learners for better academic performances. They were interviewed with seven questions, five of which were open-ended. Prior consent was taken from each of the teachers. All ethical elements like the voluntary nature of the participation, withdrawal along with the purpose of the study and confidentiality of the information were considered.

Results and Discussion

The results from this study are presented in four sections. The results were analyzed using the motivation model as mentioned in the theoretical framework and the researcher's own experience (Hammersley and Atkinson 1995 as cited in Marion and Kara 2017). To justify the purpose of the study, a proper way of arriving at answering the research questions was extremely important. After a careful analysis of all the answers recorded from the interviews, the following four major themes were formed.

1. Teachers' perceptions of learners' motivation to learn English in the UAE public secondary school context.
2. Some factors that demotivate learners to learn English as a foreign language.
3. Some positive strategies applied by teachers to motivate learners to learn English in the public secondary schools.
4. Some effective factors that can motivate students in the long run for improved academic performance.

A common pattern of students' demotivation and the difficulty of the English language as compared to learning to speak Arabic and strategies to motivate the learners was noticed in the initial stage and were common for most of the participant teachers along with their perceptions on how this motivation can be maintained and reinforced in the long run. All the teachers agreed that English was a difficult subject and was considered not important in the school's syllabus.

If motivated intrinsically, students could be encouraged to participate and excel in this language. Students need to realize the importance of English language in the job market and its communicative purpose. Once, determined to learn the language for a personal goal, motivation can be directed positively and thus lead students to excel academically. This implies that students

who are instrumentally motivated generally score well and easily gain entry in colleges and universities.

With regards to instrumental motivation, Susan says that “When students are internally motivated, they fall into the track of developing themselves and improving themselves”. Emily, on the other hand, says that unless students are inclined to learn for assessments and school inspections, they won’t feel motivated to learn. Rachael too, explains that the incentive of getting into the best universities and getting good jobs can motivate students remarkably.

With regards to teachers’ perceptions of their learners’ motivation in learning English, all participants agreed that students were more motivated now as compared to the past. Curriculum delivery, teachers’ attitudes, teaching methodologies and activities are now varied and full of choices and cater to students’ needs and interests. As mentioned in the literature, students never felt the need to excel in English. Until the 1990s, the UAE curriculum heavily relied on Arabic as the medium of instruction with very less focus on developing English language skills. With the advent of the early 20th century and the introduction of the Rashid Smart Learning Programme, more emphasis was laid on English as the medium of instruction and developing 21st-century skills (Ridge, Kippels and Farah 2017). This has led to teachers getting away from teacher-centered methods and embedding technology in their lessons. This has impacted positively on students’ motivation for learning English.

With regards to learners’ demotivation, teachers believed that it was mostly caused by placing English as a secondary subject in the school curriculum. Passing in English was the only criteria and not excelling in it. Furthermore, English is considered as a difficult language when compared with Arabic due to the complexities in the sounds and grammar.

Aisha in this context says, “I think the difficulty of the language. It is difficult for them”. Aisha says, “When they make errors, people laugh at them.” Supporting Aisha’s view, Fay has a similar opinion when she says, “...they will pronounce it wrong. So, and, they don’t like to appear between their friends that they don’t know how to read.” Not catering to students’ needs and interests is another reason for their demotivation. Mary to this relates that “When you are using the board, you know, the pen and the paper and the book only. They don’t relate to that style anymore. So, I found that a, really big factor.”

To answer the third question on what strategies, do teachers apply to motivate their learners, almost all teachers agreed that if the implications of its use are global and once students understand and realize this, they can be successful in the real world. Mary says, “... What I try to do is to make the real-world applicable. If I can show them that English is not just about your grades, it’s the real world. It’s how things work. And if you don’t have it you are going to be behind in the game”. Susan convinces that if students want to excel in life, they should understand the purpose of their learning and this can only happen if students are instrumentally motivated. “... their motivation

levels to learn a new language where they have not been practically using this anywhere in their life is completely low.

They also ***do not see the purpose of learning*** a new language... students who are not aware of their goal, it's a completely difficult and challenging task to make them learn a new language." Some useful strategies like adapting materials and modifying resources attracted students to learn English. English language learners are more interested in classes that have motivated and understanding teachers. A stimulating teacher or course may also motivate EFL learners (Dornyei and Schmidt 2001). Integrative motivation also plays a substantial role in encouraging students. Aisha says that due to change in the English curriculum, teachers are now more patient, and students have become ambitious. "They dream of travelling and they want to be in different countries, in western countries." According to Fay, "they have to learn English, so they can go to university. So, they are going to know and realise the link between the English language and their life. And the importance of English in their life". Rachael finds that "Some students really want to go abroad and study."

All teachers agreed that if students were motivated from within, they could master the language with good grades and this would also improve their communication. An important responsibility of the English teacher should be to intrinsically motivate their students to learn English and make them realize its communicative and global benefits. Research in the UAE suggests that English teachers go a long way to motivate their learners with respect to adapting curriculum, using innovating and interesting strategies and more (Khaleej Times 2017). With novel changes in the curriculum, new topics to learn, encouraging and understanding teachers, supporting school system have brought in big changes in students' attitudes towards learning English. They can now be instrumentally motivated upon considering the benefits of learning the language and also the benefits in school grades.

Furthermore, certain expressions like Mary's, "***clear academic goals***," "***unless that's there***," Aisha's, "***we do face challenges***," "***we have limits***," Rachael's, "***especially in English***," Emily's, "won't be ***inclined to learn that particular subject***" and Susan's "***no exposure to the language***" express their perceptions and challenges that they face when motivating their learners. Hence data presented are also valid in their interpretation.

EFL teachers in the Gulf continue to apply motivational strategies to encourage their learners (Qashoa 2006, Khaleej Times 2017 and AL-Taani 2018). Sometimes, the results are fruitful and worth working on and sometimes change is the solution. Whatever the answers, research in this field continues to investigate how effectively this motivation in the EFL context can be improvised and be successful.

As reiterated by Dornyei's (2009) L2 motivational self-system and Gardner's psychological approach theory (1985), EFL teachers in this context want their learners to be motivated from within by realizing its benefits for a larger goal and feel encouraged and regard it as important a subject as the math and sciences. The participants express context-relevant and detailed statements that are apt for this setting. Not a lot has been researched on EFL motivation in the UAE region and the results from this study can be used to develop further theories for Arabic speaking learners on what actually motivates them. The results can also benefit teachers in self-reflecting on their teaching methodologies particularly in the Gulf as this is not a 'one size fits all' situation. Moreover, the UAE research area remains uninformed of the struggles and difficulties EFL teachers face when teaching English. This study would help in this understanding and at the same time aid EFL teachers towards adapting their approaches and strategies to better support their learners' motivation. Teachers' perceptions from this study can also help new EFL teachers in this region to understand the context better. Interpretations from the data can, therefore, be applied to different EFL contexts in the Gulf region.

Conclusion

Learners in this context require a certain amount of encouragement and motive from within to learn the language. It could be the possible benefits of learning English in the world ahead of them, the benefits at work-place and its communicative benefits or it could be to achieve different results and expectations from this learning.

The results can lead the way to new researchers and can provide a path of relative possibilities and perceptions to look for. The findings here thus have some applicability and transferability. Arab learners need much more than just a new and exciting curriculum. It is suggested that this approach can be used for further research in both private and public secondary school contexts. It would be interesting to know what motivates non-Arab learners to learn English. Are they instrumentally or integratively motivated? Or is there any other approach dominant? Furthermore, school education systems should take into consideration student motivation while designing an English language curriculum. This modification could lead to new and positive changes.

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Appendix A

Interview questions

1. How long have you been teaching English in the UAE?
2. What age-group do you teach?
3. What do you think about their motivation levels when learning English? Are they always motivated or do you face challenges?
4. Why do Arabic speaking English language learners feel demotivated to learn English? What are some of the most common reasons?
5. What strategies do you apply to keep your learners motivated to learn English? Do they always succeed? If not, then what do try next?
6. How can you keep your learners motivated in the long run? What strategies can boost their motivation?
7. How do you think high motivation levels would lead to improved academic performance in the English language? Do you think motivation plays a key role in their academic performance?

Appendix B - Interview Transcriptions

Interviewer and Mary

Interviewer: This is Suchitra Verma, EdD student at the University of Exeter. Thank you for participating in my short study. This study is on Teachers' Perceptions of the Elements of Motivation in an EFL Classroom: A Qualitative Descriptive Study. Let me remind you that your participation completely voluntary and you can withdraw at any time during the interview should you wish to not answer any question. So, here we go

Mary: Okay.

Interviewer: How long have you been teaching in the UAE?

Mary: September 17th, will be the end of my 3rd year. So I am starting my 4th school year.

Interviewer: Okay. What age-group do you teach?

Mary: I teach from 16 to 18· 12th grade students.

Interviewer: What do you think about their motivation levels when learning English? Are they always motivated or do you face challenges?

Mary: Amm... I find most of them are motivated to a certain degree as far as learning to speak better, but in the advanced class, I don't generally have any troubles because they have clear academic goals. But with the general students, they don't really know where they are headed, so the motivation is a little weaker. Yeah (...)

Interviewer: So you do face challenges in the general class?

Mary: Yeah, in the general classes, yes

Interviewer: Why do Arabic speaking English language learners feel demotivated to learn English? What are some of the most common reasons?

Mary: Ah...I think (..) that right now there is not a clear, really strong emphasis within the system of how important English is. There is still a concept that the sciences are more important, which they are very important in this country. But they are forgetting that the foundation of all of that, for future employment is English. So I think that (overlap) has to change within their families, a little bit. (pauses) And also I think that there is (..) you know, I remember someone saying to me that our kids should be learning Hindi because they are exposed to so much more Indian (..) language than they are to English. You know...(pauses).

Interviewer: Especially, the UAE.

Mary: Especially, in the UAE and in Oman was the same case. So there is like a (repeats) dual track they can go on. But we have to remember that for their studies English has to be number 1.

Interviewer: What strategies do you apply to keep your learners motivated to learn English?

Mary: Ahh...Well (..) I am lucky in grade 12 because I have the EmSAT* as the motivator. I am always telling my girls that I am *not just your English teacher* I am also here to teach you about what happening after high school. So, trying to show you that in the work-world *you need to have English* if you want to do anything. If you decide to get married and have kids, your kids are going to *need you* to know English. So English is very important for your life. So that helps me. And I have also got this goal of, you know (..), you have to do the EmSAT. So that's a good thing for me, you know. I am doing grade 10 Professional this year, I am not sure yet how that's going to go. So I will see as of months go on.

Interviewer: And over the years, you have taught different grades. So what have been some common reasons for their demotivation? I mean they will not do EmSAT, so what challenges do you face there?

Mary: I think sometimes it was the material. The material wasn't engaging enough. (..) Aah, the technology is there but the infrastructure, the support wasn't there. So, you know they didn't have the ability to learn the way that they learn in this generation. It's all through technology. And so *unless that's there*, there is not the real motivation. When you are using the board, you know, the pen and the paper and the book only. They don't relate to that style anymore. So I found that a, really *big factor*.

I believe variety is number 1. (..) I have variety but also have consistency. So the girls know on certain days, we are going to do this and on other days, we are going to do that. So they prepare, they know what's coming. It's not all up in the air, you know. And I also try to do a lot of different variety of activities. I like to do some games, some hand outs, some more serious work and alone time and this year with LMS, I am going to have them to do self-study sessions where they can focus on their own weaknesses on LMS. So I try to give them lots of different things and keep them busy, in a way?

Interviewer: What if these strategies don't work? What do you do then?

Mary: Well (..), I rely a lot on humour and I appeal to their human side. Really, you know. We try to make light of it and, you know, on that day that I am struggling, you know, they try to usually say that you are right and then we follow on. You know, I realise they are human beings like us. They get tired so they are demotivated may be, because they have a lot of stuff going on at home. So I have to understand that, too.

Interviewer: So teachers' understanding plays again a key role.

Mary: I (repeats) think so. Yeah. Especially, when it comes to exam times when they are so overwhelmed with their science and maths and all of this and English sometimes tends to take a back seat. But I can say, listen, if you guys go on LMS and do that work for me, (...), then, I'll (repeats) let you have, you know 10 minutes at the end of the lesson today and talk to your friends about physics problem or whatever. Because, you know, again it's a community of teachers, not just me, right? So, yeah.

Interviewer: Right! How can you keep your learners motivated in the long run? What can boost their motivation levels?

Mary: Well, I think in (..) What I'd like to do this year and what I try to do is to make the real world applicable. If I can show them that English is not just about your grades, it's the real world. It's how things

work. And if you don't have it you are going to be behind in the game. If I can get *that* through to them then I think it will affect them long term. I really do. So, I am hoping that this year in grade 12, we can take them to an actual lecture and have them sit in a classroom, listen to a professor in English and have to take notes and tell me what happened the next day. That would give them a sense of 'this is real.' It's not just going to Mac Donalds and ordering a big mac in English.

Interviewer: Real life experience and reflection at the same time.

Mary: Yeah.

Interviewer: How do you think high motivation levels would lead to improved academic performance in the English language? Do you think motivation plays a key role in achieving good scores?

Mary: Ah (..) I think (..) it's kind of half-and-half. I think it's obligation, need and motivation together. Because (..) they have to pass all their courses so they *have to study* whether they like it or not. (..) The subjects that they are personally interested in they will have more motivation with. Like I said, everyone is an individual and some girls that are very good in math will study furiously in math. If they are not so good in English then huh (...) tomorrow, tomorrow, tomorrow, you know. So, it's part motivation and part obligation.

Interviewer: Well, that's it then. That's the end of the interview. Thank you very much.

Mary: You are welcome!

Interviewer and Aisha

Interviewer: This is Suchitra Verma, EdD student at the University of Exeter. Thank you for participating in my short study. This study is on Teachers' Perceptions of the Elements of Motivation in an EFL Classroom: A Qualitative Descriptive Study. Let me remind you that your participation entirely voluntary and you can withdraw at any time during the interview should you wish to not answer any question. Let's start!

Aisha: Yes

Interviewer: How long have you been teaching in the UAE?

Aisha: This is year 21.

Interviewer: What age-group do you teach?

Aisha: I have taught all group levels. I started with cycle 1. I taught in cycle 1 for 3 years. I didn't teach in cycle 2 but when I first started it was a school that had all group levels. So, in those years also I taught grades 7 and 9. But later on the rest of my experience is with cycle 3.

Interviewer: What do you think about your students' motivation levels when learning English? Are they always motivated or do you face challenges?

Aisha: Okay, now in the past it was different. Students lacked motivation in a very horrible way because there was no reason for them to learn English. They always asked why should I learn English, why should I pay attention, why should I study English. I am an Arab I will study in here in university and they don't have any reason to learn English. But recently, I found that students' motivation has increased for several reasons. First, most of them now are very ambitious. They want to study abroad. This is one reason. They dream of travelling and they want to be in different countries, in western countries. And so many others, also a huge number of students want to study here and they want to join university and they know that even in the university, even in the UAE, they have to study in English. Plus, having other subjects being taught in English made it more interesting. Then new books also are more (...) the topics are different. It's not about the history, it's not about the UAE only. It's about everything. It's about the students' lives. They touch the students' interests and they understand the students better and they do understand the new generations in a better way. Students became ambitious, teachers became more understanding and more patient. Now, what was the question (laughs)?

Interviewer: So, what do you think about their motivation levels? You say they they have been increased.

Aisha: They have increased but not in the way that we desire. We still want them to work on increasing them more and more. The (repeats) motivation of students is very good in the advanced stream but not in the general stream. Especially in girls' schools. So many of them plan to get married and they don't have any future plans regarding their education. So they don't find a reason for studying especially English. Because it is a completely different subject to the other subjects that they are studying. She can manage in any subject taught in Arabic but not in English.

Interviewer: So, are they always motivated or do you face challenges?

Aisha: Of course, we do face challenges. Sometimes when students get bad marks, they do work hard and they get bad marks. They feel demotivated. They are not rewarded. If nobody encourages them, if they are tired, if they are (repeats) stressed with other exams and other subjects, they always prefer to study chemistry, maths. They think that these subjects are worth their effort more than studying English. Sometimes, they are not motivated enough but we can manage by rewarding, praise, reinforcement, yes. (..) Sometimes (..), marks, it makes a difference. Especially in the advanced stream, they do pay attention to the marks. They care about marks, I mean.

Interviewer: Why do Arabic speaking English language learners feel demotivated to learn English?

Aisha: It is difficult for them. There are so many differences between Arabic and English as languages. And not all of them are demotivated but the ones who are, I think, they lack the reason to why should I learn, why should they learn English as a second language. And may be those differences sometimes hinder their

learning and (..) having no (...) understanding teachers to help and support will make the things, will make the issue worse.

Interviewer: Yeah. What do you think are some of the most common reasons of their demotivation?

Aisha: Okay, first of all, I think the difficulty of the language, if they are unaware of the differences between the two languages and how to deal with them, then they will, it will become more difficult and this will make them demotivated. An angry teacher! Impatient teacher! Having no reason to study English. They should have a reason; they should have a target. They should be motivated internally. Sometimes, parents are not aware of the importance of reinforcement and encouragement. So there is no one at home that encourages the students. So many things. Sorry, and sometimes errors. When they make errors, people laugh at them. This demotivates the students. They need an understanding community and atmosphere of learning.

Interviewer: What strategies do you apply to keep your learners motivated to learn English? Do they always succeed? If not, then what do you do?

Aisha: It was much easier when I used to teach kids. Because then a small piece of candy or a small balloon can make them the happiest person on earth. But when it became to cycle 3, they care about other things. So sometimes I take them outside the classroom, say, in the playground, they don't want to sit at a desk. We can sit on the floor; we can chat in English. I consider that speaking and it attracts them to English. We speak about personal things. I don't mind it. You know, we have limits. And sometimes we can (..), we encourage them. We tell them that, we did this last year, we took the high-achievers on a trip and they liked it a lot. And this, they were rewarded in the morning assembly and this encouraged the other students as well. We can make them play, plays, we can make plays. They can sing in English. So, if they do anything they like, but in English, then I think that they will like it. It works sometime but sometimes, honestly, we are desperate. We try everything. Especially, when students are stressed with other exams. They are not ready to accept any of our attempts to encourage them. Sometimes they are very passive.

Interviewer: How can you keep your learners motivated in the long run? What strategies can boost this long-run motivation?

Aisha: I am like that. If you want to be motivated in the long run, this is the reason. They should believe that, they (they) should believe that, they should be like that. They should have goals. They should set goals for themselves. Believing in these goals and finding out how to achieve these goals, how to reach them will make them have better motivation. This is the only thing I do with my students regarding long-term goals and long-term motivation. They are grade 12 and they are aware and we can discuss things and I always explain them that, I ask them about their dreams and about their goals and I help them think how to reach them and I explain to them that in order to reach these goals they have to study English. They have to have a better English competency so that they can communicate with people, they can read books, they can research, etc.

Interviewer: How do you think high motivation levels would lead to improved academic performance in the English language?

Aisha: As I said, because they will be able to read different resources, they will be able to surf the net without translating because when they translate, it's always, it's mostly wrong translation. They will be able to talk with people. This *will give them confidence* and when they are confident, they can do a lot.

Interviewer: Do you think motivation plays a key role in their academic performance?

Aisha: Of course. But I think they should work on teachers' motivation first before they work on students. If the teacher believes in the importance of motivation, she will work her best, she will do her best in motivating students. And we should know that students are different and their interests are different and the rest depends on their age, nationality, the area they live in. So, a student who lives in the city is different than a student who lives in a remote area. So understand them first. You need to understand the student first then you need to find out what are their interests and what do they like and dislike. What are the difficulties they face and this is very special about each group you teach? Then we can help them have a better motivation and parents should be part of this also and administration also.

Interviewer: Alright! Thank you very much. That was great.

Aisha: You are welcome.

***EmSAT – Emirates Standardised test for Grades 1, 4, 6, 8, 10 and 12 in the UAE. It is an entrance-based test for entry in UAE public universities**

Interviewer and Fay

Interviewer: This is Suchitra Verma, EdD student at the University of Exeter. Thank you for participating in my short study. This study is on Teachers' Perceptions of the Elements of Motivation in an EFL Classroom: A Qualitative Descriptive Study. Let me remind you that your participation entirely voluntary and you can withdraw at any time during the interview should you wish to not answer any question or if you feel uncomfortable. Okay. Shall we begin!

Fay: Yes

Interviewer: Okay. How long have you been teaching English in the UAE?

Fay: For 32 years.

Interviewer: What age-group do you teach?

Fay: Now I have taught different age-groups. Now (..) it's from (...) 11 to 13 years.

Interviewer: And you have also taught cycle 3?

Fay: Yeah. I used to teach grade 9. That will be the age of 14 or sometimes 15 also.

Interviewer: Ok. What do you think about their motivation levels when learning English? Are they always motivated or do you face challenges?

Fay: No, they are motivated. They don't realise the importance of English for them and for their career. Now-a-days, may be they are more motivated, not motivated but, they realise that they have to learn English so they can go to the university and study because all subjects are taught in English in the UAE, except the Arabic subject.

Interviewer: Yes. And you do face challenges?

Fay: Yes, because they are saying that why don't other people learn our language. Why we should learn the English language. So we have to explain to them that if you want to go to university, you have to study there in English. If you travel, you have to communicate with people in English. Now (..), they have over 250 nationalities in the UAE. So they have to communicate with them and sometimes we have to tell to them that if you go to shopping mall, of you go souks, in all these places, you have to speak in English. Aah (...) so, now they are little bit convinced that they have to study English but mostly the first answer is why not other people learn our language.

Interviewer: Why do Arabic speaking English language learners feel demotivated to learn English? What are some of the most common reasons?

Fay: It's really because, they are demotivated to learn any subject and including English. (...) May be because they think it's difficult for them, different reasons. Some students think it's difficult to learn, (...) some (..), some reasons because, other reasons because of decoding of the language. In Arabic, we have all sounds, all letters are pronounced, they are pronounced in the same shape. So it's clear for them. When they read any word, even if they don't see it before, they know how to pronounce it. In English, it's difficult for them because there are silent, many silent letters, and they have many exceptions, grammatical rules. So, (...) if they read the words and see it, the letter, they will pronounce it wrong. So, and, they don't like to appear between their friends that they don't know how to read.

Interviewer: Do you also think that their basic education from their home could be one of the reasons for this demotivation?

Fay: Yeah, because sometimes, they speak in their houses 2 or 3 languages. From their grandmother, mother, father, they have different languages. So, why bother learning another language. Aah (...) And sometimes, I face this long ago, that the students, they don't know even Arabic. So if they don't know English and they don't know Arabic, how can you communicate with them. Especially in the young ages.

Interviewer: What strategies do you apply to keep your learners motivated to learn English? And do these strategies always succeed?

Fay: Now, one of my strategies, before few years, that (...) I will let them join temporary work for several days. In these jobs they will go with their parents, they will see how they communicate with customers, for example, and they will see how importance of English and (...) also how it's important to their study. So, it was successful and after they come back, I see the difference. They are more motivated because they realise the importance of English. This is one way. (...) Sometimes, I chat with them about how can you communicate with other nationalities. And they will go back to English. It's easier when they have older sisters or brothers because they are studying in universities and they will them, no, you have to study English. Now, (...) one of the cases, the parents aren't willing to let students to learn English. Because they think it's

not important and if they go to institute for 1 or 2 months, they will learn English. So, if the parents don't care and they don't encourage their children to learn, we will face a huge problem in schools.

Interviewer: How can you keep your learners motivated in the long run? What can boost their motivation levels?

Fay: Now, the main problem that they have struggled from the primary stages. So, I try to start from the beginning. I will (...) step by step, when they see themselves that they are improving, they are motivated by themselves. But mostly it happens, for me it happens outside the classroom. (...) Before the assembly, or break time, for 5 minutes, when I have one-to-one conversations with students. (...) One other reason they don't care about English; they don't care about their mistakes. They always think they are right. (...) Smart learning is a good way, because when I used to teach grade 9, they used to write on their laptops and we can display their answers on the board. So (...) most of the times they didn't see their mistakes. But when I focus their attention on their mistakes, they say yeah, it's wrong and they quickly try to correct it. Now, one strategy that I'm using recently that I won't tell the students what is the meaning of the word in English or in Arabic but I will ask her to find out the words that she doesn't know and she has to go and look for it, for the meanings and put it in a sentence so that she can understand. In this way, they are picking the words that they don't know and they will go and find the meanings and they can, and I think in this way, they are not going to forget it. Aah (...), we have this problem, may be, if you tell them, we used to tell them the meanings in Arabic or English or give it readymade or printed the words and their meanings. In this way, they won't even read it. And this is only a load on the teacher. So, (...) specially this year, I am going back to old-fashioned teaching to read and write in their copy-book. I think (..), from these few days, it will work. And even for the low achiever students, I told them to write anything, even a few words. But I told them to show me that they understood. And if they learnt only 2 or 3 words a day, it's ok.

Interviewer: How do you think high motivation levels would lead to improved academic performance in the English language? And so you think motivation plays a key role in academic performance?

Fay: Because if they are not motivated whatever a teacher do in the classroom, they are not going to pay attention, they are not going to learn. So they are going to know and realise the link between the English language and their life. And the importance of English in their life. And may be (...), this project of the ministry, the Ambassadors, that they go outside the UAE will motivate them because they have to learn English, they have to know how to speak English when they go outside the UAE to communicate with other people. And some of them they want to travel. So I told them that if you want to travel you have to learn English. For some students I think this is a motivation. So we try to motivate our students in different ways according to their level.

Interviewer: Well, that's it. That is the end of the interview. Thank you very much!

Fay: Thank you!

Interviewer and Rachael

Interviewer: This is Suchitra Verma, EdD student at the University of Exeter. Thank you for participating in my short study. This study is on Teachers' Perceptions of the Elements of Motivation in an EFL Classroom: A Qualitative Descriptive Study. Let me also tell you that your participation entirely voluntary and you can withdraw at any time during the interview should you wish to not answer any question. Shall we begin?

Rachael: Sure.

Interviewer: How long have you been teaching English in the UAE?

Rachael: It's almost 17 years.

Interviewer: What age-group do you teach?

Rachael: It's mostly 14-18 or 19 year olds.

Interviewer: What do you think about their motivation levels when learning English? Are they always motivated or do you face challenges?

Rachael: Yeah, definitely we face *challenges*. The first problem is most of them are much exposed to the English language. If you just look at their social media or the movies or whatever they are watching is their own mother tongue. So the exposure to English is just the 45 minutes with their teacher in the class. So, that is actually a bit difficult for the teachers because cannot follow the teachers or perceive the same way as they do in their mother tongue.

Interviewer: So, how do you get away with those challenges if you see that the students in those 45 minutes are not actually motivated? What do you do?

Rachael: Well, I give them *interesting work*. Like, ask them to watch some movies, *especially in English* and the next they come and narrate the story or I ask them to write, depending on their understanding. So yeah (...) these strategies have helped me lot specially with those reluctant ones who don't read or participate in class but they love watching movies.

Interviewer: Why do Arabic speaking English language learners feel demotivated to learn English? What are some of the most common reasons?

Rachael: Yeah, the first thing they don't have to learn a new language because everything is available in their own language which is Arabic. So, the question they keep asking is why we are learning a foreign language when they get everything, they can communicate to anybody in Arabic. So, that's the first thing. Also, I feel that it's also the educational background they come from. Because if the parents are educated then we can definitely we can see a difference in the child's motivation level. They know what it will be like if they are educated and what if they are not educated.

Interviewer: Like the future importance of learning English.

Rachael: Yes. Some students really want to go abroad and study. For those students, yes, definitely the motivation levels will be high in English because they wanted to study. But those who don't feel the need and who only intend to join the National army or police, they question the importance.

Interviewer: True. So what strategies do you apply to keep your learners motivated to learn English? And do these strategies always succeed? If not, then what do you do next?

Rachael: Yeah. There are students who are really enthusiastic to learn English. So what I do is, I give them some work, some leadership work, which they are really enthusiastic to do. So I will be asking more of those jobs from them. This could include explaining in a competition at school. They should go around the school and explain some rules and procedures in English and Arabic at the same time. Yeah, that's one of the things. So they learn and they come and ask me for more words and terms in English which they can use when they are speaking.

Interviewer: How can you keep your learners motivated in the long run considering English as a global entity now in the long-run? What can boost their motivation levels in the long run?

Rachael: One, showing them the benefits if they learn English. Definitely. And I normally, I show them real life examples of people from their own country who are really in English and where they are now. And of course, their books are adjusted according to this context so they see examples from the UAE.

Interviewer: How do you think high motivation levels would lead to improved academic performance in the English language? Do you think motivation plays a key role in academic performance?

Rachael: Yes, definitely. (.). Specially, now we can see the EmSAT scores, EmSAT plays a very important role in learning English because if they can get a certain score like 1600 or above, they can go to one of the best universities. That is something we can motivate them with. Also the jobs they can get by studying in one of top universities of the UAE can also motivate them. That is what normally, I do and my teachers also.

Interviewer: Well, that's the end. Thank you very much for participating and for your answers.

Rachael: Thank you.

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Interviewer and Emily

Interviewer: This is Suchitra Verma, EdD student at the University of Exeter. Thank you for participating in my short study. This study is on Teachers' Perceptions of the Elements of Motivation in an EFL Classroom: A Qualitative Descriptive Study. Let me also tell you that your participation entirely voluntary and you can withdraw at any time during the interview should you wish to not answer any question. Shall we begin?

Emily: Yes

Interviewer: How long have you been teaching in the UAE?

Emily: It's been 7 years. I started in 2012.

Interviewer: What age-group do you teach?

Emily: Normally, the students are between 14 to 18 years old.

Interviewer: What do you think about their motivation levels when learning English? Are they always motivated or do you face challenges?

Emily: Obviously, we face challenges. It's not their first language. They study most of the subjects in Arabic and recently, in the past two three years they have started studying subjects in English medium. (..) So, yes, we certainly face challenges, lots of challenges as far as motivation is concerned.

Interviewer: Why do Arabic speaking English language learners feel demotivated to learn English? What are some of the most common reasons?

Emily: One (..), I just mentioned that (aah) (...) since they don't study English as a ***first language***, then some of, in the past few years, the English teachers were Arabic speaking teachers and even now in some schools we have Arabic speaking English teachers and most of the times they speak in English, in Arabic, with their students and the students respond to them in Arabic. That's one reason, I'd suppose. Then (..) yes, I guess they don't give the subject that much of importance, though it is a category A subject, it is a major subject. But still there are certain other concerns, like mostly the Arabic subjects are taught by local teachers. The English subjects are taught by foreigners. So, initially, the students would look at them (..) really respectfully but they won't pay them, may be, that much of respect as they would pay to a local teacher. So, that also is one concern, I guess.

Interviewer: What strategies do you apply to keep your learners motivated to learn English? And do these strategies always succeed? If not, then what is your next step?

Emily: Well, normally, we do ***peer activities***, group activities, ***interactive learning activities*** (..), we show them videos (..), and obviously, there is some sort of elicitation of new words so that we introduce them nicely the new vocabulary, all sorts of fun activities, field trips, assembly, morning assembly presentations, and if one thing doesn't work we obviously move on to another type of activity. (..) And one more concern can be bigger number of students in classroom. Like we have 30 to 35 girls in one class. Obviously, the age

group is such that they become very talkative, very loud, so obviously we have to keep on trying. If one doesn't work, then we have to move on to another one.

Interviewer: How can you keep your learners motivated in the long run? What strategies can boost their motivation for that?

Emily: I suppose, aah (...) giving them marks, telling them that they will be taken to field trips. Like there was one instance when most of my students had not gone to Burj Khalifa and I was stunned that they live in this county and they have never been to Burj Khalifa. So I kind of bribed them into it. I said, if everybody in the class secure 80% marks in English then we will take you on a field trip, an educational study trip to Burj Khalifa. And obviously, that turned out to be a big booster. It kind of *boosted their morale*. And even otherwise, at time you have to tell oh them that I am going to talk to your parents about this concern, about this issue you are not studying well, you are not doing your homework or your assignments, you are not completing the projects, so at times a bit of a threat, I guess. Sometimes, some incentives definitely help.

Interviewer: So, a mixture of both.

Emily: Exactly!

Interviewer: How do you think high motivation levels would lead to improved academic performance in the English language? And do you think motivation plays a key role?

Emily: Mmm (..) I suppose that if somebody is not motivated they won't be *inclined to learn that particular subject* and since it is a second language and the teachers are all foreigners, so in order to, and then these inspections, school inspections, for that reason we have to have the assessments, the attainment and the progress and all these things, we have to keep all these things in mind. For that unless the students are not motivated I guess, we won't be able to achieve the attainment and progress levels that are required.

Interviewer: Right. True! Well, that's it. That's the end of the interview. Thank you very much.

Emily: You are most welcome!

Interviewer and Susan

Interviewer: This is Suchitra Verma, EdD student at the University of Exeter. Thank you for participating in my short study. This study is on Teachers' Perceptions of the Elements of Motivation in an EFL Classroom: A Qualitative Descriptive Study. Let me also tell you that your participation entirely voluntary and you can withdraw at any time during the interview should you wish to not answer any question. Shall we start?

Susan: Yes, please.

Interviewer: How long have you been teaching in the UAE?

Susan: (Amm) If I can give you a number, I have been teaching in the UAE since last 14 years. From the year 2005 until now.

Interviewer: What age-group do you teach?

Susan: Currently I am teaching secondary school students, so the age range or the age-group is almost from 10 to 15 years old.

Interviewer: What do you think about their motivation levels when learning English? Are they always motivated or do you face challenges?

Susan: (Mmm) (...) I will be very honest with you here. We face a lot of challenges while teaching students English in regards with that they have no exposure to the language and that their motivation levels to learn a new language where they have not been practically using this anywhere in their life is completely completely low. So English teachers when teaching students particularly in the UAE, when they do not have a clear idea of what they want to do in life. They also do not see the purpose of learning a new language. So, as an English teacher I feel (...) (pauses) having students who are not aware of their goal, it's a completely completely difficult and challenging task to make them learn a new language.

Interviewer: Why do Arabic speaking English language learners feel demotivated to learn English? What are some of the most common reasons?

Susan: According to me, the most common reasons why Arabic speaking English learners feel demotivated to learn English language, in particularly talking about English is that (..) they (repeats) do not communicate in English at home. They do not communicate in English outside their homes. And the only exposure, they do not watch English movies, or series (..) so, you know, these students they do not feel the requirement to use the English language because they are hardly using the language in their everyday life. So when the requirement is absent(..) so the learners will automatically be demotivated to learn anything given to them. So, (..) it's a similar case, when, any human being you don't feel the requirement for having something or getting something, you feel demotivated as well. So same is the scenario with Arabic speaking English language learners.

Interviewer: And what strategies do you apply to keep your learners motivated to learn English?

Susan: (Mmm) To be very very specific, the motivation strategies that we apply in our class change every single day. Sometimes, a verbal appreciation works, sometimes a written appreciation works, sometimes a star on the board works, sometimes a gift from the teacher works, sometimes fear appreciation works. So there are lot of strategies, you know, that you have to keep changing, adapting, improving, developing according to the needs of your classroom. So, if there is not one single strategy that works all the time, so we have to keep adapting according to the needs of the classroom.

Interviewer: But do these strategies, always succeed? If not, then what do you do?

Susan: (...) Sometimes these strategies do not work at all because sometimes you are dealing with, may be, literacy level student who has no idea of English language. So even if you appreciate them, even if you give them a verbal appreciation, a written appreciation, that doesn't mean anything to them. So, sometimes it doesn't work so we have to keep adapting. So sometimes you can draw a picture on the board, you have to keep finding new ways to motivate them to learn English. And sometimes you have to, (..) probably, sometimes I do work on adapting my materials to the level which is comfortable for my learners so that I can give them opportunities to succeed and then I can have more opportunities to appreciate them and motivate them to learn.

Interviewer: How can you keep your learners motivated in the long run? What can boost their motivation levels?

Susan: (...) Basically, I feel, when they see improvement in their own work whether it is writing of English or reading of English, or speaking in English to someone or may be their ability to listen properly to somebody and comprehend or understand some simple basic instructions. When they start (...) developing these abilities and skills, that helps learners to stay motivated in the long-run. Because once they see, Oh, I can do this, you know, I have a word to (..) express myself. These things itself, help them remain motivated to learn and then apart from that when they see their own improvement or when they see that they are doing better others in the class a teacher's appreciation also works hand in hand with that. So, it's not just self-reflection, it also a lot of push from the teacher to keep doing well, to keep doing better that keeps them motivated in the long-run.

Interviewer: Finally, the last one. How do you think high motivation levels would lead to improved academic performance in the English language? Do you think motivation plays a key role in improving academic performance?

Susan: (Ahh) (..) I do feel, motivation plays a big role in how we learn and perform in any given subject in our life. So, motivation is not only external, it's also intrinsic. When students are internally motivated, to achieve something, that goes hand-in-hand with external motivation given by the teacher. And once these, these levels of motivations are achieved, the students fall into the track of developing themselves and improving themselves on their own speed. So, then the teacher's challenges and hurdles are out of the way and they can focus on developing those skills and abilities in students. But yes, if the students are motivated, half of the challenges of the teachers will be, like, taken care of.

Interviewer: Well, that's it. That is the end of the interview. Thank you very much.

Susan: Thank you so much.

The Challenges and Opportunities of Using Social Media in UAE Society

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Abstract

Social media is important nowadays as it is highly used in the UAE. The social media is playing a main role in communicating with other people having similar curiosity that will serve them to build their self-esteem and improve their awareness. This research is to figure out the challenges and opportunities of using social media in UAE society. This research will discuss the Literature review with four themes that have a different point of view of different articles about using social media. The first theme will be about the female entrepreneurs in the UAE and how they are successful in using it to promote their businesses. Other themes will explore the impact of social media influencers over consumers of UAE as well as how social media can be used by professionals. The last theme in this research will provide aspects of the impact of social media on businesses in the UAE. Furthermore, this research will discover more about the methodology design used in this research which is the Mixed research methodology that is used for purpose of providing the best result that given either by individuals or businesses and it is a descriptive research method, not predictive research method. Data collection and analysis will be also discussing in this research such as a survey and interview questions to discover the using of social media by random individuals that belong to UAE society. The expected findings will be cover in this research proposal from the literature reviewed and results findings from survey and interview questions that will highlight the UAE female entrepreneurs, professionals and businesses that will positively have high impacts by social media in UAE. Also, it is expected that there is an impact of social media influencers over consumers of UAE based on their characters and their responsibility in the social.

Keywords: *social media, social media challenges, social media opportunities, social media influencers, social media on UAE businesses.*

Introduction

The United Arab Emirates, being a population of approximately 9.7 million people, has a high penetration of up to 80 % of the Social Media world. The primary social media platform used in the Arab nation is Facebook (by approximately 7.8 million users), followed by Instagram (5.86 million users) and Twitter, with a user base of 4.61 million UAE nationals. For these statistics to be useful, Social Media needs to be used in a manner that leads to the growth of the individual or businesses in the Emirates, which has become a hub for social media users. This abundance of social media users has been well utilized by individuals and organizations within the Arab nations. Individuals, particularly women entrepreneurs, have learned to grasp the opportunities brought in by the digital world of Social Media and use it for their home-based businesses.

Individuals are gaining knowledge from distance learning, being offered by various institutions, for students living in other areas of the world. For companies based in the UAE, Social media provides a platform through which they not only grow exponentially but also tap their true potential in terms of higher sales and resulting profits, a larger customer base and overall corporate improvement. The reason for choosing this research topic is because of the increasing trends of

using social media by youth of the UAE. They are engaged on social media and this is impacting the cultural norms of people living in UAE and causing issues societal issues as well [3]. This study will explore what causes individuals to start using social media in the UAE as well as how much time spent on it. To find out the benefits that encourage individuals and businesses in the UAE to engage with social media. What is more, to evaluate the relationship between utilizing social media among UAE individuals and their age group. This proposal will consist of literature review for using social media in UAE society and the methodology design used as well as the expected findings that will be discuss based on the literature reviewed and the results from the methodology method used.

Literature review

For the United Arab Emirates, social media has opened new opportunities for everyone using it, be it from an Instagram Influencer to a newly opened Bakery on the corner of the street or a multi-national company operating in UAE. However, this tool has its limitations, which can become a challenge to overcome. Social Media has become a part of the daily lives of people living in the UAE. Not a day goes by without most of the citizens checking their personal social media accounts, such as Facebook, Instagram, or Twitter. This lifestyle has opened new opportunities for individuals and corporates alike (Vij, 2017).

Theme 1 – Use of social media and female entrepreneurs in the UAE

The article was written by Duffy and Hund (2015) which related to female workers using social media for earning money. For individuals living in the UAE, social media has a significant impact on their day to day routines. It was just recently that the Arab nation witnessed a sudden boom in the number of women entrepreneurs. When asked about the rapid growth of such home-based businesses, the number one answer was “Social Media” coverage. The entrepreneurs found Instagram to be in-expensive and user-friendly while providing maximum exposure to their products. Further, Instagram or other social media platform, provided a secure private platform for Emirati women, as they do not have to mix with strangers, especially from the opposite gender, allowing them to engage in concentrating completely on their business freely, without any social pressures (Duffy and Hund, 2015).

The article written by Mousa (2017) states that e-empowerment is helped the nation of UAE to build up. The articles highlight the theme and are relevant to this theme because in his article he specifically highlights how different social media platforms are helping women at home to contribute towards society. He is also reflecting the fact that these women are not only empowering Emirates but also helps in maintaining the living standards of their families (Moussa and Seraphim, 2017).

Theme 2 – the impact of social media influencers over consumers of UAE

Furthermore, the concept of “Social Media Influencers” has been on the rise by Al-Jenaibi (2011) in her article highlights how social media influencers are shaping mindsets of people living in UAE. This is a great opportunity for bold, creative and talented Emiratis to get famous and create an online fan following through their social media accounts.

Influencers like Huda Kattan and Joelle Mardinian have got a huge fan following on Instagram of around 29.3 million and 8.8 million respectively (Al-Jenaibi, 2011). Radcliffe and Lam (2017) in their research on this topic also highlight that the impact of major social media influencers is high over Emirati people. The influencers get to commercialize their popularity in return for marketing for companies and monetizing their creativity. Company's products get sold within a short time if a famous Instagram figure endorses the product. This results in an increased number of units sold, and eventually on the profit of the organization.

Although influencers are using their image over social media platforms in this article, they also state that it is the social responsibility of influencers to not make any wrong decision in this regard. They must have to follow their social responsibility for guiding people in the right direction and Emirati's are highly influenced by social media personalities and their study suggested that it is also a contributing factor in their purchasing decision. Research done by Al-Jenaibi was similar to Radcliffe and Lam but the only difference is that Al-Jenaibi was not focusing on social responsibility of social media influencers which are actually an important factor to consider (Radcliffe and Lam, 2017).

Theme 3 – use of social media by professionals

Mohamed Ahmed (2015) has researched the use of social media platforms for getting jobs in the UAE. He used "sharing is caring" as a tagline to research in which he studied that online platforms can be used positively to help people living in UAE to get jobs. His major focus in his research was over youth as they are more unemployed. His research highlights that it is important here to understand that finding a job for new professionals is a tough task and sites like LinkedIn can help them (Mohamed Ahmed, 2015). Research done by Kaplan and Haenlein (2016) in this regard stated that the higher education systems must be made efficient and social media can be of great health. Along with its use in developing a higher education system, it can also help in providing them better professional options as well. The research helped in drawing attention to the overall conditions of young Emirati professionals (Kaplan and Haenlein, 2016). Another positive way in which this social media world has helped the overall lives of the UAE nationals is by creating a network of professionals, through the famous website called LinkedIn and this research was done by Osborn and LoFrisco (2012).

The research states that it is through this website that several thousands of jobs are offered by employers, who are looking for the best candidates for their companies. People can search for jobs and increase their chances of being hired through this website. Also, academic courses are being conducted through this method, removing the obstacle of physical presence for knowledge sharing. The social media sites are also used by career centers and they guide professionals to use them for achieving better results. The research conducted by the articles is same and the only difference is that the initial was focusing over youth and young professionals whereas research done by Osborn was based on people working professionally (Osborn and LoFrisco, 2012).

Theme 4 – impact of social media over businesses

Kamal and Chu (2012) have researched for corporate or businesses operating in the UAE, this social media expansion has been of immense help. Firstly, the companies can now advertise online their products, with a confirmed target audience. This is not only a significantly cheaper source of

advertising but a more effective and efficient one. It has become a tool for the organizations to implement within their organizational marketing strategies, as marketing in these Social Media sites will benefit to them as the number of active social networking users in UAE are increasing by manifolds on a daily basis, with the average number of active online users reaching up-to over 9.52 million and being 15 to 65 years of age. Dwivedi, Kapoor and Chen (2015) have researched in another way in which social media has assisted corporates operating in the UAE to expand their business and grow their sales has been via the use of target marketing with the help of Social Media Influencers.

These influencers are creative and highly interactive people, who product content or “ads” to the company’s liking and spread the word on their personal social media accounts. As they are being followed by several million people, not necessarily living in the UAE, the organization gets immediate media coverage and exposure even to an international scale for a relatively cheaper price when compared to traditional advertisement methods. Ahmad, Ahmad and Abu Bakar (2018) moreover conducted another critical aspect of the new social media age is that corporate everywhere in the world, including the Arab nations, can now listen to their customer’s feedback and provide them with a personalized touch through dedicated online Customer Support departments. This type of interaction not only helps in resolving customer complaints promptly but also assists in promoting a positive image of the organization.

For instance, a constructive compliment or comment on the Facebook wall of a company would leave a rewarding experience for them as this shall be viewable by everyone, thus resulting in a good image for the company. The research conducted by authors generated similar results as firm performance and profitability are linked with effective marketing using social media.

Methodology Design

This research will use mixed methods which are qualitative and quantitative research methodologies such as surveys and in-depth interviews that will be by random individuals who are indifferent age of group and employed or unemployed people which will provide the best results fitting for this research. It provides a unique depth of understanding which is difficult to gain from a closed question survey. Respondents are freely able to disclose their experiences, feelings, etc without any limitation or constraints. It offers a dynamic approach to my research where follow up questions will be easily asking them in order to have a better understanding of the research problem. In those methods, the respondents can freely answer the questions asked, while elaborate in detail their response.

Furthermore, it overcomes the self-consciousness that can prevent impulsive reactions and responses to questions. The purpose of using the mixed methods by performing an online questionnaire survey and interview questions that will give the researcher the accurate, reliable, and valid data which it will explore the participants’ opinions, attitudes, behaviors or other variables. What is more, this research will be using structured and unstructured questions for participants to explore their data reliability, validity, and stability and then evaluating the findings by using descriptive statistics.

Also, will permit the researcher to merge inductive and deductive thinking. The quantitative research method will be used in this research such as survey as this method provide easy data management for a huge number of participants with gathering large amount of information in a short of time and in the sample's group own time. The method also does not cost money or if we decide to buy software to collect data will be cheap. Another benefit of using the quantitative method is the data collected via surveys are very easy to evaluate and the representatives of the samples can remain unidentified. Even though, the qualitative research method provides a selected of samples of a group that will answer the questions confidently that are related to the field of the research topic. Although the quantitative method is sometimes the participants will have misunderstood the questions and few of the participants will be able to respond to the open question. By using the qualitative method will cover that poor understanding in the context of the quantitative research method used like participants' behaviors as the participants will be able to answer the questions with a details result.

On the other hand, the qualitative method is given the ability to ask further detailed questions with a selected group of people and in a selected time. The strength of using the mixed methods is that each method can cover up the fragility of another method. The results of qualitative and quantitative researches are not predictive but are descriptive in nature, hence, providing a better understanding of the topic in hand. A combination of qualitative and quantitative methods both will be used, then it will help in generating more effective research regarding the topic.

Results and Discussion

This research will create awareness about the challenges and opportunities of using social media in the UAE society. The findings from the literature reviewed of articles are that related to women empowerment have shown the same results. Women in Emirates are empowered by using different social platforms which will help them in not only improving the economic conditions of the country but also, they are supporting their families. The findings in the article state that Emirati women are using tools such as Facebook and Instagram for promoting their business.

The second theme was related to social media influencers of UAE. The findings are related to each other and the people living in Emirates are highly influenced by them but the findings state that it is becoming important for them as well to realize their social responsibility and influence people accordingly. The third theme was based on helping professionals in getting jobs and themes mentioned in the article have similar approaches. It is suggested that the use of professional social media platforms is not only helping professionals but are also providing job opportunities to young professionals entering the market.

The articles also had findings which state that along with becoming professionals it is also important to use social media platforms for improving knowledge. Lastly, the findings of the fourth theme suggest that there is an immense impact on social media platforms over businesses operating in the UAE. The findings are consistent and state that social media platforms are largely used as a marketing tool for businesses operating in the UAE. Moreover, the result findings from using surveys and interviews will be conducted to random participants who are on various levels of age group. This study will collect data in the United Arab Emirates starting from February 2021 for 5

weeks. After the data collection, the data will be gathered in a database in an excel spreadsheet and organized by the age group.

After completion of data collection, testing will be conducted for checking the results' accuracy by using testing data statistics such as t-test, chi-square, and analysis of variance (ANOVA). The expected findings from the survey using survey monkey will be that the majority of the age group who are using social media will be the age group from 18-29. The time spend usually for using social media by the individuals will be more than six hours and most of the participants will have a special social media influencer. Moreover, most of the people are using social media platforms for chatting and the most applications of social media are using Instagram and WhatsApp platforms daily.

Expected findings figure of using social media for the below aspects:

Age Group	Time Spends	Purpose	Applications
18-29	More than six hours	Chatting	Instagram and WhatsApp

Conclusion

To conclude, most of the people in the UAE will be interesting to have their own business and promote their businesses via social media platforms. The social media also has opened the opportunities for the job seekers to find the suitable job vacancies for them. Furthermore, using social media by businesses in UAE gives them opportunities to advertise their products or services in an attractive way as it is used by individuals mostly as in a typical day. It is highly recommended that the female entrepreneurs, UAE consumers, professionals, and UAE businesses should be encouraged to gain benefits from utilizing the several of social media platforms that will assist them toward success as well as it will increase their abilities and experience in their concerned fields.

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Leadership Development – Reasons for taking up leadership roles and ways to develop leadership skills.

A short narrative study.

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Abstract

Theories of professional development, teacher development and leadership development are hotly debated when speaking of professionalism. Teacher leaders are autonomous in exercising their own judgement and making decisions. Such identities are dynamic and committed.

This short qualitative study tries to understand the concept of leadership development by considering aspects such as reasons that could influence a teacher to take up a leadership role and how these skills can further be developed and enhanced. I have used a narrative approach to this study and applied the narrative interviewing tool with the help of open-ended questions. This short scale narrative study involved just one participant who has been in the educational leadership role for one over a year after being promoted from an English teacher role. My personal interest in this field and my own professional expertise encouraged me to take up this study and interview my own colleague.

The purpose of this study was to determine why teachers would want to become leaders of their educational institutions, what opportunities could be the factors that can motivate teachers into considering their own skills as appropriate to these leadership roles, what could be some of the challenges that such leaders may face and finally how their own skill-sets could be enhanced or developed by working on elements which are pertinent to teacher leaders in most educational institutions.

The participant responded to 8 open-ended questions that considered her background and past and present educational and professional background. While answering the questions, the participant was reflective about the personal and professional choices she had to make and the identification of the required skills and their development. There were some unexpected discoveries or revelations like the importance of cultural awareness which when trained upon can not only lead to better group adjustments but can also enhance certain leadership skills like team working, time management, flexibility, problem solving and effective communication.

The interpretations from this study are not limited only to interpretations but they can also help future researchers extend the knowledge and applications of leadership skills and further narrative studies on the same can lead to the discovery of new skills pertinent to teacher leadership.

Keywords: professionalism, professional development, teacher-leaders, narratives, leadership skills development

Introduction

Professionalism has many layers of understanding. It is the talent, competence, will and the process of preserving and promoting the status of one's own profession. Professionalism is all about 'quality' and how the essence of 'special knowledge' and 'obligation' is promoted to save the community. It is the trust and confidence that characterises professionals' relations with their peers and authorities. It is a socially constructed world that defines and outlines the character of people's actions within their respective groups. The concept of professionalism is hotly debated and appeals mainly to practitioners, employers, managers in the development and growth of professional identities, career paths and the senses of the self. The concept of 'teacher professionalism' is characterised by different times and by different authorities with varied notions.

With regards to teachers, it is how teachers enact as professionals is important. For many, professionalism is inseparable from notions of professional identity and beliefs about what it is to be a good teacher (Lasky, 2005). The notion of professionalism for the teacher of today is transformational and incorporates construction of professional identity, fulfilment of the institution's larger goals along with modifying teaching which impacts on students' attainment. Today's professionalism emphasises on training teachers with expert subject knowledge, pedagogy, exercising expert judgement, empowerment and development and applying 'trust' as the foundation of professional practice.

Professional development is a key concept in professionalism. Teachers need to recognise new and better ways of doing things, collaborating with colleagues and contributing and committing to the professional development of others. Being professional implies identifying similarities in work practices and procedures, problem-solving and leading at the same time. Notions of 'incorporated,' 'empowered' and 'transformative professionalism' are important in informing how teachers perceive and work within the regulatory aspects of their profession. Teachers who act with honesty and integrity, who keep their knowledge and skills up-to-date and are self-critical are more likely to take up leadership positions within the realm of their workplace. Theories of professional development, teacher development and leadership development are hotly debated when speaking of professionalism. Teacher leaders are autonomous in exercising their own judgement and making decisions. Such identities are dynamic and committed.

Many approaches have been defined by thinkers from all across the world. The first approach to emerge in leadership development was the 'Great Man' or the 'Qualities' approach in the 1940s. (Hooper and Potter, 2001) which believes that leaders are 'born' and 'not made.' Another such approach in the 1960s was the 'task-relationship' idea of leader behaviour which concentrated on the context of the leadership activity. One of the latest and highly appreciated approaches has been John Adair's 'Three Circle Approach' which considers the development of the task by building the team and developing the individuals at the same time. Thoughts on leadership have progressed abundantly.

Leadership, today, is a social position. Teacher leaders realise the successful completion of the tasks and build up team spirit at the same time. Debates on leadership development have led to an emphasis on instructional leadership which is strongly concerned with teaching and learning, including the professional learning of teachers as well as student growth (Bush 2003). Leadership influences professional growth and teaching. Instructional leadership points at student leaders, the lack of sufficient knowledge of teaching and learning and the need for leadership development programmes (Hill 2001 as cited in Bush 2003). Effective leadership development is, indeed, essential for the institution's goals. Therefore, understanding of the skills and the resilience to sustain the institutions is needed, stressed and required.

Review of the Literature

Teacher leadership is the key to school reform (Fullan, 2005). Teachers should take on and more often share school leadership. They are the important cornerstones of the school system. They should have the desire to move out of their comfort zones and exert influence on school reforms. Persistence and motivation are equally vital in encouraging any competent teacher to assume a leadership position. English language teaching, along with training opportunities have led to changed possibilities and a whole paradigm shift that changes the ideology in leadership thought. As Brown (1993) explains that professionalism, by involving pre-service English language teachers in their own learning, thereby guiding their own professional development. In fact, acts of leadership improve professionalism in the educational field as a whole. A report submitted by Portin (2003) and his team of researchers from the University of Washington, suggests that distributed leadership often involves not only a role within the school leadership but decision making roles on other learning teams focusing on curriculum, instruction, or leading professional learning. Teacher leadership is linked with student achievement. Researchers such as York-Barr and Duke (2004) and Lord and Miller (2000) have furthered the concept that foundations of school improvement are based on teacher leaders.

A clear example of leadership is found in Volume four of the TESOL Professional Development Series (2003) in a narrative of an English language teacher moving into a program director position of increased power. Shannon (2003 as cited in Sams, 2010) makes the point that a director's primary job responsibility is to support faculty members as he ponders over the plight of program directors who take the position without formal leadership training, essentially 'learning on the job.' In another study by Lieberman and Miller (2004), teachers learn to become leaders on their own, through trial and error, and learn by doing the job. Teacher leaders have the capacity to improve teaching and learning as well as the school environment and profession (Khan, Malik 2013; Nappi 2014; Uribe Florez et al. 2014).

Findings of York Barr and Duke's (2004) research on teacher leadership stress the importance and value of teacher leadership while at the same time describe inevitable tensions involved. A recent reflective study Lowery-Moore, Latmer and Villate (2016) on participants of an online graduate teacher leadership programme analysed participants' perceptions and reflections of their personal and professional growth in knowledge, skills and dispositions as well as confidence as change agents that positively influence school environments. 82 papers of the participants over a period of 3 years were studied with a comparative method of analysis. Participants reported increased confidence and ease in their current roles and the desire to have more influence throughout their schools and districts. Butkēviča and Zobena (2017) looked at how 'teacher leaders' understand and organize their teaching and collaborate with their colleagues and thereby promote diffusion of social innovations.

The study involved 2 expert interviews and 5 semi-structured ones with teacher leaders from different schools. Results indicated that they were ready to explore new approaches and were willing to experiment with innovative teaching. Similar to this study, in order to employ leadership faculties to the fullest and the self-realization of the same involves motivation to go beyond duties and stretching the abilities and talents across the given network. Liebermann, Saxl and Miles' (1988) study is one such extensive study of its time that studied seventeen teacher leaders over a two-year period of time.

These teachers had moved into formal teacher leadership roles and their experiences and transitions were the focal points of the research. These teacher leaders felt great pride in building trust and developing a rapport with departments of the school and in helping colleagues with collaboration and professional development. A lot of research has also been done to study leadership traits. Conley and Muncey's (1999) study discovered that teacher leaders are value givers, with open thoughts and a desire to grow. A similar study by Rosenholtz (1985) reveals that teacher leaders are risk-takers and inspire colleagues to be problem solvers. Other studies demonstrate collaboration, reflection and a sense of empowerment among teacher leaders. Finally, some researchers stress the importance of organisational management to develop additional managerial and leadership skills. Teachers can lead from behind although they do not hold a leadership title (Anderson 2005). One such article by Anderson (2005) highlights 5 main aspects that EFL teachers and program administrators can use to lead from behind.

This study was conducted to understand the reasons that influence teachers' decisions to take up leadership roles, the opportunities that educational organisations provide that motivate and encourage teachers to practice leadership skills as a teacher and finally how leadership roles along with situations prevailing in the educational organisation help with the development of leadership skills.

RESEARCH questions:

1. Why do teachers take up leadership roles?
2. What are some ways of developing leadership skills?

Methodology

Professionals in the education system are constantly constructing personal meanings while struggling with interpreting the social world of the educational policies and coming to terms with the working practices of schools and in the classrooms. The core belief of the interpretive paradigm is that reality is socially constructed. The interpretive approach rests on the premise that in social

life, there is only 'interpretation' (Radnor 2002). As the interpretive paradigm is inclusive, it accommodates multiple perspectives and versions of truths. This acceptance of multiple perspectives leads to a more comprehensive understanding of the situation. Interpretivists believe in an understanding of the context in which any form of research that is conducted is critical to the interpretation of the data gathered (Willis 2007). Interpretive researchers do not seek answers in rigid and fixed ways. Instead, they approach reality from people who own their experiences and belong to a particular group or a culture. In this process of interpretation is highlighted a string of themes, coherence, exploration and some sense that further illuminate people's theories and finally deepens and expands the researcher's knowledge of both the action and the context. Interpretivism is a unique approach to human inquiry. Along the lines of gaining in-depth and insightful information from the situation under study, the qualitative methodology is applied, with a general approach to the situation being studied but necessarily subjective and interpretive. As in the interpretive approach, the researcher engages reflexively in the process, as is the case in this study, and is fully aware of the interpretive framework.

Qualitative approaches often give rich reports to fully understand contexts. Qualitative information is gathered by observing participants in their social world as well as talking to them about some aspects of their lives. Participants' views are more relied upon by the researcher in a qualitative study. This kind of a study is also a reflection on the researcher's own biases, values and assumptions and often a discussion of their experiences and cultural background that affect the interpretations and conclusions drawn in the study (Creswell 2012). It also provides a deeper understanding of social phenomena. It is not only the participant's point of view but the interrelationships between elements of the naturally occurring data. A major part of qualitative research is based on text and writing. These studies are carried out in naturalistic settings. The interpretation from field notes and transcripts to descriptions and interpretations and finally to the presentation of the findings and the research as a whole. Narratives render stories unanalysed as reflections of subjectivities or presentations of the participants' 'own' voices (Gubrium and Holstein 2009). As one of the major qualitative approaches, a narrative research is used in the search for answers. Answers that are demanded by questions raised by the participant's concern. It is not only a study of the 'text' but a study of the 'context.' The narrative representation particularly appears to be connected to teacher biographies and autobiographies. It is a method of inquiry within the interpretive research family. They are the producers and transmitters of reality (Moen 2006). Vygotsky's (1978) ideas on the developmental approach to the study of human beings, Bakhtin's (1986) ideas on dialogue and Connelly's and Clandinin's (1990) consideration of the narrative approach both as a phenomenon and the method have helped in placing the narrative research approach within the framework of the socio-cultural theory.

The development of the individuals leading to a number of theories is a mutual process. Human experiences thus narrated by assigning meaning to their experiences through the stories they tell. Every study demands a consequential linking of events or ideas (Andrews, Aquire and Tamboukou,

2008). And narratives provide that meaningful shaping and pattern to the random and disconnected ideas. A narrative can develop a conversation between the participant and the researcher and can produce longer talks or monologues. Questions asked are designed to explore, interpret and understand the social context. Open-ended questions elicit most dialogue and encourage participants to tell stories without any control from the researcher's end.

The researcher, however, takes an interactive role where he/she gets to know the participant and the social context in which they live in. My participant had a lot to contribute towards her journey from a teacher to a leader. She says a lot of skills that a teacher possesses and which, if given a chance can grow big and show greater results. She had a set of skills that were shaped, modelled and evolved after she acquired the position of a leader. And skills that were enhanced due to opportunities provided at workplace and by the organisation. Some findings have definitely helped me to gain deeper insights into the challenges and hardships that leadership entails as well as the expectations that come along. As any narrative foregrounds the content within and prioritises the situations, this small story, in a similar manner has synthesised the biographical and contextual approaches as discussed by the participant.

Participant

The participant for this study was chosen paying special attention to her job role and the past experiences that led to choosing her present career. The participant was also chosen as she comes from the same professional background as the researcher which made it easier for the researcher to link and associate the findings. The participant volunteered for the narrative open-ended interview at a place and time most convenient to her. The interview was recorded with her consent and the recording was later transcribed (APPENDIX B). A generalistic view was the aim. But the study being small, not much could be generalised except that the findings were interpreted.

Data Collection

The narrative interview tool was employed to collect data. Conversations are quite an older way of obtaining systematic knowledge. An interview registers opinions, asks for elaborations and receives arguments. Qualitative interviews are extensively employed in the social sciences. The convenience involved, epistemological and cultural reasons have suggested the growing use of qualitative research interviews. Interviews seek to understand the meaning of the themes as described by the participants. The interviewer registers and interprets the meanings of 'what is said' and 'how it is said,' is observant, of the vocalisation, facial expressions and other gestures. It is equally vital to listen to explicit descriptions and to the meanings expressed as well as connoted.

Sensitivity, focus and an understanding of the interpersonal situation are some elements to be taken care off while conducting a qualitative interview. The interviewer leads the subjects towards certain themes (Kvale 2008). The aim of the entire interview cannot be lost; hence this focus is necessary. Furthermore, a thorough knowledge of and experience in the same field of the study is extremely

useful at the same time in order to gain maximum relevant responses pertinent to the study. The participants' direct involvement, and taking more accountability and responsibility for their actions and behaviour are some important elements of the narrative interviews. The everyday of telling and listening to stories is used in this kind of interview. The narration involved is a source that aims to investigate the privacy of the interviewees and contributes to new knowledge that views a social reality not only critically but also provides discursive analysis with great detail (adapted from Muylaert, Sarubbi et al., 2014). A positivist epistemology of the qualitative interviews considers interviewing as a collection of facts as opposed to a post-modern conception of interviewing as a construction of knowledge through the participants' discourse, its structures and effects and the local narratives embodied in story-telling. Johnson and Golombek (2002) also suggest that it is through stories that teachers reflect on their experiences and make sense of their teaching lives.

A total of 12 questions were asked, 8 were open-ended questions (APPENDIX A) wherein the participant had the liberty to answer in vivid detail thus continuously reflecting and reconstructing meanings. The first four were to know the background of the participant and the latter were to engage her in a narration of events leading to the main content of the study. Ethical problems in interview research arise particularly because of the complexities of 'researching private lives and placing accounts in the public arena' (Mauthner et al., 2002, p.1 as cited in Kvale 2009, pp. 23). Potential ethical concerns like confidentiality, time and consequences and consent were all taken into consideration prior to the interview.

Data Analysis

Qualitative data analysis is making sense of the participants' situations, the meanings derived from the narrated situations, discovering patterns and generating themes, underlining categories and the regularities (adapted from Cohen, Manion and Morrison. 2007). The analysis of narratives and stories approach qualitative data very holistically. Due to the storied nature of the qualitative data, researchers are more prone, or rather free, to think creatively about collecting and interpreting data. Qualitative data often focusses on a small number of people, and there are multiple interpretations possible out of the data. Proving, demonstrating, explaining, seeking causality, exploring, discovering commonalities, explaining the application and operation of the same issues in different contexts are some functions that qualitative data seeks to find out. The aim of analysis is to throw fresh light on aspects of the talk, illuminating features and patterns (Richards 2003). A narrative form is similar to story-telling. In a narrative analysis, researchers collect descriptions of events and happenings and finally scheme out a story using a plot-line. Chase (2005, as cited in Creswell. 2007, pp. 55) suggests that researchers may use paradigmatic reasons for a narrative study, such as how individuals are enabled and constrained by social resources, socially situated in interactive performances and how narrators develop interpretations. While answering one of the questions on how to prepare oneself for future challenges as a leader, the participant says

- *“I’d really say, educating yourself on the region before arrival is one of the biggest (x) biggest challenges, I think.”*
- *“We have teachers arriving from different countries from across the world who are not culturally aware of the region, educating them, making them aware about the cultural background, the ethics, everything is a responsibility in its own right to being a leader of this English department.”*

The participant adds that being culturally aware can also enhance the sense of responsibility and gives confidence, which when absent, affects the development of skills.

Creswell (2007) further adds that narrative researchers situate individual stories within participants’ personal experiences, their culture and historical contexts. Within the context of this particular study, the participant’s educational and previous professional backgrounds have paved the way to further development of teaching, organisational and team working skills as a leader. Her personal experiences pertaining to organisational skills, communication and team working have been motivated and influenced a lot by the daily challenges and expectations from this leadership role. This is evident when she says,

- *“I think knowing that I had all these skills, wanted me to opt-in for this leadership role and to see if I develop in this field (..) of education.”*

This particular role demanded and has also encouraged her to build good a rapport with departments within the school’s management and with departments of the English department as a whole. This is with regards to understanding a different language, Arabic in this case, and liaising with departments.

Analysis can further be understood as restorying the key elements into a suitable framework where events take place within a chronological sequence. This gives cohesion and a causal link among ideas. The emphasis on ‘sequence’ is what gets a narrative apart from other genres of research. In this study, questions targeted the participant’s background, present work history and future challenges. The past knowledge of her job roles as a teacher and a language instructor led her to the realisation of the leadership skills which laid in her subconscious, were enhanced and built strong after gaining the leadership roles. Her present taught her new skills such as problem-solving, time management, team working, flexibility and organisational skills.

- *“...I think having (..) the (..) ability to think on your feet and to be able to be a problem solver is one of the key skills needed for this leadership role and I think I have enhanced the skills a lot being a lead teacher.”*

These new skills have now prepared her for future challenges and readiness that are the demands of her present work conditions.

A key skill in analysing interviews is ‘listening’ – listening carefully and over and over again in order to examine details and explaining the general idea. While answering most of the questions, the participant pauses a lot and stresses on key-words to highlight certain experiences or states while narrating some events. For e.g. the participant stresses her love of teaching English which was one of the reasons to take up an English teacher’s role in this region and which also was one of the reasons to taking up a lead teacher role in the organisation she is working for as it centers around the English department.

The participant also stresses on her knowledge of some of the skills like flexibility, adaptability and team working as an English teacher also motivated her to take up this role as a leader and further enhance and build up these skills. Furthermore, when talking about challenges as a leader, the participant emphasises on organisational and time management skills, which when mastered and properly practised can actually ease most of the strains that are peculiar to this leadership position.

- *“If you have managed your time well in accordance with the different objectives that you have to fulfil, I think you have done most of (x), most of the work and if you are not organised, I think that’s where, there is a, I think you lose the flow of work in this leadership role. So, maintaining time, being flexible, teamwork like I am repeating myself with these skills, these are the ones that I have really developed as a leader.”*

There is the presence of a sequence of events in this narrative through the events described. The participant describes her education and past work experience and the development of skills at that point in time. She is further asked to detail what encouraged her to take up a leadership role and how this led to the extension of her skills and the learning of new skills. The new skills like tolerance, flexibility, adaptability and problem solving were gained as a result of the demands of her work and some were due to the region’s cultural expectations, which further added to her skills set.

Results and Discussion

Interpretation involves making sense of the data, or the “lessons learned,” as described by Lincoln and Guba (1985) (cited in Creswell 2012, pp. 257). Most of the interpretation has been done keeping in mind the research questions and the purpose of the study. Narrative analysis allows for themes to emerge and concepts to develop from stories (Oliver, 1998). This study being very small scale, does not allow for common themes to be noticed but the concepts of being ‘culturally aware’ and ‘opportunities for training and professional development’ that were talked about in detail by the participant, can actually improve and strengthen leadership skills, especially in this part of the world that is culture-laden and so educationally-driven.

From this short narrative study, the following conclusions can be drawn. However, it must be noted that the presence of only one participant cannot give much accuracy to the findings and thus cannot be generalised. So, the following interpretations can be made:

1. Some reasons that can influence a teacher to take up a leadership role could be professional development opportunities in the educational field and a realisation that a teacher can further enhance her leadership skills if given a chance to take up a leadership position.
2. Skills like team working, flexibility, cultural awareness, organisational skills and problem-solving are some skills that are key to a leader in an educational setting.
3. Problem-solving, being culturally aware and being able to manage time to complete leadership tasks can help a teacher leader to enhance leadership skills, build confidence and develop at the same time.
4. And finally, keen observation and learning by doing are vital to enhancing a leader's skills set and to be prepared for future challenges.

Some teachers show immense responsibility and value in their field towards their students and the organisation as a whole. The skills are suppressed and only wait for an opportunity to be given. Furthermore, teacher leaders are most suitable as leaders as they are more experienced in the field and are more aware of the expectations involved. The need to contribute and to develop professionally influence and motivate teachers to lead by example. This is well supported by the literature presented in the previous sections of this study. Butkēviča and Zobena (2017) looked at how 'teacher leaders' understand and organize their teaching and collaborate with their colleagues and thereby promote a diffusion of social innovations. Conley and Muncy's (1999) study discovered that teacher leaders are value givers, with open thoughts and a desire to grow.

Conclusion

Outstanding leaders have a vision for their organisations (Bush 2003). The primary role of any leader is to unify the organisation's people around its key values and expectations. The participant in this study talks about how a leader's efforts to learn from observing an expert and to keep a flexible approach to learning can help with successfully carrying out one's objectives and the achievement of the same. Having a know-how of how cultural values are respected and held with high regard can help with maintaining high team spirit, bridging the gap of language barrier as well as help the teacher leader to accomplish her tasks successfully. Darling Hammond et al. (1995) (as cited in Pounder 2006, pp. 534) have emphasized that teacher leaders are open to new ways of doing things and are modelers of learning with a view to improving students' educational experiences. Most school leaders offer coaching, mentoring and strong pedagogical models for their teams.

The participant in this study is also involved in mentoring new teachers arriving into the country and coaches them on cultural awareness in order for the new teachers to adjust well to their new environments and thus enhancing teamwork. In light of the discussion above, studies on elaborating and knowing leadership skills and how they can be enhanced are needed for future researchers especially in different educational settings with varied institutional goals. This may lead to the revelation of different skills-sets and experiences in leadership development. Leadership studies are reflective. These studies can further make sense of the ways leadership roles are changing and are different in different regions.

The interpretations along with the support of the literature can be useful for developing researchers in the field. Similar studies studying participants through the lens of a narrative study can help build strong and necessary data that can assist with understanding leadership skills in the educational field.

With regards to giving credibility to the findings of a qualitative study, if aspects like personal biases, for example, do not affect the interpretation of the findings, if thought processes are demonstrated clearly and transparency in the interpretation of the data are meticulously maintained, the findings can be held credible to a certain extent. The findings are, however relevant to any study on the development of leadership skills.

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Appendix A

Interview Questions

1. What is your birth country?
2. Would you tell me briefly about your educational and professional background?
3. How long have you been in the UAE?
4. How long have you been in your position?
5. Why did you take this role and what influenced your decision to pursue a leadership position?
6. What skills have you learned/developed/gained as a leader?
7. Did the experiences gained from these opportunities help to enhance your confidence as a leader?
8. What challenges do you expect to encounter as a leader in the future?
9. Have you received any formal training in this position as a leader?
10. Have you received any formal training as a leader?
11. How do you plan to update your leadership skills in this job?
12. And finally, what challenges do you expect to encounter as a leader in the future at the same work place?

Appendix B

Interview Transcription

Interviewer: My name is Suchitra Verma. I am a doctoral student at the University of Exeter. Thank you for agreeing to participate in this short research. The purpose of my qualitative research is to explore how qualities of leadership develop and how these skills are further enhanced by being in this role. This study will focus on your transformation from a teacher to a leader and your journey of development as a leader. I hope and believe that this study will provide me deeper insight in the different aspects of leadership development as a whole. All information will be kept anonymous and confidential, and no personally identifying information will be used in any way. Your participation is voluntary and you may withdraw at any time. With your permission, I am recording this interview. Shall we proceed?

Interviewee: Yes

Interviewer: Let's begin with some background information.

Interviewee: Okay.

Interviewer: What is your birth country?

Interviewee: My birth country is Saudi, Saudi Arabia.

Interviewer: Would you tell me briefly about your educational and professional background?

Interviewee: Yeah sure. My educational background (..) has been around different countries around the world. With my (..) elementary background coming from the middle east, going to British and American

curriculum schools and then travelling to the UK and finishing of my 'A' levels in college and university in Manchester (...). My professional background, actually varies across two different countries, and I would list that two different cities, sorry, Manchester and London. As soon as I graduated (..), as a law student, I was working for a few law firms and I then went on to proceed with my masters as I wanted to work in the academic field. I wanted to research in law, I wanted to teach law (..) and slowly and gradually I wanted some more development academically and I wanted to deliver another subject to students because I found satisfaction in teaching and so I decided to take up the CELTA course which is an intensive language teaching course. I just love the idea of delivering English and found satisfaction in just teaching the language to students, helping refugees who could not write, people who could not fill out forms and through this (..) I reached my job role in the organisation in which now (..) I am working as a Lead teacher but I was hired as an English teacher. From this teacher role, English teacher role, I was shifted into a Lead teacher role which is a leadership role, in this job role, here in Dubai and, yes, this is my background so far. I do continue to pursue education.

Interviewer: Thank you. How long have you been in the UAE?

Interviewee: This is my third year, working here, so I have been here three years. (..) Yes.

Interviewer: How long have you been in your position?

Interviewee: Two years. Two and a half years, I would say because in the first three months, I was promoted to being a lead teacher in the organisation that I am working for right now.

Interviewer: Why did you take this role and what influenced your decision to pursue a leadership position?

Interviewee: (..) To be honest, this role (...) was a new opportunity in a new region, especially where I worked, I have never worked before. I have only been educated in my schools, so for me, this moving to this region as an English teacher was a new experience. Taking on this leadership role was actually guiding two career progression in the field of academics and so I decided to go for this role knowing that I have some skills which may not have been utilised as being an English teacher in this region. I feel utilising the skills of flexibility, adaptability, also team working skills. I think knowing that I had all these skills, wanted me to opt in for this leadership role and to see if I develop in this field (..) of education.

Interviewer: What skills have you learned/developed/gained as a leader?

Interviewee: Like I said, I mean, I had a few set of skills which I gained as an academic working for colleges and universities before but particularly pertaining to this lead teacher role, I think I have actually enhanced those skills and I would list problem solving as one of the biggest ones because being a lead teacher, we face challenges on an everyday basis. This could be from new expat teacher arrivals to (..) adjusting (..) immediate deadlines and adjusting to immediate (..) protocols (..) within set time frames. So I think having (..) the (..) ability to think on your feet and to be able to be a problem solver is one of the key skills needed for this leadership role and I think I have enhanced the skills a lot being a lead teacher. Team working, I think team working initially as an English teacher just involved focussing with just my team, in the English department, but being a lead teacher I have had to enhance and build a

rapport with different departments internally and externally within this organisation which means liaising with the training department and contacting special needs' department and being able to communicate across the management who speaks a different language, so I think (...) the skills set that I have gained being a leader in the English department as a lead teacher in my current school has been team work, problem solving, thinking on your feet, you know, being able to be flexible, extra working hours. I think the ability to manage time is one of the biggest ones. Organisational skills (...), this is something that I have picked up which I left-off at university and I think being a lead teacher (...) having organisational skills is one of the biggest and the most important things, I think required for this role. If you have managed your time well in accordance with the different objectives that you have to fulfil, I think you have done most of, most of the work and if you are not organised, I think that's where, there is a, I think you lose the flow of work in this leadership role. So maintaining time, being flexible, team work like I am repeating myself with these skills, these are the ones that I have really developed as a leader. Or I'd say, let's say 'enhanced' as well. So yes.

Interviewer: Okay. Did the experiences gained from these opportunities help to enhance your confidence as a leader?

Interviewee: (...) Yes. (...) Coming from a western background, I really never suffered from lack of confidence and presenting myself professionally or academically because I had the necessary requirements, you know, for the job. However, if you are talking about building confidence pertaining to this cultural region, yes. I think being able to communicate with people who do not speak your first language, (...) yes, I have built my confidence being able to communicate with these people in different ways whether it's through writing whether it's through speaking. I think being able to liaise externally with different departments, putting myself in the position of responsibility has given me that confidence. So once you do reach a position of leadership, I think automatically, you gain a sense of responsibility which gives you confidence in yourself and in the team you are working with. So, (...) yes.

Interviewer: What challenges do you expect to encounter as a leader in the future?

Interviewee: Mmm, One of, (...) I mean, this is also got to do with the future, but I think one of the main ones I have encountered presently has been cultural awareness. We have teachers arriving from different countries from across the world who are not culturally aware of the region, educating them, making them aware about the cultural background, the ethics, everything is a responsibility in its own right to being a leader of this English department. So I think, one of biggest challenges that we face is delivering our objectives, knowing what we can and cannot do culturally. So, I think, we have to be in-line with bringing (...) this is one of the biggest challenges cultural awareness, I would see it. I think we need to be in-line with what we are delivering, knowing the (x) the situation in the region, especially pertaining to education. I think if I am referring to some other challenges (2.0) I'd really say, educating yourself on the region before arrival is one of the biggest (x) biggest challenges, I think. Had I been a bit more educated I think I would have been more prepared to face some of the responsibilities that I came across in this organisation or had I been (x) been a bit more trained, I think it would have been easier. Things would get more easier. However, from my own experience, I think teachers or people who are new to this country or arriving to work here, I think they should be given that opportunity to know about the culture. So cultural awareness is definitely one of the challenges. Secondly, I think the distinction (...)

between (2.0), I'd say the language barrier, that's another thing which I feel is a challenge that we face, especially when we are delivering English, which is a subject, which is a secondary subject in this part of the region and I think being able to bridge this difference between the two is (x) is a challenge that I faced in this organisation. I did find a middle ground, really. And yes, those are the challenges that I see being a leader.

Interviewer: Have you received any formal training in this position as a leader?

Interviewee: We do have a training department that delivers training regarding implementation policies, how to implement them in classrooms pertaining to education and classroom delivery. However, if I were to say personally, when I landed, no I did not receive any personal training regarding cultural awareness or telling us how the work ethic should be maintained, how should it work. So, no, yeah.

Interviewer: And, have you received any formal training as a leader?

Interviewee: No, until well, to be honest, until recently, we have been given a platform to study at our own pace and take course which would enhance our skills or which would offer new skills as a leader but in the past two years, I think only recently the organisation has started to build on this, where they have realised that as a leader we do need educational and academical background to enhance our skills-set and prior to this, I'd say until this last month we were introduced to a platform which is actually going to help us a lot to study at our own pace without technological hitches, obviously (laughs). But yeah, prior to that, no, we did not have any training (..), just, for leadership and so on.

Interviewer: How do you plan to update your leadership skills in this job?

Interviewee: Well, one of the things I have said is, I always believe, no matter how many qualifications you can have, you only learn by watching and by being trained by somebody who is an expert in their role and I really feel that with this new platform that we have to deliver and to learn courses at our own pace and to build our own knowledge, I think this will be a good way to enhance our leadership skills. Especially, you know, relating to issues which involve mentoring new staff or guiding them or motivating them because I think if you don't have a very content work force, performances are seriously affected and I feel that because we have not had this motivation and dedication earlier on, we have not had a very content work force as well, and the department is well aware of this situation, so with this new platform to do courses, I think we will be given the opportunity to study at our own pace, to enhance our skills and also to deliver at our best learning new skills and updating the new skills as a leader. The first thing that I mentioned to you about watching by someone expert, someone who is expert at doing her role, I think that is one of the best ways to learn and knowing somebody who knows the language, knowing somebody who knows how to bridge the gap between management and, you know the team, the departments. I think learning by doing is one of the best ways of enhancing your skills set.

Interviewer: And finally, what challenges do you expect to encounter as a leader in the future at the same work place?

Interviewee: Being a lead teacher, I have faced challenges from the time that I have started really which has been deadlines, which has been achieving a certain objective within a set time limit, knowing that we have repercussions of management, knowing that we cannot deliver may be, because of shortage of staff

or you know. However, despite those I think we have overcome those challenges as well. I think, we have managed to achieve so much in very little time. I think these challenges are going to be ongoing. When you are trying to, when you are part of a project that is trying to bring change, you are bound to face challenges and I think our challenges have been time, language barrier, motivating our work force and dedication from staff, I think. Because precisely, most of them are from, you know, from a different working environment, they come from the west and for them to adjust to this environment or adapt to this environment is not easy. Some of the staff, we might face the inflexibility issues where they may not be willing to contribute their time as much or might not be as dedicated. So I think, finding a balance between team work, organisational skills and I would say, (...) time management really. Three things that would help us overcome these challenges but like I said our biggest challenge has been culturally, cultural awareness and yeah, just a few that I mentioned earlier as well.

Interviewer: That is the end of the interview. Thank you for your participation.

Change Management's Critical Success Factors for Shifting to Smart University

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Abstract

The decision of making a transformation or a change such as moving to online learning is considered as a critical process that has impacts on everyone in the university, beginning from the top-level and ending with the lowest level. It is essential that university creates strategies, adopts approach and support innovations to deal with the internal and external environment's pressures and to acknowledge the need for change. There are several approaches and steps that the university can implement to overcome barriers and to eliminate the unfavorable consequences of applying the change process. Change management's critical success factors (CSFs) play a vital role in helping the university to improve, adapt to external environment change, and gain competitive advantages. To achieve successful change management, organizations use several CSFs that are related to organizations including, leadership, communication, system, process, people involvement, and training. These CSFs help to understand some functions such as change implementation, build effective teams, and manage reactions, which are essential for successful change (Caralli, Stevens, Willke, and Wilson, 2014). Moreover, CSFs give insight into how to deal with employees' resistance to organizational change. This paper aims at discussing the main critical success factors (CSFs) for the successful implementation of change management by reviewing the literature. The paper consists of nine critical success factors for change management: first, defining the need for change, benefits of change, and who will be affected by this change; secondly, identifying the effective change leadership and skills that the leaders shall have; thirdly, how to communicate the change among the followers effectively; fourthly, commitment to the change that starts with leader's commitment; fifthly, setting a plan for coaching and training to prepare the followers for the change; sixth, the forms of resistance and how to lead and deal with employees' resistance; seventh, the effective involvement, participation and empowerment of employees in the change process; eighth, adopting a change model and finally, sustaining the change.

Keywords – *Critical success factors, Change management, Higher education, Change model, Resistance*

Paper type – General review

Introduction

Many universities around the world have adopted online learning in order to deliver innovative and flexible education, enables students to manage their time, and improve the quality of learning. One research has indicated that technology innovation plays a vital role in enhancing future online learning in higher education (Ghavifekr and Hussin, 2011). Another benefit of changing the university from a traditional format to a smart format can create a competitive advantage as online learning introduces interactive and proactive teaching and learning environment for faculty and students (Beketova, Leontyeva, Zubanova, Gryaznukhin, & Movchun, 2020). Comparing to traditional education at campus, a university that applies online education has a lower cost. Moreover, in consequence of the spreading of the COVID-19 pandemic, many universities are closed and shift to remote learning (Doghonadze, Aliyew, and Halawachy, 2020). This pandemic brings an opportunity to plan for the future for the higher education sector to foster innovation and move to online education (Schlenz, Schmidt, Wöstmann, Krämer, and Weidner, 2020).

Smart education refers to utilizing smart tools and devices of advance and smart technologies. (Coccoli, Guercio, Maresca, and Stanganelli, 2014). Smart education leaders must focus on creating a culture of innovation to maintain continuous improvement (Randeree, and Narwani, 2009). The main purpose of this paper is to discuss the main change activities that are related to shifting to a smart university for the successful implementation of change management in the university. The paper contains nine critical success factors for change management for universities to shift to online learning, including the reorganization of the need and benefits for shifting to smart university, and who are the stakeholders who will be affected by this change, characteristics of the effective change leadership, and skills that the leaders shall have, how to communicate the change among the followers effectively, commitment to the change that starts with leader's commitment, developing a plan for coaching to train the followers, the types of resistance and how to manage employees' resistance, involving and empowering employees, adopting a change model, and finally, recommendations for maintaining the change.

Change Management's Critical Success Factors

Define the need for change

To start the change, the university needs to define why and what to do, and what the benefits that it seeks to accomplish of this change to its stakeholders, including employees, students, faculty, employers, and parents, as the change will provide a flexible, high-quality, motivated learning and teaching environment with lower cost and foster innovation across the university. In addition, the university's process, system, and documentation that will be affected by the change should be recognized. University's actions change management implementation shall be aligned with the university's change objectives. The essential step is to enable the functions of change management to make decisions and to deal with resistance. Moreover, it is important to paint the big picture for people who will participate and be affected by the change to adapt to this change and to recognize what they will obtain from this change (Change factory, 2014). It is also essential to assess the university's need to change, create a sense of urgency, and separate from the past (Beatty, 2015).

Effective change leadership

Effective change leadership focuses on forming strong team relationships. Leaders of change keen on support, motivate and empower their team to achieve successful change implementation (Saade & Nijher, 2016). Moreover, the leadership style that is based on encouraging and inspiring people and being the role model for them is essential to implement effective change (Shih, Shaw, Fu and Cheng, 2013). Effective change leaders must give direction to their people in order to achieve change objectives. They must also set policies that are aligned with change and ensure that their organizations perform change as one of their daily activities (Al-Khaffaf, 2012).

For effective leadership, the leader of the change shall focus on utilizing advanced and innovative technologies for learners and faculty, delivering training and support for faculty and learning, develop high quality online learning, sustaining funding, developing leadership skill in emotional intelligence, keeping communication channel open (Irlbeck, S. 2002; Kennington, B. 2020). The change project team consists of a change manager, online education project manager, and faculty coordinators. (Ward, West, Peat, and Atkinson, 2010). Leadership styles include six styles: commanding, this style is best to use in urgency and crisis; visionary, is used in direction to vision; affiliative, is used in a stressful situation; democratic, is used to gain valuable results from employees; pacesetter, is used when teams are highly motivated; coaching, is used to coach and monitor individuals when they need improvement.

Effective communication

Effective communication is one of the essential critical success factors of change management as it is the way to make people embrace the change. It is helpful to use several communication channels during change management to monitor and control the implementation including, face to face communications, question and answer sessions, open discussion meetings, collaborative tools, and Email (Endeavor, 2011). The university must be clear when it communicates what needs to be done and what the vision, mission, and objectives of the change to the online learning. The leader must listen to their people and answer their questions about why need change, when it will happen, and who will be affected by the change. Furthermore, communication meetings for the change team, reviewing performance, and reminding the team of the need for change and goals are essential (Foster, Hawking and Stein, 2004).

Commitment

The commitment to the change begins with the leader's commitment, who plays a vital role in followers' commitment. To lead change, leaders need to define the role and responsibilities of their people in the change process. They also must empower and give the authority to employees and faculty to take a role in the change process and make sure that they are committed to the change (Proctor, 2020).

The commitment of leaders and their followers is important to manage and drive the change (Nograšek, 2011). The commitment is essential to accomplish success for the university change as it is a reflection of the relation between employees and the change process.

Training to prepare for change

Change coaching and training for the university's employees, faculty and learners can help and support the implementation of the change. Educating and training employees and faculty can reduce the anxiety and fear of change (Sutanto, Kankanhalli, Tay, Raman, & Tan, 2008). Leaders must set a plan to train all university employees, faculty, and learners. Training programs for change should involve why the university needs to change; the requirements of this change clear and detailed roles; responsibilities, and procedures in the implementation of the change (ELsheikh, Abou-Zeid, and El-Zanaty, 2010). These training programs enhance the employees, faculty, and learners' understanding skills, attitudes, behaviors to perform the change.

Dealing with resistance

Resistance can be defined as the unacceptance, compliment and of something and try to stop something from happening. A change idea can lead to resistance from the university's employees and some outside forces. The resistance to change can happen by showing anger, fear, anxiety, argument, disengagement, ignoring communication, and reduced productivity. There are some steps that can be followed to manage and overcome resistance, including face to face communication directly to the resistant, asking open-ended questions and discussions to understand their views, explain the need for change for them, focusing on objective and what need to achieve goals, effective engagement of people in the change process (Foster, Hawking and Stein, 2004). In addition, the leader shall not return to command and control when they face resistance (Beatty, 2015).

Changing from traditional education to online education has some effects on university stockholders, including employees, students, and faculty that can result on the resistance to this change. There are many challenges that would face moving to online regarding students and faculty resistance, low students' participation, and changing of pedagogic approaches and curricula (Parlakkılıç, 2014).

The following are some of the causes that lead both students and faculty to resist the change to online learning (McNaughton, 2018):

- Faculty needs to work and prepare more for the online classes.
- Faculty face problems with controlling the presentation of the subject.
- As faculty not used to teach online.
- Students have problems regarding their readiness, identity and expectations, and participation in online classes.
- Instructors could face challenges regarding the faculty roles change, managing time, and styles of teaching.

To overcome resistance, the leader shall establish effective communication to elaborate the value of the change to the stakeholders who will be affected by the implementation and to answer their questions. Engaging and involving stakeholders in the change process and in decision making can lead to reduce resistance and create a collaborative learning environment for online education (Brown, 2013). In addition, defining stakeholders' roles in the change process, training and developing their skills, and motivating them will results in enhancing their satisfaction level (Goolnik, 2006). Most importantly, for successful implementation of change, university shall empower employees by facilitating and motivating employees' choice and change implementation (By, Diefenbach, & Klarner, 2008). In order to control challenges related to the shift to online learning, the following must be considered (McNaughton, 2018):

- Information technology team that supports and responds to stakeholders needs, effective server support, effective campus technology network, online library services, online student services (registration, billing, and payments), and student support management (Taylor, Grant, Hamdy, Grant, Marei, & Venkatramana, 2020).
- Developing program and course by setting policies for online program, an approach for teamwork, incentives for faculty, training for staff and faculty, monitoring faculty, providing an effective course management system, online test security, and system to deliver online courses.

- Improving and maintaining program by continuing to analyze the new online technologies and updating the program to provide value, as well as conducting surveys to get stakeholders' suggestions for further improvement.

Employees involvement

To achieve success in the change process, the university needs to build strong bonds and relationships with its employees and faculty by engaging them in the change. The effective participation and involvement of employees in the change process is the key to overcome any barrier and successful implementation. The involvement of employees in the change process includes engaging them in the change planning, valuing their ideas and suggestions, motivating and encouraging them to participate, empowering them to take a role in change process, and involving them in the decision-making process (ELsheikh, Abou-Zeid, and El-Zanaty, 2010). Employees and faculty engagement in the change process leads to prevent resistance and to achieve change objectives. Engaging employees at many levels in the team responsible for the change, as well as rewarding and recognizing them for participation in the change process, is also important (Foster, Hawking and Stein, 2004).

Adopting change model

For successful implementation of shifting to smart university, the following is the proposed change model by Kotter (Pollack and Pollack, 2015):

1- Making sense of urgency by analyzing the other competitors, and defining the crises, threats and main opportunities.

- Defining effectively why the university needs to shift to online, communicate the value for stakeholders and ensure their understanding and awareness, and answer their questions are the role of the leader (Steele, 2008).

2- Forming a team that guides and leads the change and motivates the followers to work as a group to achieve the goals.

- Change manager forms a team, defining each member's role, and influence team members and motivate them to achieve the goals by using effective leadership skills, attitudes and knowledge (Roache, Holder, and Muschette, 2020).

3- Developing a vision for smart university that guides the efforts toward the change and setting strategies to accomplish the vision.

- The change leader establishes a clear vision and strategic plan for online education.

4- Communicating the vision and strategies for change to smart university among followers and creating a motivating and supporting environment.

- The change leader is required to develop a communication plan to communicate the vision across the university and motivate followers (Gardne, Bennet, Hyatt, and Stoker, 2017).

5- Empowering and encouraging followers to commit to the change, overcome barriers, taking risks and innovative ideas, and changing the systems.

- Providing support and facilities to followers, involving them in decision making, and empower them is essential. (Solangi, Al Shahrani, and Pandhiani, 2018; Weller and Gramberg, 2007).

6- Ensuring performance improvement and encouraging and rewarding employees.

- During the change process, it is essential to celebrate and reward employees' efforts.

7- Making a change in systems, policies, structures, and processes to be aligned with the vision, and hiring and improving employees to adapt and implement the change.

- Upgrades policies, system, and strategies to support the change process.

8- Applying new approaches by making sure to develop leadership skills and creating a culture of change that reflects on followers' behaviors.

- To implement successful change, the leader must enhance their skills to build a culture of excellence that reflects on employees' attitudes (Gibbs, 2009).

Maintain the Change (Sustainability)

Sustaining the change project means maintaining the benefits of improving the project. In order to maintain change, setting continuous monitoring and controlling strategies for the change process is required (Milliken and Colohan, 2000). The following are recommendations for sustainable improvement of moving to smart university (Pedersen, Pharo, Peterson and Clark, 2017):

- 1- Begin with transferring a few programs to ensure the quality of online learning.
- 2- Create an educational environment that focuses on fostering and supporting innovation.
- 3- Investing in effective and efficient advanced technologies infrastructure.
- 4- Keep communication channels open with stakeholders to monitor the achievement of the objectives.

Conclusions

The purpose of this paper was to discuss several CSFs for the successful implementation of the change process to online learning in higher education. There are some activities and actions that should be adopted by the university that seeks to achieve successful implementation of the change process. Managing change requires some skills and tools to perform the change process effectively. To succeed in change management, the organization must use critical success factors, including understand the need for change and identify the advantages of the change; effective change leaders must be a role model for their followers, commitment to the change goals, effective communication, and listening for followers, conducting coaching and training programs to realize the change process, don't ignore the resistance and deal with it, engaging and involving employees in planning for the change process, and thee most importantly, how to sustain the change.

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An Assessment of Medical and Pharmaceutical Waste Management Practices in a Selected Healthcare Facility in Al-Ain City

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Abstract

In the UAE, a rapid growth and development in the sector of healthcare have been witnessed in the last decade. Consequently, an array of healthcare waste classes is being generated; the thing that necessitate the existence of a well-structured management program for the medical waste in healthcare facilities. The proper management of healthcare waste is the basis for a healthy environment for both workplace and community. Conversely, the inappropriate management practices raise the level of adverse health effects in the short and the long run. The study was intended to review the fundamental waste management practices in a selected hospital in Al-Ain city and their effectiveness in light of the regulations of healthcare waste set by Health Authority Abu-Dhabi. The study was based on an online interview with the infection control unit officer of the selected hospital. The scope of the questions revolved chiefly around the implementation of their medical waste management practices with the consideration of segregation options, storage sites, containers, and handling processes. Examining staff awareness was also considered through the questions; since it is an integral part of the proper waste management program. The results of the study showed that the waste generation rate of the hospital is 2.3 kg/bed/day, which lies within the range set by WHO. The segregation of all types of healthcare waste is practiced in the hospital, and the highest percentage went for the infectious waste. The study also showed the existence of an on-site medical waste storage area in the selected hospital which is sterilized periodically, from which the waste is transported via specialized vehicles within the healthcare facility. The selected hospital doesn't possess pre-treatment techniques and the medical waste collected is transferred and being treated in a centralized incinerator in the city. The training programs are offered periodically but it is primarily confined to those who are in charge of high-risk areas. The study revealed that the healthcare waste management practices in line with with Health Authority –Abu Dhabi regulations of healthcare waste to a considerable extent. However, the periodic training programs should target all the workers in the unit.

Key Terms:

HCW: Health-Care Waste

MWM: Medical Waste Management

HAAD: Health Authority Abu-Dhabi

WHO: World Health Organization

HCFs: Health Care Facilities

Introduction

Waste is an unavoidable phenomenon due to the fact that it is directly related to daily human actions and activities. That seems very logical and reasonable; but as the wheel of economic growth and development is accelerating, new forms and categories of wastes are generated in abundance and possess considerable potential to cause harm. One of these categories that is generated as a result of rapid expansion of healthcare sectors worldwide is the healthcare waste. In accordance to World Health Organization (WHO), healthcare waste can be defined as any by-product generated by various healthcare facilities which includes sharps, non-sharps blood contaminated items, blood body parts and tissues, chemicals, pharmaceuticals and radioactive materials (WHO, 2014). From the previous definition, we can state that healthcare waste is a fundamental terminology in which medical and pharmaceutical wastes can be considered as sub-categories that fall under it. Sometimes the terms healthcare waste and medical waste are used interchangeably as they share the same scope and definition.

The pharmaceutical waste includes the expired, unused, split and contaminated pharmaceuticals such as drugs, vaccines and sera that are no longer required in addition to the discarded tools used in handling those pharmaceuticals (Schwartz et al., 2010). Other classes of healthcare waste are shown in (table1) with details.

Table 1 Health-care Waste Categories

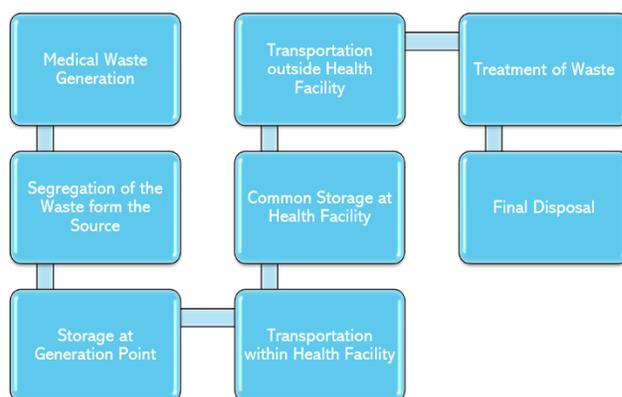
Waste Class	Description	Examples
Infectious	Contains infectious agents	Tissues, tools that have been in contact with infected patients
Pathological	Human tissues or fluid	Body parts and blood
Pharmaceutical	Contains pharmaceuticals	Expired pharmaceuticals and items contaminated by pharmaceuticals
Sharps	Sharp waste	Needles, knives, scalpels and broken glass
Genotoxic	Contains substances with genotoxic properties	Genotoxic chemicals and waste containing cytostatic drugs (often used in cancer therapy)
Chemical	Contains chemical substances	Laboratory reagents, solvents and disinfectants
Radioactive	Contains radioactive substances	Liquids used in radiotherapy, urine from patients treated with radionuclides

The proper management of healthcare waste is the basis for a healthy environment for both workplace and community. Conversely, the inappropriate management practices will raise the level of adverse health effects in the short and long run. The practices of healthcare waste management commonly involve all the activities and actions taken starting from waste generation to segregation, transportation and storage and ending by the final disposal (figure1).

It is always necessary for those practices to be designed and formulated so that they meet the waste management core principles; that are mainly represented in the reduction of undue wastes, the segregation and separation of the general healthcare waste from the hazardous waste, and the treatment of waste. There is usually a variation in waste generation in regard to the classes and the amounts; and that is chiefly due to the different specializations of healthcare facilities, their capacities and their available segregation options (Hasan et al., 2018).

Health-care waste management practices are usually conducted in light of policies and regulations that are set by health authoritative bodies that act as a guide to healthcare facilities in order to manage their medical waste efficiently.

Figure 6 The Key Mechanism for Medical Waste Management (Cradle-to-Grave Approach)



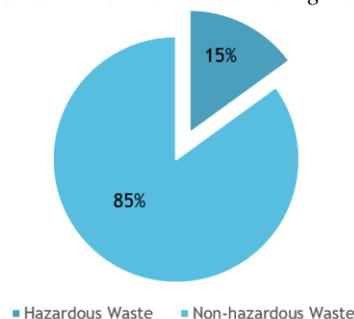
In the UAE, Health Authority in Abu Dhabi – commonly abbreviated as HAAD – is one of those bodies that play a crucial role in mentoring the processes and the practices of healthcare facilities. HAAD has set a policy issued in May 2007, under the subject of “Medical Waste Management in Health Care Facilities” in order to direct and provide guidance to the various healthcare facilities located in Abu Dhabi, to manage their medical waste properly with the consideration of the UAE Federal Law and Municipality regulations with the main goal of minimizing the risks to the waste handling labors, staff, patients and other communities (HAAD, 2017).

The Objective: The main aim of the study is to review and assess the fundamental waste management practices and their effectiveness in the selected healthcare facility in light of the regulations of Healthcare waste set by Health Authority Abu-Dhabi .

Literature Review

Many terms are usually used in literature interchangeably to indicate the medical waste; such as health-care waste, biomedical waste, biohazardous waste and infectious waste. They all refer to the waste generated out of the vast myriad of healthcare activities and processes. However, by considering the harm caused by these wastes, it is fruitful to make a distinction and classify them as general medical waste and hazardous medical waste. Other classifications are based on the four types: general, infectious, hazardous and radioactive. The way of classification may depend largely on the type of used materials in the medical facility and the waste disposal methods (Chen et al., 2014). According to WHO statistics, about 75% to 90% of medical wastes are considered as general or non-hazardous. While the other 10% to 25% goes for the hazardous wastes that have the potential to cause various health risks (WHO, 2014). However, that small percentage shouldn't be underestimated since the poor management of those hazardous wastes can lead to exposing the workers, waste-handling labors and patients as well as the community to different health risks.

Figure 7 The hazardous fractions of the total healthcare wastes are categorized in the classes mentioned in (Table1), the highest percentage resembles the domestic waste to a great extent



The understanding of medical waste various classes is crucial and segregating them accordingly to avoid damaging the health of the workers and the patients, and to dispose them in a safe and effective manner. Those risks associated with medical waste can range from direct injuries that mostly occur as a result of disposing sharps, to indirect injuries such as toxicity effects (Awad et al., 2018). This wide range of impacts is due to the various classes of health-care wastes (table1) and their different potentials to cause harm. There are some healthcare waste that can be regarded as general and can be disposed in landfill, while some requires more specialized treatment tools such as medical incinerators to ensure that all infectious and pathogenic agents are destroyed, and that represent the majority of the medical waste.

In developed countries, the issue of waste management generally and medical waste management specifically is always given a high priority. The policies were created among all levels – the national, the regional and the local – with the aim of mentoring the healthcare facilities to adopt the healthy management practices of medical wastes. In Germany for example, a teaching hospital possesses an overall of (54) regulations in regard to healthcare waste management; (36) as national regulations, (5) as regional and (13) from the facility itself (Daschner, 2012).

While in most of the developing countries the medical waste management practices aren't as effective as required. The lack of proper medical waste management starting from the wastes generated from the healthcare facilities to the final disposal is a tangible reality in many developing countries. According to an assessment done by WHO in 2010, about 21 million hepatitis B virus HBV infections, 2 million hepatitis C virus HCV infections, and 260,000 HIV infections occurred due to the use of contaminated syringes for injections (WHO, 2016) This is mainly attributed to the absence of solid regulatory framework by which the practices of medical waste management are regulated. As a consequence of the poor medical waste

management, number of studies have shown an increase in the number of epidemics and diseases associated with the medical waste (Harhay, 2009).

In the UAE, a rapid growth and development in the sector of healthcare have been witnessed in the last decade. In the early seventies, there were (7) hospitals, with a total of (70) beds, and (12) health centers (Maryam A. et al., 2008). According to the statistics of 2017, there were (45) hospitals in the government sector, and (98) hospitals in the private sector with a total of about (12,000) beds (MOHAB, 2019) . As a consequence of this tremendous progress, an array of healthcare waste classes are being generated; the thing that necessitate the existence of a well-structured regulatory framework to ensure a proper waste management practices.

Methodology

The methodology of the study was based mainly on an online semi-structured interview with the officer of the infection control unit in the selected hospital in Al Ain city. The questions were designed in order to be familiarized with the fundamental HCW practices in the selected health-care facility. It was planned to arrange on-site visits to get a closer look at their implementation of medical waste management practices, in addition to distributing questionnaire among the workers. The latter plans couldn't be processed because of COVID-19 circumstances. The scope of the questions revolved chiefly around the implementation of their medical waste management practices with the consideration of segregation options, storage sites, containers, and handling processes.

Staff awareness is an integral part of a proper waste management program. Hence, a part of the questions will be formulated as an attempt for investigating workers knowledge, awareness and responsibilities. Out of the resulted data the effectiveness of the practices will be examined in light of the regulations set for HCW by health authority Abu Dhabi.

Data and Discussion

Data collected was based chiefly on an online interview with infection control officer of a selected healthcare facility. The questions were formulated in order to get a clear picture of the implementation of medical waste management practices in the selected hospital, and to cover different aspects of healthcare waste management such as policies, handling of waste, treatment and disposal processes.

Quantity of Medical Waste Generated:

The amount of medical waste generated compared to the beds and occupancy is shown in (table 2):

Table 2 Waste Generation Figures

Beds	Occupancy	Daily Quantity	Monthly Approximated Quantity	Rate
100	61%	159 kg	4770 kg	2.3 kg/bed/day

It is estimated by The World Health Organization that the total medical waste per person per year is to be at the range of 0.5 – 3.0 kg/bed/day in developing and developed countries (WHO, 2014).

The quantity of medical and pharmaceutical waste generated in healthcare facilities is usually positively proportional to the number of beds. For instance, another study showed that an amount of 1250 kg of daily medical waste is produced in Tawam Hospital located at the Emirate of Abu Dhabi with 320 beds (Maryam A. et al., 2008).

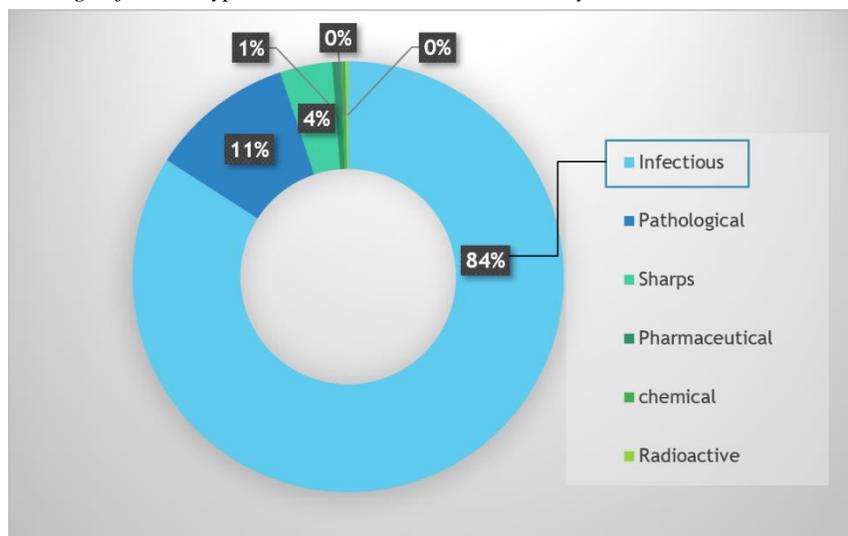
The study shows that the total waste generation in the selected hospital is 2.3 kg/bed/day which lies within the range set by WHO. However, the rate is relatively high and this mainly due to the its expanded multi-speciality and its capability to provide further treatments that other hospitals are unable to provide.

Healthcare Waste Segregation and Handling Techniques:

The waste handling approaches are represented in segregation practices, the use of specialized bags and the consideration of various types of healthcare waste.

In accordance with WHO provisions, healthcare waste must be segregated into specific containers with the appropriate labels. In some healthcare facilities, segregation isn't practiced for all medical waste types; this is sometimes due to the major availability of certain types against the other such as: chemical, pharmaceutical and pressurized containers waste. However, in the selected hospital the segregation of all types of healthcare waste is practiced. The percentage of the amount of each type is demonstrated below. The highest percentage goes for infectious waste (84.1%) which indicates the high amount of laboratory waste being generated such as the infectious agents and cultures. Other types include pathological (10.8%), sharps (3.9%), pharmaceuticals (0.7%), chemicals (0.3%) and radioactive (0.2%)

Figure 3 The Percentage of HCW Types in the Selected Health Facility



The color-coded bags and containers are used in the hospital for disposal of different types of healthcare waste as a result of various medical processes. The yellow, blue, black and white plastic containers are used to indicate different categories of waste as shown in (table 3):

Table 3 Color-Coded Bags Classes used in the Hospital

Container	Type of Waste	Examples
Yellow	Anatomical waste	Pathological waste and body parts
Blue	Infected plastics	Syringes, gloves and plastic waste
Black	Cytotoxic drugs and chemical waste	Solvents and lab reagents
White	Sharps	Needles and cut glasses

The bags are marked and labeled to facilitate the process of monitoring the waste and taking proper actions in case of problems.

Healthcare Waste Storage and Transport:

Medical waste containers and bags must be collected and moved to a central storage point further treatment or disposal. The study shows that there is an on-site medical waste storage area in the selected hospital. The

storage area is a locked room that is sterilized periodically and located peripherally away from general storage areas and away from routes used by the public, with access restriction; to which only authorized employees can enter. The temperature of the storage room is also controlled, if waste is stored up to one week or less in hot weather, the area will be refrigerated to avoid the degradation of the waste and the bad odor.

The WHO guidelines for the proper waste storage times are typically followed by the facility as shown in (table 4). The durations demonstrated in (table 4) represent the limits that shouldn't be exceeded from the time of the generation of the wastes till their treatment.

Table 4 Health-care storage times in regard to the climate

Temperate climate	72 hrs in winter
	48 hrs in summer
Warm climate	48 hrs during cool seasons
	24 hrs during hot seasons

In regard to waste transportation, specialized vehicles are used to transport the waste within the healthcare facility. The vehicles are daily disinfected with maximum size of 100 liters for dry waste and 50 liters for wet wastes.

Healthcare Waste Treatment:

The fundamental concept of treatment and pre-treatment of medical waste is to ensure the destruction of microbes and pathogens and create a safe environment. This is accomplished by various techniques, that include but not limited to: autoclave, microwave and irradiation.

The selected hospital doesn't possess pretreatment techniques. This can be chiefly due to financial constraints since those techniques are known of their high cost, in addition to the wide use of disposable substances.

Most hospitals in the UAE use incineration for medical waste combustion ([HAAD, 2017](#)). The medical waste collected from this hospital is transferred and being treated in in a centralized incinerator in the city.

Staff Awareness and Training:

Staff awareness is an integral part of a proper waste management program. The lack of prudent waste handling techniques and good training of the waste handlers may result in higher cost of disposal. According to Tudor 2005, the staff training and awareness could potentially reduce medical disposed waste quantities by as much as 20-30% and costs by around 25-35%.

Based on the interview with infection control officer in the selected hospital, a contract was established between the hospital and private housekeeping contractors who are recruiting non-educated workers. Those workers aren't fully aware of the risks associated with the process of handling the medical waste and they lack the proper knowledge. The training programs are offered periodically but it is primarily confined to those who are in charge high-risk areas. This issue was indicated by UN Development Program, that there is lack of special trained staff in the departments for handling medical waste.

Limitations of the Study

The pattern and the elements of the above study was clear from what have been discussed. However, it was intended for the study to cover more than one healthcare facilities with different specializations; and that consequently will allow more space for the manipulation of data and highlight more comparison faces. The greatest obstacle that impeded the advancement of the research is COVID19 Outbreak that we are experiencing nowadays. The hospitals were forced not to accept visitors, besides the atmosphere wasn't healthy to conduct the research as hospitals are regarded as hotspots; the thing that led to hindering the study and limiting its objectives. The planned visits were replaced by an online interview with infection control officer of a selected hospital. Consequently, there was no opportunity to investigate all the aspects of medical waste practices adequately. One of these aspects is the examination of the expiration of pharmaceuticals and medicines and their storage as waste; by which fruitful conclusions can be drawn that could enrich the study.

Conclusion and Recommendations

Medical and pharmaceutical wastes are generated from various healthcare activities. That results in different classes of health-care wastes. The type and the percentage of a certain class of medical waste are relying chiefly on the specialization of the healthcare facility; and that will determine the types of medical activities being carried out. The study revealed that the most abundant class of medical waste is the infectious waste with about (84%) the thing that indicates the presence of high amount of laboratory waste being generated such as the infectious agents and unwanted microbiological cultures and stocks. The rate of waste generation in the study is (2.3 kg/bed/day), and that lies within the range set by World Health Organization (WHO) in developing and developed countries that is (0.5 – 3.0 kg/bed/day). However, the rate is relatively high and this is mainly due to the its expanded multi-speciality and its capability to provide further treatments that other hospitals can't provide. The segregation of all types of healthcare waste in the selected hospital is practiced with the designated color-coded bags and containers, this is actually not always the case. In some healthcare facilities, segregation isn't practiced for all medical waste types; this is sometimes due to the major availability of certain types against the other such as: chemical, pharmaceutical and pressurized containers waste. The study showed that the selected hospitals lacks the pre-treatment techniques of the medical waste such as: autoclave, microwave or irradiation; and this is significantly due to financial constraints since those techniques are known of their high cost, in addition to the wide use of disposable substances as alternative for the pre-treatment processes.

In a whole, the HCW management practices in the selected health-care facility show considerable compatibility with Health Authority –Abu Dhabi regulations of HCW.

The management unit is functioning through a set of internal regulations and guidelines which is adopted by HAAD policies to ensure healthy waste management practices. However, the concept of staff awareness and trainings should be always emphasized especially when it comes to medical waste management, as long

as the poor management can expose the workers, waste-handlers and patients as well as the community to different health risks that can range from direct injuries to indirect injuries such as toxicity effects. This point was highlighted in HAAD regulations for MWM practices, that HCFs must recruit staff that will be overall responsible for the waste management of the facility and continuously trained; and that reflects the knowledge of the staff.

Hence, and since staff awareness is a fundamental part of a the proper waste management program, all the workers should take part in periodic trainings, not only to be limited to the officers and those who are in charge of high-risk areas as the study revealed. Those training and programs should be enriched by emphasizing the continuity and clarity of the healthy waste management practices.

It is well known in waste management science that disposing waste is the least favorable approach to deal with it .As reduction is always the most desirable option for dealing with waste, another integral part of the prudent waste management practices is possessing clear plans for the minimization of the waste being generated. The generation of health-care waste is probably inevitable, in this case HCFs should adopt the reuse of materials and look for greener alternatives whenever possible and as long as the patient safety isn't affected. The establishment of future plans for reducing the waste wasn't fully clear throughout the study in the selected facility.

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Appendix 1

Interview Protocol

Background information

Can you briefly elaborate the role of the infection unit as a part of the hospital?

- Can you briefly explain that tasks that you are engaged with as an officer of the infection unit?

Technical aspects information

- What is the total waste generation per bed per day?
- What are the percentages of medical waste types?
- Do you practice segregation for all medical waste types?
- Do you have an on-site medical waste storage area? If yes, How it is controlled?
- How the on-site transportation of the waste is performed?
- How the off-site transportation of the waste is performed?
- Do you have pre-treatment techniques?
- Is the treatment process performed inside or outside the facility?
- Do you have your own regulations as an infection unit for medical waste management?

Staff Awareness and Future Plans

- Do all the worker possess qualifications?
- Are there periodic trainings being held? If yes, who are involved?
- Do you have future plans as a MWM Unit for reducing the waste in the facility?

Physiochemical profile of different types of soil in Al-Fujairah: Exploratory study

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Abstract

Soil physiochemical profile is important for sustainable management. This study aims to determine the physical and chemical properties of different types of soil in Fujairah.

A total of 36 soil samples from four different areas (agriculture, industrial, main side roads, and beaches) were collected and analyzed for pH, Electrical Conductivity (EC), % organic matter, %moisture, bulk density, texture, and heavy metals. Samples were digested using microwave digestion techniques and analyzed for Cadmium (Cd), Lead (Pb), Zinc (Zn), Cobalt (Co), and Nickel (Ni) using ICP-OES.

The pH values varied from 7.93 to 8.87, EC values varied between 0.24 to 1.47 dS/m⁻¹, SAR values varied between 7.186 to 7.765 cmol kg⁻¹, % organic matter varied between 2 to 16 %, % moisture varied between 0% to 24 %, bulk density varied between 0.912 to 1.580 g cm⁻³ and the soil textures were found to be sandy Moderately Coarse (MC) to sandy loam. The heavy metals concentrations were found as the following: lead (Pb) concentration varied from 1.537 to 20.202 mg·kg⁻¹, Zinc (Zn) concentration varied from 55.675 to 180.024 mg·kg⁻¹, Cadmium (Cd) concentration varied from 1.561 to 2.387 mg kg⁻¹, Cobalt (Co) concentrations varied from 27.230 to 65.638 mg·kg⁻¹, Nickel (Ni) concentration varied from 879.890 and 2241.405 mg·kg⁻¹.

The study found a high concentration of Lead and Nickel in some soil samples, which exceeded the clean-up level set by the Abu Dhabi Quality and Conformity Council for environmental specification for soil contamination.

Keywords: Soil profile, Fujairah, physiochemical, agriculture, heavy metals.

1.0. Introduction

Nowadays, soil ecosystems are exposed to several pollutants, including physical, chemical, and biological, related directly or indirectly to anthropogenic activities. Human activities are among the main cause of soil pollution because of the resulting accumulation of contaminants in soils (organic and inorganic chemicals). A risk on human health and ecological quality status are some of soil pollution results (Cachada, Rocha-Santos, & Duarte, 2018). Pesticides are a good example of soil pollutants in the agriculture area, as many farmers use them to kill pests, or they can be introduced by some chemical fertilizers used to grow some crops. Furthermore, these contaminations can sometimes be introduced through natural processes. For example, soil salinity can result from the geological structure (Environmental Pollution Centers, n.d.). Monitoring soil quality may be a challenging task due to the lack of well-stated monitoring variables and indicators.

On the other hand, the pressure on soil quality and the need for soil fertility sustainability is ever increasing due to the issues related to the world's population increase (Cachada et al., 2018). This paper highlights soil's physicochemical properties such as heavy metals, acidity (pH), salinity (EC), Organic matter, Moisture, Bulk density, soil texture, and others. It also provides data on samples collected from four different areas (agricultural areas, industrial areas, main side roads, and beaches) in Fujairah. Recommendations of some feasible methods for soil remediation will also be so provided.

2.0. Literature review

In order to determine soil quality, it is important to measure various parameters, including soil acidity, salinity, heavy metal content, organic matter content, and moisture. Also, it is important to classify the soil type and texture.

2.1. Soil texture in UAE

The United Arab Emirate (UAE) soil is broadly categorized into sandy, sandy calcareous, gypsiferous, saline, saline-gypsiferous, and hardpan soils. These soils have been classified into three main orders of the Soil Taxonomy (Aridisols, Entisols, and Inceptisols). The most frequent soil taxonomy in UAE are Entisols, then Aridisols, and the least common soil is Inceptisols. Soils are described in their formation, temperature, moisture regimes, properties, and occurrence in UAE. Surface deposits of sandy soils are described from an erosion and transport mechanism perspective (Shahid & Abdelfattah, 2008).

2.2. Soil salinity and sodicity in UAE

The soil salinity process occurs when soluble salts accumulation in the soils. In UAE, salinization is a significant problem in the coastline, where it is recognized by the appearance of surface salt crust with EC values usually more than 200 dS/m. On the other hand, agricultural soils' salinization is introduced by anthropogenic activities, where farmers used saline water for irrigation. The soil salinity varies widely depending upon the irrigation water's salinity, irrigation methods, soil properties, and the duration of land use and management practices (Shahid & Abdelfattah, 2008).

Sodium adsorption ratio (SAR) is a value that determines the accumulation of sodium in the soil. Coastal soils in UAE have a high amount of sodium accumulation due to the sodium-rich seawater intrusion. However, sodicity is recognized in farming areas relatively less (Shahid & Abdelfattah, 2008).

2.3. Soil Acidity

Over the past few years, soil acidity has been increasing due to several problems, such as soil contamination of heavy metals. Soil acidity means that the soil pH is below 7. In addition, two main variables can be affected by soil acidity, which are topsoil and subsurface. The topsoil acidity can reduce the biological activity and legume nodulation, as well as reducing nutrient availability. On the other hand, the subsurface acidity can reduce root growth and decrease access to subsoil moisture. We can also find acidic soils

naturally in places that are high in rainfall amounts and geological factors, which have been caused by various factors.

However, soils that are high in clays and minerals tend to be acidic. Nitrogen from fertilizers and organic matter can raise acidity. Also, it leads to the leaching of nutrients. Liming is one of the best solutions to treat acid soils. A lime test must be done to determine the quantity of lime required to bring the soil to pH 6.5 (Dinev, Nikova, Sechkova, & Banov, 2008).

2.4. Soil Salinity

Salinization is common pollution of the soil that has a significant impact on plant growth worldwide. The high concentrations of salt in soils reduce plant growth and influence nitrogen dynamics in the soil solution. In addition, increased salinity in soil can inhibit the germination of seedlings which causes a drastic decrease in crop production. The high toxicity of ions on the seedlings can reduce cell growth and inhibit water absorption (Saberli, 2017). Also, about 25% of the world's croplands are affected by salinity (Miller and Curtin, 2008).

2.5. Insecticide and pesticides effect on soil and the microbial population

Chemicals products are used globally to enhance the quality and quantity of the crops. Herbicides, insecticides and fungicides, these chemicals may ruin the soil and damage its properties. Also, it can negatively affect the health of the consumers (Floch, et al., 2011). Using insecticide and herbicides, in general, affects the soil enzyme activities; thus, the soil becomes poor (Andreu, et al., 2016). Furthermore, pesticides that contain organochlorine hold some risks to human health and the environment (Qu, et al., 2016). Moreover, a high concentration of pesticides in the soil could affect the microbial populations that decompose the soil's organic matter (Zhou, et al., 2012).

2.6. Heavy metals in soil

Heavy metals would be a group of metals that should be controlled and avoided, because of the harmful effect on living organisms if exposed to excessive amounts, leading to some unfortunate consequences (Minatel, et al., 2017). Pb, Cu, Cd, Cr, Zn, Ni, and Hg are good examples of harmful heavy metals. These heavy metals were introduced to the soil either by natural or anthropogenic source. (Khalid et al., 2017). Heavy metals contamination can occur because of increased industrial activity, groundwater pollution, and car traffic. Moreover, radioactive heavy metals such as uranium, radium, and plutonium pollute the soil in some places, either naturally or by human activities. In addition, there are some heavy metals, such as lead, mercury, arsenic, and chromium which have been increased to a dangerous concentration in the soil as a result of mining activities, industrial activity, and automobile use (Minatel, et al., 2017).

3.0. Objectives

The main objective of this research is to determine the physicochemical properties of different types of soils in Fujairah. These include heavy metals content, pH, organic matter, moisture, bulk density, soil texture, Sodium Adsorption Ratio (SAR), and Electrical Conductivity (EC).

Specific objectives:

- To identify the physicochemical profile of different soils in Fujairah, including pH, EC, Organic matter, Moisture, Heavy metal, Bulk density, soil texture, and SAR.
- To recommend the best practices for soil treatment.

4.0. Materials and Methods

Soil samples were collected from 5-20 cm deep using a spatula from three points within each area and stored in plastic bags. In total, 36 soil samples were collected from different parts of Al-Fujairah. Samples were collected from 3 different locations of 4 different types of soils (industrial area, agriculture, main roadside, and beaches). The samples were sieved using a 2mm sieve and stored in bags for analysis. Soil samples were analyzed for heavy metal, acidity (pH), salinity (EC), organic matter and moisture, bulk density, soil texture, and soil sodium adsorption ratio (SAR) in Zayed University, Dubai campus laboratories.

For heavy metals analysis, all glassware and Teflon tube were soaked in 20% nitric acid and rinsed with distilled water. Multielement standard solutions of Arsenic (As), lead (Pb), cadmium (Cd), nickel (Ni), zinc (Zn), and Cobalt (Co) were prepared by diluting 50 ppm stock solutions (Fluka Trace Cert Ultra, Sigma-Aldrich) with 2% nitric acid (HNO₃) solution.

For microwave digestion, 0.5 g of the soil sample was accurately weighed into a Teflon tube (MARS Xpress), followed by the addition of 12 ml pre-prepared Aqua-Regia (3ml of 37% hydrochloric acid (HCl) (trace metal concentrated, Suprapur, Merk) and 9.0 mL of 69% nitric acid (HNO₃) (trace metal concentrated, Suprapur, Merk)). The mixture was subjected to US-EPA 3051A-24X microwave-assisted digestion in MARS Microwave digestion system (CEM Corporation, Matthews, USA). At the end of the digestion program, the samples were filtered and quantitatively transferred to a 100mL volumetric flask and diluted with 2% nitric acid solution. A blank digest was carried out in the same way. The concentration of metals in the sample was determined using Inductively Coupled Plasma Atomic Emission Spectroscopy (700 series ICP-OES). A certified soil standard reference material (Reference Till Sample 538, Canadian Certified Reference Materials Project) was also analyzed for corresponding elements. All quality control and assurance measures were taken, including calibration check measures and replicating samples analysis. The concentration of heavy metals is expressed as the mean value (mg·kg⁻¹) ± standard deviation (SD).

For electrical conductivity, 10g of soil was placed on a 100 ml beaker with 50 ml of distilled water. Then stirred for 30 minutes using a magnetized capsule. The conductivity meter was calibrated using the KCl solution. The electrical conductivity of the soil was measured (dS/m).

For pH, 20g of soil was weighed in a 100ml beaker, followed by the addition of 40 ml of 0.01M CaCl₂. Then stirred for 20 minutes using a magnetized capsule. The suspension was settled for 30 minutes without stirring. The pH was measured using a pH meter (370 pH meter, Jenway).

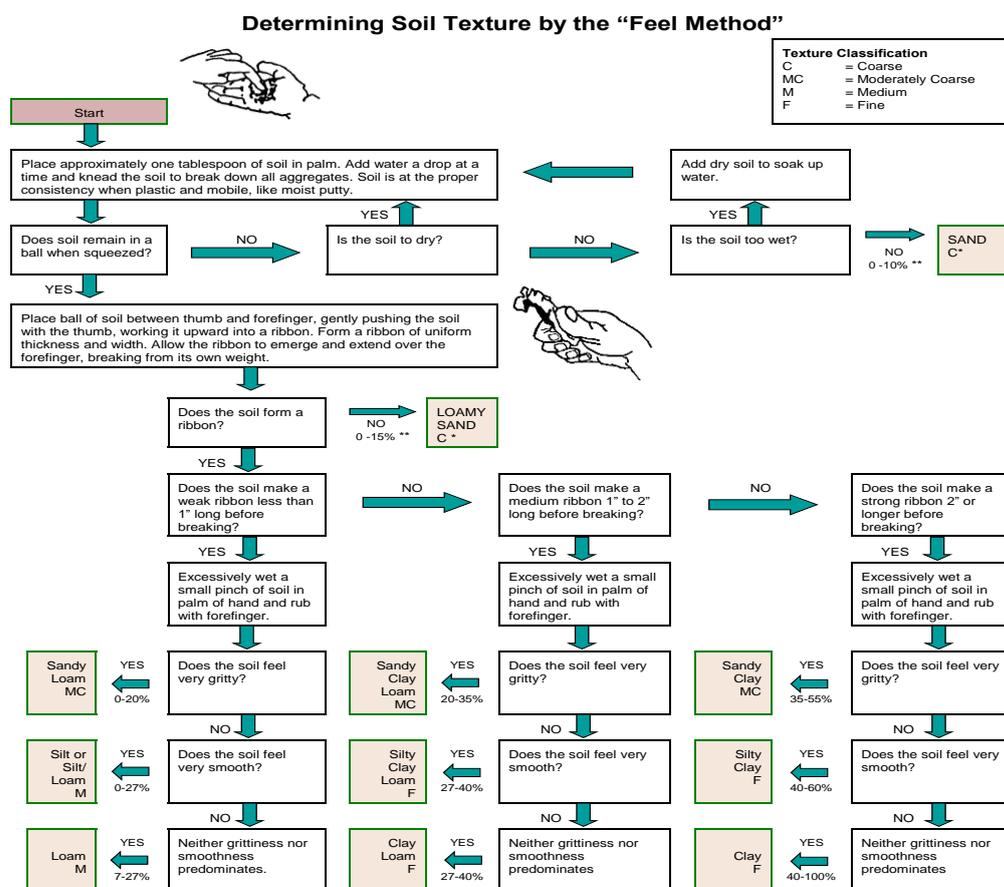
For organic matter content, the organic matter content was determined for the soil samples by heating up the samples to a high temperature (475°C). Combustion of the organic material (ashing) into CO₂ left only inorganic components in the sample. Samples were weighed before and after (ashing), the percentages of organic material in the samples were calculated (see equation below).

$$\%LOI = \frac{(Weight\ of\ cup\ +\ dry\ sample) - (Weight\ of\ cup\ +\ ashed\ sample)}{(Weight\ of\ cup\ +\ dry\ sample) - (Weight\ of\ cup)} \times 100$$

Ceramic cups were weighed and placed on the furnace for 30 min to sterilize them. After 30 min the cups were weighed, and the difference was reported (Note: if the weight increased by +0.05 g, step 2 was repeated). 5g of soil sample was added to the pre-weighed ceramic cup and weighed again. The cup with soil sample was placed into a Muffle furnace (475 °C) for 24hrs. The samples were taken out after 24hrs and cooled down for 15min in a dissector. In the end, the % Loss On Ignition (LOI) was calculated.

For bulk density, A 50 ml measuring cylinder was placed on the scale and tared it. The measuring cylinder was carefully filled up to the 10 ml mark and noted down the volume accurately (remember that 1ml = 1 cm³). The sample weight (g) was noted down at the 10ml volume. A triplicate for each soil sample was measured. The bulk density was calculated for each sample.

For soil texture, a feeling method was used to determine the soil texture. See attached flow chart for further details.



* Sand Particle size should be estimated (very fine, fine, medium, coarse) for these textures. Individual grains of very fine sand are not visible without magnification and there is a gritty feeling to a very small sample ground between the teeth. Some fine sand particles may be just visible. Medium sand particles are easily visible. Examples of sand size descriptions where one size is predominant are: very fine sand, fine sandy loam, loamy coarse sand.

** Clay percentage range.

Modified from: Thien, Steven J., Kansas state University, 1979 Jour. Agronomy education.

For moisture, soil samples' moisture percentage was determined by reporting the weight difference of soil samples before and after drying (see equation below).

$$\text{Moisture \%} = \frac{(\text{Weight of cup} + \text{Wet soil sample}) - (\text{Weight of cup} + \text{Dry soil sample})}{(\text{Weight of cup} + \text{Dry soil sample}) - (\text{Weight of cup})} \times 100$$

Steel cups were weighed and placed in the oven for 30 min to sterilized them. After 30 min the cups were weighed, and the difference was reported (Note: if the weight increased by +0.05 g, step 2 was repeated). 5g of soil samples were added to the pre-weighed steel cup and weighed again. The cup with soil sample was placed into a Muffle furnace (105 °C) overnight. The samples were taken out on the next day and cooled down for 15min in a dissector. In the end, moisture percentages were calculated.

For SAR, the soil sodium adsorption ratio (SAR) was linked to the soil electrical conductivity (EC) by researchers (Rashidi & Seilsepour, 2011). In this study soil, EC was used to estimate the soil SAR (see equation below).

$$\text{SAR} = 0.464 \text{ EC} + 7.077$$

Table1. soil samples areas name

Areas	Subareas	Samples name
Agriculture	Alqeean farm – Dibba Fujairah	FAA
	Alkazan farm – Fujairah	FAB
	Aldiyar farm- Dibba Fujairah	FAC
Main side roads	E89 – Dibba- Masafi road	FRA
	E87 – Alshohadaa road	FRB
	E99 – Rugaylat road	FRC
Industrial	Fujairah industrial area	FIA
	Marble industry area	FIB
	Fujairah Cement area	FIC
Beaches	Fujairah sea	FSA
	Faqiat beach	FSB
	Fujairah Corniche	FSC

5.0. Results and Discussion

5.1. Physiochemical soil profile (pH's, EC, SAR, % organic matter, % moisture, bulk density, and texture)

Table 2. physiochemical soil profile in four different areas (pHs, EC, SAR, organic matter, moisture, bulk density, and texture) \pm SD

Samples	pHs	EC (dS/m)	SAR (cmol kg ⁻¹)	Organic matter (%)	Moisture (%)	Bulk density (g cm ⁻³)	Texture
FAA	7.93 \pm 0.33	1.46 \pm 0.05	7.756 \pm 0.024	16% \pm 0.18	24% \pm 0.017	0.912 \pm 0.063	loam M
FAB	8.10 \pm 0.04	1.46 \pm 0.04	7.754 \pm 0.017	13% \pm 0.06	8% \pm 0.06	0.991 \pm 0.077	silty clay loam F
FAC	8.06 \pm 0.16	0.32 \pm 0.10	7.199 \pm 0.055	13% \pm 0.06	12% \pm 0.08	1.162 \pm 0.119	loam M
FRA	8.20 \pm 0.14	1.46 \pm 0.03	7.753 \pm 0.012	4% \pm 0.01	1% \pm 0.01	1.428 \pm 0.169	sand MC
FRB	8.25 \pm 0.37	1.46 \pm 0.02	7.753 \pm 0.009	3% \pm 0.01	1% \pm 0.01	1.441 \pm 0.162	sandy loam MC
FRC	8.10 \pm 0.11	1.47 \pm 0.02	7.761 \pm 0.011	4% \pm 0.00	1% \pm 0.00	1.465 \pm 0.074	sand MC
FSA	8.87 \pm 0.30	0.96 \pm 0.06	7.524 \pm 0.029	3% \pm 0.01	1% \pm 0.01	1.423 \pm 0.062	sand M
FSB	8.63 \pm 0.11	1.01 \pm 0.14	7.546 \pm 0.063	4% \pm 0.02	1% \pm 0.00	1.580 \pm 0.121	sand MC
FSC	8.77 \pm 0.17	1.19 \pm 0.25	7.497 \pm 0.116	4% \pm 0.01	1% \pm 0.01	1.460 \pm 0.081	sand M
FIA	8.24 \pm 0.12	0.24 \pm 0.12	7.186 \pm 0.055	3% \pm 0.00	1% \pm 0.00	1.398 \pm 0.064	loam M
FIB	7.96 \pm 0.07	0.39 \pm 0.02	7.257 \pm 0.010	3% \pm 0.00	1% \pm 0.00	1.158 \pm 0.137	sand MC
FIC	8.10 \pm 0.26	1.48 \pm 0.01	7.765 \pm 0.003	2% \pm 0.01	0% \pm 0.00	1.330 \pm 0.057	sandy loam MC

■ Agriculture ■ Main side roads ■ Industrial ■ Beaches

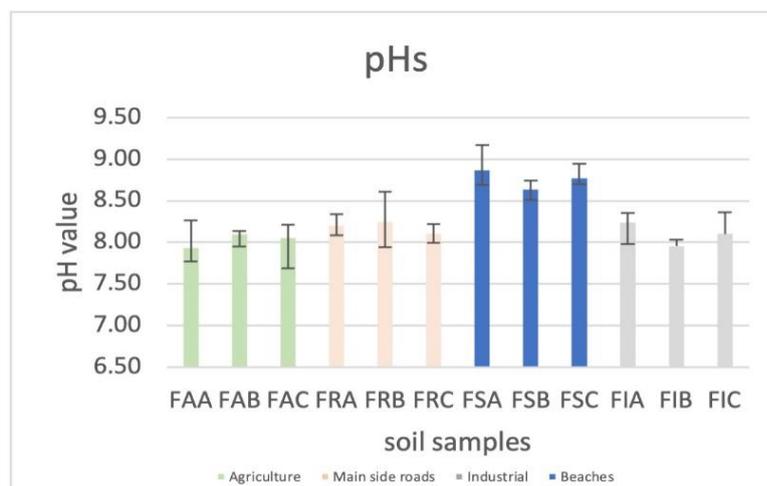
The results of pH, EC, SAR, % organic matter, % moisture, and texture analyses in the selected samples are presented in Table 2.

5.1.1. pH

The table shows the average pH of three replicates of each sample. Fujairah soil pH average varied from 7.93 to 8.87, which means that the soil was basic, with the minimum pH value from 7.93 to 8.10, found in agriculture areas. While beach areas presented a maximum pH value of 8.87. Fig (1) shows the pH

values in different areas. High pH values tended to occur on Fujairah beaches because of the sandy to the sandy loam soil texture (Aridisols soil taxonomy). These textures were high with calcium carbonates correlated to a high soil pH (Shahid & Abdelfattah, 2008). According to the Ministry of climate change and environment, the ideal range of agricultural soil pH varied from 5.5 to 8, and if it is higher or lower than that range adversely affects plant growth.

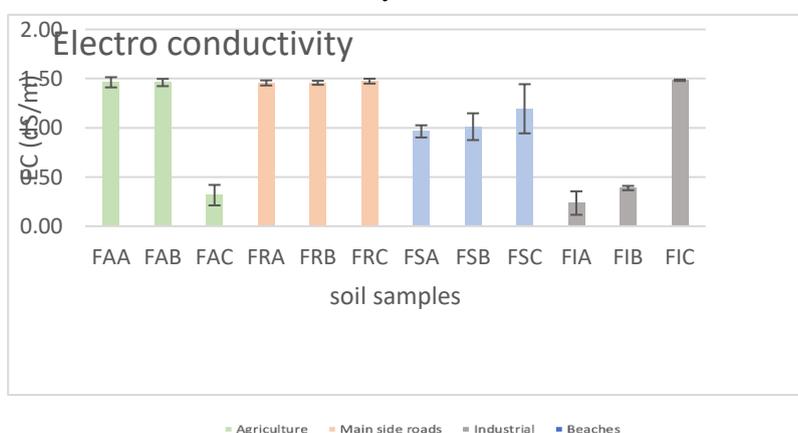
Fig (1). The figure shows the pH values in a different location



5.1.2. Electrical Conductivity

The data show the average electrical conductivity (EC) range of each soil sample in four areas. The guidelines of electrical conductivity (EC) for sandy and sandy loam soil were (non-saline to 1.1, slightly saline 1.2 to 2.4) (USDA, n.d). Fig (2) show the results of EC data varied between 0.24 to 1.47 dS/m⁻¹. Fig (2) shows that the main side roads had the highest EC value that varied from 1.46 to 1.47 dS/m⁻¹. On the other hand, the industrial areas had the lowest EC value between 0.24 to 1.48 dS/m⁻¹. Also, beaches areas had EC value varied between 0.96 to 1.19 dS/m⁻¹, while the agriculture areas had an EC value range between 0.36 to 1.46 dS/m⁻¹. According to the EC guideline, the soil samples average of Fujairah's areas were non-saline to slightly saline.

Fig (2). The figure shows the Electrical Conductivity values in a different location



High concentrations of salt in soils reduced plant growth and had an enormous influence on the soil solution's nitrogen dynamics. In addition, high salinity in soil can inhibit the germination of seedlings which causes a drastic decrease in crop production (Saberli, 2017).

5.1.3. Soil Sodium Adsorption Ratio

The Soil Sodium Adsorption Ratio is a prediction based on soil Electrical Conductivity (EC), using this equation $SAR = 0.464 EC + 7.077$ (Rashidi & Seilsepour, 2011). The results show an average range of SAR values that varied between 7.186 to 7.765 $cmol\ kg^{-1}$. In addition, the results show that the Cement industry area (FIC) had the highest SAR value 7.765 $cmol\ kg^{-1}$. On the other hand, the Marble industry area (FIB) had the lowest SAR value 7.186 $cmol\ kg^{-1}$. Also, beaches areas had SAR value varied between 7.497 to 7.546 $cmol\ kg^{-1}$, while the agriculture areas had varied SAR range between 7.199 to 7.756 $cmol\ kg^{-1}$. The SAR of agriculture soil samples was high due to the soil's access to nutrients or irrigation with saline water. High SAR in soil may increase clay particles' dispersion, organic matter, and soil structure degradation (USDA, 2017).

5.1.4. Organic matter

Table 2, show the percentage of organic matter on soil with a varied range between 2 to 16%, where the agriculture areas had the highest percentages of organic matter between 13 to 16%. On the other hand, the industrial areas had an average range between 2 to 3%. While the beaches and main side roads area had an average range between 3 to 4% of organic matter. Soil organic matter is the fraction of decomposition of plant or animal tissue. For productive agricultural soil, organic matter should be within the range of 3 to 6% or higher (Fenton, Albers, & Ketterings, 2008).

5.1.5. Moisture

The results show a varied range between 0% to 24 % of moisture on soil samples. The maximum percentage of moisture varied between 2 to 16 %. The agriculture areas have the highest percentages of organic matter, between 13 to 16%, on the other hand, the industrial areas have an average range between 2 to 3%. While the beaches and main side roads area have an average range between 3 to 4% of organic matter.

5.1.6. Bulk density

Table 2 shows the bulk density of each soil samples in Fujairah, where it varied between 0.912 to 1.580 $g\ cm^{-3}$. Agriculture samples had the minimum bulk density, while the main side road samples had the maximum bulk density.

5.1.7. Soil texture

According to the results, Fujairah soil samples were sandy MC to sandy loam, and this is because of the rocky nature of the soil in Fujairah.

5.2. Heavy metals analysis

Table 3, shows the heavy metals concentration on soil samples \pm Standard deviation of different areas in Fujairah. The data presented the average of a triplicate sample.

Table 3. Heavy metal concentration in soil samples (mg kg⁻¹) \pm SD

Samples	Cadmium (Cd)	Cobalt (Co)	Nickel (Ni)	Lead (Pb)	Zinc (Zn)
FAA	2.001 \pm 0.483	29.302 \pm 6.446	1012.414 \pm 231.661	16.332 \pm 5.915	180.024 \pm 88.392
FAB	2.206 \pm 0.456	29.041 \pm 12.998	879.890 \pm 404.149	13.589 \pm 5.048	84.090 \pm 38.558
FAC	2.135 \pm 0.529	34.967 \pm 11.137	1150.982 \pm 453.927	13.322 \pm 2.951	147.516 \pm 90.612
FRA	2.239 \pm 0.740	48.708 \pm 17.480	1429.780 \pm 633.422	20.202 \pm 10.231	141.452 \pm 19.867
FRB	1.762 \pm 0.182	36.356 \pm 6.262	952.864 \pm 191.116	15.164 \pm 13.510	141.123 \pm 12.882
FRC	1.999 \pm 0.122	53.661 \pm 3.965	1762.617 \pm 181.041	14.499 \pm 4.242	144.899 \pm 67.651
FSA	1.659 \pm 0.173	36.924 \pm 9.702	1308.598 \pm 304.731	2.780 \pm 1.140	55.675 \pm 17.801
FSB	1.682 \pm 0.060	47.688 \pm 6.439	1732.298 \pm 204.753	4.546 \pm 3.135	74.652 \pm 17.176
FSC	1.561 \pm 0.094	27.230 \pm 7.738	974.287 \pm 314.353	1.537 \pm 3.039	71.473 \pm 29.079
FIA	2.017 \pm 0.172	65.638 \pm 12.672	2241.405 \pm 490.233	12.259 \pm 7.932	137.104 \pm 66.696
FIB	2.387 \pm 0.490	44.559 \pm 13.663	1434.766 \pm 477.645	7.250 \pm 3.501	78.706 \pm 20.334
FIC	1.874 \pm 0.351	31.087 \pm 16.434	924.536 \pm 655.454	12.533 \pm 6.555	92.210 \pm 11.102

■ Agriculture
■ Main side roads
■ Industrial
■ Beaches

The result shows the concentration of heavy metals in all soil samples in different ranges in table 3. Where the average heavy metals ranges for Cd (1.561 – 2.387 mg kg⁻¹), Co (27.230 – 65.638 mg kg⁻¹), Ni (879.890 – 2241.405 mg kg⁻¹), Pb (1.537 - 20.202 mg kg⁻¹) and Zn (55.675 – 180.024 mg kg⁻¹). The highest concentration of Cd, Co, and Ni were found in industrial areas. Many variables can affect the soil's heavy metal, some of them are natural while others are due to pollution. In the main side road area samples, the main source of heavy metals was road traffic. The results show that the main side road areas were highly pollutant, where some of the heavy metals such as Nickel, Cobalt, and Lead exceeded the screening level limits of environmental specification for soil contamination in UAE. Furthermore, certified reference material (CRM) soil and a mixture of the soil sample in each area were analyzed for quality assurance.

5.2.1. Cadmium (Cd)

The results in table 3 show that the cadmium (Cd) concentration varied from 1.561 – 2.387 mg kg⁻¹. Fig (3) shows that the maximum concentrations of Cd detected in the Marble industry area (FIB). The minimum concentration of Cd was in the Fujairah sea (FSC).

Overall, among the 96 samples analyzed for cadmium, all of the samples were under the guidelines set by the Abu Dhabi quality and conformity council for environmental specification for soil contamination, which means that the soil's cadmium level is normal. The cadmium concentration in samples were under the screening level for agriculture area soil 14 mg.kg⁻¹, industrial area soil 980 mg kg⁻¹ and residential/open space "beaches, main side roads" 71 mg.kg⁻¹. While the clean-up level limits for agriculture area soil 140 mg.kg⁻¹, for industrial area soil 9800 mg.kg⁻¹ and for residential / open space "beaches, main side roads" 710 mg.kg⁻¹(Abu Dhabi specification,2017).

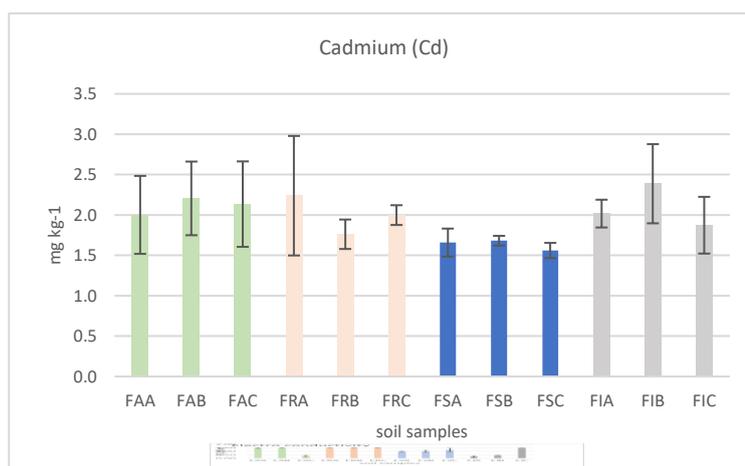


Fig (3). Cadmium concentration on different soil of Fujairah

5.2.2. Cobalt (Co)

The results in table3 show that the Cobalt (Co) concentrations varied between 27.230 to 65.638 mg.kg⁻¹. The maximum concentrations of Cobalt were found to be in Fujairah industrial areas (FIA). While the minimum concentration was found in Fujairah corniche (FSC). 58.3% of different soil samples exceeded the screening level limits, but they still under the clean-up level. The guideline limit set by Abu Dhabi quality and conformity council, the screening level for Cobalt concentration on samples for agriculture area soil was 400 mg.kg⁻¹, for industrial area soil was 350 mg.kg⁻¹ and for residential/open space "beaches, main side roads" was 23 mg.kg⁻¹. While the clean-up level limits for agriculture area soil was 4000 mg.kg⁻¹, for industrial area soil was 3500mg.kg⁻¹ and for residential/open space, "beaches, main side roads" was 230 mg.kg⁻¹. For the samples that exceeded the screening levels but still under the clean-up level, further investigation and management actions were required as per requirements of the UAE government (Abu Dhabi specification,2017). A high concentration of cobalt on soils can accumulate plants, decreased water potential and transpiration rate (Yadav, 2010).

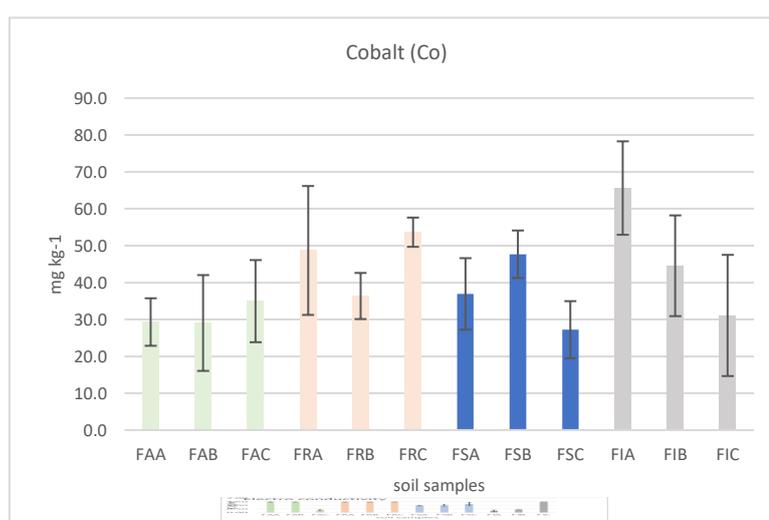


Fig (4). Cobalt concentration on different soil of Fujairah

5.2.3. Nickel (Ni)

The Nickel (Ni) concentration in the soil samples varied between 879.890 and 2241.405 mg·kg⁻¹. Fig (5) show the maximum concentration of Nickel was in Fujairah industrial areas (FIA). While the agriculture areas had the minimum concentration. Overall, the results revealed that all of the samples were exceeded the screening level, while only 75% of them exceeded the clean-up level set by the Abu Dhabi quality and conformity council for environmental specification for soil contamination. As per the UAE government's requirements, remediation measures shall be implemented for all samples that exceeded the clean-up levels.

The guideline limit set by Abu Dhabi quality and conformity council, for Nickel concentration on samples the screening level for agriculture area soil was 450 mg.kg⁻¹, for industrial area soil was 22 mg.kg⁻¹ and for residential/open space "beaches, main side roads" was 1.5 mg.kg⁻¹. While the clean-up level limits for agriculture area soil was 4500 mg.kg⁻¹, for industrial area soil was 220 mg.kg⁻¹. For residential/open space, "beaches, main side roads" was 15 mg.kg⁻¹(Abu Dhabi specification,2017).

Nickel (Ni) is a transition metal that is naturally found in soil. However, if the Nickel concentration exceeded (4500 –26,000 mg/kg), the soil is considered polluted. This high concentration may occur due to the increase in human activities such as burning fossil fuels, phosphate fertilizers, and pesticides. This high concentration caused a decrease in water uptake in plants, reducing plant height and root length (Yadav, 2010).

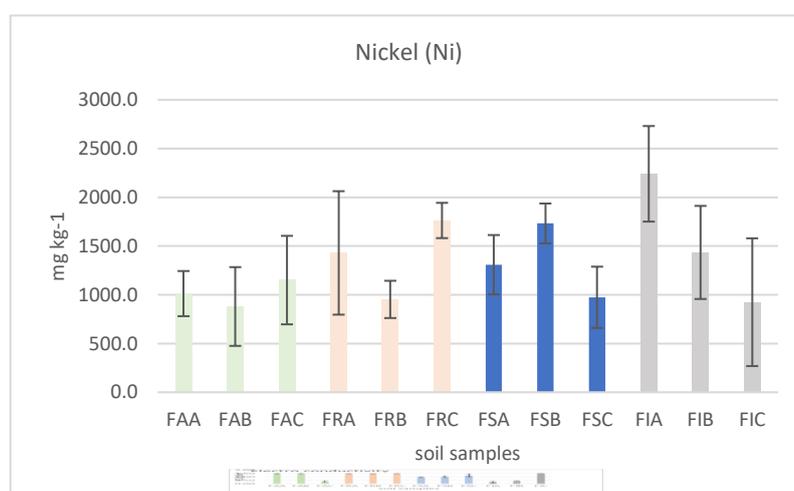


Fig (5). Nickel concentration on different soil of Fujairah

5.2.4. lead (Pb)

The lead (Pb) concentration in the analyzed samples varied from 1.537 to 20.202 mg.kg⁻¹. The maximum concentrations of lead were found in Dibba- Masafi road (FRA). While the beach areas had the minimum concentration. Overall, the results revealed that 75% of the samples exceeded the screening level, while only 25% exceeded the clean-up level set by the Abu Dhabi quality and conformity council

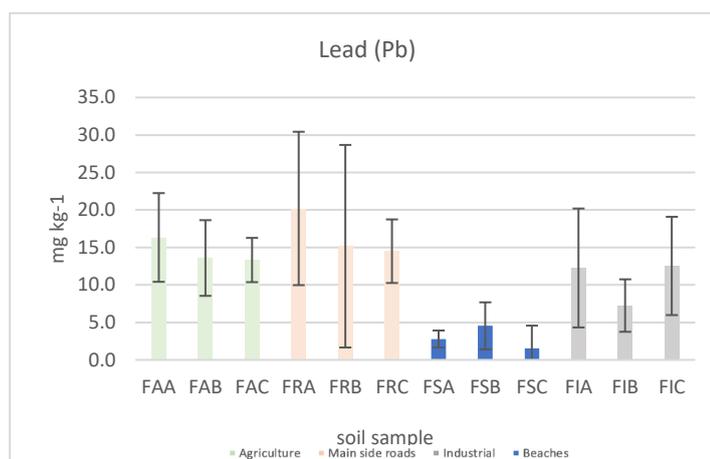


Fig (6). Lead concentration on different soil of Fujairah

for environmental specification for soil contamination. As per the UAE government's requirements, remediation measures shall be implemented for all samples that exceeded the clean-up levels.

The guideline limit set by Abu Dhabi quality and conformity council, the screening level for Lead concentration on samples for agriculture area soil was 0.7 mg.kg⁻¹, for industrial area soil was 8 mg.kg⁻¹ and for residential/open space "beaches, main side roads" was 4mg.kg⁻¹. While the clean-up level limits for agriculture area soil was 7 mg.kg⁻¹, for industrial area soil was 80mg.kg⁻¹. For residential/open space, "beaches, main side roads" was 40 mg.kg⁻¹(Abu Dhabi specification,2017).

High concentration of Lead (Pb) on soil can inhibit seedling germination, plant growth, chlorophyll production, water, protein content, and impaired uptake of essential elements (Sethy & Ghosh, 2013).

5.2.5. Zinc (Zn)

The Zinc (Zn) concentration in the analyzed samples varied from 55.675 to 180.024 mg.kg⁻¹. Graph7 shows the maximum concentrations of Zinc in Alqeean farm – Dibba Fujairah (FAA). While the minimum concentration was in the Fujairah sea (FSA). There is no guideline limit set by the Abu Dhabi quality and conformity council for Zinc (Zn)concentration on soil samples.

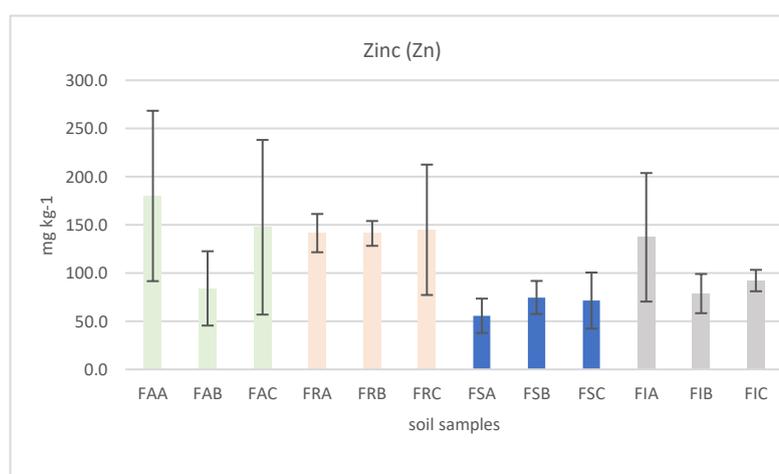


Fig (7). Zinc concentration on different soil of Fujairah

Zinc (Zn) is considered as soil polluted if the concentration range between 150 to 300 mg/kg. High Zinc Concentrations may cause phytotoxicity, inhibit plant metabolic functions and limit the growth of both root and shoot (Sethy & Ghosh, 2013).

6.0. Recommendation

A high concentration of heavy metals that exceeded the clean-up level were found in the study. Remediation should be implemented to treat the soil from these heavy metals. Biochar is a viable technology for remediation, where carbon-rich materials are used to lower the heavy metals concentration in the contaminated soil (Zhang et al., 2013). This technology has a low cost, and it is environmentally friendly.

7.0. Conclusion

In conclusion, this study provides an overview of the soil profile in the Emirate of Fujairah for pH, EC, SAR, % organic matter, % moisture and texture, and heavy metals. The heavy metals concentration in soil was found in different ranges for each area in Fujairah. The Lead (Pb) and Nickel (Ni) concentration of heavy metals in many soil samples exceeded the clean-up level. Also, samples were sandy to sandy loam with a slight saline Electrical Conductivity, and pH values were slightly basic to basic. Further studies are required for soil remediation in the UAE and to assess long-term heavy metals soil contamination and effect.

8.0. Acknowledgment

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The Influence of Social Media on Our Children's Lifestyle in UAE

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Abstract

The project seeks to determine influence of social media on children's lifestyle in UAE in order to guide parents and teachers of on how they can rely on social media to guide children towards a better lifestyle. Research has shown increasing cases of social media bullying and other negative effects which is major problem that required to be addressed through a study (Guinta & John, 2018). Most of the studies that have already been conducted focus on other aspects of social media and children but not their lifestyle. This study reviews credible literature mostly peer reviewed journals on children and social media topics. The study is informed by these studies in terms of various themes in regard to the research topic and title. This project focuses on health, isolation, family and communication, learning, privacy and security as major themes in relation to the topic (Liu et al, 2019).

The project uses quantitative research design and uses survey as data collection tool. This method is effective because the results of the study will be generalized to a large population in the entire UAE. Therefore, a quantitative approach will enable obtaining of valid and reliable results that can be generalized to a large target population. The sample size is 10 parents in UAE whose children use social media. The surveys will be administered online to give room for the respondents to fill them at their convenience as opposed to having them rush often leading to misunderstanding of survey questions. Social media has also become an increasingly significant platform for children to learn and interact with others (Peerayuth et al, 2017).

Children may rely on social media for education, learning and social interaction (Hill & Zheng, 2018). However, parents should guide and monitor them on the use of social media to avoid falling prey to online scammers who may spam, bully or infringe their privacy and safety resulting to mental illness, violence and isolation. There lacks any study that focused on children's lifestyle and social media conducted in UAE hence the need for this study in order to fill the existing knowledge gaps. UAE has reported an increased number of children who use social media for learning, interaction, and entertainment purposes. This has been contributed by the changing world of technology where people can interact with each from miles and miles away on the comfort of their mobile phones, computers and other electronic gadgets (Milosevic et al, 2017).

Keywords: Social Media, Lifestyle, Children, Parents, UAE.

Introduction

This research focuses on influence of social media on children lifestyle. The research proposal consists of abstract, introduction, literature review, methodology design, conclusion and expected findings. It will also use credible and reliable sources to support aims and objectives of the study. Most of the children who use social media have reported issues such as spending too much time on social media, being scammed by people who they do not know their identity and inability to interact with fellow youth freely (Guinta & John, 2018).

The literature reviewed in this project may be grouped into; health, isolation, learning, privacy and security, family and communication. The methodology design mentions about the research design used for the study and data collection tool. This project uses quantitative research design and uses survey for data collection. The collected data will be analyzed and findings presented using simple averages such as percentages that will be easily understood by the audience. The purpose of the study is to identify negative and positive effects of social media on children's lifestyle in UAE (Cole et al, 2017). The report aims at determining the importance of social media impacts on the lifestyle of children in UAE. The study is important because it seeks to

fill the existing gap on negative and positive effects of social media on children's lifestyle. The research problem is that there are many children who are lured to social media predators who take advantage of them through scamming, breach of their privacy and security leading to health issues and isolation (Liu et al, 2019).

It also seeks to educate parents and teachers on how to monitor and guide children on the use of social media and rely on the importance of social media for children. The report focuses on giving recommendations to parents and society on how to overcome the problem of negative effects of social media on children based on the findings of the study. The report expects social media to influence children both positively and negatively, therefore, the purpose of this research is to identify them by implementing the research objectives and questions as below:

Research Objectives

1. To identify the pros and cons of social media to our lives personally, socially, professionally and emotionally.
2. To introduce the importance of social media impacts on our children lifestyle.
3. To provide recommendations for parents and society to tackle the concerned issues

Research Questions

1. What are the advantages and disadvantages of social media affecting our children's lifestyle?
2. How can parents identify that their children have been affected by social media issues?
3. How can parents solve social media issues affecting their children's life's?

Review of the Literature

This review will focus on twenty articles that focus on influence of social media on children's lifestyle. All articles reviewed in are reliable because they have been retrieved from reputable databases that are peer reviewed. The articles focus on the topic with some discussing the positive effects and others the negative effects of social media on children. Social media has influenced children in many ways, but the major themes identified from the review of the articles include; health, isolation, communication, privacy and security and learning. Some of the articles focus on more than one them, but are grouped in the most significant theme depending on their topics, method and findings. The review of the articles aims at identifying best evidence that supported by as many researchers as possible on the influence of social media on children's lifestyle.

Health

The articles selected for this theme focused on how social media use impacted the health of children in UAE. The articles discussed about various diseases that that children could develop as a result of using social media. Overreliance of social media by children has resulted to spending too many hours behind the screen, which has affected the physical activity of children. Children who have been threatened or scammed on social media may face mental issues such as anxiety and depression. Many cases of children's deteriorating health as a result of using social media have been on the rise in the last few years as a result of overreliance of social

media for dating, interaction and access of content that is meant for adults by children. A study by Lewis et al (2019) aimed at determining how social media affect's children positively and negatively in school and at home. The study found out that the increasing number of children who use social media was a result of social media advertising. Lewis et al (2019) focused on the good and bad of social media revolution. The study considers the aspect of increased social space and time that social media offers to human interaction. The study also focuses on how an individual's beliefs, values and behaviors are shaped or influenced by social media.

The research found out children using social media may have higher number of interactions and connectedness, but those relationships lack intimacy. They could suffer depression as a result of isolation whereby they cannot share the issue with friends on social media and lack trusted friends in their neighborhoods because of spending too much time on social media. Guinta and John (2018) conducted a study on social media and adolescent health where they found out that there is an exponential growth in the adolescent population use of social media. The article found out that there are positive and negative health effects of social media on adolescents.

Major negative effects of social media identified by the article include; sexting, privacy concerns, cyber bullying, educational and mental consequences. The study also found out that social media offers opportunities for communication, collaboration, health promotion, access to vital health information and self-esteem enhancement. The study aims at using nurses to explain complexities of social media to children and use the information on positive and negative effects to promote healthy habits among children. Fardouly et al (2018) studied about time spent on social media and making online comparisons and their impact on user's mental health. The study compares time spent on social media and parental control on the health of preadolescents.

The study considers depressive symptoms, life satisfaction and appearance satisfaction to determine mental health stability based on different levels of parental control. The study found out that reduced time spent by preadolescents browsing and comparing their appearance to others on social media improved their mental health. Rahi (2015) studied about social media usage and physical inactivity among school children. The study found out that students spent more time on social media compared to time spent on physical activities. The study focused on students in government schools and private school students to determine how they used social media and time spent on social media compared to physical activity.

Isolation

Children who spend too much time on social media are at a higher risk of cyber bullied, scammed, their privacy breached or compare their appearance to others resulting to isolation. Milosevic et al (2017) studied about cyber bullying policies of social media companies and how children can be protected online. The study aimed at establishing a connection between implementation of social media protection policies by social media companies with the rising cases of children harassment, scamming and isolation. The study evaluated implementation policies of major social media companies with an aim of determining their reliability in reducing children accessing inappropriate content and cases of cyber bullying.

The study found out that social media companies have put cyber bullying policies in place but cases of cyber bullying are still rising. The study found out that lack of transparency on how social media companies handle cyber bullying cases has contributed to higher number of these cases. The study recommended that social media companies should develop tougher policies

and continuous evaluation of effectiveness of their mechanisms in dealing with cyber bullying cases. Hill and Zheng (2018) argues that social media exposes the lack of interpersonal connection for its users. The study found out that the time people spend on offline interaction improves their quality of interpersonal connections.

It also suggests that the time spent online determines the how interpersonal connections may suffer resulting to psychological consequences. The study also found out that immediate desire for social media among people could be linked to their desire for social isolation. Peerayuth (2017) focused on the impact of social media on social compassion and envy in teenagers. The study also considered the role of parent comparing children and group competition among friends.

The study found out that social media use intensity positively related with envy among children whose parents compared and promoted in-group competition among friends. However, the study also found out that children who did not do well in these competitions were often isolated and resulted to increasing their use of social media as a way of seeking solitude. Cole et al, (2017) focused on the role of social media as a source of support for caregiver of school aged children with autism. The study focused on social media support groups role in improving children with autism in terms of behavior support, communication support and emotional support. The study found out that caregivers relied on social media groups to gain knowledge about managing emotional support and behavioral difficulties in children with autism.

Family and Communication

Children use social media for communication and interaction with family, friends and people from all over the world. Many teenagers use social media for entertainment and accessing news. The number of children who use social media is on the rise as a result of introduction additional communication tools such as messaging, video and status tools (Joo & Teng, 2017). The new products offered by social media have attracted children to use social media in order to share their lifestyle with family and friends. Teenagers who use social media consider themselves updated and living in current times compared to those that do not use it. Children who do not use social media are considered to be leaving in the past and less updated by other children. There is peer pressure for children to join and use social media as a sign of togetherness and to be identified with a group of other children who are already on social media.

Teenagers communicate about important dates and events such as birthdays and school parties through social media. Joo and Teng (2017) studied about the impact of social media on human communication and relationship. Their study found out that Facebook and other social media platforms are good tools of communication. The study focused on the ability of these platforms to bring family and friends together. The study also found out that social media may be used to build a better and harmonic society where friends and family can interact freely in an effort to build a united society.

Procentese et al (2019) studied about role of parents' perception about social media impact on family open communication and relationships. The study aimed at determining whether parent's perception about social media has an influence on how their children use it. The study found out that parents who have negative perception about social media prohibits their children from using social media. The study observed that parents who have negative perception about social media are likely to have more parental control on their children's use of social media. The study found out that parents who perceive social media negatively advice their children to use other

methods of online communication. On the other hand, parents who have positive perception about social media were found out to support their children to use social media. These parents had very little parental control over their children's use of social media but preferred guiding them on better ways of using social media.

Exley et al (2017) studied about the role of children as advocates through the use of social media. The study found out that social media has given children a platform to learn their rights which helps them in building their pedagogic rights. Social media is considered an effective way of learning about knowledge and skills required for individual enhancement, social inclusion and political participation.

Wesley et al (2018) studied about behavioral implication of social media advertising. The study aimed at understanding the intervening role of social media advertising on consumer behavior. The study found out that social media is an effective way of communicating to potential customers. The articles centered on communication through social media, parental perception and children advocacy, time spent on social media platforms by children and how organizations use social media to advertise their products and services to children.

Privacy and Security

Privacy and security is a major concern for children who use social media for various reasons such as entertainment and communication. The author investigates major online risks associated with children who use social media and aims at educating them on how to avoid these risks. It also discusses about privacy risks of using social media and how they can be mitigated. Privacy of children and their parents has been affected by lack of parental control on children's use of social media. Children may share personal information and other sensitive information with unknown people online which affects their privacy and security. Healey (2020) investigates on social impacts of digital media with a special focus on social media.

Ratnakirti and Diphyoti (2017) studied about dilution of social media privacy. The article focuses psychological effects of social media on young population with a special focus on dilution of social media privacy. Kordrostami et al (2018) focuses on how children use social media for socialization, parental concerns and mediation styles to prevent or mitigate the negative effects of children's use of social media. The study found out that parental guidance on use of social media reduces the negative effects of social media use. Merriman et al (2019) focuses on the privacy and security concerns of using social media and risk of liability.

The study suggests that parents should guide their children on social media use to reduce legal issues and liability that comes as a result of harassment, invasion of privacy, defamation and false advertising. Logan et al (2018) studied about social media fatigue on consumers who regularly receive marketing messages from organizations and businesses. The study found out that privacy concerns have grown leading to social media fatigue by consumers in the U.S. The study seeks to investigate how consumers deal with breach of their privacy by marketers through the use of social media. The study found out that's consumers are not convinced that privacy and security measures put up by social media companies are effective in preventing sharing of their private information and solving their security concerns.

Learning

Children may use social media to learn about emerging technologies for education. They may use it to learn with peers about how to solve a problem. People from all over the world have different ways of solving a problem; using social media to share these solutions may help solving problems in a better manner. Social media has been discovered to be a reliable way of learning among children during the Covid-19 pandemic. Educators shared various ways of solving problems on social media, which attracted high number of learners relying on the educational content posted on social media platforms.

Liu et al (2019) focused on logistics and influential factors that affect learning in social media. The article argues that social media has been used for interactive and collaborating learning by educators. The study aims at determining how educators integrate social media in learning with an aim of enriching learning activities. The study found out that lack of classroom policies, individualized or specific target audience, poor network, and length of educational materials such as videos as major factors that affect learning on social media.

Technology, information, overall design, objective-driven activities, motivation, active stimulation and collaborative learning were found to be significant factors in dynamic learning using social media. Iwona (2020) studied about problems of using social media in e-learning. The study found out that social media offered a platform for students enrolled in e-learning courses to interact, share and learn about various concepts. It also helped in communication and reminding students of important dates and major announcements concerning their courses.

Badri et al (2017) studied about children's attitude on social networking, what children do on social networks and how these networks affected children's school performance. The article found out that learning from social networks and effects of social networking are significant in achieving perceived performance among children. The study also found out that most children preferred learning on social media networks because they can interact with others and hear their stories instead of secondary sources that may not provide unbiased information. The study also found out that children use social media networks to make friends, share their stories, and connect with family that lives far away from homes and for entertainment purposes (Badri et al, 2017).

Methodology

The study adopted a quantitative research design to determine positive and negative effects of social media on children's lifestyle in UAE. This study focuses on benefits and drawbacks of using social media by children. This method is effective for this study because it identifies the relationships between variables in their natural settings without going an extra mile to manipulate them (Kothari, 2014). Survey helps the research to obtain data and information that can be analyzed to extract patterns and compare results for purposes of advising parents on the best ways to maximize the benefits their children derive from social media and overcoming the negative effects. Use of quantitative approach provides a deep understanding of the relationships between the variables, context and research process which helps the audience to understand how the project results were obtained (Kothari, 2014).

Sampling and Participants

Surveys can be used to gather data describes relative characteristics of the general population involved in a study in a better manner because of their structure (Kothari, 2014). The sample size for this study is 10 parents within UAE who have children using various social media platforms. Use of surveys to collect data for this project lowers the cost of collecting data while maintaining the validity and reliability, which are major aspects in data collection ethics. Surveys are the most suitable data collection tools when a researcher has a large target population and aims to present statistically significant results.

Data Collection Used and Analysis

Survey data collection tool will be used to collect data from research participants. Survey data collection method is the most suitable for this study because it can be used to collect data from parents from different regions in the UAE without having to travel there in person. The target population for this study is parents with children who use social media across the UAE. Surveys are effective data collection tools because they collect only the information that the researcher intends to use to answer research questions. Use of survey for my study will help in collection of large sizes of data from respondent within a short time and at low budget (Kothari, 2014).

This project focuses on multiple variables which make surveys suitable for collecting data for purposes of effective analysis and presentation (Kothari, 2014). To make analysis of data collected in the project easier and the results precise, survey data collection method was used because this method provides uniform definitions to all the research participants.

This study will use primary data which will be collected using surveys that will contain closed questions. Surveys ensure a high response rate because they may be administered online for the participants to fill them at their convenience (Kothari, 2014). Use of survey as data collection tool that is administered to research participants' online will help in reaching respondents who are located in different regions in UAE. This also helps to reduce cost of collecting data because the researcher does not have to travel to different locations where participants are situated or take much of their time which may be associated with distraction.

The collected data will be grouped and later analyzed. The data will be analyzed using simple statistics such as percentages and presented using tables and charts. The use of this method is consistent with the target population that is expected to be the audience of this report. Some parents and caregivers do not possess knowledge of advanced statistics such as the use of regression and other statistical software. Use of simple averages and percentages will be more consistent with educational level and aims of the research. For this research to make a meaning and an impact in terms of studying, describing and providing recommendations to the research problem, the audience should be able to understand it (Kothari, 2014). Therefore, the use of simple statistics to analyze and present the data and information is justified.

Result & Discussion

Social media use has both benefits and disadvantage for our children. Social media may be used for learning and interaction purposes by children. Expected results are grouped as follows:

General Knowledge

The expected results anticipate that 50% of the children are to be aged between 11-14 years, 30% are aged between 7 and 10 years old. 60% of the parents expected that their children to use the social media between 3-15 hours a day. Review of literature suggests that 40% of the children in UAE use YouTube as the most popular social media platform and 20% Instagram. Based on the data collection tool and review of literature, the study expects 50% of the children to use social media for entertainment compared to other reasons such as earning money, educational, social (Lewis et al, 2019).

Benefits of Social Media

Social media could be used for communication and maintaining family contact and planning of family and friends' events for children. Children may also learn on social media whereby they can use these platforms to get news or engage in discussion with their peers. 60% of the respondent parents predict that social media enables children to interact and communicate with people from all over the world helping them to appreciate and tolerate other cultures.

Negative Impact of Social Media

On the other hand, the study expects addiction to be the most severe negative effect of social media on children's lifestyle with 60% response. Based on review of literature, children that spend too much time on social media have low physical activity which could result to health issues such as obesity. The study expects all parents to strongly agree that children who spend too much time on social media have low physical activity which could result to health issues (Rahi, 2015). The study expects negative effects of social media such as cyber bullying and isolation to affect mental health of children (Milosevic et al, 2017).

Review of literature suggests that parents should supervise and guide their children on the use of social media to protect them from privacy and insecurity vulnerabilities that face them when using social media platforms (Fardouly et al, 2018). The study expects a higher percentage of children using social media to be influenced by other children who show of their lifestyles on social media which could affect their behavior, beliefs and perception about life (Liu et al, 2019).

Parent's Role

All respondents agree that parents should supervise and guide their children on how to use media to protect them from privacy and insecurity vulnerabilities that face them when they are using social media. It also expects the increased role of parental guidance and monitoring of children activities on social media to reduce their exposure to privacy and security issues and also reduce mental and psychological health effects (Exley et al, 2017). The study expects parental education on effects of social media on their children's lifestyle to determine the best way of handling this problem with an aim of improving children health in UAE (Fardouly et al, 2018).

Conclusion

Based on the review literature, the study expects to find out that more children will use social media in the future. The study seeks to reduce the negative effects of social media on children and optimize the benefits they get through the use of social media (Badri et al, 2017).

Nevertheless, based on the research objectives and questions, the study expects the children to make better use of social media if they are educated and guided on its use. This could be contributed by the accessibility to mobile phones and other gadgets that enable them to access the internet (Healey, 2020). Parents should take an active role in guiding and advising their children on the use of social media to avoid its negative effects such as health issues, privacy and security issues, isolation, family and communication (Fardouly et al, 2018).

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The e-Learning in Bosnia and Herzegovina Classrooms

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Abstract

Electronic (E)-learning is a type of learning by using electronic technologies to access an educational program outside traditional classrooms increasingly demanded by many education systems. As conventional classrooms continue to be transformed into digital, teachers are expected to adopt multiple learning modes. Digitally enriched content and personalized learning should be the primary way of teaching and collaborative and interactive learning. Contrary to the continuous development of technology and students who regularly encounter computers from an early age, teachers do not have the privilege to introduce technology into the classroom successfully.

The paper explores e-learning issues related to virtual environment reality and artificial intelligence that is increasingly entering the classrooms of developed countries and what application of artificial intelligence means for the development and broader implementation of e-learning in virtual classrooms in Bosnia and Herzegovina. The research aims to examine students' views on the benefits online education has in Sarajevo and Bosnia and Herzegovina's educational process. The survey provides an analysis of the potentials for implementation of the e-learning model in secondary schools in Sarajevo Canton and the rest of the country. The paper presents the advantages and opportunities that contribute to the improvement of e-learning in educational institutions and the benefits for students and other involved parties in the educational process, such as teachers and parents. Students enrolled in this research have a highly positive attitude towards e-learning, which leads to the conclusion that students are willing to learn using I.T. solutions in the classroom.

Keywords: *Artificial Intelligence, Digital Literacy; E-learning, Virtual Learning Environment*

1. Introduction

Distance Learning is a relatively new field, only a hundred years old. Gunawardena & McIsaac (2003) stated that distance learning had followed extraordinary growth worldwide since the early 1980s. Due to the effect of technological advances, its form has changed rapidly from initial correspondence education, in which printed materials were primarily sent to high school students, to a state of learning that can be accessed from anywhere at any time. Distance learning is a field that needs to be continuously revised and renewed mainly because of its related dynamics, such as technology[1].

Even though students and professors are located in remote locations, they can regularly communicate with each other. Changes in online education that allowed some of its processes to be carried out in a different place and at different times than the traditional classroom practice began to occur long before the advent of computers. First, as a form of correspondence education, students were provided with an opportunity to be educated without attending regular classes.

The first significant steps in programmed teaching were developed by Sidney Pressey in the 1920s and further taken over by Burrhus Skinner in the mid-1950s. Skinner's ideas for improving the teaching and learning process were mainly focused on two facts: first, students learn at different paces. Second, by the dominant theories of learning stimulus-response, feedback must carefully monitor behavior. This, however, is not the case in a school setting, where students are forced to follow the imposed pace of input from lecturers and usually receive a delayed response because teachers need at least one day to correct assignments.

Skinner believed that hiring one teacher per student would solve the problem. However, as this was practically impossible to implement in practice, Skinner proposed and worked on introducing learning machines. Each student could work at his own pace and receive direct support after the correctly solved task[2].

In essence, the development of programmed learning aims to computerize teaching, structure information, test student knowledge, and provide instant feedback to students, without human intervention other than in designing hardware and software and selecting and loading content, and evaluating questions. B.F. Skinner began experimenting with teaching machines that used programmed learning in 1954. Skinner's teaching devices were one of the first forms of computer-based learning[3].

E-learning primarily transmits education through computer and digital technology, including the Internet, intranet, computer, satellite T.V., CDROM, audio, and video resources. Therefore, e-learning can be broadly defined as the use of Information and Communication Technology or shortened I.C.T.s to enhance and support learning that can range from teachers and learners using email for communication up to online courses [4].

Developing distance learning is entirely conditioned by modern information technologies such as computers, educational software, computer networks, and the Internet. However, distance learning has limitations on I.C.T. application's technical level by instructors who offer this education model and specialized equipment for students who want to use it. The success of distance learning is further related to educational institutions' willingness to embrace I.C.T. in the learning process.

The educational system in Bosnia and Herzegovina is relatively rigid, and traditional teaching is still the most common form of instruction. Looking at the elementary and secondary levels of education in Bosnia and Herzegovina, it is evident that the teachers are even resorting to the traditional methods and techniques of teaching. Chalk and talk is the standard way of transferring knowledge. The war has made the teachers' continuous professional development impossible and caused the lack of a qualified teaching workforce[5]. The number of computers in the secondary education system overall covers 8.4% of the student population. However, there is a lack of statistics on the exact number of computers in secondary schools. Overall, the number of computers with an internet connection in the secondary education system covers 6.8% of the student population.

In comparison, 42.8% of I.T. companies in Bosnia and Herzegovina are dissatisfied with the content of the I.T. curricula and learning processes[6]. According to the data, 61.0% of citizens have used a computer, and 31.6% of respondents have never used a computer. The share of computer users by gender is 64,4% of male users and 58,4% of female users.

The survey results on the usage of I.C.T. in households and by individuals in Bosnia and Herzegovina have shown that 69.2% of households have access to the Internet, and 29.6% of households do not have access to the Internet [8].

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Picture 1: The number of computers in the secondary education system

Availability of computers and internet connection in secondary schools in Bosnia and Herzegovina

Number of students in secondary education	124 148
• Technical schools	67 895 (54.7%)
• Vocational schools	22 819 (18.4%)
Number of computers in secondary schools	14 192
• For employees in school	3 753
• For students	10 439
Number of computers with internet connection in secondary schools	11 690
• For employees in school	3 230
• For students	8 460

Source: Agency for Statistics of Bosnia and Herzegovina, Demography and social statistics, education, 2017/18

Agency for Statistics of B&H, 2018

Research, which measured the application of this model in the educational system, is based on determining existing conditions in educational institutions concerning usage of I.C.T. in today's classrooms and potentials for implementing the e-learning model. Attitudes of primary stakeholder groups for this venture were examined with the overall goal to form an e-learning model that would have a realistic prospect of success.

2. Methodology

A study in this research sought to analyze e-learning in B&H classrooms. research was done by seeking to answer the questions:

- 1) What are the benefits of e-learning over traditional learning
- 2) How different e-learning tools facilitate this approach to learning
- 3) Examine students' attitude towards e-learning and their preferences
- 4) Demonstrate how providing learning through an online platform encourages. I.T. literacy and offers high school students opportunities to succeed in a globally competitive world.

The survey analyzes potentials for e-learning model implementation in secondary schools in Bosnia and Herzegovina and other educational institutions opportunities to define and create a national e-learning strategy. The primary method of collecting data was through an open question survey distributed to students in different parts of Bosnia. For research purposes, schools were chosen based on how often their students have access to computers or the Internet. Four schools from urban and four schools from rural areas were chosen, and questionnaires' were delivered directly to students by the researcher.

The first part of the questionnaire covers information about respondents' computer usage habits, such as questions about computer use frequency. In contrast, the other two questions relate to knowing the meaning of e-learning and attending e-courses. The questionnaires were distributed to 8 schools in 4 towns of Bosnia and Herzegovina.

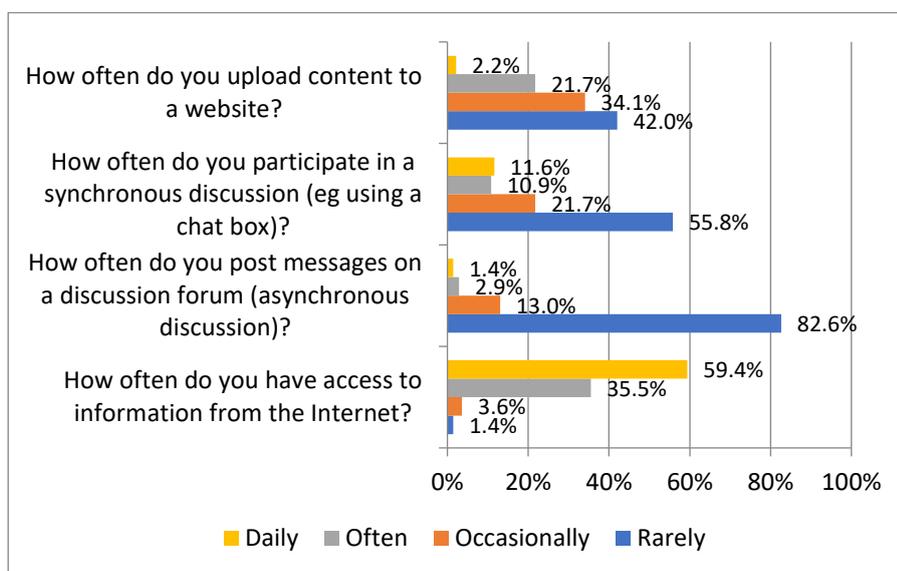
Respondents were informed of the purpose, and anonymity and confidentiality of responses were ensured. Finally, respondents were given a questionnaire to complete during December 2018. The respondents got familiar with the purpose of the survey and the process of completing the questionnaire.

All respondents voluntarily, independently, and anonymously filled in the questionnaire, and the estimated time to complete the questionnaire was ten minutes. Exploratory factor analysis, a principal component analysis method, was used to determine the survey's validity. Analysis of the data was obtained using the SPSS statistical software. The second section's questions were formulated as Yes/No questions, while statements in Section 1 and Section 3 consisted of Likert-type questions.

3. Results and discussion

From Graph 1, it can be concluded that only 1.4% of respondents rarely answered the statement, "How often do you have access to information from the Internet," and 3.6% of students answered occasionally. In comparison, 35.5% of students responded that they often have internet access, and as many as 59.4% of students responded that they have internet access daily. Slightly more than half of the respondents access the Internet daily, which indicates that most students regularly access the Internet searching for information that is not necessarily related to educational content.

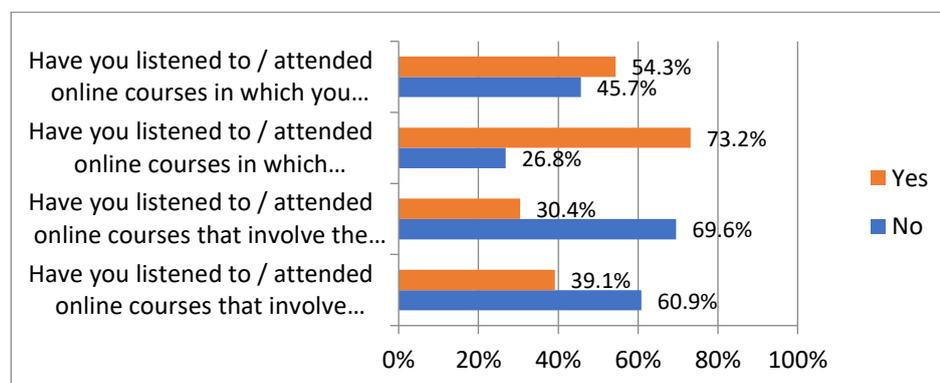
Graph 1. Experiences in Computer Use



Graph 2. Previous Experiences in Computer Use show the percentages of student responses to claims related to students' prior experiences of listening to online subjects. The chart shows that as many as 69.9% of students used synchronous conversation, 73% listened to topics where the content was delivered online.

These data confirm that students show great interest in online learning and acquire online content in more appealing and exciting modes.

Graph 2. Previous experiences

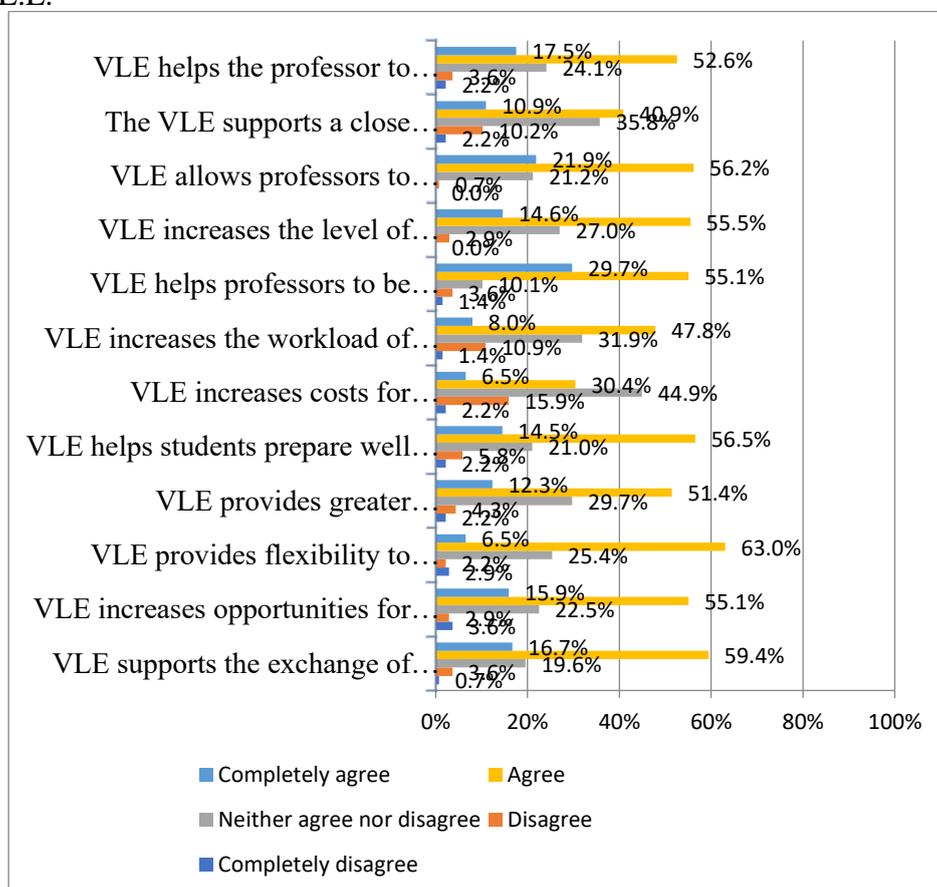


In the second group of statements related to previous experiences, respondents stated that they had the opportunity to attend an online course, which refers in part to the online learning week that is carried out in schools in Sarajevo Canton since the 2017/2018 school year. Educational materials and accompanying exams are uploaded on the Google online platform.

Students are required to complete tasks and tests and upload them on the subject stream on the Google platform on the due date and time. A relatively low percentage of responses on the use of forums and synchronous discussion indicates that students had no experience in attending online subjects. That would require the use of forums and discussions with teachers and other students to fulfill the online course tasks, such as projects or case studies that are supposed to be completed with fellow students who take the same subject. Section 3 examines the attitude of

students towards the virtual learning environment and the economic cost of V.L.E., which, in addition to financial costs, also includes the time and effort invested by students.

Graph 3: The attitude of students towards the virtual learning environment and the economic cost of V.L.E.



The results showed that the respondents generally have a positive attitude towards the virtual learning environment.

Students believe V.L.E. helps them achieve a closer relationship with teachers and other fellow students; to be more precise, 70.1% of students agree that V.L.E. enhances students' and teachers' interactions. Additionally, 78.1% of respondents believe that V.L.E. allows teachers to provide students with information from multiple sources, which is more than what they receive in a traditional classroom where teachers rely only on preapproved textbooks. They agree that a virtual environment increases constructive interaction between teachers and students, with 70.1% of respondents agree V.L.E. allows students to ask questions to teachers at any time, not just within one school hour.

Online learning and a virtual environment let students have a flexible attitude towards learning, i.e., to access learning materials when they want and where they want, a statement with which 70% of respondents agreed. However, regarding the cost component, it is evident from students' answers that V.L.E. increases students' workload, a statement approved by 55.8% of respondents. It implies that students must invest much more time in independent work to successfully meet the requirements of online courses or online subjects as most of the work is done independently, without the teacher's supervision or control, which is inevitable in a traditional classroom.

Since e-learning requires a high level of self-discipline and personal time management, it may not be appropriate for individual students. Students who attend or take online subjects must be highly motivated to take full advantage of the media, as often, the experience of online learning can be impersonal. Those looking for more personal touch and face to face interactions are better in the conventional classroom where they can physically access teachers during the class. It is more convenient for some educational institutions to pass on the cost of photocopying to students by putting all lecture notes and course brochures online. Such practices often mean that course materials are in an inappropriate format for online learning. Organizations that organize courses or schools that offer online courses need to develop new technical skills as well as course design skills to suit the new medium and make it easier for students to access the necessary materials without incurring high costs. One of the essential items of online learning that students rated as positive is that e-learning offers discussion opportunities with other students and teachers. They do not usually have such options in a traditional classroom where time for questions is minimal, and the debate that (students find very useful for the learning process) takes place rarely in schools.

Possibilities offered by e-learning go beyond the traditional curriculum framework and the law-imposed curriculum that does not accompany changes in the environment, and accordingly adjust the curricula and interests of students that are applicable in the digital age. Changes and the adoption of new learning models are necessary to provide schools with an education that meets its students' real needs, followed by the rapid development of information technology; I.T. literacy is a prerequisite for integration into the global society and adaptation to the demands of students.

Schools' success will depend on their ability to meet future students' needs with their contemporary curriculum, the teachers' quality, and how the education content is delivered. Despite the unfortunate economic situation and low standard of population, Bosnia and Herzegovina are showing a significant upward trend in the use of I.C.T. The impact of globalization, the use of social networks, and immediate access to information provide students with opportunities to choose forms of education; therefore, a significant number of students want to take classes online.

4. Artificial intelligence assistants

Artificial intelligence is another emerging technology that begins to change educational tools and institutions and change how the future might look like education. Artificial intelligence is already being applied in education, primarily in tools that help develop skills and testing systems.

Since educational solutions that involve artificial intelligence continue to emerge, it is believed that it can help fill gaps in learning and teaching and enable schools and teachers to work more than ever before [8].

Although most experts believe that teachers' physical presence is irreplaceable, there will be many significant changes in teachers' work and the best practices in education [9]. Enhancing e-learning with a more comprehensive social experience enables learners to interact with each other as they would in the actual classroom. Students can complete group projects together and hang out outside of the school, enriching their learning experience. Virtual reality already enhances certain aspects of e-learning. Companies, schools, and universities are experimenting with this new technology and are trying to understand how best to integrate virtual reality into curricula. Artificial intelligence is part of our everyday life and becomes more present in world

classrooms. Using tools such as Siri, Amazon, and Alexa, the possibilities of artificial intelligence in education are just beginning to be realized. While artificial intelligence will not wholly replace teachers, it is possible to transform the way teachers teach and learn [9].

Artificial intelligence tools enable to create of global classrooms accessible to everyone, including those who speak or use different languages or who may have visual or hearing impairments. It opens opportunities for students who cannot attend school regularly, struggling with chronic illness, students with disabilities, gifted students, or those looking for a topic not being available in a school. Artificial intelligence can help break barriers between learning and traditional classes. It will provide opportunities for children to learn to suit their personal needs and preferences and learning styles. For years, teachers struggle to help students adopt knowledge and learn effectively while dealing with their individualized educational needs. It becomes challenging in an overcrowded classroom where everyone is expected to pass the same standardized test, regardless of their abilities.

The use of artificial intelligence has the potential to change the traditional and potentially damaging model of modern teaching that corresponds to a standard that should apply to all, in which all students, regardless of individual differences and preferences, should fit in. Machine learning algorithms have already begun to help teachers fill in knowledge gaps, pointing to subjects with which students have the most difficulty. A personal tutor is another feature in the educational process that chatbots can do with ease, helping students identifies problematic issues during their studies through interviews. The information thus acquired can then be used to create a personalized curriculum for each student individually. Chatbots would then follow students from the beginning to the end of formal education, record their progress, and provide feedback and suggestions. The individual preference for using artificial intelligence in the classroom is the solicitation in the assessment of tests and other repetitive duties. The artificial intelligence in the assistant's assistant could teach lessons from the curriculum or provide additional information and metrics for learning the students they need, without disturbing the natural course of time or hindering the rest of the department [10].

With the advance of artificial intelligence, it becomes possible that the machine reads the expression on the face of the student, indicating that the machines are developing to the extent that they will be able to recognize the feelings of the person or the emotional state of the students. Machines will be able to modify the lesson to adapt it to the student's condition. The idea of adapting the curriculum to each student's needs is still not sustainable today but will be in the distant future for machines using artificial intelligence[11].

Conclusions

The online program and online classes' organization enables students to access content and fulfill tasks according to their organization. Knowledge is acquired at place and time that increase the opportunities for personal growth and development. Most students use the Internet every day and communicate with peers on social networks, which undoubtedly contributes to their readiness to accept new I.T. solutions in the learning process. Therefore, the differences in attitudes towards e-learning are also related to the purpose and frequency of using the Internet. When asked to respond to issues concerning the virtual learning environment and the application of e-learning tools, students have confirmed that e-learning offers opportunities to acquire knowledge and skills that are not available in the schools they have attended. Students

enrolled in this research have a highly positive attitude towards e-learning, which concludes that students are willing to learn using I.T. solutions in the classroom.

One of the main disadvantages of using the e-learning model is that it still heavily relies on social support because e-learning depends on the teacher's ability and readiness to create and prepare course materials and use online educational tools. Necessary prerequisites for successfully implementing the e-learning model are acquiring appropriate technological infrastructure, sound educational content produced by teachers who possess computer skills, and a culture that fosters learning and knowledge sharing in a virtual environment. There are great opportunities in the technical, pedagogical, and business segments of e-learning. Its implementation should undoubtedly increase in the coming years. therefore, a significant number of students want to take classes online. There are great opportunities in the technical, pedagogical, and business segments of e-learning, and its implementation should undoubtedly increase in the coming years.

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Employee Motivation and Work Performance in the Public Sector of the United Arab Emirates

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1. Abstract

Employee motivation is a very important aspect in any organizations and is consider as key factor in the organization's success. It helps the employees to do their best and inspire them to work effectively and efficiently in the workplace, which will affect positively on employee performance, reflects on their attitude, creates employee loyalty and commitment toward the organization. Job motivation helps to reduce workforce turnover, creating a positive environment and valuing employees, increase the morality and satisfaction level. The research proposal is intended to identify the relationship between employee motivation and organizational performance in the public sector organizations in the region restricted to the United Arab Emirates (UAE). The lack of motivation of employees has a negative impact on the performance of employees, such as low productivity, negative behavior, and attitude, lower level of involvement and commitment and poor communication.

The objective of this research proposal is to examines and investigate issues of employee motivation in the UAE at the workplace and to determine the factors that influence employee motivation and analyze the motivation methods used in governmental organizations. It consists of an introduction, followed by literature reviews that determine a set of information. Quantitative methodology design has been used in this research proposal that covers all the aspects of job motivation, then the expected findings and conclusion. At the end of this research proposal references used by the researchers to acknowledge the contribution of workplace motivation have been added as well.

The main expected findings for this research proposal is that the motivation provided to the employees will be linked to the job performance and the type of motivation provided to them will help the organization to reach target achievement, outperform the standards set for the workers and enhance employee satisfaction and commitment. Moreover, it is expected to find that challenges, lack of control, competition, cooperation, and recognition are the main factors that will affect and enhance employee's abilities in the workplace. In our expected findings, we can find that quantitative method approach will be a suitable data collection to collect the data for research proposal project about the employees motivation and work performance in the public sector of the UAE to gather the data for analysis as the overall quality of the data will be better used for data collection to identify participants behavior, opinions, quantify attitudes and generalize results.

Keywords: Motivation- Public sector -UAE- Performance- Employee- Satisfaction

2. Introduction

2.1 Background of Study

Motivation is the key factor in the organization's success and the process that allows individuals to be pushed and moved through specific impulses towards a specific behavior or make certain efforts. Nowadays many organizations are trying to provide proper motivation methods for their employees. United Arab Emirates (UAE) is one of the most countries that have a proportion of professionals motivated at work. However, there are many challenges and issues that the UAE government is facing in Public sector organizations in particular on motivating the employee and it is impact on the work performance of the organizations. This paper will focus on the issues of employee motivation and its impact on the work performance in the public sector of the United Arab Emirates.

Workplace motivation contains the reasons and the factors, which motivate and inspire the employees to work effectively and efficiently in order to achieve the organizational goals. Providing proper motivation in the working environment reflects on different aspects either on the employee directly as the employees' work performance is directly related to the motivation provided to the workforce or the organization itself. It is inspiring the worker's performance by increasing their morality and satisfaction level reflects on their attitude and creates employee loyalty and commitment toward the organization.

Motivation in the workplace is very important as it supports reducing workforce turnover, boosting worker's energy to be more productive, keep them focused and committed to the organization's goals, controlling employee behavior according to the common interest between the organization and workers. It contributes to controlling the behavior of employees to ensure that this behavior is moved, strengthened, directed and modified according to the common interest between the organization and the employees. In addition to that, it helps to develop the creative energies among workers, including the prosperity of the organization and its superiority and habits and behavioral values that the organization seeks to exist among workers. Contribute to reorganizing the system of workers' needs and coordinating their priorities. Motivated employee pay more effort in the work than unaffected people. It helps to growth of self-esteem among workers, which increases their interest in the growth of work. Motivating employees and involve them in the process of decision-making contributes in achieving goals for the organization.

2.2 Development of Hypotheses

H1: If the employees feel valued and appreciated in the working environment, it will influence the employee's attitude, increase job satisfaction, and reduce workforce turnover.

- Depending Variable: Employee's attitude/ increase job satisfaction/ reduce workforce turnover.
- Independent Variable: Employees feel valued and appreciated/ working environment

H2: If the employees are not motivated in the organization, it will lead to low organizational performance.

- Depending Variable: Organizational Performance
- Independent Variable: Employees motivation

2.3 Structure of the Literature Review

A literature review of this research proposal explores various previous research documents and academic resources related to the research topic. Employee motivation and employee performance are very important topics in the field of Human Resource Management and various studies have been conducted on these two topics. The literature review will give more insight into these topics.

The literature review section is structured as follows: determine the factors that influence employee motivation in the public sector in the UAE, examine the relationship between the employee's motivation and the organization's performance discussed next. Lastly, determine the ways/methods that the UAE government can enhance motivation will be discussed. In this part of the research proposal document, all the components related to the motivation and the

employees' performance will be discussed; the impact of one on the other will also be discussed in the following literature review section. It includes a list of sources used in the study.

3. Literature Review

3.1 Factors Enhance Employee Motivation

Motivation is driven by two types of factors. The first one is intrinsic factors, such as knowledge, growth, appreciation, and achievements and the other factor is extrinsic factors, such as salary, environment, promotions, and safety. There are research studies in the areas of performance and the factors contribute to motivation. Organizations motivate employees who do their best in the workplace to achieve the organization's goals. For example, there are many factors in UAE public health-care sector that affects employee recognition and empowerment, which have a positive influence on the workforce motivation (Manzoor, 2012, as cited in Al Hammadi & Hussain, 2019). In addition, policies, job descriptions, and structure must be designed clearly that will help the individuals to feel appreciated and satisfied.

It has been indicated by the researcher that "Motivation matters for organizations. Costs are not only financial, they are cultural, psychological, emotional, physical, and spiritual" (Taylor, 2015).

3.1.1. RELATIONSHIP Between Co-workers

Taylor's findings (2015) established that most of the organizations realize the importance of employee's relation in terms of sharing their values, goals, and clear expectations. Having a variety of tasks offers greater significance if the workforce link between the personal goals with the work goals. He confirmed that experts of performance improvement in the workforce are willing to identify and eliminate the factors of demotivating and explore the reasons behind the employee's frustration in order to enhance the motivation factors that will satisfy the employee and improve the employee job performance and the organization performance.

Employees spend a lot of time in the workplace. Hence, they have to create a good relationship with their work colleagues, customers, and management. Workforce relationship is important as it creates opportunities to join different activities held by the organization in order to help beneficiaries. Moreover, when the employees become competent, self-determined and valued individuals the job roles expand. (Grant, 2007, as cited in Taylor, 2015).

3.1.2. INCENTIVES and Rewards

There are multiple and varied categories of incentives, overlapping with each other, where there are multiple divisions of researchers in the methods that management can use to maximize the efficiency of the human performance of employees, the most important of which are:

- In terms of nature/value:

The financial incentive is the financial, monetary or economic nature that satisfy the basic needs of the human being, encouraging workers to do their best to work, recruit their abilities, and increase their level of competence, such as wages, housing and transportation, rewards for extraordinary work, overtime bonuses, promotion (upgrade) and Health insurance. The incentives employee get when he/she achieve financial results for the company are critical. Rewards associated with motivation as having two equally important aspects. Rewards associated with motivation as both elements are important features. In addition, it affects the

employees negatively if it not achieved. In contrast, Job performance will be poor if the employees do not desire to perform, no matter of rewards type, the procedure of rewards and the satisfaction of employees regard it. (Gilbert, 2007, as cited in Taylor,2015).

One of the main factors to reach the company goals and improve the employees' performance is high financial rewards.(Kubo & Saka, 2002, as cited in Al Dari, Jabeen, and Papastathopoulos, 2018). In contrast, rewards can be seen as punishments and can weaken natural inspiration, particularly on the off chance, which will advertised on a large scale, such as financial rewards, since the workers may think that they are being motivated to do something that they don't like to do(Bock & Kim, 2001, as cited in Al Dari et al., 2018).

- In terms of its impact or effectiveness

These are incentives that help the human being and satisfy his other psychological and social needs, increasing the worker's sense of promotion in his work and loyalty to him, and achieving cooperation among his colleagues. For instance, the right job, career enrichment, participation in decision-making and open door-policy.

In order to improve employee engagement and motivation, some of the companies have come up with innovative strategies to spread happiness among the employees and to let them feel that they are part of the organization's success. "These include "Employee stock option"introduced by some companies to increase the affective commitment of employees towards the organization, which was never heard of in the UAE" (Singh& Sharma, 2015).

3.1.3. WORKPLACE Culture

Researchers show that it has been indicated that all managers from different organizations should consider the organizational culture as the working environment that will impact positively on the workforce commitment, this happens when managers compare culture to background music and when culture is in tune. On the other hand, problems increases when culture is out of tune (King & DeMarie, 2014, as cited in Taylor, 2015).

3.1.4. LEADERSHIP

Successful leadership and motivation lead to employee satisfaction. Leadership responsibility is to create effective and unique strategies in order to achieve organizational financial goals (Williams, 2005; David, 2014, as cited in Al jenaibi, 2017). "For example, an army general might consider leadership the art of motivation to achieve desired results from soldiers" (William, 2005, as cited in Al jenaibi, 2017, p.208).

3.2 Relationship Between Employee Motivation and Organizational Performance

Motivation is one of the most important activities of organizations and the primary motivation to win the loyalty of workers. The fairness of the organization's policies and procedures affect positively on the loyalty of the employee, which will increase the organizational performance.

3.2.1 EMPLOYEE Engagement

A researcher established that if the employee engaged in their work and have a job commitment, it helps the organization to gain competitive advantage, which will reduce the workforce turnover and increase the job production (Vance, 2006, as cited in Ibrahim & Al Falasi, 2014, p. 562). He added that engaged people characteristic is different than others as they are creative,

work in multitasks and they have a strong relationship with their workmates, which will help the organization to reach their goal and improve the organization strategy.

They are known with excitement, completely involved with a high level of power and energy to work (Xanthopoulou et al., 2009, as cited in Ibrahim et al., 2014, p.563).

3.2.2 Effective Organization

The effective organization depends on the performance of the employee. The Researcher's findings established that if we view through the lens of the hierarchical model of intrinsic and extrinsic motivation, it will illustrate that there are integrated dynamics that affect motivation and the organization's performance (Vallerand, 1997, as cited in Taylor, 2015).

Taylor (2015) indicated that "Teaming and collaboration have become increasingly important in the workplace and are particularly important in innovation".

It has been illustrated that providing motivation in the workplace for the employees improves and increases organizational performance. According to a research, it has been explained that "The only thing that matters is performance, and performance comes down to the actions of people" (Zaffron & Logan, 2009, as cited in Taylor, 2015)

A study investigated that "employee performance has become the matter of grave concern. The organizations are using different tools such as rewards to enhance the performance of the employee" (Hameed & Waheed, 2011, as cited in Al Naqbi, Yusoff, & Ismail, 2019).

According to Al Naqbi, Yusoff, and Ismail (2019) "Organizational planning and strategy cannot become a reality without employees' input. Thus, the success of an organization is the function of people (employee) and the system". The performance of the employee affects the success and the effectiveness of the organization. In addition, it enhances the development of workforce relationship and development. Employees will be fulfilled with their work if they feel satisfied and valued in their workplace.

3.3 Ways and Methods to Enhance Motivation

Çetin and Aşkun (2018) observed that Nowadays, many organizations are doing their best to improve, maintain and develop Human Resources strategies (HRMS) in order to create a motivation environment, increase the performance level and to enhance the success of an organization in short and long term. According to a study done by researchers, illustrated that the short-term goals have an effect on developing the interest and the importance of self-efficiency on HRM and organizational behavior (Gist, 1987, as cited in Çetin & Aşkun 2018)

3.3.1 CREATING a good Role Model

Creating a good role model for the manager is a basis for employees to feel comfortable and motivated to improve their productivity. According to Al Dari et al. (2018) indicated that leadership defined as the interactive process that includes the impact of leaders on their groups by motivating and inspiring them with a clear vision and a good communication process. For instance, His Highness Sheikh Zayed bin Sultan Al Nahyan (may God have mercy upon him), United Arab Emirates founder was a big supporter and inspirer as his relationship with UAE locals, residents and stakeholders were based on respect, exchanging ideas with transparency and listening. He trusted the knowledge and the education level of his nation. It

has been examined that the significance of leadership motivation was involved in the business excellence awards program, the quality management system was initiated by the UAE government (Lasrado & Uzbek, 2017, as cited in Al Dari et al., 2018). In addition, another researcher explored public leadership among senior UAE government authorities and highlighted the importance of leadership motivation (Mathias, 2017, as cited in Al Dari et al., 2018).

Leadership is defined as the ability for the manager to spread happiness, support and inspire confidence between employees in the workplace in order to satisfy them and achieve the goals of the organization (Kim & Maubourgne, 1992, as cited in Randeree & Chaudhry, 2012). Yousef (2000) highlighted that there is a relationship between job satisfaction, performance and employee commitment towards the organization in the UAE. He added that employee performance is always taking into account, as it is an important aspect of organization decisions making.

3.3.2 KNOWLEDGE Sharing

It is very important that employees share their skills and knowledge with their work colleagues, which will dramatically improve the quality and strategy of the teamwork that will help to sustain an organization's competitiveness. Knowledge sharing is one of the main stages of knowledge management (Nonaka & Takeuchi, 1995, as cited in Al Dari et al., 2018). Knowledge is a combination between experience, values, expert vision and information that will influence improving related information, suggestions, ideas and the shared expertise between the workforces (Davenport & Prusak, 1998, as cited in Al Dari et al., 2018). Naqbi et al. (2019) illustrated that the productivity of the employee depends on several components. For instance, qualified employees with a diversity of skills, such as communication, time management, critical thinking and problem solving, teamwork, Initiative, and emotional intelligence. In addition, boosting the workforce behavior by improving their performance, which will reflect positively in the organization and the individuals as well.

3.3.3 JOBS Designed

Many studies showed evidence of the job design effect on the outcomes, such as job motivation and satisfaction, which will enhance organization productivity. It can be designed to minimize physical strain, increase production efficiency or to increase employee motivation (Campion & Thayer, 1985 as cited in A. Singh, 2016; S. K. Singh & Khan, 2016).

According to (Hackman and Oldham, 1976, as cited in A. Singh, 2016; S. K. Singh & Khan, 2016) explained that the job characteristics model (JCM) is a type of studied model that is broadly designed job motivation and is a framework to analyze the impact of certain job features on the job outcomes and job satisfaction that includes 5 elements, such as task identity, autonomy and feedback, task significance and skill variety.

3.3.4 REWARDS

Researchers emphasized that increments and rewards connected directly with the individual's motivation and their positive work attitude. The reward system inspires individuals and groups in any organization, as it will satisfy them and create a work commitment. Furthermore, Most of the organizations would have a separated benefit modified as to pull in abilities and to retain talents (Naqbi et al., 2019). "Good pay and recognition are the most effective motivators" (Mani, 2002, as cited in Islam and Barhem, 2007, p.105).

3.3.5 WORK Environment

Indicated that by managers must offer proper working environment and positive atmosphere to the employee as the failures to do this will affect negatively to the employees attitudes, work achievement, low job satisfaction and will increase the workforce turnover (Streers & Porter, 1983, as cited in Islam and Barhem, 2007, p. 102).

(Suliman and Al Harethi, 2013) confirmed that there is a link between performance, motivation and the atmosphere. Work environment includes sharing information, organization support, decision-making, involvement and contribution, which encourage workforce motivation and increase the performance of the organization.

3.3.6 TRAINING Programs

Most of the organizations are using training programs as a tool to enhance learning and development activities, achieve high service standards, minimize the cost consumed, reduce mistakes and improve communications and relationships among coworkers.

Eisele, Grohnert, Beusaert, and Segers (2013) illustrated that “a strategic development tool used by Human Resource departments to stimulate employee formal (e.g. training) and informal (e.g. reading a book, peer feedback discussions) learning, which in turn is assumed to improve occupational expertise-growth and performance”.

4. Methodology Design

4.1 Methodology Approach

The methodology, which will be utilized for the purpose of this research proposal is quantitative method approach as it allows us to have quantifying and analyzing variables to get results for employee motivation and work performance in the public sector of the UAE, which will identify statistical relationship between them and it will deal with the numerical based data.

We propose that we can use a quantitative method, as it will be more suitable to gather data in numerical form a large number of participants from UAE organizations. In addition, it is based on precise measurements by using validated data collection and structured collection instruments. The quantitative methodology will be better as it will provide generalizable findings that can be implemented in different populations. The quantitative method will include two variables. independent and dependent variables.

In this research proposal, dependent variables will consist of employee’s attitudes, increase job satisfaction, organizational performance and reduce workforce turnover. In addition, the independent variable consist of employees feel valued and appreciated, working environment and employee motivation.

4.2 Data Collection Instrument

The questionnaire is a very useful way to collect the required data and for data analysis. A questionnaire is a research tool that is used to collect the data from a specific geographical area and demographic details, such as gender, age, educational level, type of work and nationality and

it contains research proposal questions to be conducted. The data collection instrument will be validated data-collection instruments and structured and the type of data collected will be numbers and statistics. Most of the collected data will be under the quantitative manner that will be used to manipulate the data statistically and not for any descriptive manner.

Data collection is an important aspect for the research as it is connected with the quantitative method approach that will be selected in the proposal research. We propose that we can use quantitative data collection method as it is an easy data collection techniques used to collect feedback from the employees and it can be done by various forms of surveys, such as self-managed questionnaire, mobile surveys, kiosk surveys, longitudinal studies, website interceptors, online polls and online survey, such as survey monkey.

Survey Monkey is a powerful data analysis tool. Furthermore, it is consumed less time and less or no cost, it gives the participants a privacy zone especially if there are sensitive questions, such as the amount of salary, years of service and the format of the survey is easy to be understood by the targeted people.

4.3 Sampling Method

In this research proposal, a set of large and randomly selected employees from UAE nationality and expatriates who are working in different public sector organizations will be used as the primary data. We will identify the group of individuals from different units, different levels of management and full-time employees. They will be a sample to conduct the questionnaires, as it is important in order to collect the primary data and will be used to illustrate the factors that enhance motivation in the workplace and the ways and methods to enhance motivation

4.4 Data Analysis

After distributing the survey among the target employees, the data collection has to be analysis to develop statistical inferences from this research. The required data for the research proposal will be collected from primary and secondary data and will use specific statistical techniques and data analysis to analyze and utilize numerical data, such as Statistical Package for the Social Sciences (SPSS), which is very famous software for statistical analysis, data documentation and selecting the data management.

5. Expected Findings

5.1 Theoretical and Practical Significance

This study examines the importance of employee motivation and the effect of motivation on the organization's performance, which is always considered as a critical topic. In addition, the role of material and moral motivation in influencing public sector organizations' performance in the United Arab Emirates. This research proposal aims to present the factors that affect employee motivation in the UAE and the development of career motivation by using different types of tools and methods to enhance job motivation for the employees in governmental organizations.

The practical importance of this study comes with what we will provide to the administrative decision-makers in the public sector from both employee and organization management perspective. The ability to make decisions on the material and moral motivation and improve

the strategies for the material and moral motivation in order to apply them within the organizations to increase job satisfaction, organizational performance, and job loyalty.

5.2 Expected Findings

- The expected findings for this research proposal is that the motivation provided to the employees will be linked to the job performance and the type of motivation provided to them will help the organization to reach target achievement, outperform the standards set for the workers and enhance employee satisfaction and commitment.
- It is expected to find that challenges, lack of control, competition, cooperation, and recognition are the main factors that will affect and enhance employee's abilities in the workplace.
- In our expected findings, we can find that quantitative method approach will be a suitable data collection to collect the data for research proposal project about the employees motivation and work performance in the public sector of the UAE to gather the data for analysis as the overall quality of the data will be better used for data collection to identify participants behavior, opinions, quantify attitudes and generalize results.
- It is expected that quantitative data approach for this research proposal will be controlled as much as we can eliminate interference and measure the effectiveness of any change and will be more structured than qualitative data collection methods.
- It is expected that the literature review articles will highlight the role of leadership to come across an effective way to motivate themselves and their employees by looking at different theories of motivation and taking into account to figure out employee's personalities and needs in order to provide suitable motivation strategies.

6. Conclusion

In conclusion, it is clear that many factors enhance the motivation among the employees in public sector organizations in the UAE, such as the relationship between co-workers, using different types of tools and methods to enhance job motivation for the employees in governmental organizations, such as incentives and rewards, workplace culture and leadership. Motivation helps to growth of self-esteem among workers, which increases their interest in the growth of work. Motivating employees and involve them in the process of decision-making contributes in achieving goals for the organization.

In addition, it analysis clearly that there is a positive relationship between employee motivation and organizational performance, such as the effective organization depends on the performance of the employee, motivation in the workplace improves and increases organizational performance and it enhances employee engagement that helps the organization to gain competitive advantage. Leadership has to come across an effective way to motivate themselves and their employees by looking at different theories of motivation and taking into account to figure out employee's personalities and needs in order to provide suitable motivation strategies.

This paper illustrates the impact of a positive working environment on reducing workforce turnover and the methods used to increase motivation in the public sector organizations. For instance, creating a good role model, Knowledge Sharing, Jobs designed, Rewards and the work environment. The quantitative method approach used that is controlled to eliminate interference

and measure the effectiveness of any change by using questionnaire as data collection instrument for a large and random number of employees from UAE nationality and expatriates for different public sector organizations in UAE. The analysis of both secondary data and the primary data collected from diverse journal articles related to the topic have provided sufficient evidence to confirm that the motivation of the employees helps the organizations to reach the goal and gain competitive advantages.

7. Acknowledgment

I would like to express my special thanks of gratitude to Dr. Meera Alreyaysa for her encouragement and continuous support of this research proposal and for Hamdan Bin Mohammed Smart university that gave me this golden opportunity to publish this wonderful project. My sincere thanks also go to my family especially my mother for supporting me spiritually throughout my life.

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Evaluation of the Application and Utility of the Cerner Health Information System in the Emergency Medicine department

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Abstract

FirstNet is one of the Health information system that is used in the emergency department by physicians, nurses and residents. The purpose of this research is to evaluate the utility of the health information system used in Emergency Department which is FirstNet tool.

Objectives: *To assess the system capability to provide usable, consistent data, assessing end-user awareness and satisfaction with the system, and identifying the main deficiencies of the system used in emergency department.*

Design: *Simple pre-study survey of doctors (specialists, consults, residents and nurses) opinions regarding the "FirstNet" tool was conducted, along with interview and self-evaluation, to outline the study objectives and help define the methodology.*

Setting: *Tawam hospital emergency department*

Methods: *Three main methods were used in this study, structured interview, self-evaluation, and a survey which was conducted with total of 16 questionnaire. The result was interpreted using descriptive statistics and various inferential statistical tests. Additional tools were used to illustrate the main objectives and to carefully select the most relevant hypotheses and the appropriate inferential statistical tests for them.*

Results: *Our analysis showed mostly positive feedback regarding the system, Analysis from the questionnaire showed that 33% of the participants are working in the ER for 5- 10 years, around 28% are new (1-3 years), and 22% working in the ER for more than 10 years. 56% used other system than FirstNet while 44% used only FirstNet. Furthermore 83% of the participates used paper-based system. All of the participants (100%) had training program before using the system, however 28% think that the training was very effective, 39% think it was neutral, and 6% think it was very poor. Something that struck me was about the confidentiality point, around 44.4% think it is neutral, and 28% think it is poorly controlled the result of one-person interview showed positive feedback and positive rating of the system with consideration of few points for improvement. The result from self-evaluation showed that the system is friendly and improve the patient safety and quality of care.*

Conclusions: *This research was done to assess the system capability to provide usable, consistent data, assessing end-user awareness and satisfaction with the system, and identifying the main deficiencies of the system used in emergency department. Upon analysis of the collected data, we found that the emergency physicians, residents and nurses are satisfied with the system and they recommended improvement in some points which they feel is time consuming like extra points to click and other point is the confidentiality. The study was limited and not conclusive due to small sample size. The future recommendation is to do it in larger sample size and to compare the FirstNet use in other emergency departments within SEHA facilities.*

Introduction

Health Information System (HIS) is a system designed to manage healthcare data, it is not only used to collect, store and retrieve records, but also it can be used to drive policy- and decision-making, research, and ultimately health outcomes.

Health Information System can be classified into two major classifications: clinical information system which contains nursing, laboratory pharmacy, etc. systems and administrative information system which contains financial, quality, and risk management, etc. systems. Tawam hospital in affiliation with Johns Hopkins Medicine is one of the most important tertiary hospitals in Al- Ain, it is owned and operated by SEHA, the Abu Dhabi Health Services Company. With total of 461 beds capacity, including an emergency room with total of 48 beds, 8 of them are resuscitation beds, 13 beds for pediatric emergency.

Tawam hospital was the first hospital in SEHA to implement the Electronic Medical Record system, before 2008 HIS was all paper based system, and hospitals were not familiar with any computerized health information system, thus, it was very challenging to collect and retrieve data. Fortunately, electronic HIS made it a lot easy, and smooth.

Tawam is committed to providing a continuum of quality healthcare which meets the needs and expectations of the UAE; and aims to provide high quality, cost effective medical services delivered in a friendly, safe and caring environment in accordance with the JCIA Standard of Care. Tawam offers services in specialties including oncology, neonatal care, emergency medicine, intensive care, surgery, urology, family medicine, fertility services, neurosurgery, nephrology, pediatrics, pain management, internal medicine and obstetrics & gynecology.

At the emergency department of Tawam hospital, we are using FirstNet which is part of Cerner.

Objectives:

To evaluate a healthcare system using staff survey, interview and self-evaluation.

The purpose of this study is to evaluate the utility of the health information system used in Emergency Department. A simple pre-study survey of system users: (specialists, nurses and residents) opinions regarding the “FirstNet” tool is conducted to outline the study objectives and help define the methodology, and an interview with an ED specialist is done, and self-evaluation of the system.

The objectives include assessing system capability to provide usable, consistent data, assessing end-user awareness and satisfaction with the system, and identifying the main deficiencies of the system used in emergency department.

Significance:

FirstNet in the Emergency department at Tawam hospital has not been evaluated before, hence used this study to evaluate the system, its advantages, disadvantages, challenges and ways to improve it.

Literature Review

Health Information Technology (HIT) has been introduced into healthcare since 1960s. A systematic review was done in Feb 2018 to see the impact of HIT on medical outcomes. The review summarizes the results of 37 studies out of 3636 papers, using PubMed over 5 years. The systematic review showed that there is a positive effect of HIT on the effectiveness of medical outcomes, improve the quality and safety of health care services. (1)

Implementation of electronic medical record system meant to improve quality of healthcare and smoothen the workflow, but this was not in this study which was made in 2009, it is a retrospective observational study conducted over 6 months period, the conclusion was Implementation of the FirstNet electronic medical record system was associated with deterioration in ED KP where there were increases in the waiting time and treatment time (All differences were statistically significant ($P < 0.05$) (2)

We found a reduction in performance with respect to ED KP Is after implementation of the FirstNet system. There were increases in the waiting time for all patients (median, 40 min v 78 min), and the waiting time (median, 49 min v 87 min), treatment time (median, 128 min v 147 min) and total time (median, 214 min v 280 min) for patients discharged from the ED. There were increases in the DNW rate (8.3% v 15.6%) and the proportion of ambulance offload times longer than 30 minutes (10.5% v 13.3%). All differences were statistically significant ($P < 0.05$).

In Conclusion: Implementation of the FirstNet electronic medical record system was associated with deterioration in E D KP. On the other hand, a study which was done in a level 1 trauma center emergence department where they use FirstNet Cerner system, conclusion showed that system users including doctors and nurses all were satisfied and they gave positive feedback of the easy access and usage of the system (3)

Other study was done in Nepean hospital comparing two different systems (the Nepean Emergency Department Information Management System (NEDIMS) and Cerner FirstNet) among emergency medicine users, the conclusion of this study was, users prefer the system with less number of clicks meaning NEDIMS saved 23.9 hours of staff time per day compared with Cerner FirstNet, Staff consider that a point-and-click user interface constantly interrupts their train of thought in a way that does not happen when writing on paper. (4)

Sepsis is a major public health problem, which should be diagnosed quickly by ER doctor, this article studied how accurate is the Electronic Medical Record system to alert if sepsis is suspected, during 3 months period in 2012, true prevalence of sepsis was 355 from 795 automated sepsis alerts (44.7%), to the EMR system was able to detect cases with sepsis (5)

A study was conducted in four different EDs, all Eds use same Emergency Department Information System, 2 phases were conducted in this study, phase1 data were collected from ED physicians and nurses (interviews and observations, phase2 physicians in one ED were observed over 2 weeks, the conclusion was that physicians were able to access patients' files, previous discharge summaries and past test results, which gave them new ways of working in ER and gave positive results in reaching diagnosis, treatment and length of stay of patients in ER (6)

A qualitative study was conducted in 4 urban EDs all using the same information system, interviews (69, and 5 focus groups) and structured observations (26 hrs) with the ED physicians

and nurses were done. The integrated ED information system made it easier for the physicians and nurses in terms of patient care, decision making and quicker access to patients' information (7)

A cohort study of 182,509 ED visits aimed to evaluate the performance of a sepsis recognition (electronic sepsis alert) and early sepsis detection in a pediatric emergency department. Sepsis alert for abnormal vital signs showed high sensitivity and specificity of sepsis detection and improved recognition of severe sepsis (8)

This study which was published in May 2015 compares medication prescription error before and after implementation of electronic medication alert system in pediatric emergency. Electronic medication alert system showed decrease in prescription error (9)

Electronic Health Records are hugely used in emergency department. Workload, patient length of stay and crowding were assessed during the electronic health records downtime. It showed that EHR downtime increased staff workload, crowding and patient length of stay (10)

This study which was done in a tertiary academic medical centre at the Mount Sinai Medical center in New York City showed the ER efficiency is improved by using emergency department information system, by decreasing the length of stay by 1.94hrs form 6.69hrs (11)

This study compared the financial impact pre- and postimplementation of the Emergency department information system, and it showed that there is sustained increase in the revenues a rapid initial break-even point (12)

A systematic review was done on implementation of electronic health record (EHR) during 10 years period (2001- 2011) using various publication collection, showed both positive and negative impact of EHR, positive impact was in documentation quality, healthcare safety and coordination, and increased administrative efficiency,, negative was to workflow and work distribution (13)

This systematic review compared time spent on documentation by physicians, nurses and interns before and after electronic health records (EHR) introduction. It was a total of 28 studies ,17 before and 9 post EHR. The conclusion was that EHR increased documentation time spent, but when the staff became familiar with the system, it improved the flow of the work (14)

This study aimed to compare discharge instruction before and after implantation of information technology in the emergency department. A random selection of 150 patients three months before and 150 patients three to five months after implementation of electronic system. The result showed an improvement in discharge instruction, documentation of procedures and tests performed and medication documentation in electronic system, while there were no differences in documentation of patient care instructions and diagnosis between paper-based and electronic formats (15)

A systematic review of a total of 170 articles included in this study which was about impact of information technology (IT) on Patients' engagement, health behaviour and outcomes. Around (140-150) of articles showed better patient behaviour and engagement. In conclusion IT improves health outcomes and enhance patient engagement (16)

An administrative case study which was published in 2012 in one of the big hospitals with a level 1 trauma center and 600,000 daily visits, introducing an emergency department electronic health record (Cerner FirstNet) showed a positive outcome in the ED process since it was more clear, easy access a stronger way of documentation. Furthermore, Emergency physician and patient satisfaction and the work productivity in the emergency department improved greatly (17)

A literature review was done in August 2018 to introduce electronic health records in simulation education for medical students, students in pharmacy and nurses collage to find ways to teach and incorporate electronic health records simulation and they found that introducing electronic health records early by teaching them will help to increase the patient safety by being competent in the electronic health records, reduce errors and save time (18)

A retrospective noninterventional analysis of patients in an academic ED done to check the effect of access to electronic Health Records on Throughput Efficiency and Imaging Utilization in the Emergency Department. This study finalized that the patient who had previous EHR had a smaller number of CT scan compared to those who don't have previous EHR and was cost effective as well (19)

An article that was published in academic emergency medicine which used monte Carlo simulation to study the effect of common data errors in HER on emergency department operational performance on many parameters including arrival to clinician evaluation, disposition and length of stay in admission , the study showed that even minimal errors can affect the decision making and the operational performance in the ED (20)

In this study they used the electronic medical records of the patient who might be a high risk for future multiple emergency visits which is having a high cost in the healthcare system. These patients were identified from their records visiting family practitioners (21)

In this article they interduce 171 presenting complain into the electronic medical records to help analyzing the patient health problem until the physician reach the final diagnosis, by having these codes for each complain they were able to know the most common presenting complains in the. Emergency which was shortness of breath in this study and the most. Common diagnosis which was sepsis (22)

Description

Electronic information system was first held at Tawam Hospital in 2009, it was created, designed, and arranged on multiple phases that are progressing with continued enhancements and accomplishments of additional patient care elements according to universal quality measurements. Each patient in the SEHA network is identified with a unique Enterprise Personal Identification (EPI) that is linked to SEHA data warehouse. Patients can have different Medical Records Numbers (MRN) in each facility of SEHA. This is to facilitate access to patient history, simplify sharing of patient information, and cut the cost of unnecessary/redundant tests in order to deliver high quality care to the patients. Each patient's visit/admission to the hospital / Ambulatory Health Service is being registered/documentated in each separate encounter with a specific fin number.

The advantage of this study, the FirstNet system was not studied in the region before, knowing the strengths, weakness, and challenges of the system is another advantage. On the other hand, small sample size is considered one of the biggest disadvantages.

Methodology

Evaluation of the FirstNet system was done by using three methods: survey, interview and self-evaluation. (Refer to three appendices)

Interview questions (total of five questions) were conducted to one of the emergence department specialists to assess the FirstNet system by using a simple questionnaire using all are open-ended questions (see Appendix 2).

Another method used in this study was a designed survey, which contains 20 questions, nine of them were mainly yes/no type of questions where the rest were Likert scale type of questions. The survey was distributed to 18 participants all working in the emergency (6 ER physicians, 6 ER nurses and 6 ER residents) (see appendix1)

The last but not least method was the self-evaluation (see appendix3)

Result

Result of the interview questions with the ER specialist is summarized as the follow:

First question was about his opinion about the FirstNet system, he started that FirstNet is a good system, initially it was difficult to use, until he got used to it, It saved time and effort for documentation, and orders (specially order set) and it is easy to track patients as it gives you the option of selecting the patients that I have seen only.

It took him around 2 months in order to be familiar with the system. Changing from paper based to electronic based system, being familiar with all icons, ticking on all required boxes for the sake of documentation completion and looking for the matching ICD code with the diagnosis, are some for the challenges he faced while using the system.

The ER specialist who answered the interview questions thinks that FirstNet is useful in the Emergency Department, due to the following points: it is Fast and quick, it gives you alert for critical results including abnormal vitals, and blood investigations it gives you alert for drug allergies and drug-drug interaction, and it has easy access to patient's file including history, investigation and medication

He also mentioned some points in order to improve the system: decrease the tick boxes in the patients' file and make it easy and smooth to search for the ICD code

The data of the survey questionnaire was analyzed using SPSS program, there was no missing information, nor an outlier, all variables were made as discrete including both nominal and ordinal.

Questionnaire was equally distributed among ER physicians, nurses and residents

Analysis showed that 33% of the participants are working in the ER for 5- 10 years, around 28% are new (1-3 years), and 22% working in the ER for more than 10 years.

Fifty six percent (56%) used other system than FirstNet while 44% used only FirstNet

Among the 18 participants 15 of them used paper-based system (83%)

All of the participants (100%) had training program before using the system, however 28% think that the training was very effective, 39% think it was neutral, and 6% think it was very poor

Something that struck me was about the confidentiality point, around 44.4% think it is neutral, and 28% think it is poorly controlled

The rest of the result you can see in as the tables shown below, as well as histograms:

Duration in ER		Frequency	Percent
Valid	1-3 years	5	27.8
	3-5 years	3	16.7
	5-10 years	6	33.3
	>10 years	4	22.2
	Total	18	100.0

Paper based system		Frequency	Percent
Valid	yes	15	83.3
	no	3	16.7
	Total	18	100.0

Training		Frequency	Percent
Valid	yes	18	100.0

Alert for critical result		Frequency	Percent
Valid	yes	14	77.8

	no	4	22.2
	Total	18	100.0

Alert for drug allergy		Frequency	Percent
Valid	yes	18	100.0

Alert for D-D interaction		Frequency	Percent
Valid	yes	10	55.6
	no	8	44.4
	Total	18	100.0

How easy is the system		Frequency	Percent
Valid	very easy	2	11.1
	easy	9	50.0
	neutral	7	38.9
	Total	18	100.0

Satisfaction with the system		Frequency	Percent
Valid	Very satisfied	1	5.6
	satisfied	12	66.7
	Neutral	4	22.2
	Poorly satisfied	1	5.6
	Total	18	100.0

Speed/Reliability	Frequency	Percent
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Valid	Very satisfied	1	5.6
	satisfied	11	61.1
	Neutral	4	22.2
	Poorly satisfied	2	11.1
	Total	18	100.0

Duration for data entry		Frequency	Percent
Valid	10 min	15	83.3
	20 min	3	16.7
	Total	18	100.0

Duration for data retrieval		Frequency	Percent
Valid	10 min	16	88.9
	20 min	1	5.6
	40	1	5.6
	Total	18	100.0

Data quality		Frequency	Percent
Valid	very strong	1	5.6
	strong	12	66.7
	Neutral	5	27.8
	Total	18	100.0

Training effectiveness		Frequency	Percent
Valid	very strong	5	27.8

	strong	4	22.2
	Neutral	7	38.9
	poor	1	5.6
	very poor	1	5.6
	Total	18	100.0

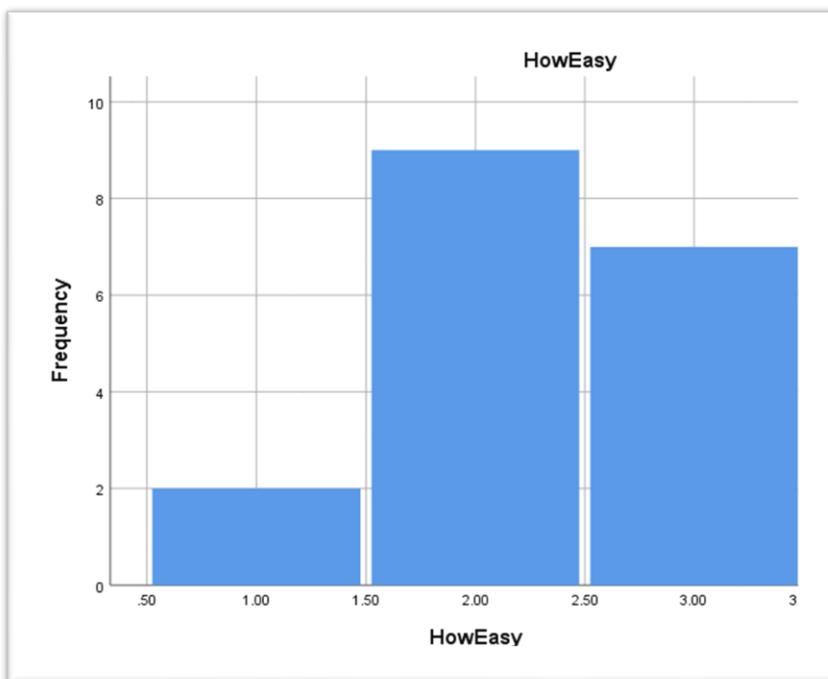
Improve healthcare quality		Frequency	Percent
Valid	very strong	13	72.2
	strong	4	22.2
	Neutral	1	5.6
	Total	18	100.0

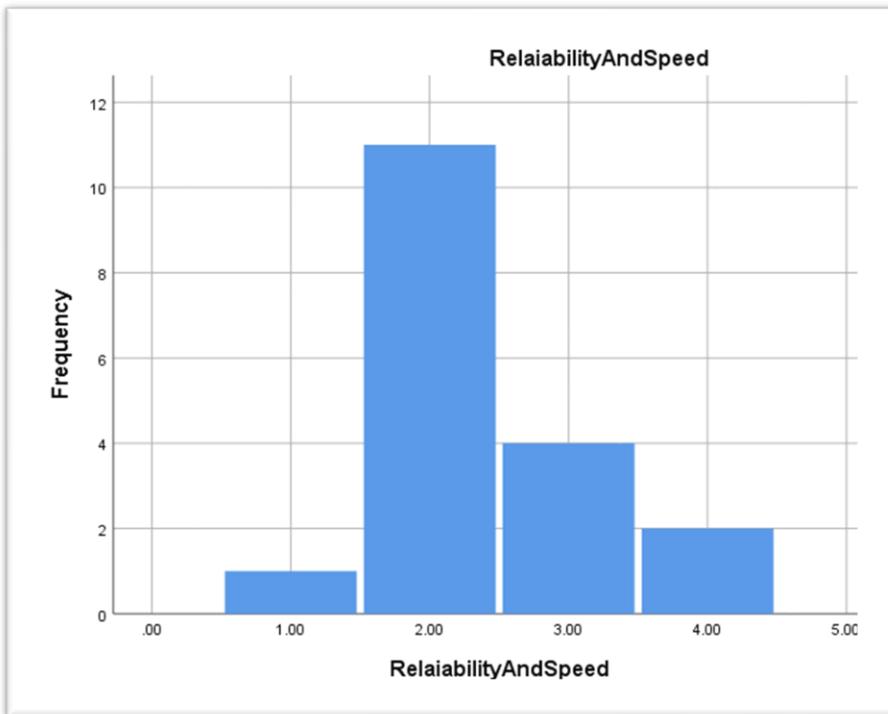
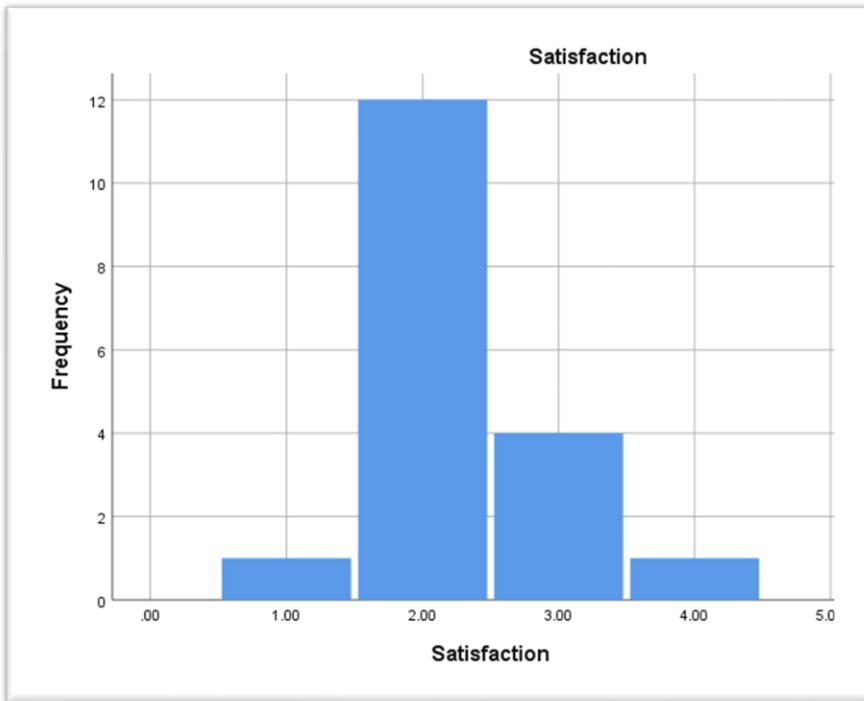
Improve patient safety		Frequency	Percent
Valid	very strong	14	77.8
	strong	3	16.7
	Neutral	1	5.6
	Total	18	100.0

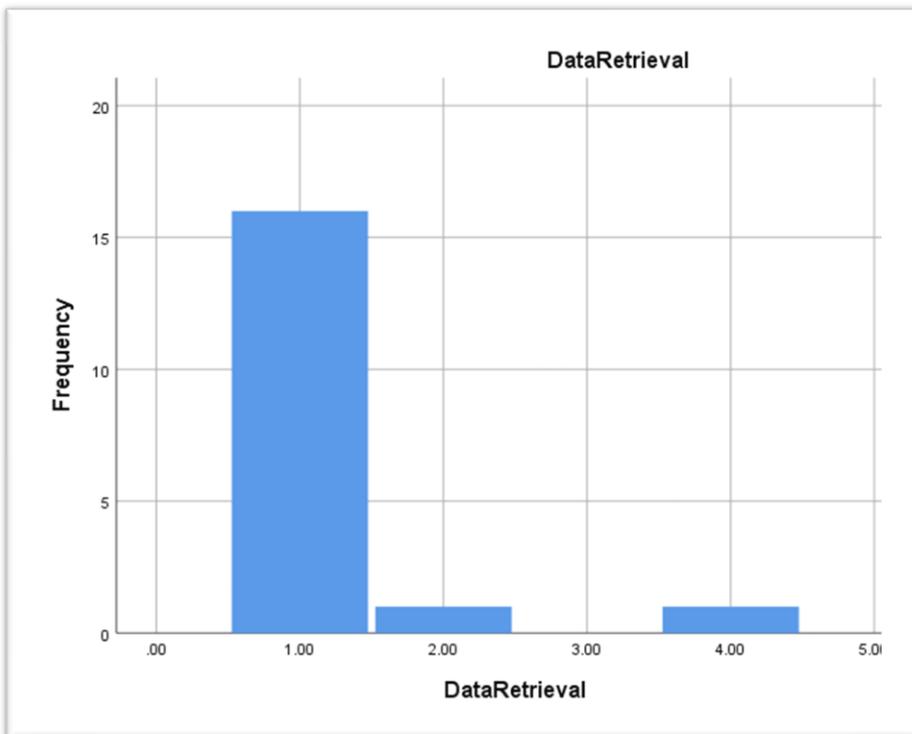
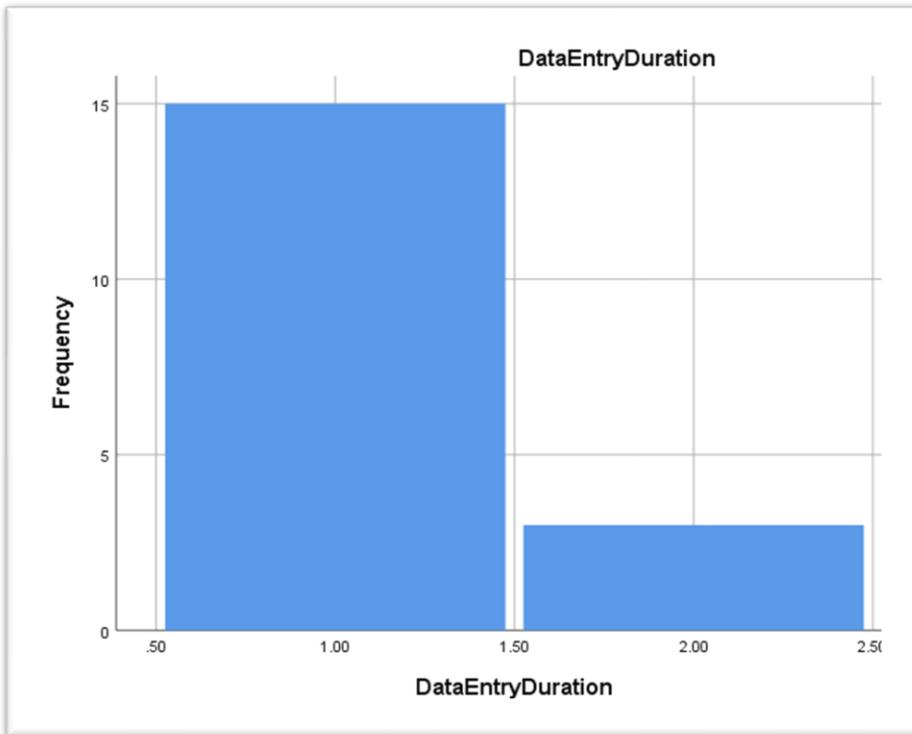
Confidentiality		Frequency	Percent
Valid	very strong	3	16.7
	strong	2	11.1
	Neutral	8	44.4
	poor	5	27.8
	Total	18	100.0

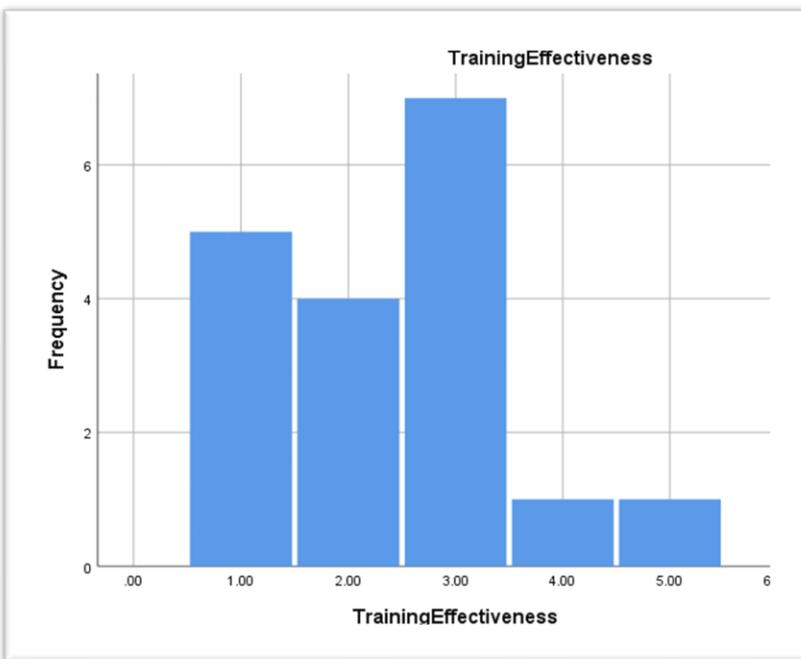
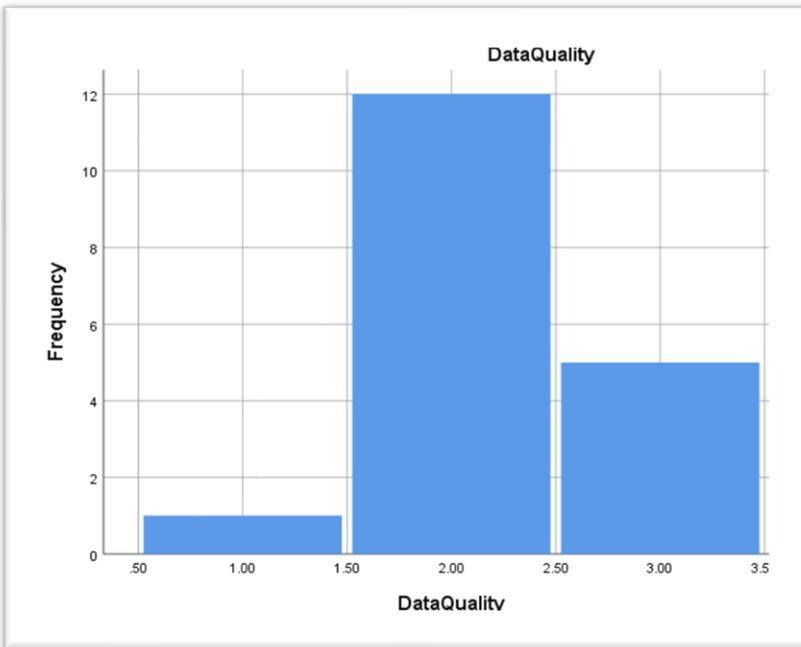
Emergency		Frequency	Percent
Valid	very easy	3	16.7
	easy	4	22.2
	neutral	6	33.3
	difficult	5	27.8
	Total	18	100.0

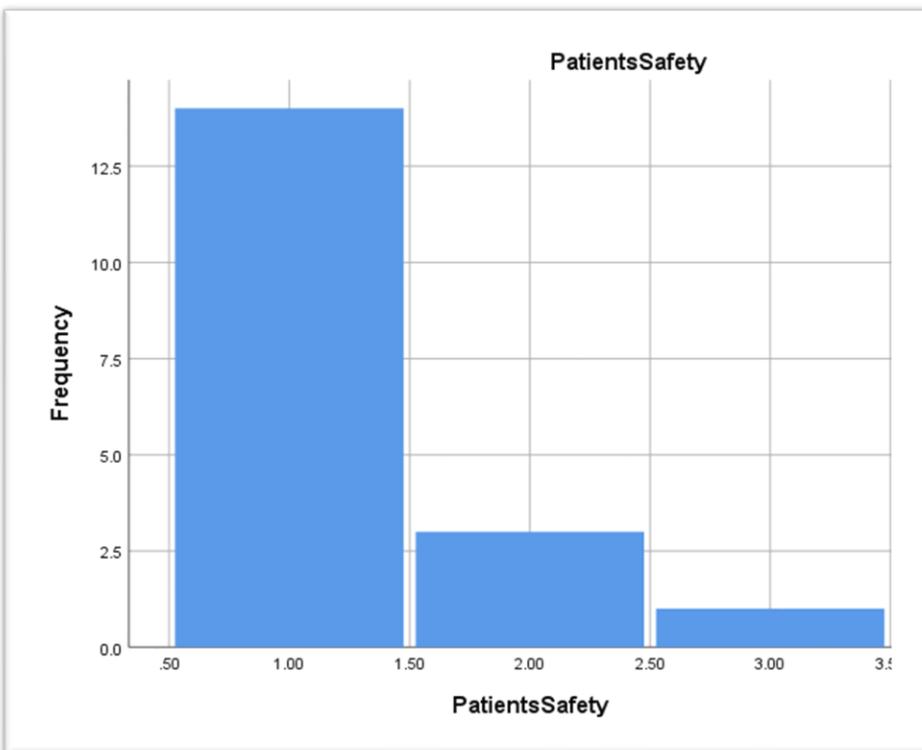
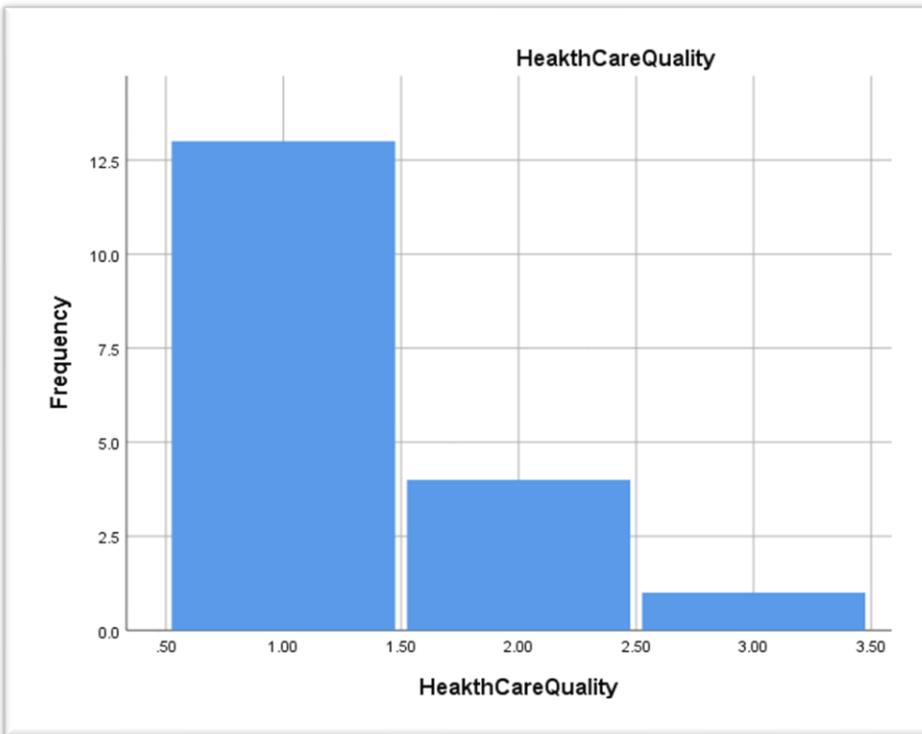
Histogram of how easy in the system

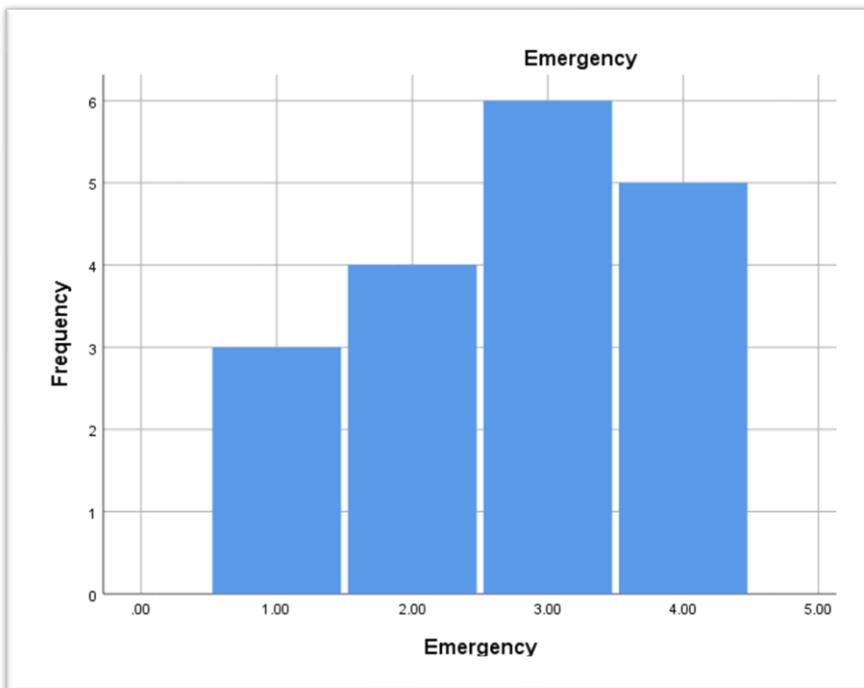
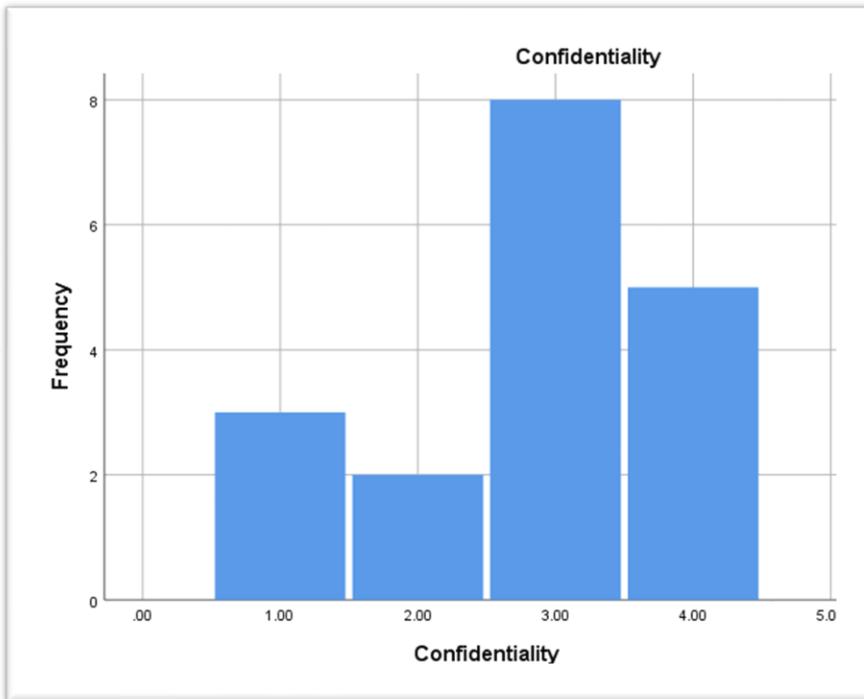












One comparison was made among ER doctors, nurses and residents using Chi square test, it was about in case of a real emergency (like trauma) how easy is it to register the patient without known ID, result showed that doctors are aware of this point and they think it is easy, while nurses found it neutral and difficult to do so, as shown in the table below:

Position * Emergency Crosstabulation						
Count						
		Emergency				Total
		very easy	easy	neutral	difficult	
Position	ER physician	2	2	2	0	6
	ER nurse	0	0	3	3	6
	ER resident	1	2	1	2	6
Total		3	4	6	5	18

About the self-evaluation points: As emergency physicians using the FirstNet system as a tool, initially it was difficult and we felt its time consuming especially in a busy environment like emergency room, by training and using it we discovered that the system is very user friendly. The system actually saves us time and effort furthermore it improves the patient safety and quality of care in many ways as described below:

showing us the important information related to patient like the name, medical record number, age, allergies. Furthermore, the system helps in showing you the vitals in the chart along with alert if there is any abnormal vital sign, past medical and surgical history. In addition to that by free texting the diagnosis you get the ICD code immediately which saves a lot of time and effort looking for each single diagnosis code by yourself.

Placing orders are easy and immediate like medications labs and imaging, which is connected directly to the related department to take the order immediately. Another thing is that whenever you place a medication and there is drug-drug interaction you get the message alarm so you will not harm the patient. In case of arrival of new patient with an emergency with no file or ID, it's easy to create a new account until we get the identity. Within the FirstNet there are Forms like Leave against medical advice, procedures, resuscitation and critical care, which will help in complete data related to patient.

Conclusions

In conclusion, this study was mainly held to evaluate the FirstNet system used in the emergency department in our hospital. The main target was the ER doctors, nurses and residents, they participated in a questionnaire which was mainly evaluating the system usage, for how long they have been using the FirstNet, the quality of the data along with patient care and safety, patient confidentiality, and their satisfaction with the system.

Furthermore, an interview done with one of the ER physicians regarding the system where he was satisfied and happy with the use of FirstNet as a health information system. In addition, the self-evaluation of the FirstNet showed that the system is user friendly and has a lot of

advantages that improve quality of care and patient safety. This study is not conclusive due to small sample size and short period of time along being in a health pandemic and crisis due to the spread of corona virus. Further studies beyond the scope of this paper could include doing it in a bigger sample size and to do a comparison with other SEHA facilities who are using FirstNet as a health information system in the emergency department.

Recommendations

The following could be considered as recommendations for improvements of the system usage, benefits, and its users' experience:

- Consider training sessions for end-users as means to refresh the learning from the initial training sessions.
- Provide the beginner user a manual book (written and visual) of all steps, hints, details which will help them understanding the system.
- Perform Feedback sessions for the staff, quarterly and annually, so if there are any gaps to fill, and any points to improve in order to make sure everyone is aware of any changes, mistakes or updates.

Limitations

Some of the limitations of our study: is the sample size, limited numbers of emergency physicians, nurses and residents participated, due to limited time and furthermore going through crisis in the emergency due to pandemic and outbreak of corona virus, bigger sample size could have benefited the statistical evaluation of FirstNet system.

Secondly, the study scope was limited to Tawam hospital emergency department, a wider comparison of all SEHA facilities across UAE could help and give us better result and feedback.

Finally, the questionnaire and interviews of the study were comparing different experience regarding using FirstNet in emergency department, the study didn't compare first net with other electronic systems.

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Appendix 1:

Survey

1. Please indicate your role at the ER:
 - Physician
 - Nurse
 - Resident
2. How long have you been working in ER this Hospital?
 - 1 -3 years
 - 3-5 years
 - 5-10 years
 - +10 years
3. Did you use other system than FirstNet?
 - Yes
 - No
4. Did you work with paper-based patients record system?
 - Yes
 - No
5. Did you have training course of the system before using it?
 - Yes
 - No
6. Does the system alert you for any critical result?
 - Yes
 - No
7. Does the system alert you for drug allergy?
 - Yes
 - No
8. Does the system alert you for drug-drug interaction?
 - Yes
 - No
9. How easy do you rate the system?

Very easy	easy	Neutral	Difficult	Very difficult
1	2	3	4	5

10. How would you rank your computer expertise?

Very expert	expert	Neutral	Poor expert	Not expert
1	2	3	4	5

11. How satisfied are you with using the system?

Very satisfied	Satisfied	Neutral	poorly satisfied	Strongly not satisfied
1	2	3	4	5

12. How satisfied are you with the speed and reliability of data network services available at your hospital?

Very satisfied	Satisfied	Neutral	poorly satisfied	Strongly not satisfied
1	2	3	4	5

13. How long does it take to enter data?

10 mins	20 mins	30 mins	40 mins	More than 40 mins
1	2	3	4	5

14. How long does it take to retrieve data?

10 mins	20 mins	30 mins	40 mins	More than 40 mins
1	2	3	4	5

15. How do you rate the patient data quality?

Very strong	Strong	Neutral	Poor	Very poor
1	2	3	4	5

16. How effective was the training towards helping you to use the system?

Very effective	Effective	Neutral	Poorly effective	Not effective
1	2	3	4	5

17. How strong you agree that using FirstNet at ER is helpful to improve the quality of healthcare?

Strongly agree	agree	Neutral	Disagree	Strongly disagree
1	2	3	4	5

18. How strong you agree that using FirstNet at ER is helpful to improve patient safety?

Strongly agree	agree	Neutral	Disagree	Strongly disagree

1	2	3	4	5
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19. How strong does the system maintain patients' confidentiality?

Strongly agree	agree	Neutral	Disagree	Strongly disagree
1	2	3	4	5

20. In cases of emergencies (ex: trauma) with patient with unknown ID , how easy is the system in registering such patient?

Very easy	easy	Neutral	Difficult	Very difficult
1	2	3	4	5

Appendix 2:

Interview questions

- 1- What do you think about the FirstNet system?
- 2- How long did you take to be familiar with the system?
- 3- What are the challenges you faced while using the system?
- 4- How and why FirstNet is useful in the Emergency Department?
- 5- How the FirstNet system can be improved?

Appendix 3:

Self-evaluation points of emphases

Self-evaluation points:

- User friendly
- Patient information
- Patient medical and surgical history
- Abnormal Vital signs alert
- Allergies
- Drug- Drug interaction
- Order placement
- Unknown patient registration
- ICD coding for diagnosis
- Medical forms (LAMA, procedures, critical care)

Best practices in awareness campaigns regarding to UAE government agenda

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Abstract

As a primary role for all of the organization and authority in all countries is to work and produce in line with the best practice to reach the country aim. in the UAE each organization tries to follow the excellent path to achieve 2021 vision for the UAE. This paper attempts to study relationship between awareness campaigns in the UAE and the national agenda. the research is going on to tries to inference about how to measure the impact of awareness campaigns and their relation to the government agenda of the UAE, that means that awareness campaigns must follow the same path with the government and country aim, in addition, to know what is the impact of these campaigns on the society and what are the outcomes from the awareness event for public and what are the common areas and topics the spread awareness about.

The research would have a number of specialist and professionals in event and awareness management from several government and private sector to interview and show what are the plan of their organizations to follow with the national agenda path and goal, supporting the global issues from various fields. also, this paper will give us the chance to look at best practice of awareness campaigns in the UAE, to use them as a good example of successful event and what are the criteria they use for the distinction in their campaigns. However, this research is aiming to have a good overall about the state of many organization and their future plan of improve and develop their events and goal.

Introduction

While talking about the UAE, we mean development and future, ambition, support and innovation, as well as acceptance of the other and respect cultures, all these concepts are based on good leadership that promotes values and ethics on the citizens. The most important leadership trends emerge in the work of government and their productivity, which are responsible for the national agenda that supports all of the above. As we know that the UAE seeks to bring the best local and international opportunities and practices through successful and clear strategies, the prominent of these goals is to unify the message and cooperation in its implementation, by being in touch with universal issues and gave them a large role by having a yearly plan related to them. We can say that the national agenda is developed by over 300 officials from 90 federal and local government entities, includes a set of national indicators in the sectors of education, healthcare, economy, police and security, justice, society, housing, infrastructure and government services. These indicators are long-term, measure performance outcomes in each of the national priorities, and generally compare the UAE against global

benchmarks. The national indicators are periodically monitored by Government leadership to ensure their targets are achieved by 2021. (Vision 2021, 2018)

The national agenda opens the way for all institutions and organizations to share the vision and aspirations of the country, in turn, many foundations and government offices try to conduct awareness campaigns to solve these issues supporting government orientation by studying the best practice of campaigns, for spreading knowledge and protect the community. This makes me more interested in the work plan of the government, so I would like to focus on my research on best practices in awareness campaigns relating to the UAE government agenda and their strategies, best categories and criteria to measure the success of the event, result and outcomes of their actions.

In order to achieve the goal of the research and to reach satisfactory results must be examined research related topics have been conducted over different years, and share the same goal. After research and investigation, we found several published material and articles for local models and studies conducted on detailed awareness campaigns and strategies to work on them and their findings, but as a single event or campaign not as a huge research and deep detailed strategy what is one of the limitations has been faced for this paper.

Literature review

UAE eGovernment Strategic Framework

The research was based on the objectives of the state to develop e-government based on the vision of the state in development for different years, including Vision 2021, the research aims to study some of the difficulties related to success and develop and implement e-government programs. In addition, to focus on reality and problem-solving through practical models and case studies drawn from the UAE eGovernment experience and comparisons with other countries. Customer confidence and the effectiveness of digital identity, in order to achieve e-government goals to develop and provide high quality in integrated public services to increase the confidence of customers and the adoption of smart government programs, and the conclusion of the research shows that the UAE government Its national development strategy is to have the identification process itself and to provide secure, protected and unique digital identities to tamper with them to provide improved security, gain greater levels of trust and encourage participation. (Al-Khoury, 2012)

We can relate their article to our topic as they discover one of the ways of cognitive development of the government through the use of modern techniques. One more research has established earlier, for public expectations, the e-government initiative is the most effective citizen-centric system to meet the needs of citizens and private companies and will provide high-quality and faster government services. The government will become more transparent, effective and accountable through the e-government service and will expand the use of information technology among citizens and private companies; This aims to enable citizen participation and meet needs to improve the quality of service delivery. (ALShamsi, 2018).

The strategy of awareness campaigns and events that will be organized by government institutions will be fully linked to the use of the most modern technologies such as smart

government, websites and smartphone applications to save time, reduce paper and financial costs and preserve the environment on available resources.

Measuring the impact of awareness campaigns

To define Awareness campaigns, it is an ongoing effort to learn individuals and increase public awareness about the problems and issues of the organization. (Feldmann, 2017). To know the measurement of the impact of awareness campaigns, it is clear from previous studies that it can be measured through subjective and objective measures. Objective measurement which based on the people performs about the information, while Subjective measurement, on the other hand, has to be with what people practice and say. The reaction of people, their interaction and their integration into the event or campaign may give a lot of important measures to the success of the event and a high evaluation, as well as the questionnaires that they fill out show how they benefit and what they learned and show how important the topic as government agencies can use these questionnaires in community research studies. (Bert Timmermans, 2015)

One important event was created by Erada center for treatment and rehabilitation in Dubai, upon recommendation from the government to intention to build the region's first center for the training of health workers to treat drug addiction. This forward-looking, multifaceted approach, focused on rehabilitation and the restoration of dignity, stands to benefit individuals, the country and the wider region. (Ansar, 2019) The center is always has an impact of their awareness activities on the disease of addiction and how to measure the effectiveness of their work on the community. One of the recent event the center worked in was International Day Against Drug Abuse and Illicit Trafficking. The aim of the event was to "strengthen action and cooperation" to achieve the goal of a global "society free of drug abuse". believing from the organizers that the battle can be won through national institutions of criminal justice, health and social services working hand in hand to help create solutions, which is related to the national agenda in the health and safety criteria to protect and prevent the society from the risk of these disease. (Khayyat, 2019) The success of the events was to measure the number of visitors to the platform and the event and the large number of community posts and articles that were published on the topic and about organizing awareness events in this regard.

Effectiveness of the awareness program in the UAE

There are many great and honorable models in terms of the practical applications of awareness campaigns and the different themes and objectives, such as campaigns to raise awareness of bullying, mental health, environmental protection, awareness campaigns on the future and ambition, religion, peace and tolerance, one of the studies conducted on cybersecurity awareness program for young children. The study was conducted in cooperation with the ministry of education to measure the knowledge of students and teachers on the cybersecurity, through personal interviews and questionnaires and sorting the results and compared with reality, also the impact on the community and children, I think this local study is a good example of the applications that I was trying to find, through how to know the impact of awareness campaigns on society and the strategy based on the national agenda and government policies. In this campaign discussed a global issue and raised a problem of the entire world, which is the internet and online issue, which means supporting the UAE plan in the emergence of global problems. The impact of the awareness campaign on society was also measured by the results and values they cultivated in parents, students, and faculty and spreading knowledge through changing the concepts and showing the risk. (Shamsi, 2019)

Example of latest awareness campaigns in the UAE

Some other examples of effective awareness campaigns were also designed by Al Jalila Foundation in partnership with Brest Friends is a forerunner in raising awareness on the importance of early detection of breast cancer, furthering patient support with medical treatment and investing in local breast cancer research. (Al Jalila Foundation, 2018) The campaign is on early based on October, so many other foundation and health centers participate in to get their message across the society. Moreover, Dubai Car Free Day is a great example of a campaign to aware people to protect the environment from pollution due to the use of fuel and to reduce traffic congestion. One of the good results of this campaign is that there are other emirates that participated in a similar initiative to conserve the environment. (Gulf News, 2019) GITEX Technology Week, the largest technology exhibition in the Middle East, North Africa and South Asia Is one of the most common events in the UAE which Ministry of finance committed to organized every year In line with its policy to support sustainable development objectives in the UAE. In addition, the Ministry of Finance participates in many local and international activities and events such as UAE Innovation Month aimed to promoting a culture of innovation with use of young people power. (Ministry of Finance, 2019)

In Educational aspects, The Arab Reading Challenge is the largest-ever Arab literacy initiative, which is also yearly based in the UAE which aims to Promote cultural awareness among students and raise awareness of the importance of reading between students and youth in the Arab World. (Arab Reading Challenge, 2019)

All of above examples of the UAE initiatives and awareness campaign in technology, health and safety, education and environment are related to the UAE national agenda aim which is to have a great and excellence performance in Competitive Knowledge Economy, First-Rate Education System, World Class Healthcare, Sustainable Environment and Infrastructure and many other goals. (UAE Cabinet, 2019) These awareness events are the steps to achieve the high level of the government expectation to make it one of the best countries in the world.

Methods

Regarding the research paper methodology, previous researches mentioned that they use both methods, qualitative and quantitative. In this research, I think it will be based on both qualitative methods for collecting data and quantitative methods which we called the mixed method. Mixed methods are a methodology for conducting research that involves collecting, analyzing and integrating quantitative through experiments, and surveys and the qualitative methods by the focus groups and personal interviews (http://resourcecentre.foodrisc.org/mixed-methods-research_185.html). The data will be collected from interviews conducted with employees and specialists form many government agencies and surveys for the public visitors and attendees in the awareness campaigns, to measure their success in sending their message and how the knowledge received to them regards to the UAE Agendas plan, what are criteria and categories of the successful event.

In this research will be using e-survey through online websites to be more official and to save the environment form paper waste, as it is one of the UAE government goals to use whatever can be sustainable. Moreover, interviews might be over the phone or face to face interview, it will depend to how easy to reach people, some observation in the events if we have the chance

to attend any might be useful to have a good result from an interactive activity and direct present on the event, that's will help to know if the campaign is good enough to be representing the UAE agenda plan or no. The survey will conduct 15 questions about the awareness campaigns and the UAE agenda, to be able to deduce their knowledge regarding the topic, result, how effective the campaigns are, and how good they are related to the universal issues.

On the other hand, the interview will be focused more if these employees how are involved in the event are aware of what are the criteria for measuring the satisfaction of their work regarding the national agenda and how they improve their work in each awareness event.

For data collection and analysis, some statistics from the interviewee will be helpful to measure the improvement of their work and how related to global issues and aims. a number of interviewees might be from 5 to 10 people from different organizations to be more comprehensive in the research about the awareness topic they do campaigns for. In addition, 50 participants from employees and attendees might be a good number to have an idea about their involvement and impacts in the events in general. The interviews and surveys both will have consent from the participants to make sure that we will use their answers in the research, we will provide them with the aim of the research and take their permission to do the voice record or to have a singed paper if needed.

I would like to add that the mixed methods will be helpful for this research to have more opinions and suggestions because of the lack of resources regarding the topic since it is a new topic, hoping that will have very soon enough resources to search more and focus more on the awareness and spreading knowledge in the society to provide the full support for the National agenda plan.

Expected Findings

To talk about the findings, based on previous research about awareness campaign and the UAE national agenda, most of the research and published material were applicable with the national agenda aim and goal, but they need more improvement, more marketing, and more people to be engaged with the events, to expand the awareness to the public and use creative awareness methods also important to add value to the camping. All events and previous awareness campaign which has done in UAE have a great impact on the society which we can touch it and see it through the initiatives they did and they improve, the more facility they provide regarding the recommendation for each campaign whatever the topic was, educational, environmental, technological or even in health and safety aspect. A number of findings also can be shown in every article and published material has written about the campaign and how it becomes famous and have huge propaganda in the community.

In general, the findings for this research might show that the participated in the study will have a good overview of the awareness campaigns in the UAE. Results will be based on survey and interview, which will be shown through their comments and reaction of the awareness campaigns they attend the related topic to the agenda, what are the criteria to measure the satisfaction of the event which will be the clear outcomes and results, number of attendees and participation in each event, location of the event, expecting that all of these factors will be helpful for the result to find out that people are engaged well in the variety of different topics and issues for the campaign through the UAE government organization.

In the reason of having this paper as a new research topic, can't find enough research has done before or a proper article to found, the most information has mentioned above is all as a local newspaper published material which is always covering what's going on in the country regarding important events and news.

These limits of articles and published material affect the result that we could found from the previous events and how will be measuring the satisfaction of the event for the research in the future.

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ARTIFICIAL INTELLIGENCE AND THE READINESS TO ADOPT IT IN EDUCATION

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Abstract

Students are one of the key elements during the implementation of new educational systems within universities. To be able to develop an effective AI system in education, it is important to know the level of students' readiness. This research paper investigates the readiness of students for artificial intelligence in education. After a general review of literature, the study utilizes a mixed method to collect data. Data was mainly collected from Hamdan Bin Muhammed Smart University as it is the leading university in smart learning and the use of advanced technology in the region. The main findings from the survey and interviews indicates that there is a general acceptance for the transition to artificial intelligence in education, however some concerns were raised in regards to the adoption of AI systems, and the reduction of human interaction that can cause delays in the learning operation. Furthermore, the qualitative data indicates that artificial intelligence can enhance the learning and teaching experience, by providing designed and specific materials to individuals that suits their interests and capabilities while saving the time and effort spent on unrelated study materials.

Keywords: *Smart learning readiness, higher education, students' readiness, Artificial Intelligence.*

Introduction

Machines and software assisted humanity in almost all daily activities, from medical to household to government services and lately in education. The high demand on technology encouraged humans to continuously innovate and develop new advancements in the field such as Artificial intelligence (Brunn, 2018).

Artificial intelligence is a branch of computer science that builds smart machines capable of performing tasks that typically require human intelligence. The concept behind this technology is enabling the study of the behavior of any given input over time and reshaping its original designed purpose to meet new requirements (Griffey, 2019). Many applications have already adopted AI, of which many of them we are already using without even noticing. The question is, will it also be as effective in the educational system? What can AI do or add to the current education style? Although in practice there are a few attempts in the universities to develop AI led programs, the acceptance or readiness of students has not been investigated much.

Background

Artificial intelligence became the focal point of interest worldwide. The use of AI can be found in almost everywhere, from medical, to business, banking, military and education systems (Dobrescu, 2018). AI is basically machine learning where a computer can learn by its own. This new technology is helping the current technology to correct itself without the need of humans. Not only that, but it also enables the machine to improve and adapt itself to whatever the situation is.

For instance, all smart phones automatically suggest options for users right after typing the first letter in the search bar by an internal system. This system detects the users personality, and based on that, it predicts whatever that person needs (Dobrescu, 2018).

This research paper investigates the use of AI in education or as it is recently referred to as AIEd. AI or AIEd works alongside humans to assist in delivering the information for students. With the help of AI, the teacher will better understand the student's personality and behavior, and customize the best suitable teaching way for that particular student (Stachowicz-stanusc, 2018).

AI involvement in education will assist students towards choosing the right career path from an early stage in their educational life. Some students at find themselves struggling with their choice of a program regretting choosing a specific program and end up leaving the university (Stachowicz-stanusc, 2018).

This issue can be solved if AI is implemented in education from an early stage. By applying AI, the student's behavior and personality and interests can be determined by the system, and consequently will design the correct career path for a better life plan. It will not only monitor the learning side, but will also build up and improve any talent found in that particular student (Luo, 2018).

This research paper investigates the readiness of students to transition to AI systems in education by using Hamdan Bin Mohammed Smart University (HBMSU) as a case. HBMSU is located in Dubai, United Arab Emirates. The university offers a variety of programs from bachelor to master to PhD degrees. HBMSU is the first university of its kind in the region to provide a smart campus. The smart campus acts like the physical campus but can be accessed from the internet. This allows students to study any course that the university offers from anywhere in the world. Students can choose any of the offered programs and fully complete all the requirements for graduating with a degree without physical interface. Instructors also do not have to be available physically in the university to deliver lectures. The instructor can deliver the course materials from anywhere in the world, all in one place where students and instructors interact in virtual classis.

AI can make the university even smarter by monitoring student's behavior and performance from the first day of joining the university which can help in monitoring and improving student's performance. The system can design the suitable courses and activities for each

student based on each student performance and interests. AI can also help instructors in understanding student's styles in class participation and even in assignment submissions. It can prove to the instructor that the person on the other side of the screen is the actual student and not someone else and will prove the authenticity of the submitted work by the student.

Methodology

Artificial intelligence in education have raised a lot of questions and debates especially whether it will completely remove the human factor in education or not. An investigation has been constructed in this research paper to answer the following questions:

- Are the students of HBMSU ready for AI led education?
- What are the students' perceptions about the main components of AI led education?

The paper gathered information about this topic and tested student's willingness to adopt AI led education in Hamdan bin Mohammed Smart University.

Informed by the limitations of previous studies and the nature of this research, this study intends to use a mixed method, a questionnaire and interviews, to collect and analyze data. A mixed method approach is used because of its many benefits such as supporting a better understanding of findings in new areas of investigation.

Data

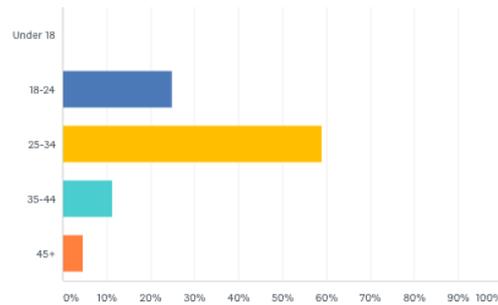
Data was captured through surveys and interview questionnaire targeted towards a sample of 40 students at Hamdan bin Mohammed smart university. The interviewed group was chosen carefully to ensure the viability of data, the chosen sample work at a managerial level and have strong IT background. Two of the interview participants have already graduated from HBMSU with a Master degree and with a fully online program, the third interview participant works as a manager in the First Abu Dhabi Bank in the IT Department.

The survey questions were divided into three main parts, the first part is intended to know the awareness of participants for Artificial Intelligence, the second part is to investigate how Artificial Intelligence is linked to education in their perspective, and the last part asks specific questions about HBMSU and how it could be implemented within the university.

Forty participants, 6 males and 38 females, responded and provided a number of recommendations.

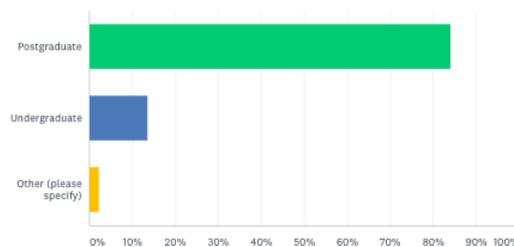
Almost 60% of the participant were between 25 to 34-year-old, and 25% between 18 to 24.

Figure (sample age group)



The majority of the targeted sample were at a postgraduate level in the university by almost 85%, and the remaining 15% were at an undergraduate level (figure 3).

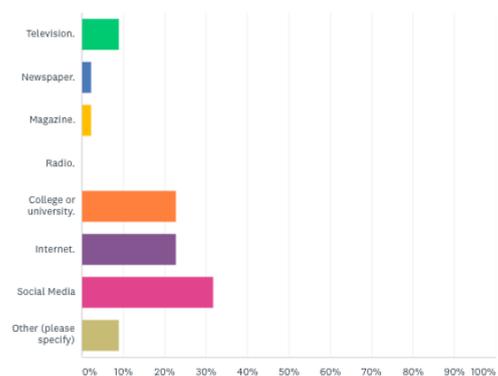
Figure 3 (student level in HBMSU)



Results and Findings

Data shows that social media has a high influence on people in understanding AI, the majority of the tested sample knew about AI through social media, the internet and then through college or a university (figure 4).

Figure 4 (AI awareness)



Almost 60% of the participants agreed that AI is getting more popular nowadays, and will lead us to the future as (figure 5). In addition, 70% indicated that AI will eventually become part of our society in the coming 5 to 10 years (figure 6) & (table 1).

Figure 5 (AI leading the future)

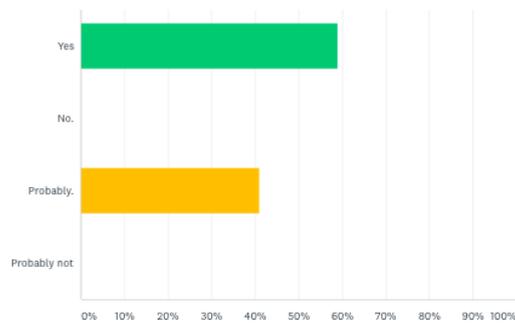


Figure 6 (AI as a part of the society)

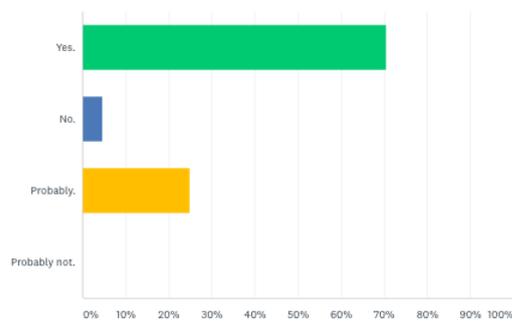


Table 1 (AI implementation period)

ANSWER CHOICES	RESPONSES	
1 to 5 years.	34.09%	15
5 to 10 years.	36.36%	16
10 to 15 years.	18.18%	8
15 to 20 years.	9.09%	4
20+ years.	2.27%	1
TOTAL		44

Almost 70% of the respondents also agreed that AI can be involved in our daily activities as shown in (figure 7). This indicates that it is generally acceptable by people to rely on machines for daily tasks. Furthermore, they do not only think that AI is going to take part in our daily activities, but it will also take over some tasks that are typically done by humans as shown in (figure 8).

Figure 7 (AI in daily activities)

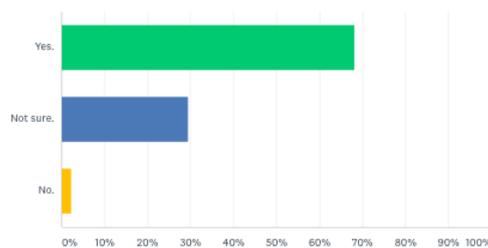
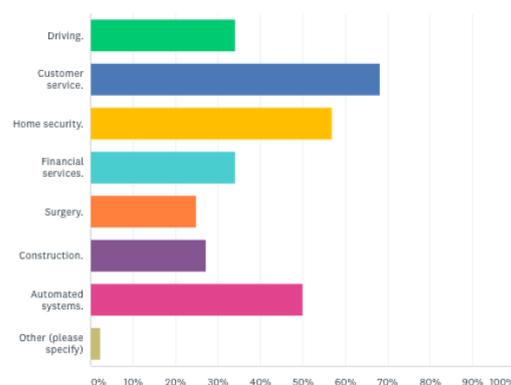
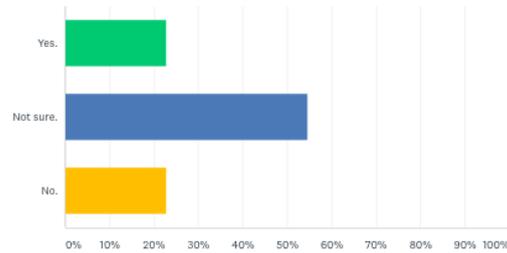


Figure 8 (AI taking over human activities)



The concern of most participants was that they doubted AI to take moral decisions as shown in (figure 9).

Figure 9 (Trusting AI on moral decisions)



The tested sample had a neutral opinion when asked whether AI can provide similar or better customer services than humans (figure 10). Nevertheless, there was a general agreement that AI can improve the current customer services provided by organizations (figure 11).

Figure 10 (AI in customer services)

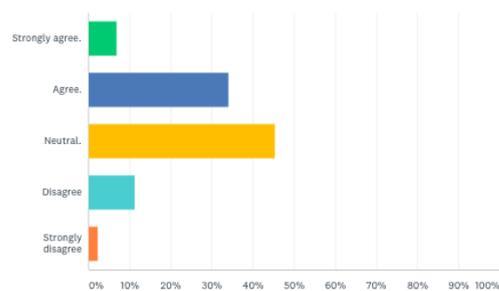
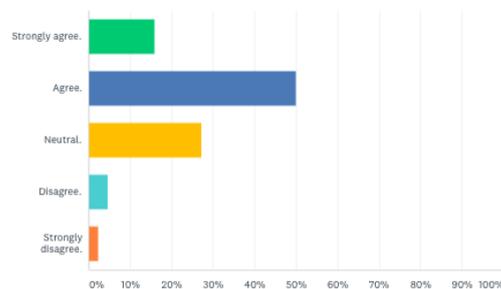


Figure 11 (AI in organizations)



Interestingly enough, the majority of participants think that AI can be implemented in education (figure 12), and (figure 13) shows the areas where AI can help students in HBMSU.

Figure 12 (AI in education)

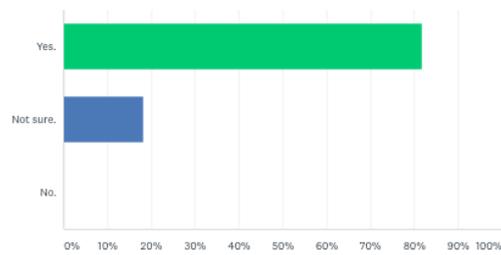
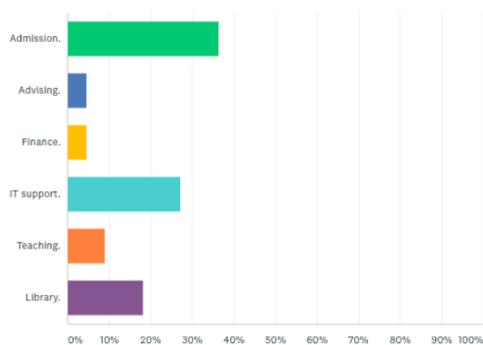


Figure 13 (Areas of HBMSU that AI can be implemented)



Over 70% of the respondents believe that by implementing AI in HBMSU, the service provided will be improved (figure 14). Whereas 42% think that student's performance will be enhanced (figure 15).

Figure 14 (AI impact on HBMSU)

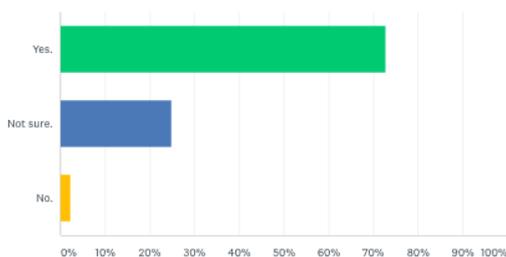
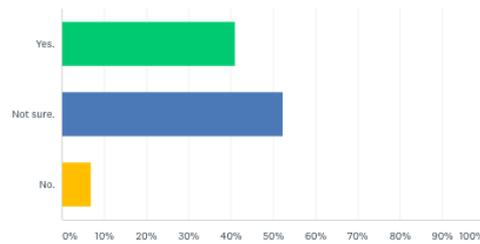
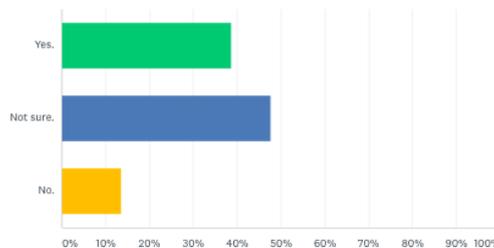


Figure 15 (AI impact on students)



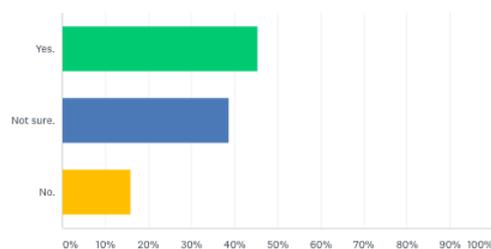
The majority of respondents were not sure or refused that AI can take over human tasks in the university (figure 16).

Figure 16 (AI and human tasks in HBMSU)



Respondents had a general agreement or neutral views that student's performance can be improved when monitored by AI system.

Figure 17 (Students accepting AI)



Furthermore, to this data, the survey asked for recommendations to HBMSU when adopting AI from the tested group. Many respondents thought that it is necessary to start with a trial AI system and study it before fully implementing it. They also recommended to assign IT representatives to monitor the system and provide help if needed to make the transition to AI smoother and easier to manage.

HB, a student with a bachelor degree in information technology and a master degree in innovation and change management at HBMSU and whose working as a project manager in Emirates NBD bank, in the IT project management office, stated that in order to implement AI within HBMSU, the university must update the hardware in order to support AI systems, that's one of the obstacles that the university might face in their journey to implement the new system. Furthermore, HB stated that AI can minimize the risk of student's failure by providing effective predictive modules, and it can add value to HBMSU in online learning by introducing a real time translation for all different kind of languages.

This can open up the scale for the university to reach globally and target all students from the whole world at the comfort of their homes. MN, a team project manager at First Abu Dhabi Bank, stated that the human factor is the most prevailing challenge that AI in education can face. However, by implementing AI within the university, it will automate the education end to end, starting from the registration process and ending up in graduation formalities. This includes the courses setup, customized selection of instructors, examinations and evaluation. It will also increase the level of interaction and understanding among the students and instructors, and it can provide the best method of studying based on the subject and the student's mentality and personality.

Conclusion and Recommendation

Despite the efforts to produce insights, research papers, and investigations about Artificial intelligence in education, it is yet still a new field and a rich one for research. Informed by the limitations of previous studies, this research investigates the readiness of students to transit from the traditional mode of learning to AI supported education.

The results initially indicates that there is a general understanding of the new system and willingness to transit to it, however, a general concern was about whether it can substitute human interactions. Nevertheless, a general agreement was noted about its usefulness in supporting the current education style and its usefulness as a tool in improving almost all of the associated tasks in education, from admission to teaching to graduating requirements. Results indicate that there is a concept among participants that AI can build a better career path for students, by designing the right material based on student's abilities. It is recommended when implementing AI in the university to have a trial period that is led by humans, in order to test and monitor the new system and correct it if necessary.

This paper open doors for further research about the readiness of students, faculty, and management to transit to AI led education and can lead to further investigations about the main constructs that build the success of such transition.

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Sustaining Student Success Through Handy Curriculum In Primary And Middle School

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ABSTRACT

Handy curriculum brings together the learning of core subjects through projects or stories. This paper examines the role of student leaders, in building creativity and innovation in their projects and stories, by connecting it with their core subjects and teaching the same, to their classmates, then learning each subject in isolation through a teacher –led –class.

Grade 5 students used a Project, while the grade 7 students use a story in this action research taken by ASPAM Indian International School, Sharjah. The sample students attending the class are tested through online tools and the grass root survey form.

The results lend way to ASPAM Indian International School, Sharjah to improve the designing of the curriculum for Academic year 2021-22, establish the practice of student–led class from Grade 3 upwards and improve student learning.

INTRODUCTION

The global pandemic has changed the learning platforms for schools. At **ASPAM Indian International School, Sharjah**, students of Primary and Middle school stretched their metacognitive skills to learn the core competency skills, through creative and innovative technologically driven projects that makes learning interesting, effective and meaningful.

With the UAE Vision 2021 “**To provide first rate education system**” and the school motto “**I am me; I am unique**”, the school took adequate measures and implemented the handy curriculum through projects and stories to empower and nurture in students’ courage, confidence, collaboration and leadership skills in addition to their creative, innovative and imaginary skills. ASPAM IIS believes in implementing and establishing a culture of high standards in relation to students’ attitude towards learning and their academic achievement.

ASPAM Indian International School, Sharjah follows Indian curriculum and is a full-fledged (K-12) CBSE school. The year 2020, did bring a change in the learning platform, in all schools that made everyone to bring in innovation and creativity in the teaching and learning process.

Through my observations, it was noted that some students, were active, confident to explore different online tools and interact well in the classroom discussion. With the vision “leaders in their own learning”, the team of teachers and school leaders decided to train and lead few bright students towards student–led discussion and collaborative student team learning, a procedure that was learnt from the professional development sessions conducted on instructional leadership by the Sharjah Private Educational Authority (SPEA) for school leaders.

The leading questions that needed responses were

- ❖ How do we build innovation in the curriculum to make it effective and interesting for students?
- ❖ How do we nurture in bright students' leadership skills to use their talent and skill effectively?
- ❖ Can we make learning effective for learners through an inter-disciplinary link and connect lessons with stories and projects?

Schifter (2013), in his study on game learning in education concurred that the shift from teacher centered to student centered learning, through active learning interaction/experiences /activities/group work /multiple learning styles gives benefit towards student learning 21st century skills.

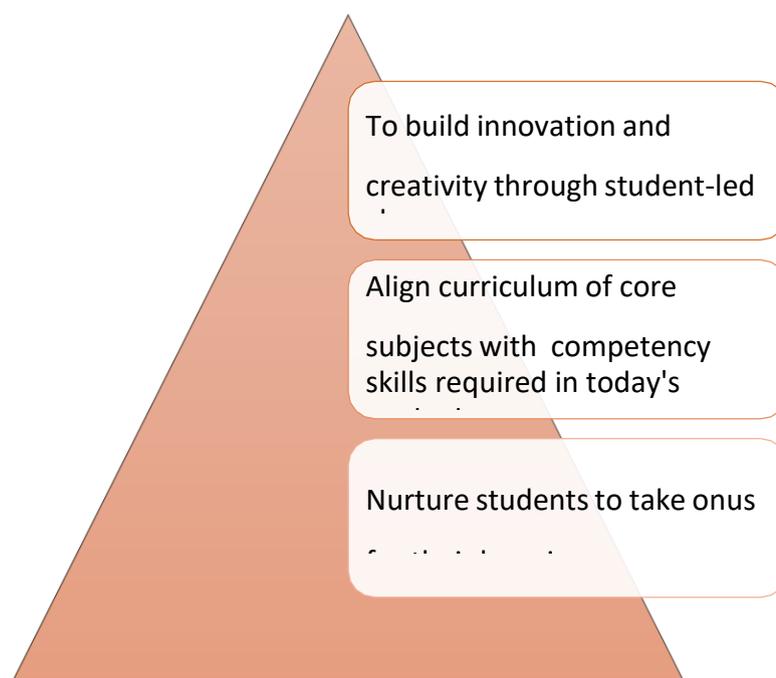
Adding more relevance to this, Kuo, Walker, Schroder & Belland (2014) stated that with full online setting delivery, students are more satisfied with student–content interaction. Understanding the impact that student–led classes can have on the student learning when innovative and creative practices are introduced, a team of teachers and supervisors under the guidance of the school principal, introduced Handy Curriculum, for sustaining students' success in the Primary and Middle School.

The Principal conducted a meeting with the Teachers and Supervisors, to discuss on the procedures that should be used by a group of bright students, selected for the action research. In the Primary section, the team was motivated to use a Project and make inter- disciplinary links with English, Math, Social & Emotional Wellness, while in the Middle School, the team of students selected stories to teach English, Math and Science.

The AFL tools used for assessing the learning were: MS Forms, Quizizlet and Grass root survey form. Students were given adequate time to plan, prepare and make their presentations. Their teachers guided them initially, with the required steps they need to take while teaching their classmates. It was observed that student leaders used their imaginary skills to make teaching effective. Teachers need to be motivated by their leaders to bring in the best techniques to improve student learning.

According to Harris (2002), Ngan (2003), Sharan et al (1999), Zhu (2012), the school environment factors such as leadership support and collegial relationship are important factors that influences teachers' attitude and implementation of educational innovation. With the support from their respective teachers, the team of students were able to lead the class.

PURPOSE OF THE STUDY



THEORETICAL BACKGROUND

Comprehending that an innovative curriculum, student-led classes and teaching through inter-disciplinary approach can improve student performance, the studies considered are connected with innovative curriculum and teaching approaches, student led classes and inter-disciplinary links.

Innovative curriculum and teaching approaches:

Hargreaves (2003) states that school education in a knowledge society develops people's capacity for learning and cope with change promptly and flexibly. He emphasizes that curriculum and teaching should be designed to foster higher order thinking skills such as critical thinking, analytical and problem-solving skills of students.

The recent trends on innovative teaching has been focused on constructivist and socio-constructivist learning theories and student-centered learning (Brandson, 2004). According to Brandson, students should be actively involved in the learning process, participate and collaborate in real learning situations and work on authentic learning tasks.

In similar lines Hicks (2007) opines that students of today's world, would like to move from past passive learning to proactive learning, such as cooperative learning and group testing. Educators need to find a better way of engaging students in the learning process.

According to Redecker (2008), in a knowledge society, several emerging trends entail an alteration in the way young people learn and understand. He opines that it is unrealistic to expect that several generations of students would benefit from the same teaching and learning approach and content. This is further supported by Ferrari, Cachia & Punie (2009), stating that

innovative teaching is necessary for the present and future of education, to help students reach their full potential.

It was concurred by Chen (2009), that teachers' learning competency increases with their willingness to learn about innovative teaching to improve teacher effectiveness. Most important of all for them, is to know, how to get the best out of the learning materials and solving teaching problems through study, self-reflection and research.

The studies quoted, clearly indicates that teachers need to be innovative to bring the desired changes in the curriculum and teaching approaches.

Student-led classes

Cross (1987) has stated that by actively involving students in the learning process, academic performance is enhanced. Students learn more when they are actively involved in learning than when they are passive recipients of instruction.

Almasi and Gambell (1994) concurred that in teacher and student-led discussions, student discourse was significantly more complex than in the teacher-led discussions. According to them, in student-led discussions, they are able to work collaboratively, resolve conflicts through interaction and dialogue.

Almasi et al (2004) states a positive relationship exists, when students spend time with their peers. He also emphasized that students are most likely to be engaged during discussions when they have opportunities to respond to one another's interpretations, challenge the author's style, share opinions about text and question the meaning of the text.

Dennen and Wieland 2007, stated that learners must interact in some particular ways, engaging with each other and course material in deep levels that can lead towards negotiation and internalization of knowledge, rather than just rote memorization of knowledge.

In similar lines, Jones (2012) states that in a student-centered classroom, students need to act proactively in the learning process, communicate, appreciate and learn with their peers to get all the necessary information.

D'Souza and Hallinger (2013) emphasized, that a carefully constructed student-centered classroom can appeal to a wide range of students and increase student engagement between peers as a part of academic community emphasized it. A study conducted by McLaughlin et al (2014) shows that student centered learning promotes knowledge, critical thinking and stimulate discussion.

Inter-disciplinary approach

Tchudi and Mitchell (1999) have opined that teaching students effectively requires coherence across subject areas rather than teaching in isolation. In similar lines, Vacca and Vacca (2005) have opined that the content-area classroom is the perfect place for students to network and build webs of meaning about a topic through a variety of resources.

According to Manning and Bucher (2005), with inter-disciplinary instruction, teachers can become more involved in their learning and teachers can work toward eliminating discipline lines. Students can become independent, confident individuals who learn how to learn and develop lifelong learning skills.

Huang R.H. et.al 2020 has concurred through his research work that most successful home

learning experiences were inter-disciplinary in nature, building children and young people's interest, building autonomy to work out how to plan their own learning.

The studies mentioned above do support, the action research, taken by the Primary classes and the Middle School for sustaining students' interest and success towards the learning of subjects through an inter-disciplinary link, innovative curriculum and having student-led classes.

METHODOLOGY

The school had framed a policy for innovative projects and curriculum in the year 2020, to ensure that teaching and learning becomes effective and interesting for the students during the pandemic.

A team of Math, Science and English teachers, handling the Primary classes and the Middle School were motivated and trained on the innovative handy curriculum and the impact it can have on the student learning. Teachers were instructed to identify bright students, and trained on integrating subject matter of different disciplines, apply ideas, make connections to other concepts, build dialogues to promote collective understanding of topics selected and connect them to the story and project taken up for the study.

HANDY CURRICULUM WITH A PROJECT IN GRADE 5

Three students from Grade 5 were chosen to present an interactive class for 10 students taken for the sample study. After a week of continuous brainstorming, the three student leaders decided to develop a model of a Spaceship. As per their imagination and study, the space ship does not use any fossil fuel, but operates only through magnetic power to create a powerful anti-gravitational force which will propel the ship away from the earth, past the earth's atmosphere and into space.

Once in space, it will use solar panels and solar winds to power itself through and visit distant planets. To ensure that sustainable practices are established at the time of pandemic, they came up with the sustainable idea of using recycled plastic for constructing the spaceship.

The student leaders connected their project with the various concepts that they were learning for the term.

Cross –curricular links: (English, Math and SEL)

1.English

The student-led session took the students through the terminologies used in terms of the construction and the launching of the space –shuttle. Students were given an AFL passage, which they had to comprehend and attempt the questions.

2.Math

The Math concepts were in terms of the speed, weight and diameter of the space bus and the power generated by the solar panels. A question was incorporated in the AFL as well in terms of the calculation of the distance of the celestial bodies in miles and kilometers.

3.SEL

The social and emotional wellness, behind the project, was the self-confidence and faith students need to nurture and be like the space bus, which breaks and overcomes all the challenges on the way to reach the destination.

The project was presented as a student-led lesson, to 10 students of Grade 5. Before presenting the integrated approach in the class, students were given a pre-assessment in form of MCQs to analyze their understanding on the space bus.

A post-assessment was taken after the student-led session to study the impact of peer class on them.

Pre-assessment questions

1. *What is the top speed of the space bus?*

- a. 200,000mph b. 165,000mph c. 150,000mph d. 125,000mph

2. *What is the weight of the space bus?*

- a. 150,000 tons b. 100,000 tons c. 200,000 tons

3. *How much power does the solar panels give to the space bus?* a. 30,000 volts b. 15,000 volts c. 20,000 volts

4. *What cools the engine of the space bus?*

- a. liquid hydrogen b. liquid nitrogen c. water

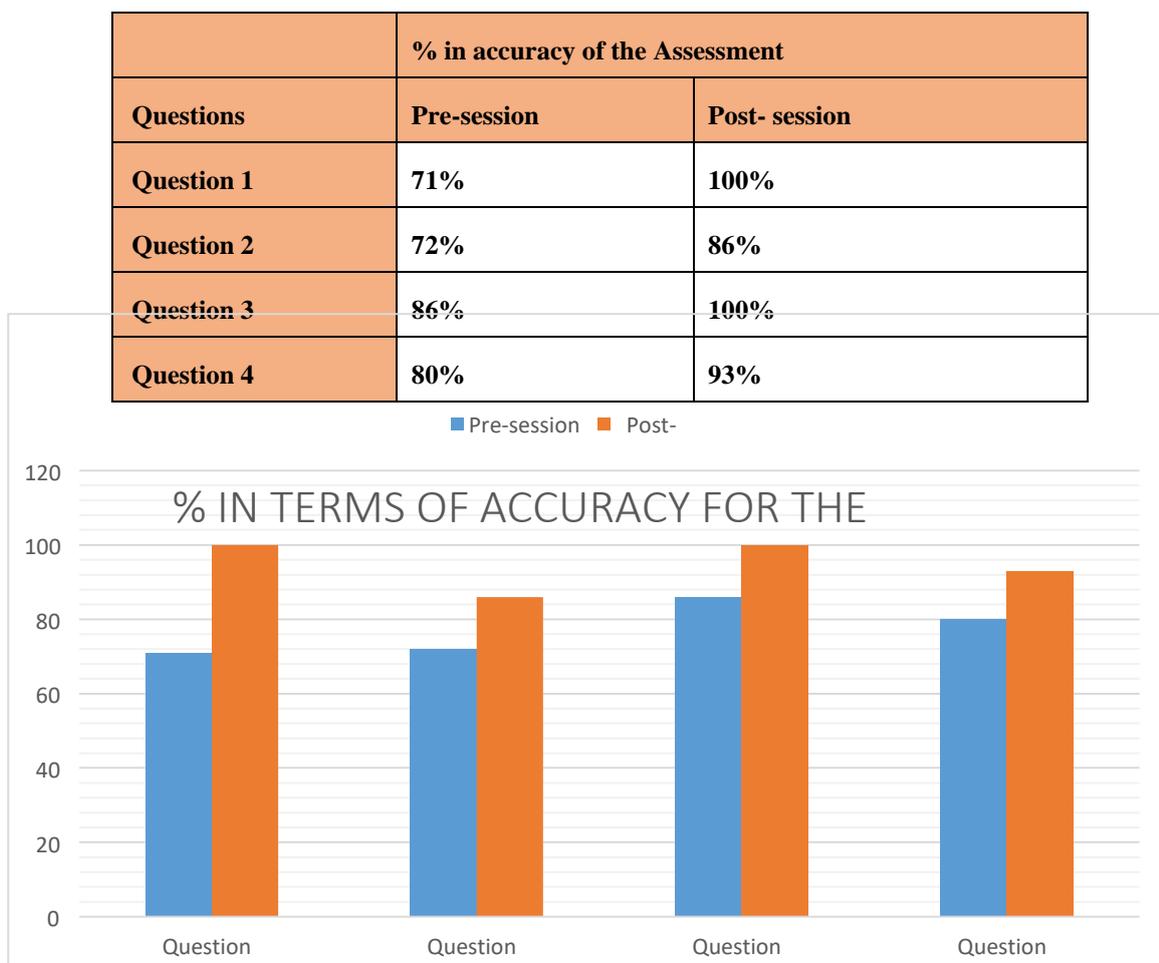
Post -Assessment

Tools used for data analysis: MS FORMS

A questionnaire was given to check the understanding of the English, Math and SEL concepts.

1. Write a brief note on the innovative ideas the students exhibited in the class.
2. If 1 mile = 1.609 kilometer, then how many kilometers would the spaceship need to travel to reach the moon if the distance from the earth to the moon is 238900 miles?
3. Identify the SEL from the passage that the students were focusing on and you would be implementing in your life.

A comparative graph of the pre-assessment and the post-assessment data is as given below:



Findings

The data showed that the student-led sessions have an impact on student learning. The comparative analysis of the graph shows that the percentage of accuracy was low prior to the session and there is a visible progress in the result in terms of understanding of the concepts after the student-led sessions.

Student-led class video recording link:

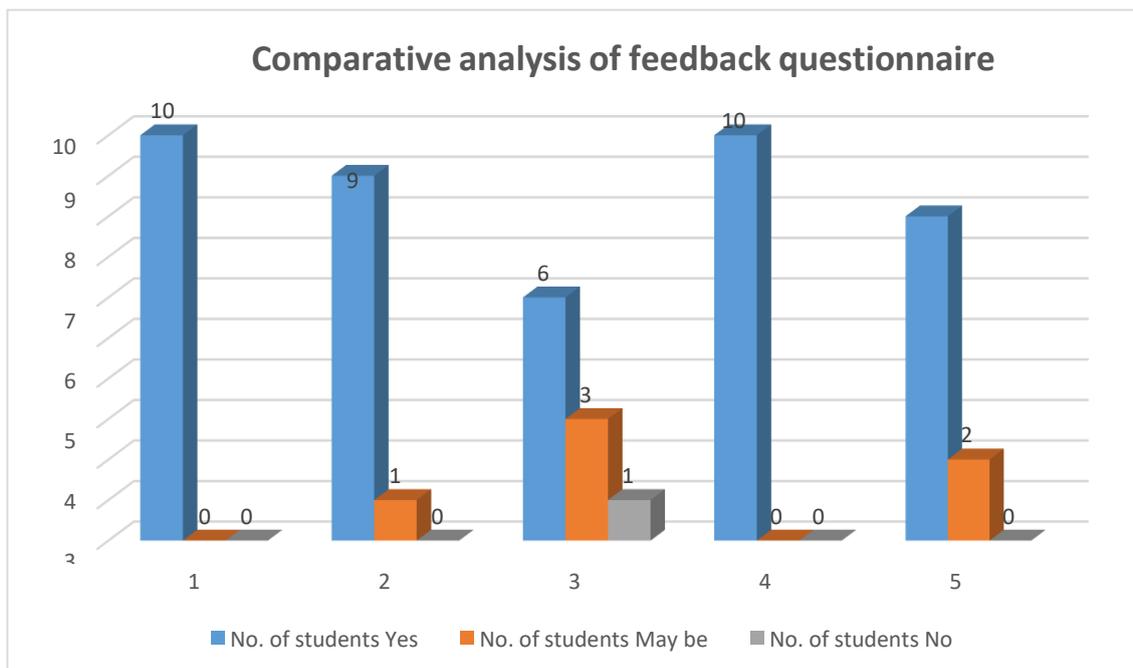
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Feedback Questionnaire for Student-Led Session

Findings with discussion:

The consolidated findings of grade 5 students on the Handy curriculum through a project student-led presentation is as given below. For the purpose of comparison, the scores have been converted into percentage.

S.NO.	QUESTION	YES	MAY BE	NO
1.	Was the student-led session an innovation towards learning?	10	0	0
2.	Did you enjoy the student-led class?	9	1	0
3.	Did you gain a good understanding of the English, Math and SEL concepts integrated with the project?	6	3	1
4.	Do you think the project contributed towards sustainability?	10	0	0
5.	Did the session motivate you to investigate and create your own imaginative project?	8	2	0



Scores acquired by 10 students is shown in percentage:

S.NO.	QUESTION	YES	MAY BE	NO
1.	Was the student-led session an innovation towards learning?	100%	0	0
2.	Did you enjoy the student-led class?	90%	10%	0
3.	Did you gain a good understanding of the English, Math and SEL concepts integrated with the project?	60%	30%	10%
4.	Do you think the project contributed towards sustainability?	100%	0	0
5.	Did the session motivate you to investigate and create your own imaginative project?	80%	20%	0

Data interpretation:

It has been concurred that almost all (100%) of the students considered that the session was an innovative method of learning; they enjoyed and comprehended the session more when compared to the regular teacher-oriented session.

Large majority (60%) of the students, gained an understanding the relation between the topic delivered and the interdisciplinary concepts learnt through the core subjects, English, Math and Social and Emotional Wellness. However, few students (30%) gained the basic comprehension in English but could not focus on the Math integration. Very few students (10%) were unable to comprehend the basic understanding of the Social and Emotional Wellness. All students (100%) appreciated the sustainable factors incorporated in the project, as it was environment friendly and met their needs. Most of the students (80%) were motivated with the discussion and display of the project and were able to use their critical thinking and meta-cognitive skills.

HANDY CURRICULUM THROUGH A STORY BY GRADE 7 STUDENTS:

The story ‘The Last Leaf’ by O. Henry was assigned for a class of 12 students of Grade Two bright students were selected to present a student-led class, by incorporating one concept each from the core subjects - English, Science and Math. Students were expected to explain the concepts by connecting them, with the assigned story. The two students worked collaboratively to discuss the story and its various connections. They made a presentation to explain their perspectives and takeaways.

They represented the highlights of the story using a memory device in the form of a hand, to connect the story with the core subjects and skills – each of the fingers represented details summarizing the story like when, where, how, what was the conflict.

The English integration focused on the use of modal verbs, where students identified and pinpointed the use of modal verbs in the story. For math, they connected the story with symmetry extrapolating from the symmetry seen in leaves and connecting it symmetry lines seen in other natural and man-made objects. Science was integrated through the concept was transportation of materials in plants and animals, relating it to the life cycle of a leaf.

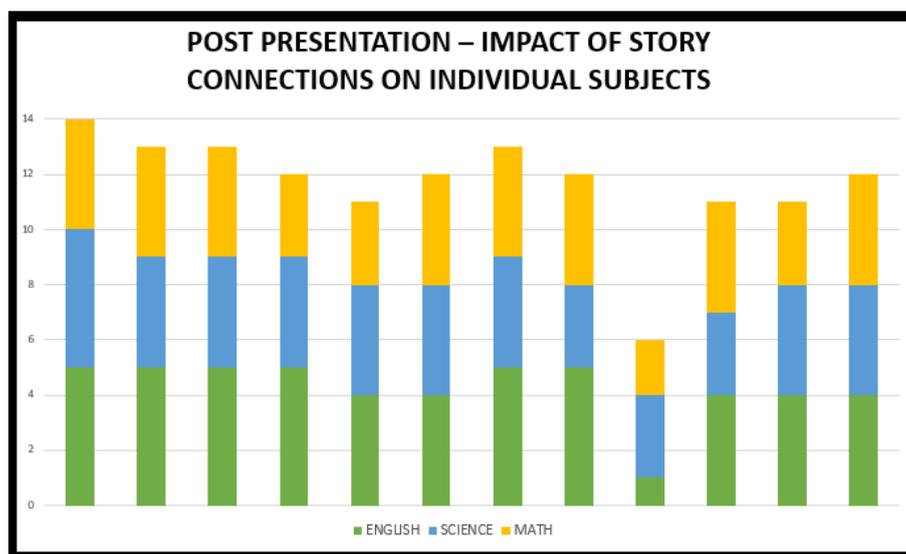
After the student-led class, an assessment was administered, in the form of an MCQ quiz through MS Forms with integrated questions to decipher the objective of the study and gauge the understanding of the students. Further, a grassroots survey tool was used to obtain a feedback on the effectiveness of this method of student-led teaching and learning.

The study was further extended to the internal class assessments by integrating questions related to the concepts explained by the students in the tests.

	c) I want Something in a Cage d) A Tiger in the House
6	The process in which food substances are moved to rest of the plant by 'phloem' is known as a) Transpiration b) translocation c) respiration d) photosynthesis
7	The rate of transpiration slows down when the plant a) flowers b) dies c) wilts e) grows
8	Energy flow begins when producers take inorganic nutrients from the physical environment a) True b) False
9	An ecosystem includes a) Living things b) non-living things c) living things and decomposers d) both living and non-living things
10	There exists a cyclic flow of nutrients between various components of the ecosystem a) True b) False c) it's a linear flow d) not always
11	How many lines of symmetry does this shape have?  a) 1 b) 2 c) 4 d) 6
12	How many lines of symmetry does this shape have?  a) 1 b) 2 c) 3 d) 4
13	Which of the following have a horizontal line of symmetry? a) C b) D c) K d) all of the above
14	How many of these shapes have EXACTLY ONE line of symmetry?  a) 3 b) 9 c) 6 d) 0
15	Which of the following digits have MORE THAN 1 line of symmetry? a) 3 b) 8 c) 6 d) 7

Data analysis and findings with discussion

Bar graph showing subject-wise impact of the handy curriculum



Findings

- It has been observed that in **English**, almost all (91%) of the students have scored 70% or above, whereas the remaining few students (9%) have scored below 50%.
- In **Science**, (75% of students have scored 70% or more, while the performance of the remaining 25% students has been below 50%.
- The data in **Math** shows that 67% of students have scored a minimum of 70% whereas; the remaining 33% students have scored between 50-60%

It has also been observed that the performance of a student who required special support has also scaled up.

On the whole, it was concurred that majority of the students, have effectively grasped the topics through this method of learning

Feedback survey

A Feedback survey was administered to learn on the effectiveness of this method of student-led teaching and learning.

S.No	Questions	Yes	No
1	Is an innovative way of learning		
2	Is interesting and enjoyable		
3	Makes concepts more relatable when linked with a story that you have read		
4	Helps gain a good understanding of the English, Math and science topics integrated with the story		
5	Enables learning to be more effective when through interdisciplinary links made in the lesson		
6	Students would like to have more sessions like these in the future		

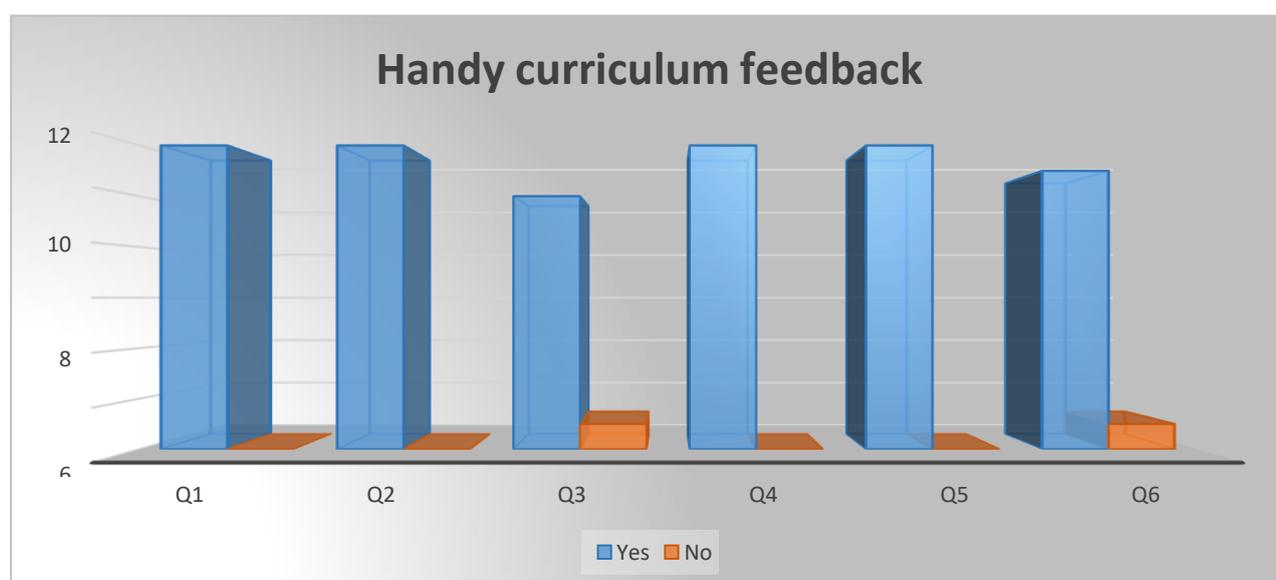
Findings with discussion

The consolidated findings of grade 7 students on the Handy curriculum through a story, student-led presentation is as given below. For the purpose of comparison, the scores have been converted into percentage.

S. No.	Handy Curriculum through a story	Yes	No
1	Is an innovative way of learning	100%	100%
2	Is interesting and enjoyable	100%	100%
3	Makes concepts more relatable when linked with a story that you have read	91.6%	9.4%
4	Helps gain a good understanding of the English, Math and science topics integrated with the story	100%	100%

5	Enables learning to be more effective when through interdisciplinary links made in the lesson	100%	100%
6	Students would like to have more sessions like these in the future	91.6%	9.4%

Bar diagram for the feedback survey of Handy curriculum through a story student-led presentation



Interpretation:

It has been observed that all of the students agreed that Handy curriculum through a story was an innovative method of learning and they enjoyed the student-led presentation. Almost all (91.6%) of the class opined that concepts are more relatable when linked with a story that you have read while 9.4% of the class disagreed with that.

All the students established that the handy curriculum student-led presentation helped them gain a good understanding of the English, Math and science topics integrated with the story and enabled learning to be more effective through interdisciplinary links made in the lesson.

Almost all (91.6%) of the class desired for more of similar sessions to be conducted in the future while 9.4% of the class did not agree with the idea.

Student presentation:

https://aspameducation-my.sharepoint.com/:v:/g/personal/urvashi_khanolkar_aspamiis_com/EamxPu1psgZMnUpsOltTIOOBfUpXTeEiZydL5RnVpyrlaw?e=F6RtYx

Post-presentation feedback from the students:

https://aspameducation-my.sharepoint.com/:v:/g/personal/urvashi_khanolkar_aspamiis_com/EUA1cDzJiN5OgqrcdtaFafYBZBz2UNI0v6U_j72ESOP3wg?e=ZVbUCI

CHALLENGES THAT CAN OCCUR WITH A HANDY CURRICULUM

- ❖ The entire curriculum for the academic year, cannot be exclusively taught through handy curriculum methodology, as it would be time intensive.
- ❖ Students require individual attention, for deep learning of each concept for which a separate session for each core subject is essential, where they can learn concepts and have a clear understanding with the help of a teacher.
- ❖ As only bright students might be selected, to work on the handy curriculum project, it might create a feeling of inferiority among other students, which in turn could affect their well-being.

OPPORTUNITIES

- ❖ The talent and energy of bright students can be channelized effectively through student-led projects like these and it can groom them to become holistic individuals and exceptional future citizens.
- ❖ Creativity and innovation of the students can be enhanced through such opportunities and outlets.
- ❖ Students who have acquired low scores in teacher-led classes, but are visual and creative learners can benefit through this method of learning. They can find a channel for their imagination, which can contribute towards their overall development.
- ❖ This inter-disciplinary method of learning will enable students to develop systems thinking by integrating different segments into one comprehensible body.

CONCLUSION:

The past and current research clearly indicates, that a class characterized by high levels of student-centered discussion, on central concepts and their application to the tasks, promotes coherent shared understanding, share ideas, asking questions and enables collective understanding of themes or topics.

Due to the pandemic that came our way in 2020, educational institutions are changing the pathways to moving forward. Schools are making learning interesting and capturing that can lead and empower students to reflect, think and connect learning with the real-world situations.

Excellence in education happens only when equity is established, in the way classes are led for the students so that everyone irrespective of their potential is able to learn and enrich their skills. Expanding learning provides powerful opportunities for students to have exciting experiences boost a desire for challenge and help the slow learners bounce back from failure.

This can happen only when schools think of making the curriculum innovative, rich with different activities for each lesson and interlinking lessons through project and stories that make it interesting and effective.

Student leadership can be encouraged and valued through providing situations that nurture their teaching leadership skills in a safe and respectful classroom. Opportunities should be provided in schools for training the bright students along with the teachers to enhance their abilities together by building **Collaborative Academic Support Team** that can enable them to plan explicitly together.

Each term, the handy curriculum with the chapters selected from the core subjects should give opportunities to the teachers and students to dig deep in connecting each discipline with the other, thus enabling students focus on system thinking.

The findings enabled us to take the following decisions in the New Academic Session 2021-22:

- ❖ Identify bright students' subject –wise, group them and train them rigorously to take up handy curriculum each term.
- ❖ Provide student support; work with parents and teachers to workout strategies.
- ❖ Understand that there is no limit for our potential to success that is governed by our choices, not the beliefs of others.

NOTE:

The action research was done with the direction given by Ms. Sheela George, Principal of ASPAM Indian International School, Sharjah to her team consisting of Senior Supervisor Ms. Sindhu Karuthedath, Primary Supervisor Ms. Rekha Puthanveetil and teachers: - Ms. Urvashi Khanolkar and Ms. Roopa Sajeev.

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Improvement of personal loans granting methods in banks using machine learning methods and approaches in Palestine

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Abstract

For banking organizations, loan approval and risk assessment which is related is a very complex and significant process which is needs a high effort for relevant employee or manager to take a decision, because of manual or traditional methods that used in banks. The banking industry still needs a more precise method of predictive modeling for several problems. In general, for financial institutions and especially for banks forecasting credit defaulters is a hard challenge. The primary role of the current systems is to accept, or sending loan application to a specific level of approval to be studied and it is very difficult to foresee the probability of the borrower for paying the due dues amount without using methods to predict. Machine learning (ML) techniques and the algorithm that belongs to are a very amazing and promising technique in predicting for a large amount of data. In this work, we will study three machine learning algorithms, Decision Tree (DT), Logistic Regression (LR), and Random Forest (RF), then we will apply them to predict the loan approval of customers and then we will test their output in terms of the predicted accuracy.

Keywords: *Machine learning (ML), Lending, Risk Assessment, Prediction, loans.*

Introduction

loan granting is one of the most important services that the banks provides for his customers, and also it is one of the important resources for bank revenue, dealing with this service without previous study put the bank in a high risk may be leads to enforce the banks of providing the services for others customers, so the banks consume big time and efforts when study loans application and risk assessment that related to this application.

The purpose of this work is to builds a predictive model for the approval of loans. In this work, we are going to take the Quds bank as a case study to build the model mentioned. The main objective in the banking institutions to invest their assets in safe hands where it is, where forecasting credit defaulters is a hard challenge in the banking environment. Loan prediction is very useful for bank workers, where it can provide thebank as well as the borrower with special benefits [1,2]

Loans is considered one of the main services that the banks present to the customers, through this research, we will be able to predict which loan applicants are whether they are safe or not, through machine learning techniques and we will also be able to reduce the risk ratio when choosing a safe borrower. Loan expectation is very useful for all employees of banks and financial institutions, and also useful for loan applicants. in this paper we exploited the machine

learning application and applying it to real world case, the machine learning is a modern technology that created to serve the human to archives their works [3]. And also in this research we want to identify the borrowers if they are defaulting or not, and the process is immediate quick and easy. The prediction process is carried out by studying the previous data records of borrowers from the bank who were granted the loan, and based on the row data of application history the machine can be trained through a machine learning model and techniques that will give the most accurate result. Machine learning processes that we used are divided into four stages (1) Data Collection (2) Data Exploration (3) Training the model (4) testing the model (5) Extract the result.

Review of literature

Machine learning techniques open new domains to the researchers to apply and testing and do extra experiments in many and many field and the banking sectors is one of these and fields.

Authors in [1], Machine learning is very helpful technique that can be applied for a huge amount of data and creating a models that useful in prediction, in this work the three machine learning algorithms, Logistic Regression (LR), Decision Tree (DT) and Random Forest (RF) were applied to predict the loan approval of customers.

Authors in [4] studied the performances of five popular classifiers involved in machine learning used for credit scoring: Naive Bayesian Model, Logistic Regression Analysis, Random Forest, Decision Tree, and K-Nearest Neighbor Classifier. They showed that in terms of accuracy and precision, Random Forest performs better than others.

The experimental results conclude that, relative to Logistic Regression and Random Forest machine learning methods, the accuracy of the Decision Tree machine learning algorithm is higher.

Authors in [5] applied the mathematical and probabilistic concepts that includes logistic regression concept as a machine learning techniques for prediction. By sing logistic regression as an instrument, this paper clearly explains whether or not a loan for an applicant's collection of records will be accepted. The experimental results conclude that of Logistic regression is easy to develop and provide most accurate predictive analysis. Logistic regression can handle non-linear effect and power terms.

Authors in [6], studied Credit scoring methods are checked and information is created to create a suitable model of machine learning for airtime lending using logistic Regression, Decision Trees and Random Forest are evaluated for their ability to classify defaulters Nonlinear classification models offer considerable potential for credit scoring, coping with higher levels of default and therefore allowing for larger volumes of customers using several cross-validation approaches and the latter model performed best. Credit scoring methods are checked and information is created to create a suitable model of machine learning for airtime lending.

Methodology

In this research we used three types of algorithm to predict the loans approval for new application these algorithms implemented using python programming language for machine learning. The new model goes through five stages (data collection, data exploration, model training, testing model, and extracting results). Figure-6 illustrates the machine learning processes.

Figure -6: Machine learning methods



Logistic Regression

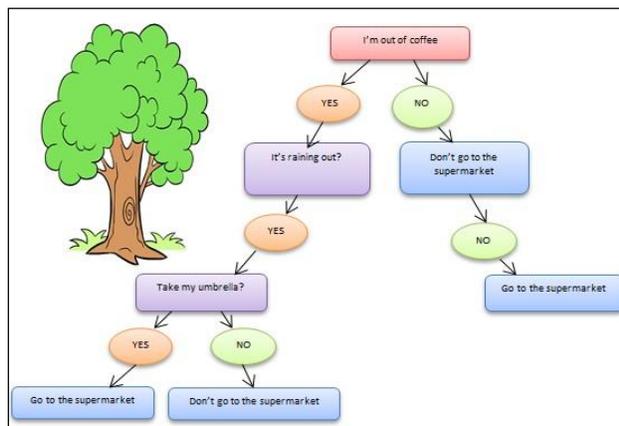
Logistic regression is one of the most popular algorithms that researchers and statisticians use in both of data mining and machine learning. Logistic regression can deal with multi-class classification problem and also it can be the extension of linear regression algorithm which is mean many of the methods that user in logistic regression can follow the same principle in linear regression [7] and also it used to prediction of continues variables.

Other property of logistic regression that logistic regression is followed Bernoulli distribution and Maximum likelihood is used for estimation [8].

Decision Tree

In the natural a tree is consisting of three parts root, branches, and leaves, the structure of the decision tree is the same of natural tree each part has a specific functionality and each part complement each other, root from its' name will be in the top node in the tree, then the branches and then the leaves. Also it used for both of classification and regression task. Each node represents a feature (attribute), each link (branch) represents a decision (rule) and each leaf represents an outcome (categorical or continues value) [9]. A Decision tree works under sequential and structure process includes three steps. "Step (1): attribute chosen in the root, Step(2): Training set is divided into subsets, such that, each subset comprises similar value for an attribute, Step (3): Step (1) and Step (2) are repeated for all subsets until all the leaf nodes are traversed in a tree" [8]. Figure -7 illustrate decision tree structure.

Figure -7: Decision tree structure

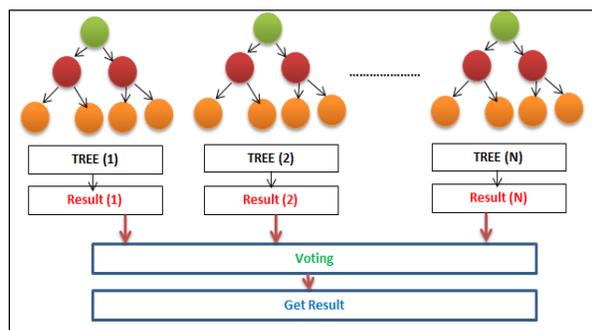


Random Forest

Random forests consist sets of tree predictors each tree depend on the value that taken from the other and it can be called organized group learning system.

The random forest classifier consists of a combination of tree classifiers in which each classifier is generated using a random vector independently sampled from the input vector and each tree casts a unit vote to classify an input vector for the most common class [10]. Figure -8 illustrates random forest structure.

Figure -8: Random forest structure.



The variable that used for training each model is special for loan granting policy which is applied on Palestine state, a dataset for loan application information has been used as training and testing data set, the result of implementation phase done, we get the accuracy for each machine learning algorithm which is represented the table below table-2.

Table -2 – ML accuracy

Algorithm	Accuracy
Logistic Regression	0.925
Random forest	0.9125
Decision tree	0.9375

The decision tree can be used it get both of high accuracy both of logistic regression and random forest algorithm. The accuracy is one of the most important things that is the banks and financial institution needs, from the technical side the performance is important too, regarding to the result of testing performance by plotting (ROC) - Receiver operating characteristic curve with AUC (Area under consideration)

	Positive	Negative
True	TP	TN
False	FP	FN

Where

$$\text{Precision} = \frac{TP}{TP+FP} \dots\dots\dots \text{equ (1)}$$

$$\text{Recall} = \frac{TP}{TP+FN} \dots\dots\dots \text{equ (2)}$$

$$\text{Accuracy} = \frac{TP+TN}{TP+TN+FP+FN} \dots\dots \text{equ (3)}$$

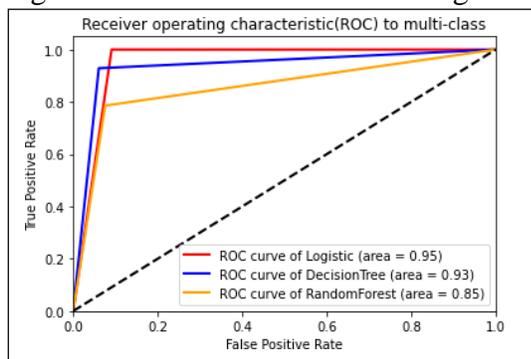
For all the models used, we observed that Decision Tree is the highest performance model table – 3 for both of training and testing dataset.

Table - 3 – ML accuracy

	precision training / Testing	recall	f1-score
Random forest	0.85 / 0.69	0.84 / 0.79	0.85 / 0.73
Decision Tree	0.93 / 0.76	0.93 / 0.93	0.93 / 0.84
Logistic Regression	1.00 / 0.70	0.91 / 1.00	0.95 / 0.82

Figure -9 illustrate graphically the performance result for 3 machine learning algorithm by using ROC (Recover Operating Characteristic).

Figure -9: ROC chart for the ML algorithm performance



CONCLUSION

Through a proper analysis of the positive points and limitations imposed on the borrower, it is possible to conclude that the loan approval can be predicted very efficiently.

This application works properly and meets all requirements of the bank, we suggested in this paper: a real-time classification technique for a loan approval real-life data collection, using supervised machine learning. Through proper analysis of the positive points and limitations imposed on the borrower, it is possible to conclude that the loan approval can be predicted very efficiently. This application works properly and meets all requirements of the bank.

In recent years, machine learning algorithms have gained a great deal of popularity due to their success in various fields. While we used a fundamental method of machine learning algorithms in our benchmark, we achieved a very good result. Our future studies will therefore concentrate primarily on state-of-the-art paradigms for machine learning algorithms for this form of problem of real-time data classification.

Acknowledgment

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The University Freshmen Year: Successful Transition and Orientation

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Research Proposal Abstract

This research proposal addresses the importance of the first-year university experience for freshmen students taking into consideration key success factors starting with a successful transition from high school and administering a successful orientation plan and program. The first year is challenging for freshmen students trying to adjust to new academic routines, new environment, being independent, making new friends and keeping up with the with increasing academic standards and requirements.

The first-year experience of students shapes their path and journey throughout the university years. The proposal investigates different areas impacting new students and success factors of planning and organizing an effective and comprehensive new student's orientation program making it a successful kick off. The paper also emphasizes on using technology and advanced applications in improving the experience for students and making it more effective and efficient.

The data collection method will combine both qualitative and quantitative data. The survey conducted will study and evaluate the experience of Zayed University, Dubai Campus female freshmen students 2019-2020.

The proposed research will also investigate involving different stakeholders in the process. In addition, using advanced technology methods and orientation program enhancements that can be proposed.

Further analysis of the data will allow us to evaluate how effective is preparing freshmen for university and to evaluate the success factors of a proper orientation program. Major findings of the research proofed that transitional problems do exit from high school to university and freshmen students need to be prepared starting with readiness programs in schools followed up by an effective orientation program. Moreover, all stakeholders such as Student Affairs staff, academics and parents should play a vital role.

The findings also emphasized on the importance of using advanced technology and programs to administer an effective orientation program using effective tools such as peer leaders and virtual orientation programs. Finally, setting objectives, measurable learning outcomes and finally obtaining feedback is very essential in improving the experience.

Introduction

For a student, the transition from high school to university is considered a major transition where students need to adjust to new routines, challenges, and a less structured atmosphere. They need to be independent and face new academic demands and systems to integrate in campus and university life.

A student has been in a school for 12 years in average. In most cases, schools are comfort zones for students considering being in a safe environment, they are looked after and are familiar with their teachers and peers. The transition to university is considering a huge move for the student and family as well. Therefore, preparing them for this experience starting from applying, fulfilling admission requirements, being accepted, going through orientation then first day of university life is necessary. Since the New Student's Orientation (NSO) program is consider the first interaction with university life, it is particularly important to ensure a comprehensive program and a positive experience that will affect their learning journey and will ease the tension and frustration of the students and the family. Going through a pleasant experience during the new student's orientation program is likely to report positive academic results leading to academic success, confidence in adapting to university life and student's retention.

The purpose of this research is to look into the importance of the first-year experience in a student's learning journey in a university starting with looking into pre-orientation programs, administration of a comprehensive orientation program and involving parents as important stakeholders in the process. In addition, looking into best practices of leading universities in programs supporting orientation, using advanced technology programs and methods. Finally, evaluating the outcomes and the impact on students. In addition, as an Advisor for Student Affairs the research proposal will evaluate the experience of Zayed University and how to improve it.

Literature Review

This literature review explores the significance and impact of preparing students during their transition period from high school to university life and what factors effect it. In addition to pre-orientation programs for students and their parents/guardians. This will be followed up by looking into the first-year experience starting with the administration of a comprehensive, effective, and informative new student's orientation program involving parents/guardians. Researching best practices in blended programs and how to use technology to improve the orientation experience making it a virtual orientation that will complement the physical orientation program.

A lot of universities have implemented advanced programs using peer leaders in addition to staff and faculty to complement the experience for new students and extending it to the first semester or the first year. Finally, the literature will look into evaluating the experience and assessing the outcomes and the effect of a proper orientation in the transition process and retention of students especially in the first year. In this research, the literature review is mainly based on journals, specialized organizations in higher education administration in addition to websites from different universities to explore best practices. Findings will be recommended to Zayed University to enhance their new student's orientation experience.

Transition from high school & pre-orientation programs

Analysis of the data showed that transitional problems from high school to university does exist in different cultures. Referring to the outcomes from quantitative data in the article, “freshmen see the initial semester as a period of transition in which they adjust to new routines, to independence, and to increased academic demands” (Chase,1968). Preparing students for the transition starting from high school and then university is very essential to ensure a smooth experience. Views that emerged from the literature regarding some of the main issues is that “students are poorly prepared academically, or they lack critical thinking or independence in addition to inadequate teaching methods and materials and lack of communication on different settings to which students need to adapt when they move from schools to universities”. (Cherif, A., & Wideen,M 1992.)

Another major issue which the literature investigates is adjusting to the new environment in a university and the difference in culture. In the UAE, students either go to public or private schools. The culture is different in each school setting so is the methods of teaching and exposure to advanced learning methods. However, in the university students from different schools are involved together which may cause stress on some students comparing abilities and knowledge. For example, private schools concatenate more on English, research and project-based assignments but are weak in Arabic. The literature also taps on the issue of the methods of teaching and requirements which differs and the level of independence required in a university. For example, in a university students are in charge of managing their credit hours and college requirements for graduating and do their own schedules ensuring being enrolled in the proper courses with the help of advisors which is different in schools.

Following up, some articles discuss the role of different functions in a university to ease the transition. The role of Counselors and Career Counselor professionals in schools in bridging the gaps, explaining expectations, advising students on admission requirements, different majors and the job market requirements will help freshmen in building their expectations.

Furthermore, to enhance undergraduates/parents experience I investigated some university’s experiences in implementing the pre-orientation programs once a student’s admission to a university is accepted, they receive an invitation to complete an online orientation course. Some of these programs are a requirement of admission. Some videos are mandatory to watch, students cannot skip and, in various cases, students take a quiz to test their knowledge of the materials and should complete the online sessions before being allowed to attend the in-person orientation (Bloomington et al., 2020). “Orientation Online therefore serves as a mechanism to assist students who require information before Orientation Week, those who are unable to attend Orientation Week and those who are overloaded with information. Students are directed to and encouraged to complete Orientation Online in their offer letter, enabling early student engagement” (Smyth, E., & Lodge, J. (2012).

Some university's offer different sorts of pre-orientation programs such as outdoor pre-orientation experiences which involves different engagement actives.

The first-year experience: Administration of a comprehensive new student's orientation program:

Most literature has a common outcome which is addressing the importance of new student's orientation programs. Programs should be comprehensive, have clear goals and should take into consideration the audience attending whether freshman students, parents/guardians. Also, focus on administering a thorough program and "ensure addressing all expectations, answering all questions and minimizing anxiety, in addition to stimulating and excitement for learning." (Mullendore, R. H., & Abraham, J.,1993).

According to The Council for the Advancement of Standards in Higher Education (CAS) establishing standards for Orientation programming is one of the important areas. The CAS mission statement mentioned that new students' orientation should help new students integrate into the academic and social culture of the institution, inform students of the institution's educational offerings, and make students aware of the institution's expectations for success. Parents, guardians, and families must be included in the NSO process to support students' transition to university. (New Student Orientation in Community College, 2020)

"While offering a formal introduction to the institution, the primary objective of an orientation program is to familiarize students to academic and behavioral expectations, education programs, and the student life of the institution." (Jeanine A. Ward-Roof, 2010)

Peer educators have a critical role to play in the success of the new students orientation program and universities should focus on such programs training and educating student leaders. "The use of peers in new student programs has the potential of enhancing student success by providing role modeling and mentoring" (V.,2015). One of the journals examined the effect of participation of first-year university students in a full-year peer mentoring program (Rodger, S., & Tremblay, P. F.,2003).

Comparing literature, one of the journals presented and categorized the primary components on new student's orientation using the Maslow's Hierarchy of needs which was interesting (Ward-Roof, J. A., 2010). Also, explored details of planning a new student's orientation in terms of the best timings, locations, duration and student's demographics. The article also explains in details strategies for building effective partnerships with parents. In addition to that, the role of using advanced technology and applications in administering a successful program.

Using technology & specialized NSO programs

It is particularly important to emphasize on the role of using advanced technology in administering and delivering new students' orientation (NSO) programs. In addition, sources examined different ways of implementing a virtual new students orientation experience that either compliments the physical experience or is a pre-enrollment requirement for students to go through before being enrolled to a university.

Some articles introduced the Hybrid orientation concept which are blended courses combining both technology and face to face programs. (www4.uwm.edu, 2020).

With the increase use of online applications, when researching the literature, it emphasized on the importance of moving from a traditional NSO to either a virtual one or a hybrid program.

The literature also explored different programs and terms such as (gamification). "Gamification is a new trend where game elements are used in unlikely contexts, such as education" (Turan, Avinc, Kara and Goktas, 2016)

The literature explored integrating game elements in education and during orientation to familiarize students with the university and services. When exploring extended orientation programs during the first year, these programs can be based on the (gamification concept). Based on the literature, gamification stimulates different habits such as feeling challenged, cognitive and social benefits. In addition to problem solving and critical thinking skills (Turan, Avinc, Kara and Goktas, 2016) which are very important skills for first years students to gain.

When searching about different methods of using technology, a research study "examined the usefulness of 3D multi-user virtual environments (MUVES) for freshmen orientation purposes" (Tüzün, H., & Özdiñç, F.,2016). A virtual orientation environment was examined on some freshmen students. "significant differences were observed in the effect on general learning and simplicity in favor of the virtual orientation" (Tüzün, H., & Özdiñç, F.,2016).

Different advanced technology solutions, programs and virtual tools should be researched, used and applied by orientation administrators to ensure a comprehensive learning experience.

Extended orientation programs:

"Many orientation programs have expanded their offerings or aligned themselves with other offices and departments on campus that are promoting initiatives designed to help students address these learning and developmental goals". (Ward-Roof, J. A., 2010). The article summarizes the experience of different universities which is useful. In addition, as part of the references regarding this subject I have referred to programs from different universities offering useful tools for new students such as mentorship programs and introductory programs which are part of the curriculum.

Some of the literature looked into options of extending the new student's orientation to an orientation week or even extending it to the first year using advanced application and discussed the benefits and the challenges of extending the orientation for the first year which is worth looking into as part of the research. For example, budget constraints, students losing commitment and lack of staff resources.

Evaluation and assessments. Effect of a proper orientation and preparation program on students:

“As higher education institutions place a greater emphasis on measuring effectiveness, orientation programs have a responsibility to do the same. That often involves developing a set of program goals and identifying the measurable learning outcomes” (Ward-Roof, J. A., 2010). Gathering feedback from departments and personnel in charge of the orientation program, students involved in addition to parents is particularly important to assess and evaluate the experience and work on improvements. Obtaining feedback from freshmen students after the first semester and then after the first year is also important to ensure positive critiques and feedback to improve and provide the best possible experience for all stakeholders. Different articles compare different measures of evaluating a successful orientation program. “Obtaining evaluative feedback from students served in orientation programs is essential in order to refine and improve services” (V. (2015)

In relation to the research objectives after reviewing the literature all relevant journals agree that there is an issue in the transition of freshman from school to university life. This should be conquered with planning and organizing a comprehensive orientation program that can consist of pre-orientation programs in addition to a well-structured orientation program that should include different stakeholders. The literature also stresses the importance of involving parents/guardians at this stage to help bridging the gap and easing tension and frustration.

Moreover, articles also highlighted the importance of using technology in different methods and I also explored experiences of different universities in applying a specialized orientation program to better enhance the experience of undergraduate students. In terms of extending the orientation program to the first year referring to the literature, not all articles agree on that since this will consume funds, staff and in some cases, it would be difficult to track the new students performances. However, due to the lack of articles on this topic related to UAE educational institutes, the data collection method will support in gathering required data.

Research Methodology

When reviewing the literature, almost all sources used both quantitative and qualitative data in addition to available institutional data. To address the lack of research on orientation efforts, NODA - The Association for Orientation, Transition, and Retention in Higher Education chartered the *Databank* in 1979 to help professionals compare their institutions' programs with those at other institutions (Mullendore, R. H., & Abraham, J.,1993).

In addition, available information covers different categories related to different aspects of orientation. NODA usually gathers data through mailing questioners and online surveys for member institutions. Since data involved experiences of different universities, this is a great and relevant way to compare experiences and capture best practices that universities can use and modify depending on their requirements and strategies.

Other sources used feedback tools integrated into the online orientation links. The responses to the feedback survey was monitored through linking the responses to the university registration system. In some cases, the feedback is optional. In my opinion, this is a great tool however making it mandatory will give better feedback resulting in improving the experience.

Another literature source employed both survey and institutional data to answer the research questions related to different aspects of orientation such as sense of belonging, academic achievement, and retention, campus climate and demographic information not available in institutional records. The demographic variables used in the analysis, gender, race, and international status were gathered from institutional data (K., Lingren Clark, B., & Coffin Koch, L. 2013).

One of the literature sources used questioners and interviews with students, teachers and professors, high school students and teachers as a data collection method which in my point of view is very useful since it includes feedback from all related stakeholders. Moreover, since parents/guardians are important stakeholders in this process, reaching out to them and getting feedback is important. However, this may be difficult since they may or may not respond. Therefore, gathering qualitative data seeking feedback through interviews during the parent's orientation or during their participation in campus activities is important.

In this research proposal, using data from institutions in addition to specialized organizations such as NODA are relevant and accurate data that will enrich the proposal. I would emphasize on looking at different aspects of orientation and getting specific feedback from stakeholders in each area through different methods of survey and interviews to ensure accurate information. In addition, integrated data gathering from both sources is an effective way to ensure balanced data with no limitations and will give a broader view in specific when asking stakeholders on feedback or opinions.

Since the main purpose of this research is to explore and evaluate the first-year university experience for freshmen. As per the research objectives, the proposed data collection method is both quantitative and qualitative. Since parents will be present during the day and it may be difficult to get hold of them or encourage them to answer surveys after the new student's orientation day. Interviews can be administered for a sample of parents attending the new student's orientation day to ask for their feedback. However, the main data collection method that the research will depend on is a survey targeting freshmen students. Administering a survey with questions related to different objectives of the research would be ideal.

As part of the course requirements, the survey was administered to 15 participants, female students from Zayed University-Dubai Campus, enrolled during the academic year 2019/2020. Reviewing the results, the survey was a comprehensive data collection instrument to gather required data.

The survey started with demographic questions followed up by questions to evaluate the participants experience in transition from high school to university and pre-orientation programs. Part of the questions in the survey aimed to assess the success of the new student's orientation program at Zayed University, measuring effects of a comprehensive program and finally seeking recommendations to improve their experience (Appendix 1).

However, for the research proposal I would recommend administering this survey to all freshmen students enrolled in one semester. To avoid any limitations in the data collection, the survey could be a compulsory survey and answering all the questions are required. Students can be given time in their first advising class to fill up the survey and ask any questions.

The survey results can be analyzed through SPSS. Different statistical tests can be conducted such as a Correlational test. This will help investigate how different variables are associated together. For example, the effect of a successful orientation program on the success of the first-year experience of students in the university. Moreover, further tests can be conducted for example, if the university decided to extend the orientation program for a longer duration, as a pilot test an Independent T-test can be conducted to compare the progress of both groups.

Conclusion & Expected Findings

In conclusion, the expected findings of the research proposal are significant to universities since the wellbeing of students is always a priority. In addition, the outcomes and recommendations will benefit freshmen students ensuring a positive experience.

This research proposal will help Student Affairs personal in Zayed University who oversee the new student's orientation program to evaluate the transition experience for freshmen students from high school to university and identify areas that students need support in. Possibly, the university can

recommend a university readiness program that should help new students adopt better to university life in partnership with schools.

Analysis of the literature proofed that transitional problems from high school to university does exist. It is expected that the research will result in supporting this fact, identifying the impact and what can be done to overcome it and ensure student retention.

In addition, one of the expected findings of this research is emphasizing on the importance and impact of the orientation program for new students and identifying the key success factors of a successful program such as establishing clear objectives and learning outcomes. Moreover, some articles discussed the role of different departments in a university to ease the transition such as Counselors for example. The outcomes of the research will help departments in charge to collaborate addressing the needs of students and ways to ease the tension such as offering mindfulness and stress relief sessions.

Some areas of the research emphasis on the importance of using advanced technology and different tools in administering and delivering and effective new students' orientation program to enrich the students experience and better introduce students to the university and campus life. Also, using advanced technology methods such as "gamification". Moreover, it is expected that the research will allow us to evaluate the effectiveness of pre-orientation programs and if the university should amend its admission requirements including a virtual orientation as a requirement for enrollment. It is also expected that this research will identify why some new students did not attend the new student's orientation program. Expected finding of this research is identifying the reason, the best date, time, and duration to conduct the program. In addition, finding out the best means of communications with new students and parents.

In addition, the literature review emphasized on the role of parents as important stakeholders in the process to support students and help ease tension and frustration. Possibly, one of the expected outcomes will be working on plans to effectively engage parents/guardians to the success of the program and supporting students' transition to university. In addition, recommendations maybe urging the university to organize a parent's orientation program.

Moreover, analyzing the importance of different components in the process such as pear leaders, clear and brief information of different services and departments and campus tour. The research expects to help find gaps and enhance the experience.

Peer leaders play a particularly important role in supporting new students. Through administering the data collection method to evaluate how effective peer leaders have been in the university, it is expected to find that they did not have much role in the new student's orientation program. The research outcomes will help the university in realizing the importance of working on a peer leader program and developing a peer leader mentorship program for orientation to support freshmen students and probably extend their role beyond the orientation day.

It is also obvious that building bridges between academia and Student Affairs is vital to improve the experience of freshmen as they are both important partners in the journey of a students. Finding ways to partner is particularly important.

Finally, obtaining feedback from freshmen students after the orientation program and probably after the first semester is very important. Analyzing and documenting the impact of orientation programs is essential. Gathering feedback from departments and personnel in charge of the orientation program, students involved in addition to parents is particularly important to assess and evaluate the experience and work on improvements. Furthermore, the administration should work on a proper data collection mechanism to gather feedback and probably do a pilot study with the new proposed program.

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Appendix:

Appendix 1: Survey Questions

New Students Orientation Survey

Thank you for participating in this survey. Your feedback is very important and will help us explore and evaluate the first-year university experience for freshmen starting with transition and administering a comprehensive orientation program.

This survey is targeting female students from Zayed University-Dubai Campus, enrolled during the academic year 2019/2020.

This survey is not official, it is for the purpose of a Master's Degree research paper. It should take approximately 15 minutes to complete.

Thank you.

1) Which Emirate do you live in:

- Dubai
- Sharjah
- Ajman
- UAQ
- RAK
- Al Ain
- Others

2) I finished high school from a:

- Public School
- Private School

3) Did you attend the new student's orientation day program when you joined Zayed University?

- Yes
- No (Please answer Q4): _____

- 4) Please specify the reason for not attending the new student's orientation program:
- I was not aware of it
 - The scheduled day/time conflicted with other commitments
 - I am already familiar with the university
 - I did not feel I would benefit from it
 - Others, please specify: _____
- 5) How do you rate your overall transition experience from high school to university?
- Very good
 - Good
 - Fair
 - Poor
 - Very poor
- 6) Did your school organize any programs to prepare you for university [life](#)?
- Yes
 - No
 - Not sure
- 7) The admission information packet I received from Zayed University before enrolling to the university was:
- Extremely helpful
 - Very helpful
 - Somewhat helpful
 - Not so helpful
 - Not at all helpful
 - I did not receive it
- 8) In your opinion what is the best method to communicate important information to new students:
- Registered email address
 - Text messages
 - Phone calls
 - Social Media
 - By Mail
 - Others, please specify

9) Do you think an introductory online orientation program prior to the actual on campus orientation would be:

- Extremely helpful
- Very helpful
- Somewhat helpful
- Not so helpful
- Not at all helpful
- Not sure

10) Did your parent/guardian attend the new student orientation program:

- Yes
- No

11) In general, did the new student orientation day help you feel more comfortable adopting to Zayed University:

- Yes
- No
- Not sure

12) Were you in touch with the orientation student helper after the new student orientation day:

- Almost Always
- Very frequently
- Sometimes
- Rarely
- Never



13) Please rate the following components of the new student's orientation program:

	Dissatisfied (1)	Neutral (2)	Satisfied (3)
The role of student helper's in assisting new students			
Information given about important campus services			
I learnt about the colleges in Zayed University			
The staff in-charge of the program were supportive			
The campus tour was useful			
I got answers to all my questions			

14) In your opinion do you think extending the new student orientation program days would be useful:

- Yes
- No
- Not Sure

15) Would you be interested in participating in different orientation get-together activities such as pre-orientation trips and gatherings:

- Yes
- No
- Not sure
-

16) Please rate your overall satisfaction with the new student orientation program:

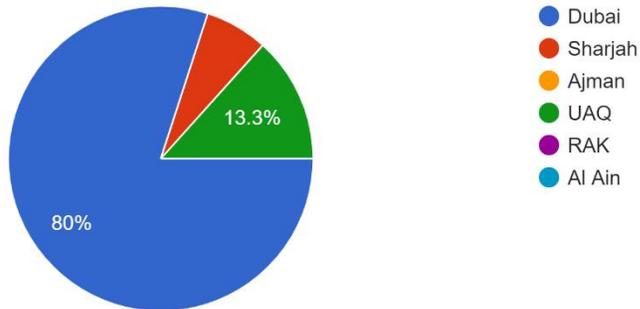
- Very satisfied
- Satisfied
- Neutral
- Dissatisfied
- Very dissatisfied

17) What would you recommend to improve the new student's orientation program in the future?

Appendix 2: Data Analysis

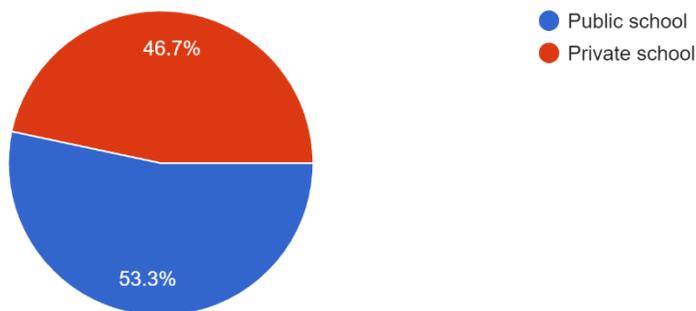
1) Which Emirate do you live in:

15 responses



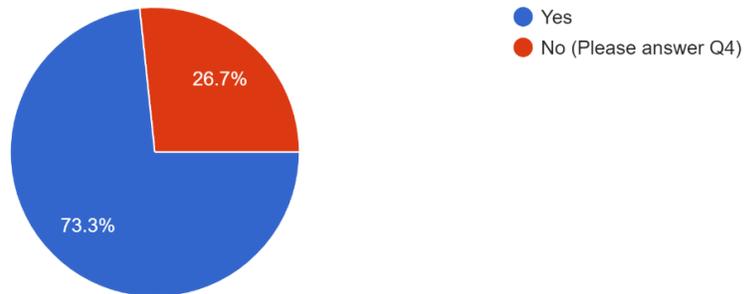
2) I finished high school graduating from a:

15 responses



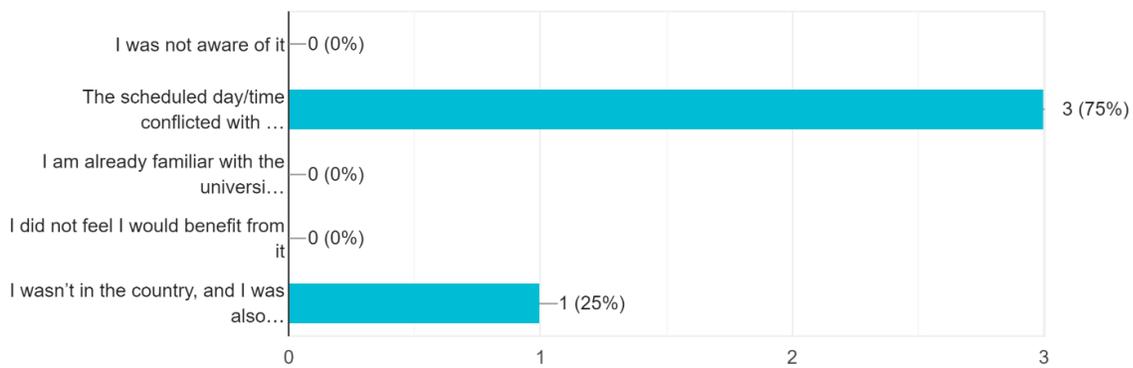
3) Did you attend the new student orientation day program when you joint Zayed University?

15 responses



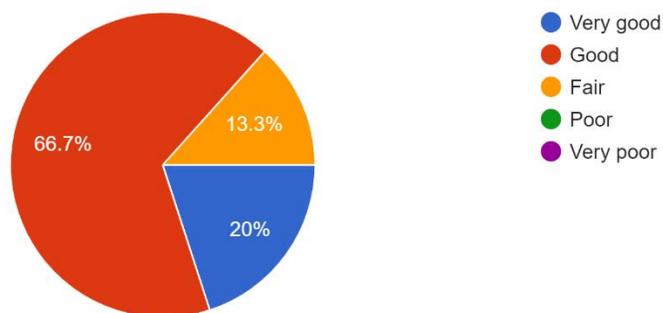
4) Please specify the reason for not attending the new student orientation program:

4 responses



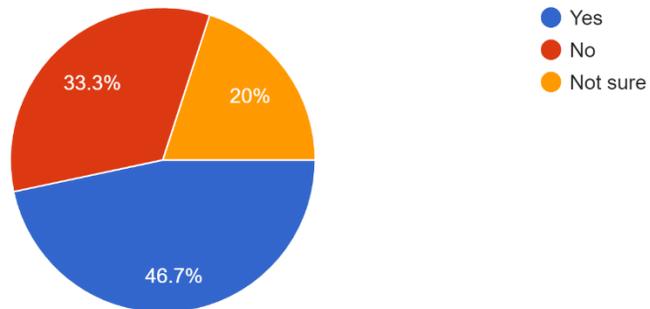
5) How do you rate your overall transition experience from high school to university?

15 responses



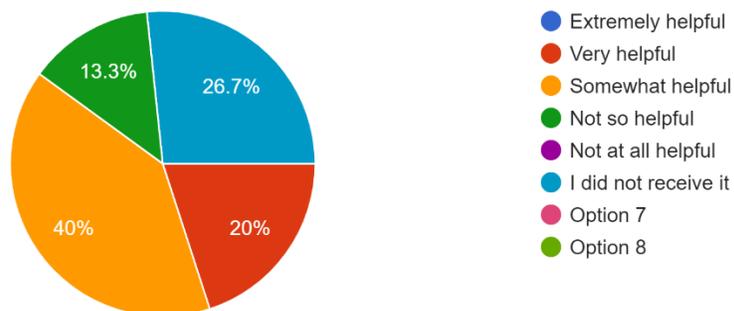
6) Did your school organise any programs to prepare you for university life:

15 responses



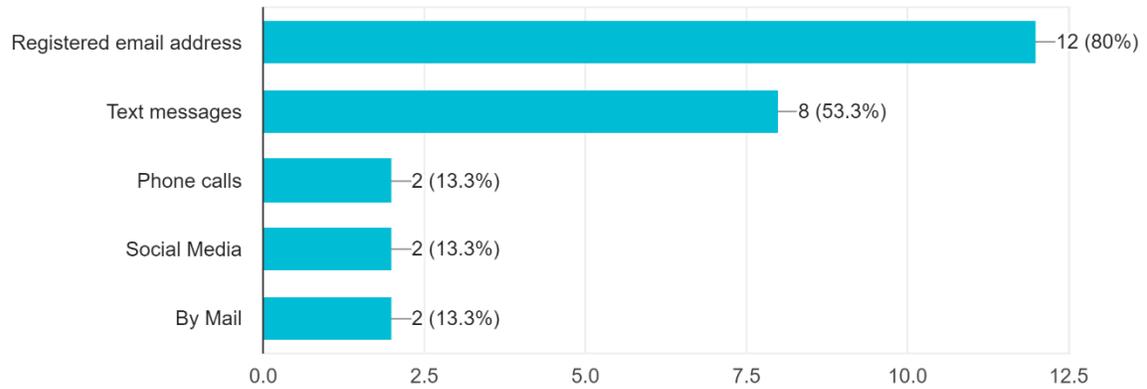
7) The admission information packet I received from Zayed University before enrolling to the university was:

15 responses



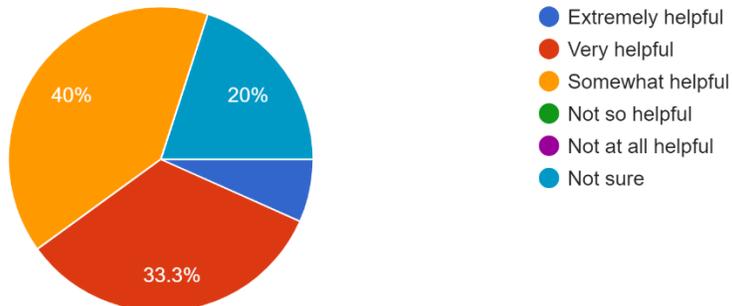
8) In your opinion what is the best method to communicate important information to new students:

15 responses



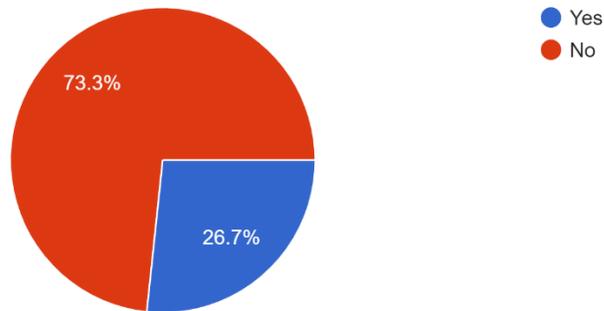
9) Do you think an introductory online orientation program prior to the actual on campus orientation would be:

15 responses



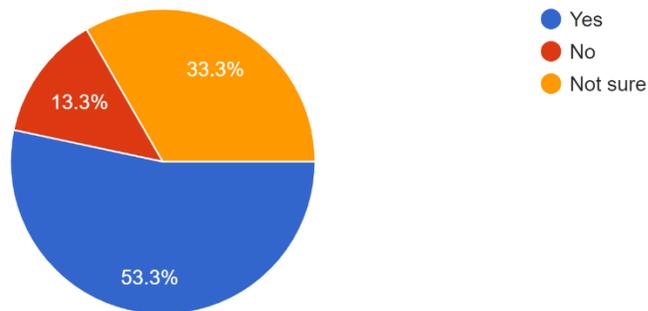
10) Did your parent/guardian attend the new student orientation program:

15 responses



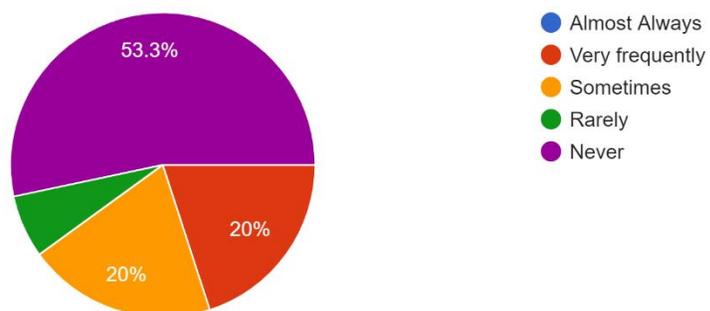
11) In general, did the new student orientation day help you feel more comfortable adopting to Zayed University:

15 responses



12) Were you in touch with the orientation student helper after the new student orientation day:

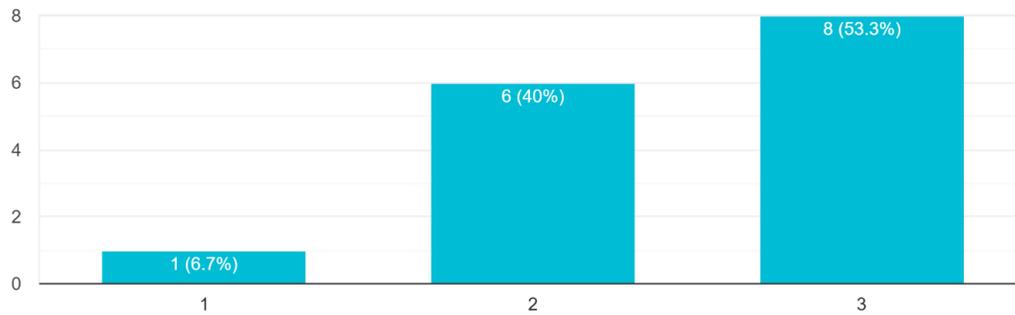
15 responses



13) Please rate the following components of the new student's orientation program:

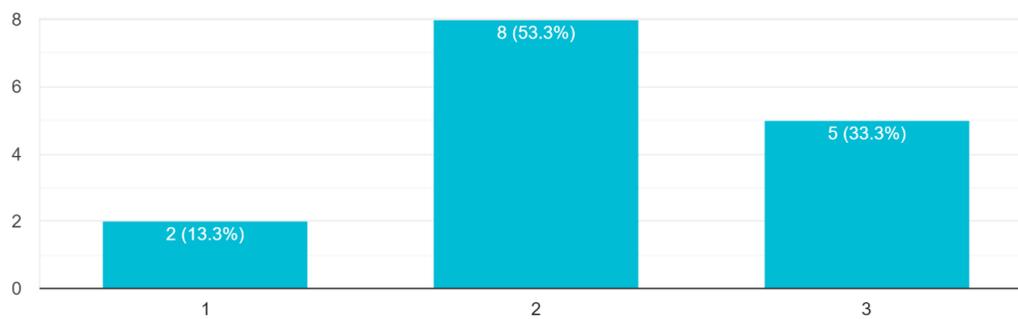
The role of student helper's in assisting new students:

15 responses



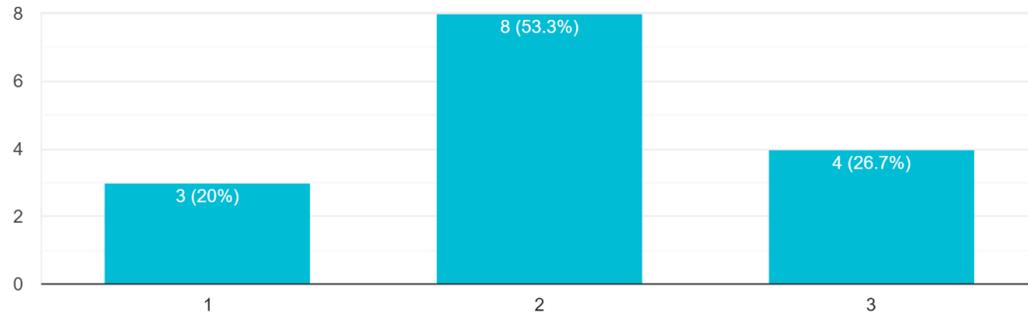
Information given about important campus services:

15 responses



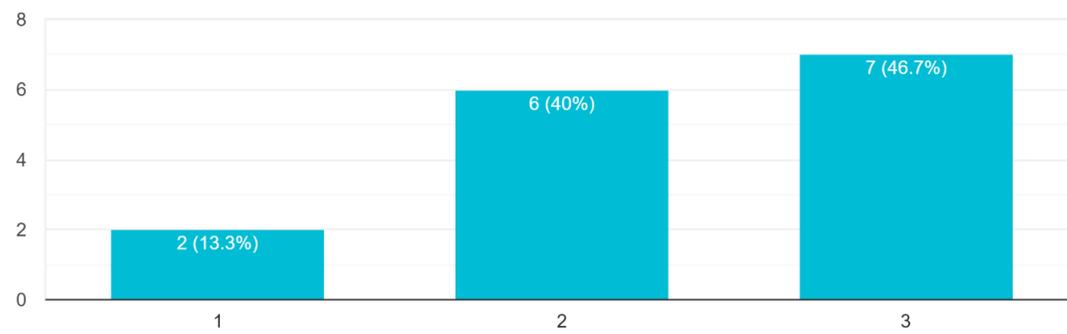
I learnt about the colleges in Zayed University:

15 responses



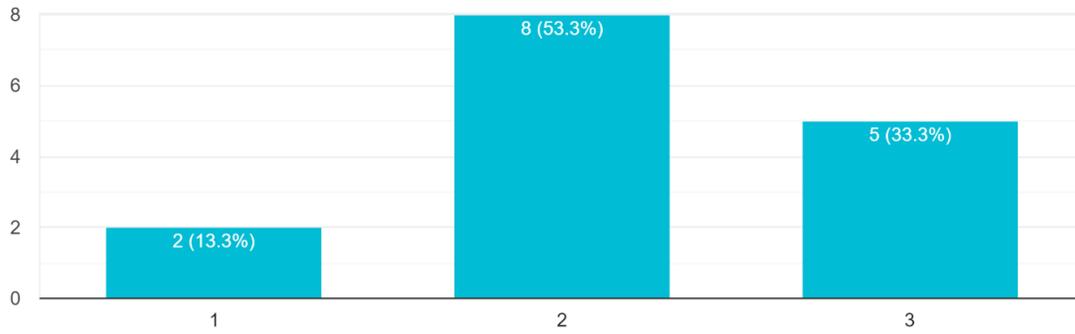
The staff in-charge of the program were supportive

15 responses



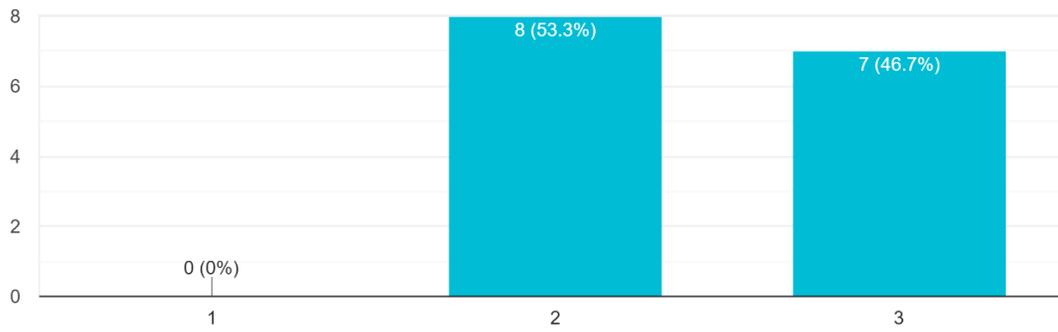
The campus tour was useful:

15 responses



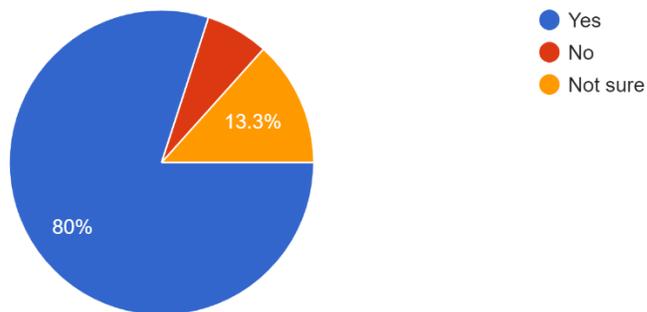
I got answers to all my questions

15 responses



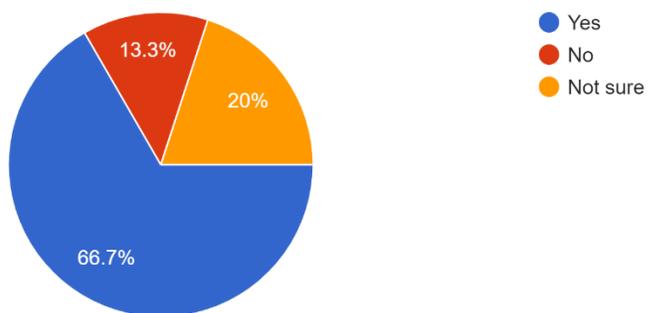
14) In your opinion do you think extending the new student orientation program days would be useful:

15 responses



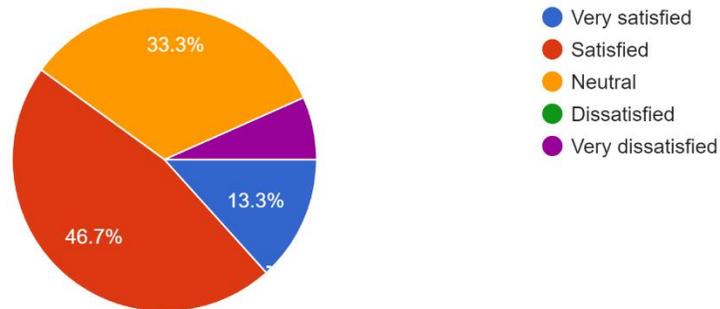
15) Would you be interested in participating in different orientation get-together activities such as pre-orientation trips and gatherings

15 responses



16) Please rate your overall satisfaction with the new student orientation program

15 responses



17) What would you recommend to improve the new students orientation program in the future?

They weren't fully prepared they needed more organization

I don't have any recommendation.

More dates for the orientation

It was a great overall experience

More interesting because everyone kept talking And it was so boring

Effect of customer satisfaction on Emirates Airline success

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Abstract

The airline industries are evolving with changes in the business terms and in the competitive world of today, satisfaction of customer is considered the important factor. The current study is proposed in the same regard to see the impact of the satisfaction of customer in success of Emirates airline. Emirates airlines is run by UAE government where the focus of the current study would be to determine the determinants of the satisfaction of customer and to analyse the level of satisfaction of customer. In addition, the study will focus on finding the relationship between the satisfaction of customer and company success with recommendation of improvement plan for the betterment in the future. The study will use the correlational method where quantitative method will be used with the survey targeting the satisfaction of customer and company success. The total sample of 100 people will be selected for the research and also SPSS will be used to find out descriptive and inferential statistics. The descriptive statistics will analyse the demographic data and for the inferential statistics, Pearson correlation, Regression analysis will be done which will highlight the significance of the results along with residual statistics, ANOVA, coefficient to analyse the relationship between satisfaction of customer and company satisfaction. The expected outcomes of the analysis include the role of the brand loyalty, brand image, perceived value of brand and service quality to be the determinants of the satisfaction of customer. While the relationship with the company success will come out to be positively significant. The number of recommendation and study implications will be discussed after the analysis.

Introduction

The globalization has hit the major businesses around the world where the world is connected via different businesses and has made the businesses become customer oriented because of increased competition whereas the current study is eager to find out the impact of the satisfaction of customer on success of company. The context for the present research is chosen to be Emirates airline. The airline works under the government of the UAE and considered to be one of the biggest airline of the world. The company has attained the competitive advantage over other airlines because of extensive services and the vast network. The airline has more than 120 destinations in more than 80 countries around the world. The topic for the current piece of writing has selected to be the success of the company in relation to the satisfaction of customer. Since the airline is considered one of the biggest airline in the world, there must have been factors, which contribute to the success of the airline, and satisfaction of customer is assumed the one. It has been argued that satisfaction of customer is the primary factor, which leads towards the better performance of the organization, and thus allow them to have the loyalty, high service quality and enjoy success in the sector.

The reason behind choosing this topic is the success of the airline industry all over the world. The past researches has argued the importance of the satisfaction of customer importance for the success of the airline industry. Since, the literature scarcity can be spotted in context of the UAE

so the current study would focus on finding the important of the satisfaction of customer in context of the emirates airline. The customer satisfaction is the key area that should be focused by every organization especially the airline industry needs to work on plans and the ideas that can help these companies to increase their brand image, performance level and image of the organizations. Without having customer satisfaction, the companies cannot succeed and cannot achieve their future goals easily. To attain customer satisfaction, the organizations like airline companies have to focus on different areas with high priority. They have to focus on developing their brand image and level of service quality so that their customer loyalty can be increased and the performance level of companies can be increased over the time leading to accomplishment of their objectives and goals. Therefore, this is the major reason that we have selected this topic as with the increasing competition and with the changing consumer purchasing behaviours, the organizations like Emirates Airlines needs to focus on developing plans, changing business methodologies and implementing new plans etc.

Research objectives

The research objectives for this report are mentioned below that are focused on the customer satisfaction, company success and improvement plans for this organization.

The study has the following research objectives;

- To assess the determinants of the satisfaction of customer for Emirates airline.
- To analyse the level of satisfaction of customer for Emirates airline.
- To assess the relationship between the satisfaction of customer and company success.
- To recommend the improvement plan for the betterment in the future.

Research questions

The study have the following research questions;

- What are different factors contribute to the satisfaction of customer?
- What is the current level of satisfaction for customers of Emirates?
- What is the relationship between the satisfaction of customer and company success?
- What improvements can be introduced to enhance satisfaction of customers

Literature Review

This part of the research will discuss the literature review on the topic where the focus will be on finding out the relationship between the satisfaction of customer and airline success. The literature will include the scholarly articles so that reliable and valid literature is added.

Brand image, Customer loyalty, and satisfaction of customer in airline industry

The study conducted by Gures, Arslan, & Tun, (2014) argued about the Turkish government ways to enhance the airline services for the improvement of the aviation market. The study has argued as how the preference of the customers, retention of the employee and the satisfaction of the passengers has become important in the airline industry. The study has also argued that brand image along with customer loyalty make the passengers satisfy towards the use of the airline industry. The result has argued that customer loyalty is determined by the level of satisfaction passengers are offered by the airline. Number of recommendations are given in order to make the further improvement where it has been argued that satisfaction level of the organization and passengers goes high when the services are of top level.

Hapsari, Clemes, & Dean (2017) argued about the Indonesian airline industry where customer engagement, loyalty, brand image, satisfaction of customer and perceived values are analysed where data was collected from 250 people. The results highlighted the significant relationship between the targeted variables and hence majorly leads to the satisfaction of customer. Hussain (2016) argued about the mediating role of the satisfaction of customer in the UAE airline industry context. The study highlighted the role of the service quality on brand loyalty where mediation is played by the satisfaction of customer. The questionnaire was filled by 253 people and hence regression analysis was run. The study highlighted that role of satisfaction of customer comes from the high role of the service quality, which makes passengers loyal to the airline, and hence in order to thrive in the competitive market, it is considered the important factor. Sezgen, Mason & Mayer, (2019) talked about the key determinant of the satisfaction of customer in airline industry where it collected data from five thousand passengers and from 50 airlines and thus it argued the brand image plays important role while it also depend on the class of air travel used, friendliness of the staff and comfort of the people, and behaviour of the personal contributor to make people loyal and lead to satisfaction.

As per views given by Nicholas Wilson in 2018, organizations should always understand and remember that offering exceptional services to the customers is a very important step that needs to be focused by every organization so that competitive advantages can be gained and success can be ensured in their relevant industry. Furthermore, the brand image is also very important concept as it is the perception of customers regarding the brand which was stored in the memory of the customers. Brand image is the overall impression of the consumers regarding a brand wherein the impression was managed by the feeling, combination of recognition and attitudes towards the brand. It is one of the most valuable aspects in branding and brand image played a significant role in transforming the perception of the consumers towards a brand. Image that companies want to convey to their consumers rely on their actions in respective industry. (Wilson, 2018).

As per views given by Majid Mohammed Shafiee in 2014, brand is named as one of the most important assets for an organization and this can play an important role in its success. Among various dimensions mentioned for the brand, the research is focused on the fact that brand image has been concentrated and having identified the valuable and most important indicators of developing brand image, the purpose of this survey is to define its role in impacting the purchase intention of passengers in aviation industry. The research has used the structural equation modelling methods and the sample was based on passengers of airline. The information was

obtained regarding brand image and related indicators and it was found that brand image and related indicators have detrimental and important role in the purchasing intention of passengers. (shafiee, 2014).

Role of Service Quality in relationship between satisfaction of customer and company success

Ali, Dey, Filieri, (2015) has talked about the quality of services provided by the Pakistani international Airline and the impact on the satisfaction of customer. Convenient sampling of 500 people is done to test the hypothesis and structural equation modelling was done. The result highlighted that there are number of factors of the service quality including the airline tangibles, terminal tangibles, personal working towards the airline, the empathy of the personal and the image of the airline play their role in order to enhance the satisfaction of customer of the passengers, which further leads to the good performance by the organization.

Jiang & Zhang (2016) argued about the customer loyalty which is considered to be the source of competitive advantage and is the intangible factor of the airline industry. This particular study was conducted in context of the Chinese airline to determine the satisfaction of customer with the help of the loyalty, service quality, and impact on success of organization. The study argued that service quality is considered significant factor, which influence the satisfaction of customer. The comparison between the Hainan airlines, air china, China Southern and China Eastern was done which argued that brand loyalty is low for the business travellers and ticket pricing is one of the factor which influence the satisfaction and strengthen the relationship and also business for the airline as well.

Farooq, Salam, Fayolle, Jaafar, & Ayupp 2018) argued about the service quality in the Malaysian airline and its impact on the satisfaction of customer. The study used the convenient sampling and data was collected from 460 people using questionnaire. Structure equation modelling was used where the study revealed the high impact of the empathy, tangible aspects, terminal aspects, personal services on the satisfaction of customer in the Malaysian airline. Importance of various aspects of service quality was assessed as the personal services are considered to be important for the enhancing of the image and to enhance the satisfaction of customer, which leads to success of the organization as well.

Hussain, Al Nasser & Hussain (2015) argued about the relationship between the service quality, image of the service provider, expectations of customers, satisfaction of customer, brand loyalty and success of the airline and this was done in context of the Dubai based airline. SERVQUAL model framework was used as antecedent to measure the satisfaction of customer where 253 questionnaire were analysed using structure equation modelling. The analysis highlighted that quality of the service, image of brand and values of the organization have high impact on the satisfaction of customer, which make the passengers loyal and make the company successful in number of ways.

As per views shared by Azman Bin Ismail et al in 2013, management of the companies are required to improve the quality of peacekeeping operations in the problematic areas of the organization. The goals of the organizations should be accomplished based on their mission

management and should be focused on some key areas. For example the quality service training program is the first important area that should be provided to the employees that are working in the major areas so that they can clearly understand the needs and expectations of the officers working in operations areas. Quality service training program is also required to be provided to rank the officers to enable them to understand and adapt the unexpected conditions in the problematic areas.

Furthermore, the better monetary rewards should be given to employees that show high level commitments and performance while implementing and performing their responsibilities and duties. Furthermore, organizations needs to give high priority to the employees that have good information about technologies and other skills as they are the employees that can increase efficiency of organization and they can communicate the vital information about administration systems, operations and logistics etc. If these suggestions are implemented carefully by organizations then the motivation level of employees can be enhanced and their service quality will also be increased that will result in the good performance of organizations. This will increase the customer satisfaction as well. (Ismail, 20113)

Satisfaction of customer and company success

Chow (2015) argued about the service quality and the important of it to make the airlines successful. The study has argued about the relationship between the satisfaction of customer and the performance of the airline with the help of the service quality. The study argued that with the help of the monthly balanced panel data, the result shows that performance of the airline enhances when the customer complaints are reduced. However, it is argued that poor weather affects the level of satisfaction and service quality which reduces the performance of the airline. In addition, rainfall or decrease in temperature increases the customer complaints which reduce the satisfaction of customer, and reduce the success.

As per views shared by Petr Suchanek et al in 2015 titled as effect of customer satisfaction on company performance, customer satisfaction can be understood as the result of a subjective process. The customer can compare the ideas with perceived reality. Customer satisfaction is consistent with the transaction specific concept that can evaluate specific buying opportunities. The quality is the conformance to the requirements of the customers. From the perspectives of customers, it is possible to understand quality as quality perceived on the basis of the judgment of consumers about an overall excellence of products and superiority. In this manner, quality is first perceived determinant for the customer satisfaction and second determinant for the customer satisfaction is the perceived value. (Anon., 2015)

Chen & Wang (2016) has argued about the information communication technologies and the self-service technologies which include the online check systems and the self-check in system which is widely used in the airline industry. The study has given the conceptual model about the participation of the customers, the value creation and the loyalty of the customers in context of the airline industry and also the questionnaire was used for the collection of the data to empirically test the model and data was collected from the passenger of the Taiwanese airline passengers. The perceived values in this regard were the enjoyment value, economic value and the relatable values

which are used in order to represent the passenger's co created values. The analysis was conducted where research argued that customer when used the online check in systems then they are more satisfied and associate more with the organization and it leads to the satisfaction and respect of the system which further lead towards the success of the company as it also have the positive impact on the customer loyalty as well.

Another study was conducted by the Steven, Dong & Dresner (2014) where the relationship between the customer serviced in the USA airline industry, satisfaction of customer and the performance in terms of success is analysed. The study has analysed the moderating impact of business and firm regulation on the relationship between the satisfaction and the performance had been argued. The study has argued that concentration in the market makes sure that relationship between the satisfaction and the profit of the company is established which further leads to the success of the organization. The results has analysed that power of the market hasn't really shown the moderating impact while it is argued on the other hand that increase in the profit makes the airlines to achieve the satisfaction of customer and also the improvement in the operations in terms of the success can be achieved in the competitive markets. The public policy analysis of the airlines has argued that combinations and partnerships with different airlines not only enhance the industry competition but also enhance the satisfaction of customer, which further leads to the success of company.

Ganiyu (2017) has argued about the debate of relationship between the satisfaction of the customers and the loyalty it creates which leads to the success of the airline industry. The study argued about the impact of the satisfaction of customer on loyalty and the organizational success in the Nigerian domestic airline. The correlational study design was used where the questionnaire was filled from the 6000 passengers of the domestic airline and thus convenient sampling was used as well. The data collected was analysed using the Pearson correlation analysis, linear regression and also the one way analysis of the variance. The data was completed the 383 passengers and results has highlighted the high relationship of the satisfaction of customer on the loyalty of the customers.

The study displayed that frequent air travellers become more loyal towards the airline and hence become responsible for the success of the airline and this happens more in case of the frequent airline passengers than the non-frequent passengers. Based on the findings, the study argued that satisfaction of customer is important factor, which play high role to build the relationship between the satisfaction of customer, and customer loyalty, which leads to the success of the organization. As per views shared by Stanley E. Fawcett in 2000, developing true customer satisfaction and accomplishing sustained loyalty is remained a persistent challenge. In order to meet the challenge, the manufacturers of today are required to reconsider the customer satisfaction strategies so that they can keep the customers from defecting to competitors. The bottom line is that the concept of customer services and customer satisfaction are misunderstood and poorly defined frequently even by most important and leading companies. The result is that customers continue to complaint about their poor services as per their experiences that impact on the brand image and performance level of organization. Creating true satisfaction and accomplishing sustainable findings are the important areas required to be sustained and accomplished by organizations.

Proposed methodology

The methodology section include the discussion of the design, philosophy and the method it uses while also the method of data collection will be proposed along with the proposed sample. Also, the data analysis method is proposed where the discussion would be done with regard to the topic in context of UAE and the reason of choosing such method will be justified.

Proposed Design

Number of studies has been conducted using different methods to see the impact of the satisfaction of customer in the aviation industry. The literature has argued about different methods being used in this regard for the research to be conducted and mainly the historical methods, explanatory method, correlational method and descriptive method is used widely in the literature, which has explained the relationship of the satisfaction of customer in success of the aviation industry. However, for the proposed research correlational method will be used, as it will used the quantitative method for the relationship to be established between the satisfactionof customer and the company success in the context of the UAE.

The design will help to establish the relationship between the both variables using the Statistical method where the Pearson correlation and regression analysis will be conducted to explain the relationship. Also, the research would explain the research questions answers using this method where new relationship will be established.

Talking in context of this research of relationship between the satisfaction of customer and success of the aviation industry. The correlation study will be used where the major division is also between the quantitative and qualitative method. The target method for this research will be the quantitative method where the theory is tested and also the survey method is used for the collection of the data. For this method, the observation is made using the questionnaire, which will give the accurate result for the social construct such as satisfaction of customer and the company success.

The research will highlight the relationship in a new way and will give the answers in the form of the figures, and numerical numbers and thus the analysis will be reflected in the literature to make the study generalization. There are number of reasons behind choosing this method for the research. The one reason is the high reliability and validity of the data resulted from the quantitative study and correlational method and thus this method will be applied.

In addition, the research questions and the objective of the research require the use of the quantitative method as it require the relationship to be established between the satisfaction of customer and success of the airline in UAE and hence this can be done using the quantitative method, which will establish the new relationship in context of UAE. Another reason behind choosing this method is the high generalizability as the sample is used for the survey method and analysis is quantitative so the generalizability would be high of study.

Proposed Method of data Collection

Talking about the method of the data collection, the method is of primary and the secondary type where the primary methods are different for the quantitative and the qualitative work and since the current study focuses on the use of the quantitative method so the method of data collection would be the survey method. Where the questionnaire for this research would be design using the literature of the research and hence the both variables such as satisfaction of customer and the company success where both variables questionnaire will be developed with 5 Point Likert point so the survey would be conducted using questionnaire on both satisfaction of customer and company success.

In addition, for the secondary method, the secondary data is collected in context of the world and in context of the UAE where the journals and research case studies will be used to study the impact of the satisfaction of customer on the company success to make it a part of the literature review. The collection of the data by using these methods are very beneficial for this kind of research and this helped in gaining valuable information on the topic easily. Furthermore, the report is focused on gaining valuable information by using primary and secondary sources that provided an insight over the selected topic in an effective manner.

Proposed sample

The study will be able to conduct more accurately if the research will focus on the particular sample so that sample from one type of people will be taken to generate the accurate results. The accurate results will be drawn to draw the attention on the satisfaction of customer and the company success where the study will be in context of the UAE so it will be more helpful to make the industry stronger. For the present research, the study will be conducted on the aviation industry of the UAE where the sample will be 100 people working in the customer experience centre because they will be better be able to explain the relationship between the satisfaction of customer and the company success.

Proposed data analysis

The study will be conducted with the extensive questionnaire in context of the United Arab Emirates aviation industry where the satisfaction of customer plays the important role to determine the success of the company and in this regard. Two type of analysis will be run, one is the descriptive statistics and other will be inferential statistics. The descriptive statistics will analyse the demographic which include the experience with the airline, education, gender and the age to see the impact of demographics on the targeted variable of company success and the satisfaction of customer and for the inferential statistics, Pearson correlation, Regression analysis will be done which will highlight the significance of the results along with residual statistics, ANOVA, coefficient to analyse the relationship between satisfaction of customer and company satisfaction.

Expected outcomes

The research question of this research will focus on the determinant of the satisfaction of customer, the level of satisfaction for the customers, the relationship between the satisfaction of customer and company success and the plan of improvement for the organization to enhance the satisfaction of customer. It can be argued that the different factors of the satisfaction of customer can be brand image along with customer loyalty, which make the passengers content towards the use of the airline industry.

The result can also argue that customer loyalty can be determined by the level of satisfaction passengers are offered by the airline. Also, there are number of factors of the service quality including the airline tangibles, terminal tangibles, personal working towards the airline, the empathy of the personal and the image of the airline play their role in order to enhance the satisfaction of customer of the passengers. Another important factor can be perceived value of the airline, which can play the role in enhancing the satisfaction of customer for the people using the emirates airline. . SERVQUAL will seem to be affective for determine the satisfaction of customer.

The second research question targets the current level of satisfaction for the customers of the emirates. It is expected that level of satisfaction for the customers is high which can be reflected in the performance of the airline in the current time. The airline is considered to be one of the most successful in terms of services and the finances which reflects the current level of satisfaction to be high for the Emirates. Also, it can be argued that emirates provide different packages for the different people and hence it can enhance the current level of satisfaction and along with that, it is argued that Emirates is one of the most used so it is expected it is because of the comfort, loyalty and services provided by the airline.

The performance showed by an organization is directly related with the customer satisfaction level. Therefore, it is very important for organizations to pay focus on their customers so that customers can give positive reviews about the company in the market that will attract more customers to come towards this company. This will develop the brand image of the company and will results in increasing growth and sales volume of the company. This will improve the financial performance of the company like Emirates Airlines. This is the key area that Emirates Airlines needs to focus on especially by working on different determinants for accomplishing high level customer satisfaction.

The third question targets the relationship between the relationship between the satisfaction of customer and company success where it can be assumed that since the satisfaction of customer is high and Emirates is considered to be one of the most successful airline of the world the results are expected to build the strong positive relationship between the satisfaction of customer and company success. It is argued that relationship between the customer's satisfaction and success are directly related to each other as if the customer is satisfied, the performance would be high in terms of serviced and finances which would lead to the success of the company. The development and maintenance of the relationship with the customers is very important. The making relationship for one time with a customer is easy but to maintain the relationship with the customers so that

they can come again and again towards this company is very important thing for the success of organizations.

The last question targets the improvements that can be introduced to enhance satisfaction of customer. The analysis of the literature has argued that expected outcome would argue about the feedback from the customers related to the services can prove to be helpful to enhance the customers satisfaction. Along with that the resolving of the complaints on the right time can help to enhance the performance of the airline. Making improvements in the performance of organizations are very much valuable thing that should be continuously focused by the organizations. The companies need to focus on brand image by resolving the complaints received from customers so that they can develop and strengthen their relationships with the customers. If companies don't resolve the complaints received from customers spontaneously then definitely it will lead to the loss of their reputation, loss of customers and loss of financial position over the years etc.

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Smart Future Enablers

Managing Change in an Organization: Case Study of the Department of Educational Inspection of Schools

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ABSTRACT

Governments all over the world invest in education, as it is one of the main pillars to sustain governments and secure its future. As a young developing country, UAE inspires to be a role model for the nations by setting challenging strategical goals in all arenas. One of those arenas is education and as the country continue growing, the need to strengthen its educational system became compulsory and hence the establishment of a school inspection system a raised to evaluate the educational system in UAE and improve it through a governed criteria's to ensure the ultimate outcomes of the educational system is achieved.

This research objective aimed to obtain an insight of the effectiveness of the inspection system as part of the government sector of UAE and study the change impact accord in the educational sector after the inauguration of the Department of Education Inspection in the Ministry of Education. It also view the corrective plans impact of the change occurred at the school inspection sector as well as the influence of the leader on the organization and its stakeholders. This was obtained by conducting a mixed method analysis of the case. Covering a selected sample of the impacted educational sector stakeholders for a quantitative findings and an interview with the change leader posted as the Director of the Educational Inspection Department for qualitative purposes.

The research finds not only that the leader has rolled out the change in the educational scheme effectively but also how the change introduced has been received positively by the stakeholders resulting in constant improvement in the educational system in UAE.

Key words: *change management, school inspection, education reform, leadership.*

Introduction

Massive researches have stated that organizations have failed and succeeded over the years due to many factors that affected organizations sustainability, growth and performance. One of these factors is leadership. Accordingly, organizational success depends on the effectiveness of leadership, although it is a vital attribute, there are definitely other factors that may play a rule in the organization success and growth. The Baldrige Criteria's addressed both leadership, human resources and processes for organization success; moreover, "change management is a leadership-induced process that involves transformational organizational change that leadership controls and sustains (Connell, 2020). Thus, identifying the role of leadership in change is an area for exploration and worth consideration.

Furthermore, adoption of new methods and plans to do business is not a choice with the ambitious strategic plan of UAE, thus it is expected to have change and transformations in all industries. This report examines the inspection and how it is used to enhance control among education institutions, The institution in this study is the Department of Education Inspection (General Education Institutions) in the ministry of Education. Which is a system that reports upon the compliance of general education and Technical Secondary Schools to ensure the commitment of general education institutions to the policies, systems,

regulations and rules of work specified by the Ministry of Education with respect to all processes and quality of services.

The interview is used to gather qualitative data from Mr. Khalid Almulla the Director of the Educational Inspection Department. Whereas, the survey questionnaire is also used to gather quantitative data from the target population which were the school's administrative and educational staff in all Emirates, so that impact of the change management process in the framework of school regulations can be explored. The interview was done in person with the director's at his office in 22nd Oct, 2020 whereas the survey questionnaire data collection was done during the period of 25th Oct to 2nd November 2020 while using an online platform to generate random samples of 103 responses. The questionnaire consisted of 20 questions, dividing into demographic and scale questions. The gathered responses were analyzed through SPSS program to validate the findings as well as serve the research theses.

Research objectives : A case study to discover the corrective plans impact of the change occurred at the school inspection sector in Ministry of Education as part of the government sector of UAE and whether the role of leaders in driving change has influenced the organization positively.

Research Questions : The questions that will be answered in connection with the research objective include the following (1) how the department corrective plans implemented the change and whether there was resistance to the implemented change. Secondly to (2) identify the crucial aspects of change management from the leader prospective as a change driver and the impact of that change (if any) .

Research method : The research will entail a mixed research approach of both an interview with the change leader who is the director of the department of inspection at the ministry (Mr. Khaled AlMulla) and an analysis of stakeholders perspectives (Educator's in the field) that have been affected by the change process as educators in the field .

Literature review

Leadership and change management

“Since the mid-2000s, organizational change management and transformation have become permanent features of the business landscape” (Alpern, 2014), which is very much aligned with (Beerel, 2009) who claimed that “Leadership and Change Management, emphasizes that the fundamental task of leadership is the management of change and all that entails. The same was supported by (Abbas and Asghar, 2010) who have addressed the role of the leadership as a key while highlighting the issue of organizational change. They stated that an effective leader could bring effective change to an organization as well as be a change agent who can take on initiatives and bring change to the organization.

The organization and the leader

The organization has a structure starting from the bottom up represented by the employees, middle management and top management, where the leader represents the top management as the head pyramid whom responsible of paving the foundation of organizational development and success. In order for the leader to achieve and meet the expectations of all stakeholders, he has to ensure that the right method to govern the process and the structure are in place and that the trusted followers who believe that he/she is trustworthy leader are certain that he / she will be leading and directing them towards growth and prosperity (William judge, 2009).

He also claimed that culture and people are factors comprise in change management. Nevertheless and despite of his view, this might differ depending on the context, as (Hofstede and Bond, 1984) stated in his cultural theory about the importance and difference of cultures and values. Considering the UAE culture and the dynamic environment along with the ambitious young country visions and global drivers, such claim from Judge needs to be studied.

This is a crucial institution in the nation as it influences the flow of knowledge across all age groups, which is crucial for the national engine moving forward. The nation sees education as an innovative and pioneer

for a global society. This mission is integrated and realized by ensuring that the outputs that are offered to educational institutions are of quality. The information was retrieved through an interview with the Director of the Department of Educational Inspection of Schools. The purpose of the interview was to establish the concept of educational inspection and oversight. Another purpose of researching educational inspection was because there was no research conducted in connection to the nation's educational inspection system.

A Brief Introduction to the Department and its Business

The institution to be analyzed is the Department of Educational Inspection of Schools, which is part of the Ministry of Education in the UAE. The notion of inspection was first formulated in the Ministry of Education in 2016 during the implementation of education control under four sectors. The general definition of control in educational institutions is improving work in this field in connection to the approved regulations and policies that are incorporated to enhance the achievement of the highest quality of service provision. This implies that there is a need to ensure compliance of schools with the regulations, policies, and standards that are approved by the Ministry of Education. The first year that this program was implemented, it covered more than six hundred and ninety educational institutions across the nation, including Dubai and the North Emirates, in public and private schools, private institutes, and training centers. The following year, the number of educational institutions that had adopted this oversight had increased to approximately 1,300.

Change Rationale at the Ministry

The primary reason why the Department of Educational Inspection of Schools sought to implement the concept of inspection is to enhance educational control, which involves the compliance of educational institutions to the regulations and policies that have been approved by the Ministry of Education as claimed by AlMulla K, 2020. These policies and standards ensure the incorporation of quality and effective rules of functioning and operations in the educational field. This concept is designed for the Ministry of Education to increase or expand the scope of its control over Schools (AlMulla K. 2020).

The Change Model

To ensure that the desired change is implemented and realized, certain initiatives have to be developed and implemented. These include the analysis and implementation of the steps that would be used to achieve the desired objectives in a comprehensive and integrated manner that is based on the nation's centenary and the strategy of the ministry of education (J. Douglas and A. Douglas 2006). According to specialists in organizational change, the first step to ensure a smooth transition in an organization is ensuring that management supports the desired change (J. Douglas and A. Douglas 2006). If employees see that management is supporting the desired change, then they begin to form a comfort level for the desired change. This support can be shown through communicating and interacting with the staff; in this case, the educational systems and the employees at the department. Effective communication is crucial since sending mixed messages about employees' change can create mixed reactions to the desired change (Dill, 2003). In the Department of Educational Inspection of Schools, there were mixed reactions towards the implementation of the change, particularly among the staff members.

The first challenge that they experienced was explaining the concept of inspection to the internal work team and the level of regions and schools (AlMulla K. 2020). Influencing this concept took a lengthy period to broadcast and publish the logic of inspection to intrinsic and extrinsic partners. Some of the issues associated with the department's internal aspect include difficulty constructing and formulating work teams by harnessing employees' existing expertise and competencies. AlMulla K. 2020 appeld that, Due to the lack of awareness of this concept, there was tension in association with this concept implying factors such as electronic bulletins by mail, communication, periodic meetings, as well as additional visits should be implemented to encourage the adoption of the concept across the internal aspects of the department.

Employee involvement in the achievement of the desired change is critical to achieving the desired objective. Employee integration is vital because for the change to be effective, all department functions and operations should be ready to adapt to the changes. This means that the employees need to be aware

and onboard the adoption of the initiative. Implementing the plan requires effective communication across all platforms (Yarmohammadiana, Mozaffary, and Esfahani, 2011). A time-line should be created in connection with the implementation of the change and so a framework was created for the inspection sector and then they defined the work mechanisms, policies and work tools. After coming up with the outputs and targets of performance indicators they had to ensure that those outputs and targets are annually updated, in addition to that evaluation tools were created to tests the level of inspector's familiarity with the regulations and policies in order for the department to achieve governance. Reports are made periodically that covers the achievements and the level of compliance of the educational institutes and based on these reports recommendations are raised to the higher-ups to make the necessary decisions and make reports regarding the level of responses of these institutes (AlMulla K. 2020).

The department's decision to implement this change was to align with the strategy of the Ministry of Education. This strategy includes factors such as; effective business governance that delves into the comprehensive plan of the ministry, and efficient governance index of educational institutions, the compliance of private and public schools with the regulations and policies of the Ministry of Education, and the percentage of annual visits where all schools are annually covered.

Resistance to Change

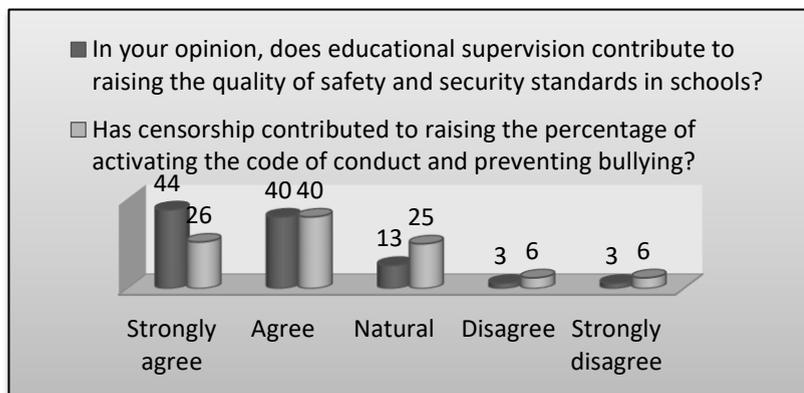
As seen in the above section, there was resistance when it came to the implementation of the desired change. Resistance to change, when workers are required to change, is a reasonable response. Change is awkward and needs alternative ways of understanding and thinking. Individuals have trouble creating a view of what life on the other realm of a transition would look like. Instead of accepting the unpredictable, they prefer to adhere to the established. Employees are not afraid of transition, however, fearing the uncertainty (Organization for Economic Co-operation and Development, 2013).

In the Department of Educational Inspection of Schools, the internal challenges that were faced include building and forming a team that is harnessed through the employees' competencies and expertise (AlMulla k. 2020). The difficulty of setting up, at state scale, departments are corresponding to the inspection field in learning settings and the continuity of those divisions in the workplace. As such, when other divisions, including the licensing and permit division, encountered difficulties leading to the termination of external departments and the reduction of tasks to the central licensing and permit department in the main offices. It was also observed that a large percentage of the targeted individuals were afraid of the idea of inspection because it is an unacceptable word and was controlled by field practices. (AlMulla k. 2020).

Critical Success Factors of Change Management

Numerous businesses claim they require "change management" when introducing major change initiatives without understanding exactly what that entails, In fact, overseeing the transition as revolutionary project is an ever-evolving aspect of sustaining a corporation's competitive advantages in the market to accomplish in a productive approach the aims and priorities of the project scope (Harrison, 2019, 1).

The project commission was created in the first phase by engaging available resources, assessing the competencies of the change team in cooperation with Ministry of Interior, motivate and train them in addition to drafting functioning guidelines which were distributed internally and externally (AlMulla K. 2020). Subsequently, departments were developed to serve the inspection field at the national level in the different educational districts with intervention measures to guarantee that these areas and schools, were protected at the necessary level by the requirements of inspection and performed as expected.

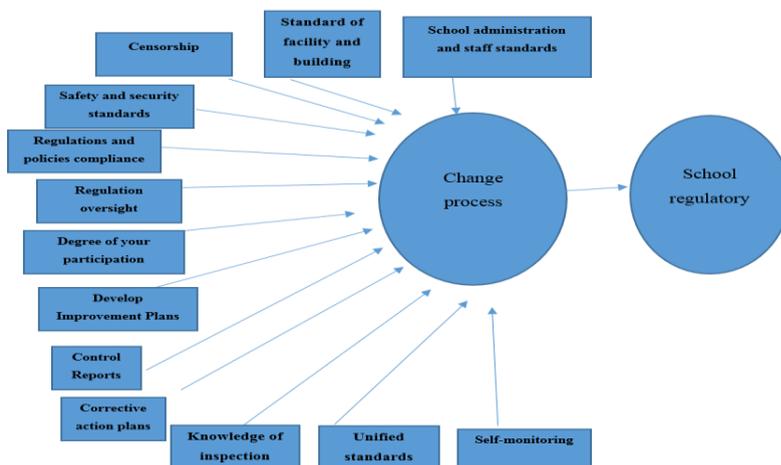


Conceptual frame & Methodology

In essence, the UAE's education system has been on the rise over the last two decades. There have been strategies implemented by education systems, and the government is trying to improve the quality and delivery of education to its citizens. The notion of inspection was first formulated in the Ministry of Education in 2016 during the phase of implementing education control under four sectors. The general definition of control in educational institutions is improving work in this field in connection to the approved regulations and policies incorporated to enhance the achievement of the highest quality of service provision.

The research deployed two method to get answers for the questions raised , one interview with the leader which is included under the appendix. Also , a survey been circulated to random educators in the schools using an instrument developed by the authors. The questionnaire resulted in 103 responses which enabled the analysis and generating findings.

Figure 1: Theoretical Framework, Source made by authors



- H1: Corrective action plans can bring change in the regulation of schools.
- H0: Corrective action plans cannot bring the change in the regulation of the schools.

Correlation Analysis

The correlation analysis is carried out based on keeping the effectiveness of the corrective action plan as constant and other variables are tested on how strong or weak the correlation is with other variables.

Analysis

Corrective action plan can bring change in the regulation of schools.

H0: Corrective action plans cannot bring the change in regulation of the schools.

Correlation Analysis

Table 1 shows the correlation of gender with dependent variable $r = -.072$ and $p = 0.468$ the relation is significant and negative.

** In Table 2, correlation is significant at the 0.01 level (2-tailed).

Table 2 shows the relationship between dependent variable corrective plans provided by the ministry and self-monitoring of the schools. The correlation value is greater than 0.01 it means that the relation is significant and positive value of the correlation will show that the increase in self-monitoring will increase the effectiveness of the corrective action plan. Relation is non significant.

** In table 3, Correlation is significant at the 0.01 level (2-tailed).

The table shows the correlation between dependent variable corrective action plan and independent variable standards for school regulation. The value is greater than 0.01 and value is positive value of Pearson co-efficient $r = 0.462$ it means that the correlation is positive. Increasing the regulatory standards will increase the effectiveness of the corrective action plans. Relation is non-significant.

* In table 4, correlation is significant at the 0.05 level (2-tailed).

The value of Pearson coefficient is $r = 0.253$ and significance value is $p = 0.10 > 0.05$ which means that the relationship is **significant and positive**.

* Table 5 shows that correlation is significant at the 0.05 level (2-tailed).

value of the Pearson coefficient is negative and $r = -0.224$, the significance value is $p = 0.23$ which is greater than 0.05. the negative value of correlation shows that the control reports impact can increase the effectiveness of corrective action plans. **Relation is significant and negative as $p = 0.23 > 0.05$.**

** In table 6, correlation is significant at the 0.01 level (2-tailed).

the value of Pearson coefficient is $r = -0.366$, the value is negative and is greater than 0.01, the significance value is $p = 0.000$ which is $0.00 < 0.01$, it means the if reports are not used to develop the improvement plans the effectiveness of the corrective action plan will decrease. relation is non significant and negative.

** In table 7, correlation is significant at the 0.01 level (2-tailed).

value of the Pearson coefficient is $r = 0.445$ and value if significance is 0.000 the value of Pearson coefficient is positive which means that the if independent variable degree of participation is increased than the corrective action plan will be more effective . relation is non significant positive.

** Table 8 shows the correlation is significant at the 0.01 level (2-tailed).

The value of the Pearson coefficient is $r = 0.334$ and significance value is 0.001. the positive correlation means that increasing the monitoring of the school regulation compliance the effectiveness of the corrective action plan will increase. **significant positive relation**.

Table 9 shows that the value of the Pearson coefficient is $r = 0.187$ and significance value is 0.059. the positive value of the Pearson correlation shows that the increase in educational oversight for the policies and regulations will increase in the effectiveness of corrective action plan. **the relationship is significant and positive .**

** . Table 10 shows that correlation is significant at the 0.01 level (2-tailed). The value of the pearson coefficient for this correlation is positive with $r=0.441$ and significance value is 0.000. The positive value of the pearson coefficient shows that if the supervision for quality, safety and security is increased than the corrective palns will be more effective. The relationship is not significant positive.

** . In table 11, correlation is significant at the 0.01 level (2-tailed). The value of pearson coefficient Is $r=0.260$ and the significance value is $0.008 < 0.001$. the positive value of the Pearson correlation shows that the increase in inspection will increase will increase the effective ness of the corrective palns. The **relationship is significant and positive**.

** . Table 12 shows that correlation is significant at the 0.01 level (2-tailed) The value of pearson coefficient is $r=0.368$ and value of the significance is 0.000. The positive value of the pearson coefficient shows that increase in the standard of school building facilities will increase the effectiveness of the corrective action plan. Relations is not significant.**. In table 13, correlation is significant at the 0.01 level (2-tailed).

The value of the Pearson correlation is $r=0.463$ and the value of the significance is 0.000, the positive value of the Pearson coefficient shows that the increase in the monitoring of administration and staff can increase the effectiveness of the corrective action plan. relation is not significant. Table 14 shws that there is a signficant correlation between the age and effectiveness of the corrective plans. As $p=0.613$ and $r=-0.50$.

The relation is significant and negative.

Regression

a. Dependent Variable: Are the corrective action plans sent from the Inspection Office of the Ministry of Education reviewed?
b. All requested variables entered.

a. Predictors: (Constant), Gender, Age, Do monitoring reports ensure that school comply with regulations and systems specified by the Ministry of Education?, How knowledgeable are you with the concept of educational inspection?, How impactful are the control reports on the development of procedures and processes in the educational institution?, Has inspection contributed to raising the percentage of activating the code of conduct and preventing bullying?, If yes, determine how much knowledge you have of educational oversight regulations and policies.

As shown in table 15, value of $R=0.440$ shows the measure of the quality of the prediction of the dependent variable in this case the dependent variable is effectiveness of the corrective action plan. The value of $R=0.440$ shows that the prediction level is moderate. The R square value of the Colum represent the proportion of variance in the dependent variable that can be explained by the independent variable. The value of R Square is 0.194 it shows that independent variable explain 19.4% the variability of the dependent variable. The value of adjusted R Square will interpret the data more accurately the value of adjusted R square is 0.134.

a. Dependent Variable: Are the corrective action plans sent from the Inspection Office of the Ministry of Education reviewed?

Explanation of significance test

The F-ratio in the ANOVA table (16) see if the overall regression model is a good fit for the data. The table shows that independent variable is significantly predicting the value of the dependent variable $F(7,95)=3.260$

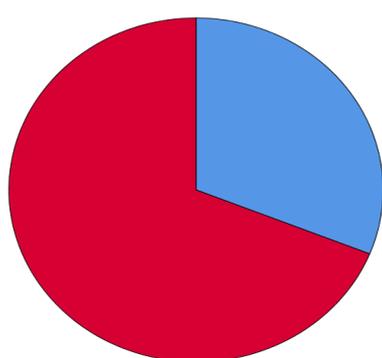
b. Predictors: (Constant), Gender, Age, Do monitoring reports ensure that school comply with regulations and systems specified by the Ministry of Education?, How knowledgeable are you with the concept of educational inspection?, How impactful are the control reports on the development of procedures and processes in the educational institution?, Has inspection contributed to raising the percentage of activating the code of conduct and preventing bullying?, If yes, determine how much knowledge you have of educational oversight regulations and policies

a. Dependent Variable: Are the corrective action plans sent from the Inspection Office of the Ministry of Education reviewed?

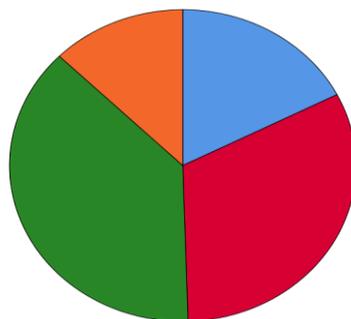
Discussion

Table 17 shows the results of testing the statistical significance of each independent variable. The t values are 2.210, -0.083, 1.085, -0.172, -1.366, 1.696, -0.385. P values are 0.144, 0.029, 0.934, 0.281, 0.864, 0.175, 0.093, and 0.701. The p value shows that the independent variables are statistically significant.

Ensuring reports compliance with the regulations means that the effectiveness of the corrective plans will significantly increase. If the knowledge of the educational regulations and policies increase the effectiveness of the corrective action plan will increase. According to the perception of the participants the increase in inspection will increase the effectiveness of the corrective action plan. Control reports have significant positive relationship and increasing the impact of control reports will increase the effectiveness of the corrective action plan. Knowledge of the concept of the educational inspection increase in the participant the effectiveness of the corrective action plan will increase.



Gender
 ■ Male
 ■ Female



Age
 ■ From 20 to 29
 ■ From 30 to 39
 ■ From 40 to 49
 ■ Older than 50

The

participant from the age of 40 to 49 were dominant in the population of the respondents. Most of the participants were female in the research participants.

Conclusion

From the study, the change model offers a roadmap for effective change management by outlining the specific steps that should be followed consistently and comprehensively to realize the desired objectives. The purpose of the change model is to establish a systematic change implementation procedure that would bring on board all stakeholders, consolidate the required resources, and improve stakeholder engagement, and foster open communication. Ideally, this helps to foster stakeholder involvement and support for the change initiative and reduce resistance. The study has also revealed that resistance to change is one of the most significant hurdles that impede effective change management and increases the possibility of change failure. However, embracing open communication and active stakeholder engagement can diminish resistance and foster the change initiative's success.

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Total Quality Management Principles & Performance Management At Road & Transport Authority – Dubai

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ABSTRACT

This research is conducted to be an overview of how the management team at Road & Transport Authority understands the importance performance management and quality management and translate them in their operation plan. In addition, it identifies and highlights some of the creative initiatives that the authority introduced and enhanced in order to participate in the next round of Dubai Government Excellency Award competing against the three elite authorities in three new themes which are: Agility, Data Analytic & AI, and Partnership and present the initiative that the authority is willing to introduce in the three themes. The study also shows some the management team achievements, awards and strategies implemented to enhance the quality across the different agencies and sectors of the authority and highlights how the management team in Road & Transport Authority understand the importance of implementing such strategies to achieve the strategical goal of the company, maintain the stakeholders' satisfaction levels as well as increasing the levels of productivity and efficiency of their processes. The study has been conducted through the analysis of responses from both primary and secondary resources that helped to collect more information regarding the topic of the research. All interviews were conducted during the quarantine period of Covid-19 pandemic which were all used through online channels for health and safety purposes. The interviews were conducted with some member of the team responsible of preparing the portfolio for the next round of the award which includes internal employees as well as the external consulting team of the award. The conclusion and recommendation consist of some the suggestions and tips that might help the authority to enhance the current quality of the processes and develop the existing initiatives and maintain the total quality management sustainability and achieve their strategic goal in the most effective and efficient ways possible.

KEYWORDS: *RTA, Dubai, TQM, Quality, Management, Performance Management, DEGP, excellency*

INTRODUCTION

Performance management is a framework for management control system (Otley, 1999), it is designed to assure the practice effectiveness of any organization and its performance efficiency align them to the strategic goals and to the organizational desired objectives. It is also an effective tool that predicts any potential risks may face the organization in the future (Carpi, 2017), which gives the management team at the organization the opportunity to adjust the operation system in order to keep business excellency at the highest levels at all times. This research aims to view the tools and techniques of Total Quality Management used by the management team at Road & Transport Authority and process management initiatives introduced to compete in the Dubai Government Excellency Award.

LITERATURE REVIEW

In order to achieve excellency in any organization, the management team should take process management as a strategy to keep their core business processes as efficient and effective as possible while increasing the production quality and customers satisfaction, which can be achieved by using different Total Quality Management tools and techniques. Total Quality Management can be defined as “a management system for a customer-focused organization that involves all employees in continual improvement.” (ASQ, 2020). The management team in RTA understand the importance of implementing such strategies to achieve the strategical goal of the company, maintain the stakeholders’ satisfaction levels as well as increasing the levels of productivity and efficiency of their processes.

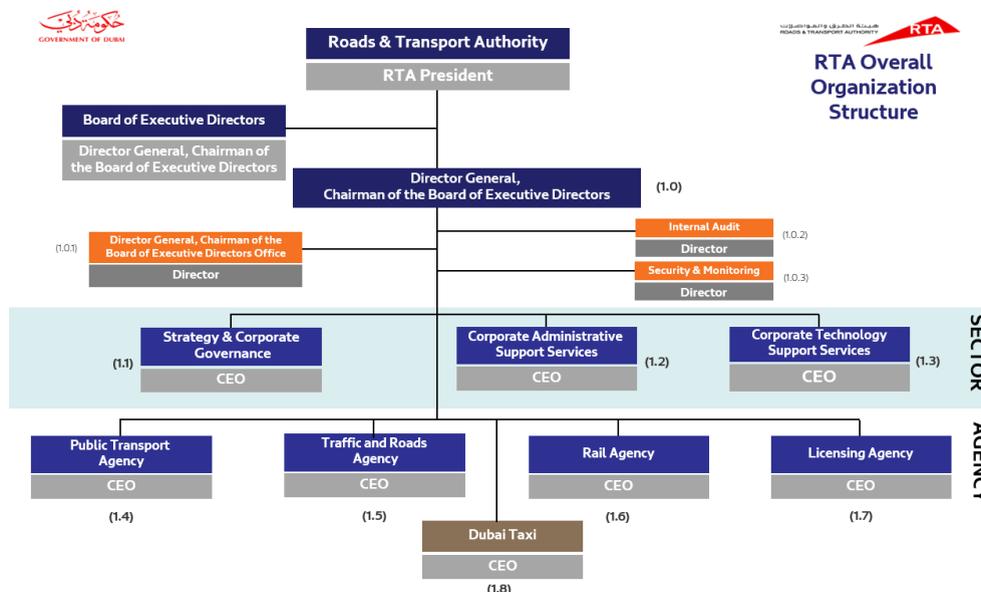
One of the core values of the authority is Excellence and Success, “Our distinction is a true representation of performance based on efficiency, effectiveness and sustainability within integrated governance system.” (RTA, 2020) which indicates that the management team headed by H.E Matar AlTayer understands the importance of performance management and business excellency. The Roads & Transport Authority in Dubai has been using several strategies in order to reach the highest level of performance efficiency, one of which is using Total Quality Management principles and strategies.

ROADS & TRANSPORT AUTHORITY – DUBAI

The Road and Transport Authority (RTA) of Dubai was established in 2006 as a public entity as it was separated from Dubai Municipality, owned by the government and based in Dubai. The authority plans and handles all requirements for roads, transport, and traffic in Dubai to provide an effective transport system that meets the Emirate’s vision. Their responsibilities and core business are involved in 11 different categories which are: Buses, Taxis, Inter-City Transport, Road Engineering, Registration and Licensing, Marine Transport, Commercial Ads, Public Buses, Roads Beautification, Roads and Parking and Rail Projects. RTA’s mission is to develop and manage a sustainable world-class road and transportation system, their vision is a safe and smooth transport for all. Their values are to maintain a high corporate reputation, excellence, and success through their performance, professional leadership and teamwork, the pursuit of happiness and positive energy, and continuous innovation and creativity. (RTA, 2019).

RTA’s board of directors is appointed by decrees from the executive council of Dubai. It is formed of the chairman H.E Matar Al Tayer and 11 board members who oversee RTA’s intellectual, financial and technical affairs, and take the appropriate decisions and actions to achieve RTA’s goals and objectives. The authority is working under the supervision of Dubai government with full support and roles and is mainly handling the transport and infrastructure projects of the city. The authority is divided into three general sectors and four specialized agencies, each has its own objectives and goals that are aligned with the vision and mission of the authority. The authority’s sectors and agencies are classified by the nature of projects that the handle as following:

1. Corporate Administration Support Services Sector
2. Corporate Technology Support Services Sector
3. Strategy and Corporate Governance Sector
4. Public Transport Agency
5. Rail Agency
6. Traffic and Roads Agency
7. Licensing Agency



The Organization structure chart. (RTA, 2019)

Total quality management in RTA

The management team acknowledge the importance of applying Total Quality Management tools and understand the remarkable effects of the different TQM approaches and how to use them in the authority to create faster improvements on the authority’s operations and services. Therefore, the management team are committed to some of the Total Quality Management Principles as the following:

Customer focus

Road & Transport Authority is continuously showing their interest on customer’s preceptive of the services and product that the authority provides for the public. The authority makes sure that their client’s demands and wishes are always aligned with the level of the quality of the services they provide through doing massive researches and conducting surveys in all service points that requires the customer interactions, which can be also seen in the strategic plan as the RTA claims that improving and ensuring people’s happiness foster social responsibility is one of the main strategic plans element that the authority constantly focuses on.

Employee involvement

Employees at the authority understand the importance of their voices and the value of their feedbacks so there are encouraged, by the management team in all agencies and sectors, to propose and contribute in the decision making process. Using the CRM system that can be accessed by both customers and employees, the management team collect both customers and employees’ proposals and suggestions regarding updating any of the available services or introduce new solutions to any problems. The system, handled by the innovation department in Corporate Administrative Support Service Sector, monitors all suggestions and complaints and check the validity of the new suggestions of both employees and customer to finally reward them in case the suggested proposals are applicable, effective, smart and would add value to the authority.

Process centered

Planning and implementing these tools should not be unified for the whole organization, the management team at the authority understand that each department need to apply a unique sit of Total Quality Management tools in order to create the most perfect and suitable culture for the departments since the authority contains several agencies that each needs a different process-centered system, which is one of the eight main Total Quality Management principles. For example, the Rail Agency has its own inventory system that was updated in 2008 and merged with an ERP system called Rail Maximo that allows the project managers to monitor and allocated all purchases related to Dubai Metro and Tram, mainly for spare parts and maintenance contacts using the platform. Rail Maximo is designed especially for project managers to insert detailed information of their projects that any related department outside the agency, like General Budget Section at the Finance Department, can review and follow up with the project's latest updates on the platform. Similarly, certain systems and platforms are designed specifically for each department in each agency.

On the other hand, the diversity of organizational focuses, hence the different sectors and agencies, gave the employees in each sector and agency the capability of using the award criteria approach. "When using this model, an organization uses the criteria of a quality award, to identify areas for improvement. Under this approach, TQM implementation focuses on meeting specific award criteria." (ASQ, 2020). Committing to such TQM approach in the basic tasks requirements in the authority gave the employees the chance to participate in the authority portfolio that is prepared to compete and win many local and international quality and business excellency awards like:

- American's RIMS Global Enterprise Risk Management Award, 2020
- ISO certification in Fixed Assets Management, 2019
- Global Benchmarking Award presented GBN, EFQM and APQO, 2018
- ME Customer Experience Excellence Awards, 2018
- MEED award for maintenance of bridges, 2019
- Hamdan bin Mohammed Award for Smart Government, 2015
- ISO certification in Energy Management system, 2014
- ISO in training passenger transport drivers, 2020
- Several Dubai Government Excellency Awards from 2014 to 2019

RTA Initiatives & Performance Management

According to Dr Ahmed Hindawi, the Head of Hindawi Excellence Group, "Throughout the years the authority successfully gained many awards in several fields and categories, the board of management at the authority studies the areas that needs improvements by conducting series of investigating meetings and continuous performance management tools and many initiatives to make that possible." (Hindawi, 2019). The authority currently is using Dr. Hindawi and his team's consultancy services in competing in Dubai Government Excellency Award against three elite companies since it was qualified as one in the previous round. The authority introduced many initiatives with the help of Dr. Hindawi's services to compete in the elite category and focus on the three main themes:

1. Agility

This category investigates the process of reusing the assets internally to minimize cost and expenses that is in fact aligned with one of the authority's strategical goal "Financial Stability". Recently both Expenditure Realization Committee and Resources Realization Committee issued an updated policy forms that allows the finance department with the help of the Contracts

Department to go through all on-going and new projects and contracts assets and resources. The general budget team has introduced a system monitoring the assets flow from the start to the end of projects using the same system that measures the KPI of the departments that handle these projects and contracts. In other words, the KPI is used as a tool to monitor the progress of the projects as well as monitoring the agility of the projects in the same departments. The authority then will reward the departments that has the greatest number of remarkable achievements in terms of agility as an encouragement strategy to recognize their performances and efforts.

2. *Data analytic and AI*

Evaluators of the award will observe how the process of decision making and services developing are done using the data the authority has, along with the technology and artificial intelligence used to increase the efficiency and enhance their services to support basic day-to-day work as well as the data exchange channels that should support the government innovation strategy. For this particular category, the authority's innovation Department is required to issue new initiatives that links the governmental objectives of Dubai using the latest technological tools like AI and 3D printing. The innovation department introduced many new initiatives like upgrading Nol cards systems that allows users now to use them in different selling points as credit cards rather than using them for transportation only as it was intended to be. In addition, the Enterprise Command and Control Center (EC3) is currently under process, it is the largest mobility monitoring center that is initially built for Expo 2020, "It is considered as one of the world's largest and most sophisticated control centers in terms of smart technologies used, combined control & coordination between all RTA's public transit systems, and the proper planning of mobility to address various challenges in the Emirate." (RTA, 2020).

3. *Partnership*

Evaluators at this category will focus on how RTA uses the relationship with their partners to enhance their core business and check the proactivity of the authority to find the best solutions for potential risks and challenges and measure their promptitude abilities to face those challenges when and if any accrues in the future. Also, the evaluators will investigate the authorizations ability to sustain their partnership with other companies and study the impact and effectiveness of these partnerships on quality as well as the effectiveness on the operation plan.

According to Abdul Mohsen Ibrahim Younes, Rail Agency CEO "the authority established many projects and initiatives with several respective partners locally and internationally, being an authority handling all aspect related to mobility in the city, RTA has built strong relationships to exchange knowledge and beneficial ideas" (Younes, 2020). One of these initiatives is renaming the stations that are located in both Mall of the Emirates and Deira City Centre. "The renewal is a clear testament of the benefits reaped by both parties over 10 years of a fruitful partnership. The partnership between RTA and MAF Group has been instrumental in increasing the number of metro riders as well as visitors of Mall of the Emirates and City Centre Deira Stations on the Red Line of Dubai Metro". (RTA, 2019). RTA had reached advanced stages in renewing agreements for naming rights of metro stations with existing partners and is keen on the continuity of this initiative as it is recently planning to change one of the stations names of the green line to Noor Bank station as an appreciation for their collaborations throughout the years.

METHODOLOGY & FINDINGS

The research included both primary and secondary data gathering methods. The interviews conducted during the Covid-19 pandemic, therefore, the research instrument used for the interviews were through online channels for safety purposes. The interviews consist several questions related to Dubai Excellency award preparations and previous award portfolios. The data

was collected from the team responsible of preparing the authority's portfolio, which include the internal team as well as the external consultancy team. The interviews were proof of how the Road and Transport Authority is qualified to compete against the three elite authorities, in the three main themes, Agility, Data analytic & AI, and Partnership.

RECOMMENDATION & CONCLUSION

The amount of developing initiatives and improvements of the quality and productivity in Road & Transport Authority of Dubai is remarkable. The number of initiatives that the authority introduced since it was first awarded as a Dubai Government Excellency winner in 2014 cannot be listed in such a short research. This research highlighted some of the quality and excellency tools that the authority uses in order to achieve the best results in terms of performance and productivity and compete in one of the local awards.

Unfortunately, the limited time and lack of information prevented covering more TQM principles approaches that the authority uses. However, it is recommended to use the same exchange knowledge strategy the authority already uses in the partnership category with the international rivals like Secro for instance to achieve higher quality and performance levels as a continual improvement approach. The management team could also review the applied initiatives and try to develop them instead of coming up with new ones in each award round, which will save resources and efforts through applying and maintaining Total Quality Management tools and techniques.

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Smart City-Neom

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Abstract

On October 24, 2017, Muhammad Bin Salman, who is the Crown Prince of Saudi Arabia, announced that the country would be developing NEOM City during the Future Investment Initiative. Saudi Arabia had bet on successful completion of NEOM city that will be pivotal to diversify its economy that depends mainly on Oil exports. The research examine the development of NEOM from a multidimensional perspective. First, a SWOT analysis of building a smart city was discussed as well as Porter's 5 Forces analysis to show the intensity of competitiveness that NEOM would face in the area as new project. Then, the strategic plan that will take place on stages to facilitate the Saudi Arabian government to effectively finance the project was debated. In addition, the strategic position to initiate the New City that was examined as the cities are becoming significant in leading the economic growth of countries. On critical analysis, we had noticed that the project is facing variety of challenges, not only in the start-up phase but with the advancing in the development. The major challenges for the project would include the technological, economic, political unrest among the Middle- East countries, social media awareness among Saudi Arabia residents, changing the consumer demands, changing socio-cultural trends, and many environmental constrains. So, the success of the project will depends on many factors that would include data, ICT quality infrastructure, but most important is the well formulated strategies to attract the foreign investment and the quality of the environment that will assure a stable ecosystem for achievement. The most finding of the research was that NEOM is the city of machines working for the wellbeing of human's in every field of life. In addition, NEOM will be the economic hub for all the people around the world regardless of their religion and the nation. The challenge with the research was the shortage of references and literature as well as the ongoing changes in the projec.

Keywords: NEOM · Saudi Arabia · SWOT · Porter's Analysis.

Introduction

The Kingdom of Saudi Arabia is based in the western Asia where it shares borders with Jordan, Iraq, Qatar, Bahrain, Oman, United Arab Emirates, and Yemen. The Gulf of Aqaba separates The Kingdom from Israel and Egypt. Indeed, the Gulf of Aqaba will be one of the most significant aspects of this paper as NEOM City is situated near the Red Sea. The Kingdom has a rich history as it is one of the locations where the earliest traces of human activity were recorded. Similarly, Muslims from across the world usually travel to Mecca's holy city annually because it is considered Islam's holiest city. Correspondingly, the Kingdom of Saudi Arabia has the largest economy in the Middle East and the 12th largest one throughout the globe (Saudi Arabian Government 2018). The country generates most of its revenues by exporting oil and petroleum products to various parts of the world.

The paper's fundamental intent is to examine the development of NEOM City from a multidimensional perspective. The successful completion of the NEOM City will be pivotal to the diversification of Saudi Arabia's economy because oil exports account for the most considerable fraction of the country's revenues on an annual basis, which is unfortunate considering that the prices of oil have been declining throughout the years.

NEOM City SWOT Analysis

Strengths

NEOM City is situated in the Gulf of Aqaba, and due to that aspect, it will be experiencing snowfall during the winter. Thus, the climatic conditions of NEOM are likely to be favorable for many international investors (Saudi Arabian Government 2018). Indeed, there is a relatively high likelihood that the good weather might prompt some of the residents of other parts of Saudi Arabia to relocate to NEOM, considering that the most area of the country is a desert.

Figure 8: NEOM Political Map (Hermes Furian, 2019)



Furthermore, it is likely to be highly attractive to investors because of the government's commitment to execute the project on time and within budget (Rosenwein & Shtub 2018). This commitment is emphasized by the fact that it has established a joint-stock company to oversee the development of the city. The company's management team consisted of highly competent staff. Therefore, it is expected that their effort will be top-notch. Accordingly, the investors, tourists, and residents of NEOM City will be impressed by the quality of work that shall be done by the company. In effect, those stakeholders are likely to enhance the prevailing degree of awareness about NEOM City development through the word of mouth and digital media (Arora & Sanni 2019). Thus, the number of tourists and investors who will be visiting NEOM City on an annual basis is likely to be increasing gradually. Consequently, the city is likely to become a central tourist and business hub within a relatively short period.

Saudi Arabian government has ensured that NEOM City is well designed. The standard of planning and design conducted is likely to attract many investors because such features influence the rate at which the properties established in the city will appreciate (Kerzner 2019). Most importantly, the Saudi government has promised that NEOM will benefit from some secular laws. Thus, the investors and tourists should not be worried that they will be required to adhere to the extremely conservative aspects of the Shariah Law, which is used to govern the other parts of Saudi Arabia.

Weakness

The competitiveness of NEOM City as an ideal investment destination will be affected by Saudi Arabia's reputation. Unfortunately, the country does not have a good reputation in terms of respecting human rights. As a result, it is vital for the government to introduce reforms that will minimize the incidences of human rights violations in the country (Akinbode & Al Shuhumi 2018).

Further, the country should consider enhancing its security systems in order for the potential investors of NEOM to have confidence that terrorists will not destroy their investments (Davidson 2019). Accordingly, it is advisable for the Saudi Arabian government to increase the security along its borders in order to minimize the intrusion of terrorists into the country. By doing so, the country will be less vulnerable to terrorism. At the same time, the government should develop systems that will limit the development of homebased terrorists because they would pose a significant threat to NEOM City's residents.

Opportunities

Indeed, the development of NEOM is extremely expensive, and Saudi Arabia is facing financial constraints due to the prevalence of broad range of factors that are adversely affecting the performance of its economy (Dyer, et al., 2020). In this respect, the Saudi government needs to consider selling at least five percent of its stake in Saudi Aramco, which is the company that produces oil in the country. The sale of stake is likely to facilitate the enterprise to raise approximately \$100 billion, considering that the projected total market value of Saudi Aramco is at least \$1.5 trillion. The \$100 billion dollars will enable the government to play a pivotal role in facilitating NEOM City to come to completion despite the financial constraints that it is facing at the moment. Besides, the \$100 billion invested in the development of NEOM is likely to allow the Saudi Arabia government to realize one of the highest returns on investment. Notably, the premise is predicated on the fact that the profitability of Saudi Aramco is likely to decline over the foreseeable future because the Saudi Arabian oil reserves are decreasing rapidly. Similarly, oil and petroleum products have not been fetching reasonable prices in the international market (Bostock, 2019). Above all, it is expected that renewable energies will become the primary source of fuel, which means the oil and petroleum products produced by Saudi Arabia shall be less marketable than before. Accordingly, the amount of revenues generated by the Saudi government from the oil and gas sector will deteriorate over the next fifty years. In this light, the development of NEOM will go a long way in terms of facilitating the Saudi government to range its streams of income.

The Saudi government wants to ensure that renewable energies fully power the NEOM city. For that reason, it is advisable for the government to issue incentives to some of the commercial entities which have managed to make significant breakthroughs in the field of renewable energies in order for them to consider setting up production facilities in the proposed city (Hoskisson et al. 2020). For instance, the Saudi Arabian government can issue tax incentives to a company like Tesla Motors in order to ensure that NEOM city will have an adequate supply of self-driven electric vehicles. The establishment of a production facility by Tesla Motors Inc in NEOM city will be highly beneficial to the Saudi Arabian government because of the company's product offering as well as the number of jobs that shall be created by the enterprise.

Furthermore, the Saudi Arabian government could consider positioning the city as a commercial and tourist hub. Accordingly, it is in the best interest of NEOM city for the Saudi Arabian government to incorporate tourist attractions when designing the city. For instance, the government should consider investing in a Hyperloop Train because it is one of the unique

technologies that can help NEOM City residents benefit from a fast, reliable, efficient, and sustainable mode of transport. Indeed, India and the United States are the only countries that have demonstrated significant interest in the Hyperloop train system. However, other countries, such as the United Arab Emirates, Poland, Germany, Russia, Canada, and England, have followed suit (Kachelmaier 2018). At the moment, those countries are conducting feasibility studies in order to ascertain the commercial viability of the Hyperloop Train System in their countries. In this light, it is vital for the Saudi Arabian government to join this movement, considering that it would help NEOM to become one of the most vibrant cities across the world. The transport network that features at NEOM city will have a profound influence on its attractiveness to investors and tourists. Thus, the government would ensure that it designs and develops the best transport network.

Threats

Currently, the rough oil has not been sustain reasonable prices in the market. For that reason, the amount of revenues generated by the Saudia Arabia through oil exports has reduced practically. As a result, the country faces financial constraints when developing NEOM. Accordingly, investors are skeptical about Saudi Arabia's capacity to execute this project successfully, considering the fact that the project cost of the initiative is in the excess of \$500 billion (Saudi Arabian Government 2018). In effect, it is critical for the Saudi Arabian government to develop a clear-cut strategy for financing this project in order to boost the prevailing degree of the investor confidence.

Additionally, the oil reserves of Saudi Arabia have declined substantively despite the fact that it is the second-largest producer of oil in the world. The prevalence of that scenario has a high number of international investors to be concerned about the return they are likely to realize upon investing in NEOM. Arguably, the skepticism stems from the fact that the Saudi Arabian economy is oil-based, and revenues generated from the sector account for the most considerable fraction of the country's income (Bostock 2019). Thus, the international investors are worried whether the Saudi government will manage to diversify the economy before the amount of revenue generated from the oil exports declines substantially.

Furthermore, the geopolitics of the Middle East and Northern Africa will affect the development of NEOM City because it is to be situated on the Gulf of Aqaba and the Red Sea. In this respect, investors are curious about the fashion that the Saudi Arabian government intends to handle the geopolitics of the region because any form of political instability would adversely affect the development of NEOM city (Bostock 2019). In effect, the Saudi Arabian government must develop a committee of highly proficient individuals in the geopolitics of the region and task them with the responsibility of negotiating agreements that will guarantee political stability in NEOM. By so doing, the Saudi government will enhance investor confidence in the project.

NEOM's Strategic Plan

On October 24, 2017, Muhammad Bin Salman, who is the Crown Prince of Saudi Arabia, announced that the country would be developing a new city that will be referred to as the NEOM City during the Future Investment Initiative. The projected cost for constructing NEOM City is estimated to be approximately \$500 billion (Saudi Arabian Government 2018). As a result, the Saudi Arabian government has developed several strategies in order to finance the project successfully. Notably, one of the key aspects of the finance strategy is the development of a joint-stock company that will be wholly owned by the Public Investment Fund. Similarly, the independent wealth fund will be joint with the responsibility of developing an economic zone for

NEOM City. This economic zone means that commercial entities will set up offices in the location. In effect, the city will become a commercial hub, tourist destination as well as a home to many families.

The development of NEOM City has been segmented into phases to facilitate the Saudi Arabian government to effectively finance the project. Accordingly, it is essential to note that the city's first phases are expected to be complete by the end of 2025 (Saudi Arabian Government 2018). As a result, the government is doing everything in its power to ensure that the deadline is met because the achievement of the objective will enhance the prevailing degree of investor confidence. Consequently, the financing of the subsequent phases of the project will be relatively easier than the first one because the number of investors shall increase and implies that the financial constraints faced by the government are likely to reduce substantively.

The analysis of NEOM City's design reveals that the Saudi Arabian government appreciates that climate change is real (Bhardwaj 2018). Notably, the argument is based on the fact that renewable energies will power the city, and most of the automobiles used by the residents shall be running on electric power (Saudi Arabian Government 2018). Similarly, the city's design demonstrates that the government appreciates that bio-technology and information technology have become fundamental aspects of the contemporary world. NEOM features facilities that will help it become one of the leading hubs for biotechnology and information technology globally.

Strategic positioning of the NEOM

As New Urban Policy has confirmed that Cities are becoming more significant in leading the economic growth of countries, as they add with more than 80 percent of the global GDP revealed by the UN-Habitat, (2015). Also, they are a major resource demand centers and largest population growth around the globe. As a result, cities are perceived to be the building block of any sustainable growth plan and there is the heavy rivalry between cities to draw both investment and residents to support themselves (Andersson, 2015). Saudia Arabia government has initiated the New City program in order to accommodate the rising population and provide an acceptable standard of life for its urban residents.

However, New Cities in Saudia Arabia face slow development trends that led to low vacancy rates and weak local investment (Sims, 2015). As a result, the cities are degenerating because they are not experiencing a sustainable economic or urban growth. However, growing metropolitan agglomerations arise concurrently in other areas such as peri-urban areas and in informal settlements (Sims, 2011). The Modern Cities are not satisfying the housing needs of the majority of the population and some of them are not pursuing a good market policy, innovation and use of the latest technology of utmost significance. Those smart cities on the market would adequately be able to draw residents, capital, and companies (Papp-Váry, 2018).

Project Findings

The NEOM is an audacious and bold dream. NEOM reflects what new future look like. It will be the city of machines working for the wellbeing of human's in every field of life, such as education, healthcare, transportation etc. NEOM will be the economic hub for all the people around the world regardless of their religion and the nation. However, the project will be facing many challenges from the beginning and these challenges will be ongoing and in need for continuous innovation. The major challenges for the project would include the technological, economic, political unrest among the Middle- East countries, social media awareness among Saudi Arabia

residents, changing the consumer demands, changing socio-cultural trends, and many environmental constrains.

Porter's 5 Forces Analysis

Porter's Five Force Model is a tool for the assessment of the competitive forces within the market that will allow firms to identify their position and viability of the business and strategic choices for the company. The forces include: the threat of new entrants; power of suppliers; power of purchasers; threat of substitutes; and rivalry of competitors. The external strategy view suggests that by recognizing the structure of the company's competition and market, an acceptable strategy can be built in this context (Min, et al., 2018).

Threat of New Entrants (Low)

To build a smart city like NEOM, one needs to have diverse elements of smart cities and number of different factors. NEOM would face a low threat of new entries in the region. The element of a smart city is the presence of Smart Economy; Smart People; Smart Climate; Smart leadership and Governance; Smart mobility and Smart Living. All these requirements are very hard to be met by a single or new entrant (Mohanty, et al., 2016). Therefore, it is not handy to build a city like NEOM. While the investors and companies can join NEOM if they are Dreamers, said Crown Prince Muhammad Bin Salman (Aly, 2019). As for the startups and existing companies, they will have more potential opportunities to join the smart city. For example, an energy-related company may expand and enhance its skills and expertise in a green and renewable energy solution. As Aly (2019) mentioned that NEOM will be building the world's largest solar energy production house. As for information Technology-related Company may extend their services to offer industry 4.0 technology solutions, other companies may look for entry opportunities in various fields.

NEOM is committed to the future of biotechnology, technology, and the emerging sciences. It provides its future residents entirely automated city utilities, extensive Web coverage, called 'digital air,' 'fifth wave of safe living and transport,' creative architecture, efficiency by green energies, and homes with zero net carbon fingerprints, large-scale solar power production, and sophisticated next-generation robotics. The highly integrated nature of NEOM city suggests that there is room for collaboration and partnership among the existing suppliers and startups to offer their services with more holistic platforms. The main obstacles to entry into NEOM city include large and varied stakeholders who need to be coordinated, the lack of knowledge of NEOM's opportunities, demand-side opportunities of scale, incumbent benefits, and government support and policy constraints. Donaldson (2020) criticized that there is no physical development of NEOM yet, it is just a PowerPoint city and no enough data is available to the investor and the new entrants.

Power of Suppliers (Low)

Suppliers of NEOM include wide variety of technology vendors, for example internet networks, cameras, sensors, smart grids, smart surveillance, etc. These devices and services are not exceptional on their own and can quickly be replaced, thereby reducing the power of the supplier. NEOM market remains limited and suppliers do not rely on it for revenue only, hence marginally increasing the power of the suppliers. Overall, suppliers' power is relatively low, which makes NEOM's market more appealing to many suppliers. As highlighted by Aly (2019) that NEOM city aims to work merely with the dreamers. It can be further witnessed from the statement of the

Crown Prince Muhammad Bin Salman, *“Those who cannot dream should not negotiate with us should not come to NEOM. We only welcome the dreamers who want to reach a new world.”*

Power of Buyers (High)

The local governments and national businesses are the main buyers of NEOM's facilities and services. The declining in the oil prices have posed restrictions on the power of buying. In Saudi Arabia, the consumers are now becoming more price-sensitive and likely to put substantial pressure on the suppliers to reduce the prices. Many governmental organizations can act as intermediate buyers for the NEOM. So, many of the organizations will be given the facilities and service in NEOM city without any charges. Hence, there will be an increased in price for the local buyers. The buyer at NEOM's will be attracted mainly to its magnificent infrastructure. But in case, If NEOM's solutions is not applicable to the buyers, it would be considered as an inadequate solution. For the international buyers, there is still some fear of the terrorism and extreme Islamic Ideology. Although, it is claimed that the Crown Prince supports the movement for moderate Islam. And he made this clear when unveiling the city at the launch event and vowed to eliminate the extremism.

The Threat of Substitute (Low)

NEOM is the smart city industry and relies on narrow scope technologies with few alternatives, technology-driven substitutes. Even then, the status quo in cities may be reckoned a challenging substitute. For example, the proposed world's largest solar plant may be a replacement for the existing energy solutions. However, given that NEOM city products have been expressly developed to resolve the limitations and boost the performance of these current offerings, the likelihood of substitution is minimal. Although NEOM can oppose improvements to smart city technologies, it is unlikely to resort to less effective, low-tech offerings. For the international buyers, the three will be available in the industry more than 110-150 new modern cities in more than 40 developing countries (Aly, 2019).

Competitive Rivalry (Medium)

The level of competition between emerging rivals in the smart city space is medium. The rivalry is restricted by the perception that smart city technologies are heavily interconnected, need a variety of players, and therefore leave room for a number of competitors in place with varying strengths. However, as organizations established partnerships to incorporate their strategies and continue to extend their services to enable a more comprehensive smart city approach, this competition will begin to grow. The biggest competition at the moment is in the attempt to achieve brand recognition for NEOM's technologies, whether or not they offer specifically competitive services.

Critical Analysis of NEOM

NEOM is an audacious and bold dream. It is a glimpse of what the New Future could seem like (NEOM means "new future"). Simply stated, NEOM will be a hub for individuals who dream big and would like to be part of creating a modern paradigm for healthy living, working and flourishing. The beauty of NEOM lies in its strategic location on the map (Frag, 2019).

The advocates and promoters of the project claim that, NEOM is the intention of establishing a new land where a range of unique opportunities for growth could lead to a global hub for

commerce, innovation and technology. The innovative class from around the planet has been welcomed to engage in the development of NEOM, with the prospectus of a new life in a spectacular nature free area, and an autonomous trade union with its own rules, taxation, legislation and no constraints. The future developments in travel, growing and storing food, health, the internet - of - things and digital air can all add to the unique lifestyle of NEOM inhabitants (Farag, 2019; The Economist. 2017).

As it is claimed that NEOM will be the real world of Sci-Fi. Where, the technologies of the future will be shaping the NEOM's structure. it will be the disruptive solutions for the transportation i.e. passenger drones, automated driving, new methods of yielding and processing food and crops, with well-equipped healthcare centers for the holistic care of the patient, speedy internet access to everywhere called the digital air, free online education, e-governance, bringing all the services at fingertips, zero carbon buildings, and community powered with renewable energy (Neom.com, 2020).

NEOM is the projects that starts with fanfare but there are many unavoidable facts that are not viewed in the project plan. The project will be facing variety of challenges, not only in the start-up phase but with the advancing in the development. The major challenges may include, the political, economic, social, technological, social and environmental. The economic challenges may include the lack of investors' interest in the current economic downturn of Saudia Arabia following the dramatic decline of the global prices of oil. While the political and legal challenges may include the unrest among the Arab countries following the recent civil strife and sudden political changes in Egypt and Tunisia have already extended to Libya and are now being felt in Yemen, Bahrain, and other Middle East countries. Investors, who were primarily involved in developments in Middle East, have expressed a real concern about the instability in the region (HFW, 2020).

The conservative laws and regulation of Saudia Arabia are another threat to the investors. The market, trade and labor laws of the country are entirely strict that hinder many investors to participate in NEOM. There is a wave of fear among the investors that Saudia Arabia would not be successful in meeting the promise of more modern and liberal country.

Also, it is claimed that the new smart city will be fully integrated with the latest robotic technology. This is only possible if all the stakeholders guaranteed the availability of the latest but secure technology. At NEOM, they will be using state-of-the-art technologies from the start with no legacy problems. Anything they will build; will be developed from the ground up, so that it can incorporate the new stable systems at any stage from the outset. They can fix weaknesses across a range of devices. In addition, the NEOM's scope is scratched from the ideas of the crown prince that incorporates those technologies which do not exist yet, such as robot maids, dinosaur robots, flying cars, and a giant artificial moon (GamesIndustry.biz, 2020).

Project's probability of Success

The success of the NEOM project, according to Altahtoo (2019) depends upon the four factors. These factors include the

1. Quality of data: This is critical for all applications and software that use the data and should be assumed to be compatible with the criteria such as reliability, precision, performance, validity and effect.

2. ICT quality of Infrastructure: It will be a key element in the growth of the Neom venture. It is described as ICT structures capable of delivering services at any time and everywhere, such as the reliability of the internet connection and networks.

3. Standard of project management: This is crucial to ensure the performance of projects in all sectors and is strengthened by reducing project duration and anomalies and increasing satisfaction of the stakeholder.

4. Quality of the environment: The natural environment is important in the creation of a socially adept and stable ecosystem for life safety. Improving the quality of the atmosphere leads to a greater quality of life.

In addition, the well formulated strategies to attract the foreign investment, and making the project independent of Suadia Arabia's domestic laws and legislations will definitely make many things better and will steer the project towards the success.

Conclusion

In conclusion, the completion of NEOM City will improve the economic prospects of Saudi Arabia and the region around. In effect, the government needs to ensure that the project is completed on time and within the budget. The analysis of the facts presented throughout this document reveals that the project's primary threat is the lack of adequate finances. As a result, the Saudi Arabian government should consider floating infrastructure development bonds in the financial markets. By doing so, it is highly probable that the government will manage to raise sufficient funds, especially if it goes ahead to sell at least five percent of the total shares of Saudi Aramco because its total market capitalization is projected to be more than \$1.5 trillion. The floating of bonds will afford the Saudi Arabian government to raise capital for NEOM City construction cost-effectively. Similarly, the other major threat to the project is the geopolitics of the region. Thus, the Saudi Arabian government needs to set up a team of highly respected individuals who are highly proficient in geopolitics then ask them to liaise with key government officials in Egypt, Israel, and Jordan. The implementation of this move will minimize the political risk of the project. In consequence, a relatively high number of investors will be interested in investing in NEOM.

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Factors That Influence System Inputs and Participation Rate

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Abstract

This research was conducted to have an overview of HR employee engagement and their inputs in the HR productivity system that was utilized to make decisions related to employee development, process improvement and work force planning in an organization and what are the different factors that affect the participation rate positively or negatively.

The research will also provide different conclusions on the relationship of different variables and will provide recommendations and suggestions for improvement.

Thesis statement

This research will highlight the reason for low employee participation in the HR productivity system and level of accuracy in data provided.

Thesis Questions

1. *Why the participation rate in the HR productivity system is decreasing in comparison to the previous years?*
2. *Why employees cannot see the benefits from their participation, and why their managers does not support or trust that they can get benefits out of the system that can support them in their decisions?*
3. *How can we assure the accuracy of information provided by some of the employees, and how can we gain employees and managers trust in the system and help them get the maximum benefits out of it?*

Problem

The productivity system was introduced and implemented to track and measure the productivity of employees in the human resources department. The participation rate gradually started reducing and employees began refusing to provide their productivity inputs unless there is instructions from the top management. Employees also started inputting inaccurate information that does not reflect the actual workload or the actual process and activities.

In the process of improving the existing productivity process we have decided to conduct this research and analyze the reasons behind low participation rate.

In this study, simple random sampling was applied and 40 employees (the element) were selected out of 84 operational staff list in the human resource department (targeted population). All surveys and questionnaires distributed at once electronically through emails to the 84 employees applying the probability sampling for the quantitative approach, where by the 50 responds received were considered as the sample for the research.

The researcher focused on reducing the errors of the population specification by considering the operational staff in the human resources department as a focus for capturing the required quantitative data.

Introduction

The productivity system is a tool to track and measure employee's daily productivity in the HR department. At the beginning there was an acceptance to the system and employees were engaged, however, a gradual reduction were noticed in the participation rate and many employees started providing inaccurate data that does not reflect the actual task performed.

As a result we decided to improve the productivity system through conducting this research that helped us understand the reasons behind employee's low participation rate.

Literature Review

Measuring the productivity and assessing employees' performance considered as one of the important processes of the organization, to show performance gaps and to introduce performance improvement actions (Berman & Evan, 2015). Several studies suggest that performance management and productivity reporting is also one of the areas that organizations seeks improving, in order to make effective decisions on the management level from the reports generated (Argyris & Chris, 2017). Prior research suggest that

when introducing any new process, organizations should always focus on the quality of the system, as the outputs will support managers, and employees will not feel that their inputs are useless (Groen, Wouters and Wilderom, 2017). Previous research indicated that applying an effective system will lead into reducing the unnecessary processing time and efforts (Maskell et al., 2017).

To support the above, many studies showed that there is a relationship between system quality and employee participation. Studies furthermore showed that the chances of system success are higher when users are involved in the designing of system and are asked to provide inputs that will make the system more effective (Shatat and Yusof, 2014). Many researchers mentioned that participation is about involving employees at all levels in the decision making process starting from employee awareness on how they are contributing to the decision-making in the organization (Psimmenos, P. 2. 2018), where employees will feel motivated and will trust the system if it is evident that organization are taking actions based on their inputs. (Hassan & Saira, P. 18. 2016). However, previous studies have emphasized that there are different barriers that reduces the participation rate, such as workload, time, management perception about the process, and lack of regulations (Susomrith et al., 2015).

Studies also showed that there are other implicit barriers (gender, age group, tile at work ...etc.) and explicit barriers (time, resources, knowledge, skills ...etc.) that affects the participation rate (Toker et al., P. 866. 2015). Yet, findings of different studies showed that the hopeful an employee is the more motivated he/she will be, and the more motivated an employee is the more he/she will participate in anything that relates to the job. (Irawanto, P. 159. 2015). In previous studies it was proved that employees get motivated knowing that an action will be taken based on their inputs, however, studies also proved that management will not consider taking any action based on information provided that lacks accuracy (KAMANI, 2017). Therefore, several studies proposed that managers needs training on how to identify their team members' motivational needs and what tools to use in order to motivate each individual, as a motivated employee will commit in participating in programs that will benefit the organization. (Vlacseková and Mura, 2017).

Purpose

This exploratory research used by applying the survey research strategy to understand reasons behind employee's low participation rate in the HR system.

At the beginning, employees were engaged and were fully participating in the system on daily basis, then a gradual reduction were noticed in the participation rate for some of the employees, while others have stopped reporting their productivity in the system.

The reasons behind continues reduction in the participation rate were both unclear and unidentified.

Therefore, the survey research was applied and variables that are affecting the participation rate both negatively and positively were identified.

Moreover, in this research we have identified the reasons why supervisors were not supporting the system despite our efforts and continues follow-ups.

Methodology

In this study, the researcher applied simple random sampling and selected 40 employees (the element) out of 84 operational staff list in the HR department (targeted population). All surveys were distributed electronically through emails to the 84 operational staff applying the probability sampling for the quantitative approach, where by the 50 responds received were considered as the sample for the research.

The researcher focused on reducing the errors of the population by considering the operational staff in the HR department as a focus for capturing the required quantitative data.

Capturing data from the entire population was difficult since the survey was design to capture data from anonymous users to assure receiving honest feedback and to avoid causing bias or having any effect on employee's decision on providing inputs to the system, which made knowing the missing feedbacks option unavailable thereby the follow up became more difficult.

Moreover, to reduce the errors of selection the researcher managed to capture data from 60% of targeted population.

Whereas for the qualitative approach, the nonprobability sampling were applied by targeting employees at the managerial level to obtain required information and get clear understanding of the situation, as their experience and knowledge makes them the best source of information.

The study's time horizon was cross-sectional, as data captures only one time to find answers to the below questions related to the research:

1. Why the participation rate in the HR productivity system is decreasing in comparison to the previous years?
2. Why employees cannot see the benefits from their participation, and why their managers does not support or trust that they can get benefits out of the system that can support them in their decisions?
3. How can we assure the accuracy of information provided by some of the employees, and how can we gain employees and managers trust in the system and help them get the maximum benefits out of it?

The research took place with a minimal interference from the researcher, to fulfill below research objectives:

1. Identify factors that reduces the participation rate in the HR productivity system.
2. Identify factors that enhances the participation rate in the HR productivity system.
3. Identify why the management does not consider the results of the HR productivity system.
4. Identify why there is no action taken based on the HR productivity system.

The interference and interruption appeared only while running surveys and while conducting interviews to capture related data from the employees in the HR department. Next data was analyzed and conclusions were formed.

Furthermore, a causal connection was not formed, as it requires manipulating any independent variable to study the effects of the manipulation on other dependent variables, causing a moderate interference.

Sample

Survey respond received from 50 employees, where 58% of participants were female and 42% were male. The mean age group of the sample is between 31 – 35. Out of the responds, received 66% by UAE national employees, while 34% by expatriate. The responds submitted by (6% employees in grade 8), (8% grade 9), (18% grade 10), (30% grade 11), (32% grade 12), (2% grade 13) and 4% employees on temporary contracts.

The mode of the responds received based on the educational level is 58% employees with bachelor degree responded.

The responds captured from interviews were 100% provided by females, the most frequent job grade is 14.

Measures

Importance of System

In the survey, participants were asked about how important they preserve the system in supporting their performance. The scale used for this question was “Extremely important” to “Not important at all”.

Supporting the above question, one of the managers was asked using “Open ended question” about the importance of the productivity system and how they could benefit from the output.

Awareness

To measure the level of system awareness, participants were asked in the survey to rate their level of awareness using a scale of “Strongly agree” to “Strongly disagree”.

Linkage to Appraisal

In the survey, participants were also asked whether the productivity system is linked to their annual performance appraisal and used for their rating using the scale of “Strongly agree” to “Strongly disagree”.

Besides the above, an open-ended question was directed to a manager in the interview about how far the productivity system is linked to her employees' performance appraisal.

Management Support

To highlight the level of support provided by management, participants were asked if their managers supports the process to fulfill system's requirement, using a scale of "Strongly agree" to "Strongly disagree".

The interview question used to measure the level of support provided differed from the survey in the way it was raised and asked since the manager was asked about how frequent do she interact and discuss system's output and result with the employee.

Involvement and Engagement

The level of involvement was measured through the scale of "Strongly agree" to "Strongly disagree" in the survey and an open-ended question in the interview.

Quality of System

The literature review by (Groen, Wouters and Wilderom, 2017) showed the importance of the quality when implementing any system in the organization. Studies also showed that there is a relation between the quality and the participation rate (Shatat and Yusof, 2014). To test the theory a question was asked in the survey to indicate participants view of system quality using a "Very high" to "Very low" scale.

Supporting the same, participants were also asked another question in the survey about system effectiveness in terms of easiness and if it is user friendly, however, the scale used was "Extremely effective" to "Not effective at all".

Accuracy

To understand how accurate the inputs provided by employees in the productivity system, participants were asked about how accurate their inputs are through a scale of "Always" to "Not at all".

Validation

Right actions requires valid data, and to evaluate the current situation relate accuracy, participants were asked if their inputs are being validated in their departments using a nominal scale of "Yes" or "No".

A question was also addressed in the interview on how do managers validate their employees' inputs in the system.

Actions

In relate to actions based on inputs, participants were asked whether their inputs are taken in consideration using the scale of "Strongly agree" to "Strongly disagree".

As manager's are the ones responsible for taking action related to their employee performance, the interview covered multiple questions in this area. First question focused on how managers are benefiting from system outputs. Second question focused on what action does a manager takes based on outputs. One more question focused on how does the manager develops their employees based on their performance outputs in the productivity system.

Factors That Affects Participation

Question were included in both surveys and interviews to capture the factors that affects the participation either positively or negatively, however, surveys included nominal scale while interview included open-ended questions.

Employee Development

One question included in the survey to understand if employee's growth and development affects the participation rate in the system.

Processing Time

Another area that survey focused on understanding was the processing time in terms of does the process consumes time or not using a scale of "Strongly agree" to "Strongly disagree".

Regulation

In the interview, the manager was asked to describe the benefits that can be gained by having regulation set for the productivity question.

Motivation and Satisfaction

Managers also were asked to identify tools used to motivate their employees to participate in the system. Managers were also asked to describe their employees' satisfaction from the productivity system.

Analysis

To analyze the reason behind low participation rate in the HR productivity system, 40 operational staff were targeted out of 84, whereby 60% of the employees participated in the research by providing us with their feedback, and data were captured from three employees at managerial level through interviews.

Results

Quantitative Results

Data displayed in the results captured through surveys distributed to 84 employees in the HR department to study the reason behind the low participation rate in the productivity system. 50 employees from different nationalities participated in the survey, out of which 33 were UAE nationals, and 17 Expatriate. (**Appendix - Figure 1**).

The feedback received from 29 female and 21 male employees. (**Appendix - Figure 2**)

The participants fall under different age categories, were as 3 participants ages are between (20-25), 21 between (26-30), other 13 between (31-35) and 13 more are under the 36 and above age group. (**Appendix - Figure 3**).

In additional, employees who have participated in the survey are also holding different grades and job title; however, the data captured was only of their grades. (**Appendix - Figure 4**)

In additional, level of education was captured for all the 50 participants to provide an insight of the educational background and how it could affect employee's participation rate. 2 of the participants reported holding High school certificate, 8 Diploma, 29 Bachelor degree, and 11 Master degree. (**Appendix - Figure 5**).

The results of the analysis shows that 76% of participants doesn't consider the system as important in supporting their performance, while 18% considers the system as somehow important and only 6% sees the system as important in supporting their performance. Therefore, employee will not commit to something and add efforts unless the importance of it is clear and obvious. (**Figure 6**)

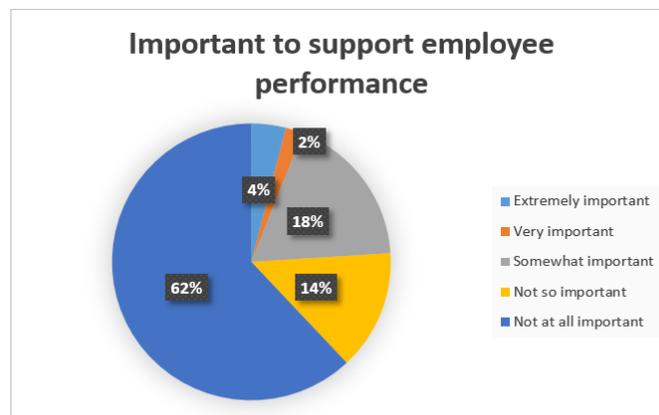


Figure 6

The following results in **Figure 7** supports the above point that covered the importance of system to performance, where 66% confirmed not having the system linked to their annual performance appraisal, and by not having the link the productivity system will not provide the required support to performance.

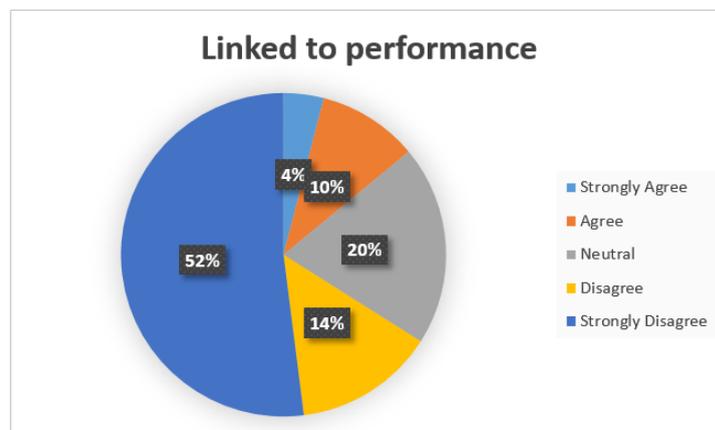


Figure 7

The survey also focused on capturing employee's level of awareness on how to use the system. Results shows that 74% of employees are aware of how to use the system. Therefore, awareness of the technical side of the process is not to be considered within the variables that affects participation. (**Appendix - Figure 8**)

Moreover, results also shows that along with the awareness of system, employees are provided with the required support from their managers, whereas, 54% of participants reported that managers are supporting the productivity system and providing participants with the essential support to fulfill the requirements of the system. Therefore, we have noticed that some of the managers are providing support even if they were not benefiting from the system. (**Appendix - Figure**).

The research shows also that 42% of employees are involved in system design related to their departments in terms of reviewing norms and activities, versus other 38% participants who reported not being involved in the designing and reviewing process. Thus, this point can supports the previous research of (Psimmenos, P. 2. 2018) if further investigation is done to show employees contribution based on involvement in all levels of the process. (**Figure 10**)

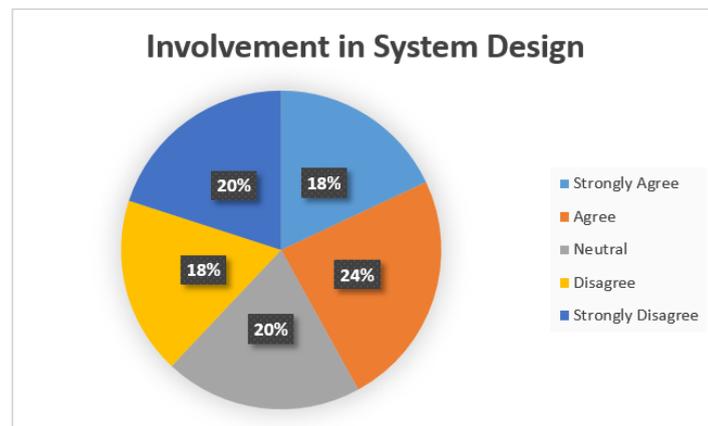


Figure 10

In the survey, system effectiveness was one of the variables that was mentioned and measured, whereas 66% respondents agreed to the fact that the system is ineffective in terms of being easy to access or user friendly. Previous researches mentioned that applying effective systems leads to reduction in time and efforts (Maskell et al., 2017). Therefore, employees will not participate in a system they perceive as an ineffective because they know that they will be wasting their time and efforts. (Figure 11)

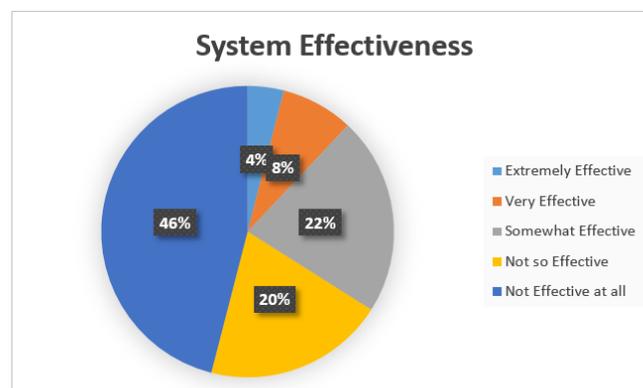


Figure 11

70% reported that the submission of the daily productivity forms consumes time. (Figure 12)

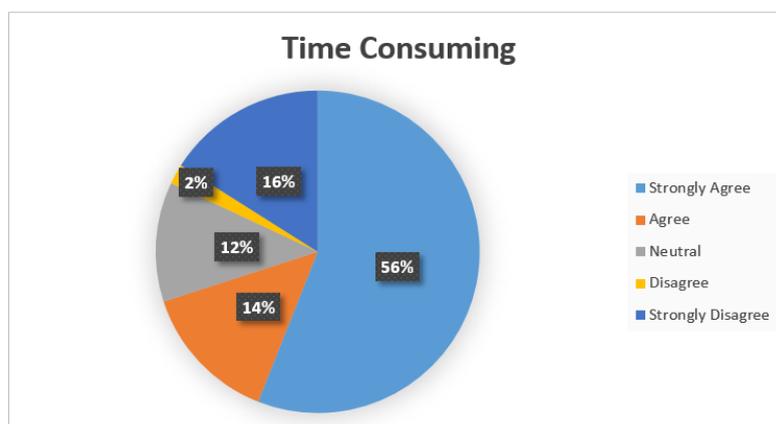


Figure 12

The research also measured another variable related to system quality and 62% rated the system with low quality, and different studies showed that there is a relationship between system quality and participation rate (Shatat and Yusof, 214). In this case, low quality was a reason for low participation rate. **(Figure 13)**

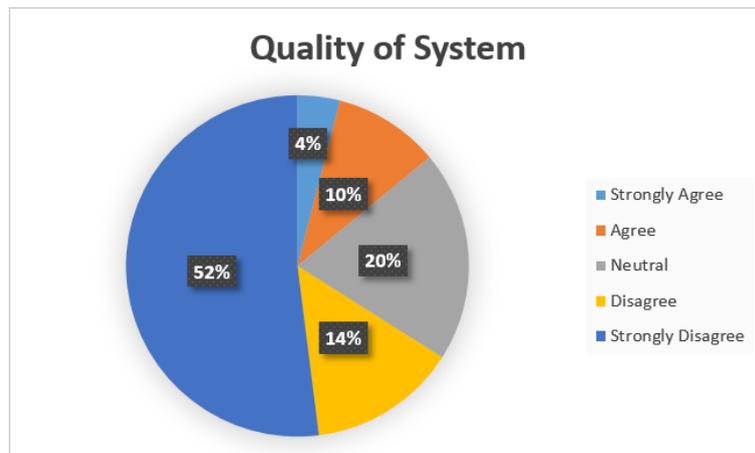


Figure 13

Furthermore, results shows that only 32% of the employees are reporting accurate information in the system, while the data provided in the productivity system by the 68% remaining participants are not 100% accurate. **(Figure 14)**

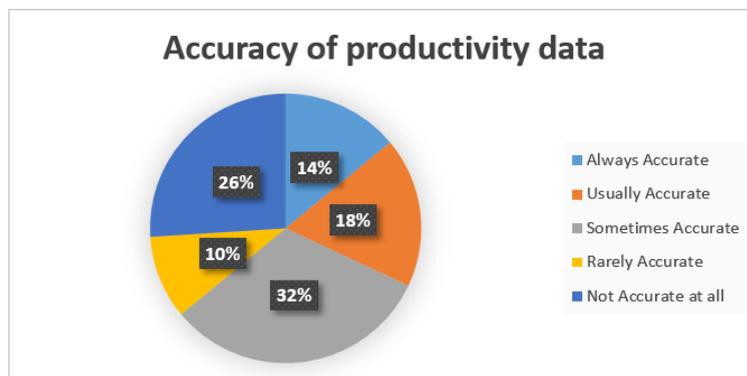


Figure 14

Validation of inputs in the productivity system was one of the variables displayed in the survey, whereas 64% confirmed that no one is validating their inputs in the system. **(Figure 15)**

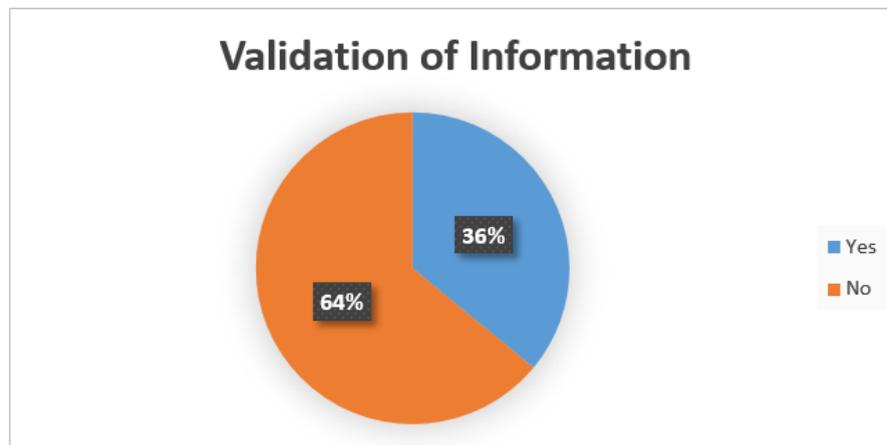


Figure 15

In relate to the above point, the following **Figure 16** shows that 52% reported that there inputs in the system are not been taken in consideration by their managers. Many researches showed that employee gets motivated to participate when there is an action taken based on their inputs (KAMANI, 2017). However, actions can only be taken when data provided are accurate and valid.

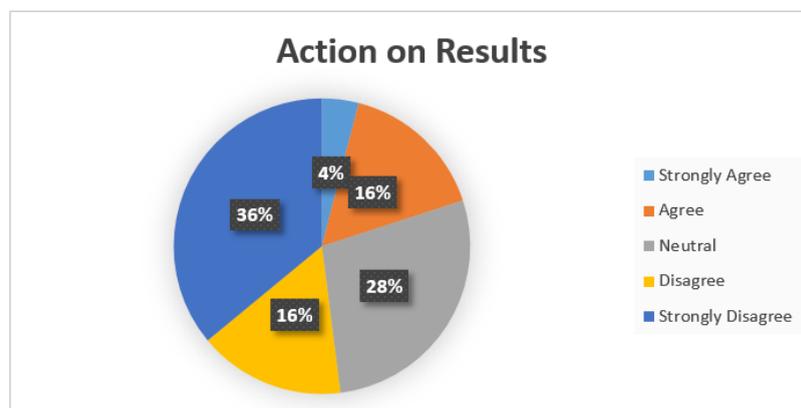


Figure 16

As for the impact of employee's development and empowerment in increasing the participation rate in the productivity system, 56% of employees reported that there is no relationship between their development and their participation in the system, while 43% of responds stands in the middle. (**Appendix - Figure 17**).

A Question regarding the relationship between workload and the submission of the daily productivity forms designed to study the relationship between the variables, and 80% confirmed that it is hard to participate in the productivity system with the daily workload and task. (**Figure 18**)

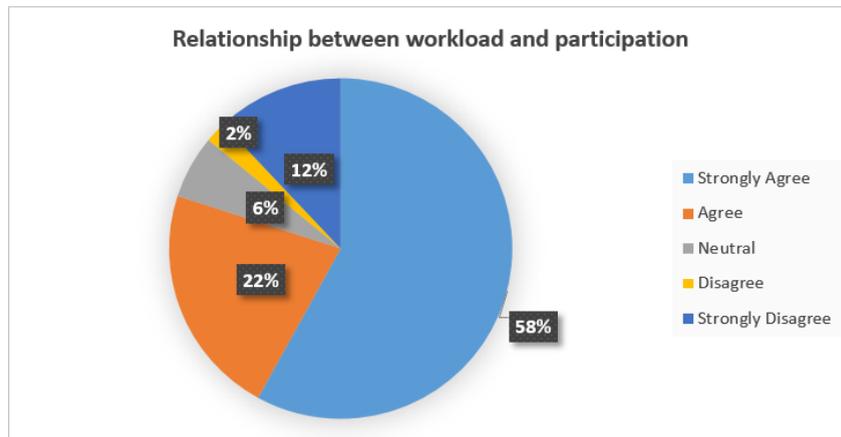


Figure 18

Beside the above question, another question was designed in the survey to capture factors that reduces the participation rate in the productivity system and workload was one of the factors highlighted alongside three other factors. Workload in both figures 18 and 19 rated the high, followed by Low quality of system. **(Figure 19)**

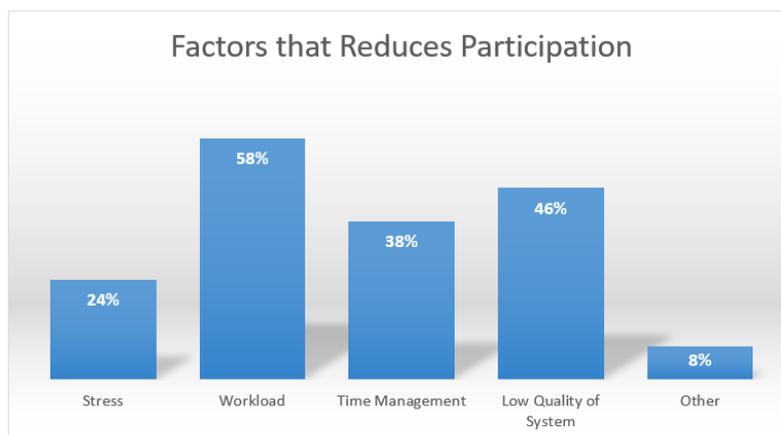


Figure 19

Furthermore, another question was designed in the survey to capture factors that increases the participation rate in the productivity system. Rewards and Recognitions rated the high followed by quality of system. **(Figure 20)**

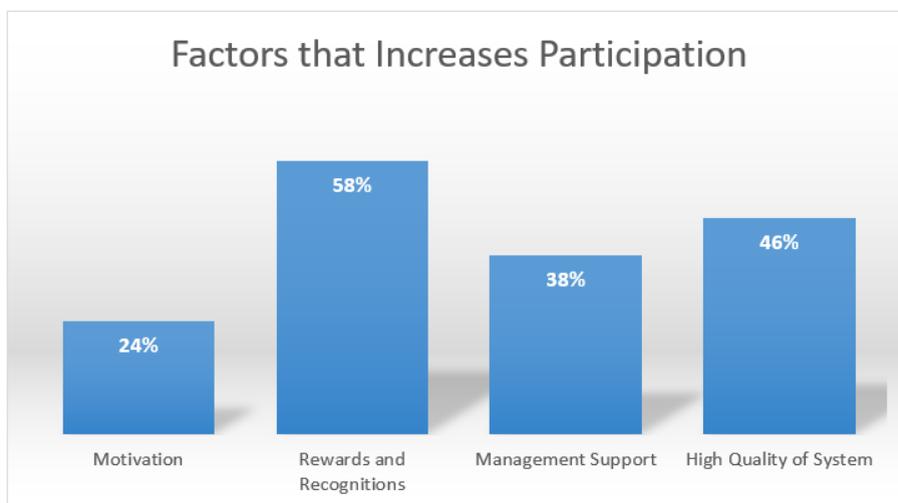


Figure 20

Qualitative Results

Three managers were interviewed on 15 variables and the results of the interviews will be discussed below:

Awareness and understanding

Managers reported having basic understanding of the system and its importance and type of results and reports, and this is what is preventing them from taking any action, as they cannot see the impact of the productivity system to their department and functions.

Link to performance

Managers confirmed in the interview that there is no link between the productivity system and their employee's performance appraisal.

Benefits of inputs and actions

Furthermore, managers also confirmed not being able to identify any benefits from their employee's input in the system and that they do not depend on the results generated from the system in their employees' development or employees' growth. They do not take any action based on the result except for norms modification in the system based on changes in their processes.

Validation of inputs

Interview question also looked into the process of validating employees inputs in the productivity system, whereas, managers explained that their employees in the system not validated because the output is not being utilized in any action.

Accuracy of information

As an answer to our question, managers confirmed that they do not depend on the results because they know that the data entered by the employee are inaccurate, therefore, the actions will be invalid. The answer shows that managers wish to use the results to support their case when planning their department work force, however, the inaccuracy of information makes this step impossible.

Discussion and support

Managers are involving their employees in the designing and reviewing process of department norms and activities. Managers are also requesting their employees to fulfil system requirements whenever they receive a request from the top management, yet, this is not the process applied on day-to-day basis.

Factors that reduces participation

Managers were requested to identify list of factors that reduces participation, not having an official regulation for the productivity measuring system is one of the factors that affects participation negatively, processing time is another factor, number of activities set in the productivity system, and linkage to performance.

Factors that increases participation

Managers were also requested to identify list of factors that increases participation, rewards and recognitions were the only factors identified.

Satisfaction and motivation

We also focused on understanding employee's level of satisfaction from the productivity system, what tools does a manager uses to motivate their employees. Therefore, managers explained that employees are not satisfied because they do not see the benefits out of it, besides the process consumes time and efforts. Employees are also not satisfied because the system is not linked to their performance appraisal. As for the motivation tools, managers explained that they are encouraging their employees through emails, and providing verbal appreciation.

Conclusion

Our finding suggests that the majority of employees are not satisfied with the existing productivity system, and managers' supports there case.

Analysis	Rate
Agreed with the difficulties of submission with the workload	80%
Doesn't see the importance of system to support their performance + linkage to appraisal	71%
Submission in system consumes time	70%
Finds the system with low quality	66%
Their inputs not getting validated	64%

To conclude the entire research, we have found that there is a relation between different variables whereas, manipulating one can influence the other.

Conclusion 1**Workload vs. participation**

Conforming to the research above, the amount of workload highly influences participation rates. Employees struggle in terms to participate when their workload increases leading to low participation rate.

Conclusion 2

Importance vs. participation

People do not prefer doing unnecessary activities that would waste their time as that is counterproductive; hence it is critical to provide importance to the process in order to enhance the participation rate. Similarly, if productivity was to be connected to the annual performance appraisal, it would encourage employees to stay on top of their requirements to maintain their performance. (Appendix 24).

Conclusion 3

Processing time vs. participation

It is evident that an individual's will to participate decreases when a process requires a lot of time; however, when an employee is not able to grasp the importance or the benefit that comes with the process, they tend to think the processing time is high even though reality says otherwise. Correspondingly, as the amount of time for processing increases, the employee's will to participate decreases, especially when the process is mandatory on a daily basis. (Appendix 24).

Conclusion 4

Quality of system vs. participation

Referring to this study, we conclude that the relationship between the system's quality and the participation rate is evident. As the effectiveness and the quality of a system increases, the participation rate increases as well.

Conclusion 5

Validation of inputs vs. participation

In this point the validation of inputs plays a major role in enhancing action based on results which will increase the motivation and satisfaction rate, as employees will feel that their inputs are valuable and taken in consideration. Thus, validation of inputs increases the participation rate in an indirect way.

Recommendations

Based on our research and the above conclusions, we recommend the following:

1. Linking the HR productivity system to employee's performance appraisal.
2. Link the HR productivity system to the departmental performance.
3. Introduce a smart solution that have the option to capture data processed online and recommend a smart solution that will require less time to capture the activities processed offline.
4. Introduce a mechanism to validate the data provided by employees.
5. Link the productivity system to the work force planning process.
6. Set rewards and recognitions to increase the satisfaction rate.

Acknowledgement

I would like to thank my husband and kids for all the support they have provided me with during the preparation of this research.

I would also like to thank those who participated in the survey and enriched my research with their valuable inputs.

Appendix

Figure 1

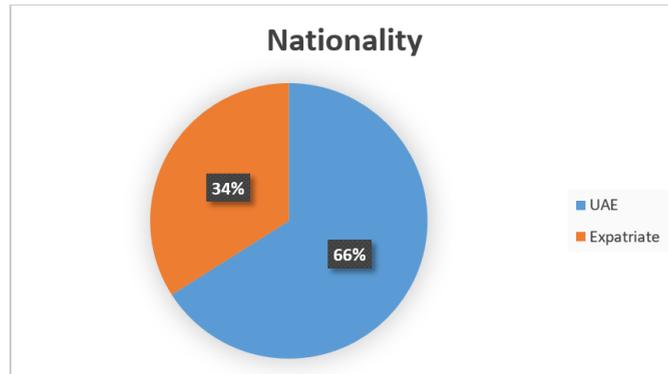


Figure 2

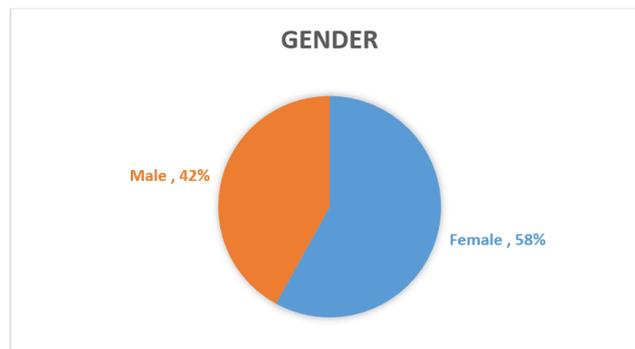


Figure 3

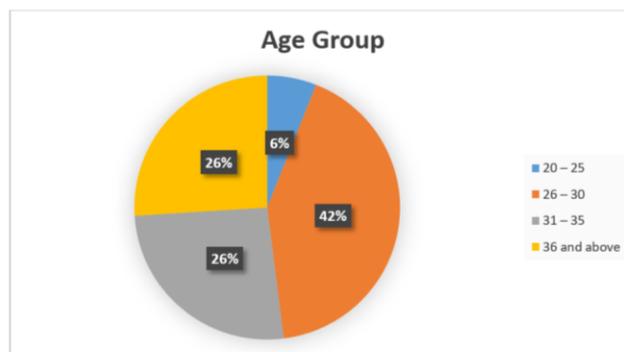


Figure 4

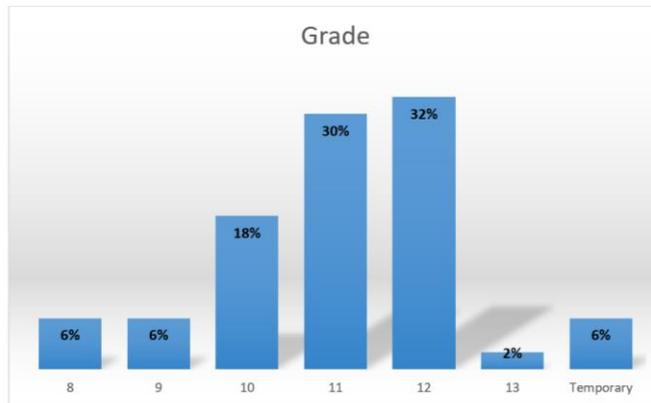


Figure 5

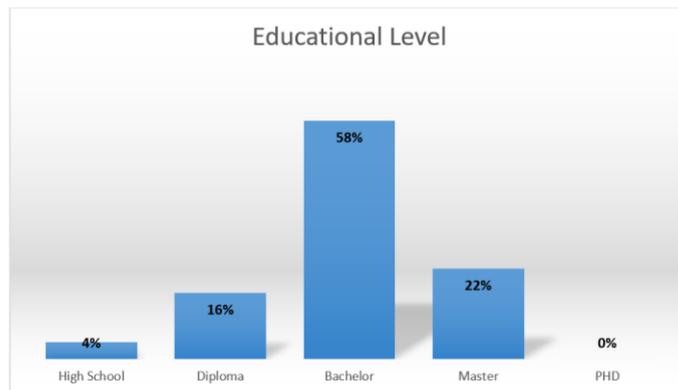


Figure 8

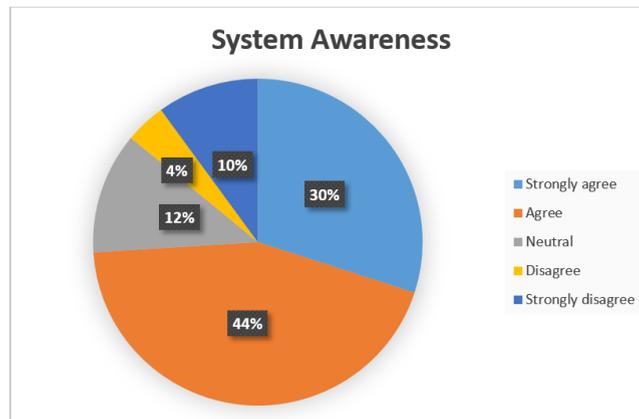


Figure 9

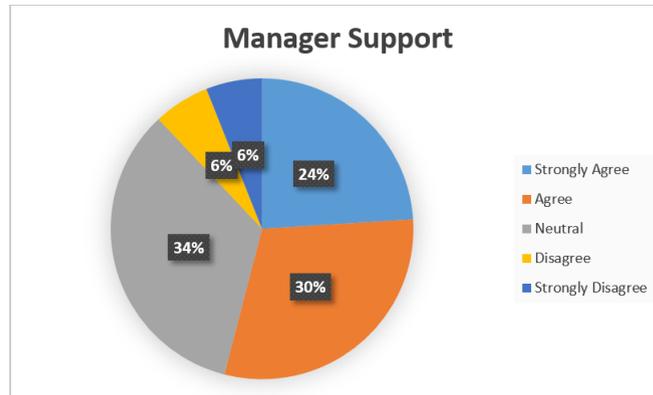


Figure 17

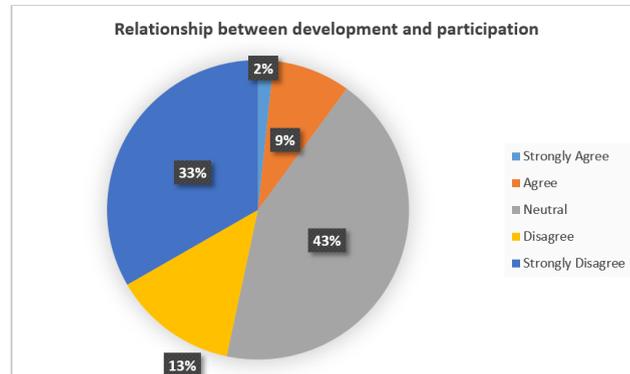


Table 1 - Detailed analysis with percentage of participation

Survey Questions	1	2	3	4	5
Your gender	42%	58%	NA	NA	NA
Your age category	6%	42%	26%	26%	NA
Your grade	6%	6%	18%	30%	32%
Your Nationality	66%	34%	NA	NA	NA
Your educational level	4%	16%	58%	22%	0%

Table 1 - Detailed analysis with percentage of participation

Survey Questions	1	2	3	4	5
I find the HR productivity system important to support my performance 1 5 Extremely important Not at all important	4%	2%	18%	14%	62%
I am aware of how to submit the daily productivity forms in the HR system 1 5 Strongly Agree Strongly Disagree	30%	44%	12%	4%	10%
My manager supports the process of filling the HR productivity system 1 5 Strongly Agree Strongly Disagree	24%	30%	34%	6%	6%
Survey Questions	1	2	3	4	5
I am involved in reviewing and setting the HR productivity system requirements such norms and activities 1 5 Strongly Agree Strongly Disagree	18%	24%	20%	18%	20%
The HR productivity system linked to my annual performance appraisal 1 5 Strongly Agree Strongly Disagree	4%	10%	20%	14%	52%
I find the HR productivity system (effective) for example (easy to access, user friendly, interactive,...etc) 1 5 Extremely effective Not effective at all	4%	8%	22%	20%	46%

Survey Questions	1	2	3	4	5
My inputs in the HR productivity system 1 Always accurate	14%	18%	32%	10%	26%
5 Not accurate at all					
My inputs in the HR system are taken in consideration by the management 1 Strongly Agree	4%	16%	20%	16%	36%
5 Strongly Disagree					
Submitting forms in the HR productivity system consumes my time 1 Strongly Agree	56%	14%	12%	2%	16%
5 Strongly Disagree					
It is hard for me to submit forms on daily basis with the workload and tasks 1 Strongly Agree	58%	22%	6%	2%	12%
5 Strongly Disagree					
Survey Questions	1	2	3	4	5
Does anyone in your department validates your inputs in the system 1 Yes	36%	64%	NA	NA	NA
2 No					
I find the quality of the HR productivity system 1 Very high quality	4%	10%	20%	14%	52%
4 Very low quality					
My development in the organization for example (taking courses, empowered,etc) increases my participation in the HR productivity system 1 Strongly Agree	2%	9%	43%	13%	33%
5 Strongly Disagree					

Table 3 - Questionnaire data captured for 50 employees

User	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18
1	2	2	4	1	4	5	1	3	2	5	3	2	3	3	4	1	3	3
2	2	3	5	1	2	5	1	3	3	5	3	3	4	2	2	1	4	5
3	2	2	3	2	4	3	5	5	5	5	5	3	5	5	5	2	4	5
4	1	1	5	1	3	3	1	1	1	2	2	1	2	2	2	1	2	2
5	2	2	4	1	3	5	1	3	1	5	5	3	5	1	1	2	4	5
6	2	4	3	1	4	3	3	1	1	4	3	2	3	1	1	2	2	2
7	2	2	4	1	3	4	1	1	1	5	1	1	3	1	1	1	1	3
8	1	4	3	2	3	5	2	3	4	5	3	3	3	1	1	2	4	3
9	1	2	3	2	3	5	2	2	4	4	4	3	4	2	2	2	4	4
10	1	4	4	2	3	4	2	4	3	3	4	3	3	3	2	2	3	3
11	2	2	4	1	4	5	2	3	3	5	5	3	5	1	1	2	4	5

User	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18
12	1	2	6	2	3	3	2	2	3	3	3	3	3	3	2	1	2	3
13	2	3	6	2	4	3	1	1	3	3	3	1	2	3	3	2	3	3
14	2	3	5	1	3	5	3	2	2	5	5	3	5	1	1	2	3	4
15	2	2	3	1	3	5	2	3	4	5	5	5	5	1	1	2	4	5
16	2	3	5	1	2	5	2	2	2	3	3	3	2	3	2	1	2	3
17	2	2	3	1	3	5	1	3	1	3	5	3	3	1	1	2	4	5
18	1	2	1	2	2	1	1	1	1	1	1	1	1	5	5	1	1	1
19	1	4	4	2	3	4	2	4	4	4	4	4	4	1	1	2	4	4
20	2	3	5	1	3	5	2	2	5	5	5	2	5	5	2	2	3	3
21	2	3	5	1	3	5	1	3	5	5	5	5	5	5	5	2	4	5
22	2	4	5	1	3	5	2	3	5	5	5	2	3	1	1	2	4	3
23	2	4	5	1	2	5	3	3	2	5	4	1	4	1	1	2	3	4
24	2	4	5	1	3	5	2	3	4	4	3	5	5	1	1	2	4	5

User	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18
25	1	2	4	1	3	5	5	3	4	5	5	5	5	1	1	2	3	3
26	2	2	4	1	3	5	2	2	2	4	5	5	3	1	1	2	4	3
27	2	2	4	1	3	5	5	3	5	5	5	5	5	1	1	2	4	5
28	1	3	4	2	4	3	1	1	3	3	4	4	3	2	1	1	3	3
29	2	3	4	1	3	5	2	2	5	5	5	5	5	1	1	2	4	5
30	1	2	2	2	3	3	1	1	5	3	5	3	3	1	1	1	3	3
31	1	3	1	2	1	4	2	1	2	3	3	2	2	2	1	2	3	2
32	2	1	4	1	4	4	1	3	4	5	4	1	3	1	3	2	3	3
33	1	4	2	2	3	3	2	4	2	2	3	2	2	1	1	1	3	3
34	1	2	4	1	4	5	1	1	5	1	5	1	2	1	1	1	4	5
35	1	2	5	1	3	1	1	1	1	2	2	2	1	1	3	1	2	2
36	1	2	6	1	4	5	4	2	2	5	5	5	5	1	2	2	4	5
37	2	2	5	1	3	5	1	2	5	5	5	4	5	1	1	2	4	5

User	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18
38	2	2	5	1	3	5	2	2	2	5	4	4	5	5	5	1	3	5
39	1	3	4	1	2	5	4	1	3	5	4	5	3	4	1	1	4	4
40	2	4	5	2	2	5	2	2	5	5	5	3	5	1	1	2	4	5
41	2	3	5	1	2	5	5	5	5	5	5	5	5	5	5	1	4	5
42	2	3	5	1	2	5	5	5	5	5	5	5	5	5	5	1	4	5
43	1	4	2	2	4	5	2	2	3	5	5	5	5	1	1	2	4	5
44	1	4	5	1	1	4	2	2	4	5	3	4	4	3	2	1	3	5
45	2	2	3	1	3	2	2	1	2	2	2	2	2	2	1	2	2	2
46	2	1	3	1	3	5	3	2	2	4	5	5	4	1	1	2	4	5
47	1	4	3	2	4	3	2	2	2	2	2	2	2	1	2	2	2	3

User	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 9	Q 0	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8
48	1	4	2	2	3	4	2	3	3	4	4	3	4	2	2	2	3	4
49	1	3	1	2	3	5	3	3	4	3	4	3	4	5	1	2	3	4
50	2	2	4	1	3	5	3	3	3	3	5	3	3	1	1	1	3	4
Mean	1.58	2.72	3.92	1.34	2.98	4.28	2.2	2.4	3.14	4	3.96	3.16	3.64	2.08	1.88	1.64	3.26	3.82
Mode	2	2	5	1	3	5	2	3	2,5	5	5	3	5	1	1	2	4	5
Median	2	3	4	1	3	5	2	2	3	5	4	3	4	1	1	2	3	4

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Robotics Process Automation Implementation in Etisalat

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Abstract

Similar to numerous leading companies, Etisalat adopted the implementation of Robotics and processes automation within several departments of the organization. The study that was performed in this research aims to understand how employees view such implementation and examines the relationship between their motivation and trust within the company and if the automation implementation might threaten their current jobs in their opinion.

Robotic Process Automation, or RPA, is becoming a common part of the workplace for some organizations while many others are just starting their journey towards process automation. While not being the solution to every automation need, RPA technologies provide the “robots” to automate many human activities. Essentially, bots, acting as human agents, can perform rules-based, repetitive tasks and do so with a higher degree of accuracy and more rapidly than the humans themselves. Etisalat has launched a Robotic Centre of Excellence, which is using robotic process automation to deliver automated solutions for greater efficiency and better customer service. The initiative was part of Etisalat's key activities to mark UAE Innovation Month in 2019. The center was launched with six RPA robots in February 2019, and currently has 76 software robots performing various autonomous transactions in Etisalat's Business Care and Order Management back office functions. The introduction of robotic process automation was part of Etisalat's efforts to drive the digital future and empower society which is in line with the UAE Vision 2021, where the national innovation strategy has identified digital technology as one of the top seven primary national sectors.

The research studies the automation implemented in Order Management back office specifically. The data analyzed was primarily based on the information collected from employees within Business Support Desk department within the Enterprise Sales in Etisalat. Two hypotheses were tested: If Robotic Process Automation implementation is related to employees' motivation and If Robotic Process Automation implementation is related to employees' trust in Etisalat. To test these hypotheses data was collected through questionnaires and interviews with three of the senior managers in the department. The method of non-probability sampling was used to select the sample of the research discussed in the paper. According to this sampling method technique, the sample space was selected depending on their knowledge and expertise in the department within its various processes and responsibilities held. The data collected was all investigated using two main computer programs, SPSS and ATLAS.ti. Both programs were used to analyze the data collected from both questionnaire and interviews in order to draw a conclusion on the topic of this paper. SPSS was used to study the data collected from the questionnaires given to twenty different employees, whereas ATLAS.ti was used to study the data inferred from the interviews.

After analyzing the responses of the employees, the results indicated that employees are well aligned with the automation process, in fact many advised that this new implementation helped them in their day to day activity. Although it was commonly thought that automation might replace human capital in many jobs in the future, this generalization was not widely present by the employees throughout the study. The feedback showed that Robots helped them perform repetitive tasks much more accurately, securely, reliably, and faster. Consequently, the staff along with the robots work much more efficiently together as employees perceived them as a support aid to complete their assigned tasks efficiently rather than a tool that could replace them and endanger their jobs.

Introduction

Etisalat is one of the largest and most valuable companies in the telecommunications industry. Being a leader in the digital field, like other firms in the industry, Etisalat adopted many new methods of work processes that were successfully applied within its various departments. Artificial Intelligence, automation, and robotics have gained a wide importance in the workplace of many industries. Similar to numerous leading companies, Etisalat adopted the implementation of Robotics and processes automation within several departments of the organization. This was applied within the Business Support Desk to help employees with the routine day to day activities that are part of the work responsibilities within the

department. Software robots are considered important holding many benefits to the workplace, however, like many new applications, there are some disadvantages accompanied with that.

The importance of this subject lies in the fact that Robotics Process Automation is empowering many businesses across different industries, besides new technologies might be of resistance especially from current employees in the organization although higher management consider automation as highly innovative and very important to scale up against other firms in the same field. Although this implementation is important, it is also important to understand the prevalence of this new work trend and its adverse effect on the employees within the department. According to many scholars, including Hopkins, S. A. and Hopkins, W. E. (1984), there are certain implications that advances in robot technology and will have an impact on human resource planning. Being the most valuable resource in any company, the workforce opinion on the work process is vital. Thus, having an implementation that might not be accepted by the staff will have adverse effects on them and a negative impact in turn on the workflow. The paper will examine the empowerment of such intelligent processes including Robotics Process Automation in the telecommunications industry and the adverse effects of this innovative process on the workforce especially in Etisalat.

Literature Review

It is vital to understand the impact of technologies on workers in any organization, which has been argued widely recently. Adopting a new process has many advantages as well as disadvantages to the workflow, however the most important element in any organization is its human resources. The paper will highlight the major important factors of robotics and automated processes and its various effects on employment and the skills of the workforce.

There are conflicting points when discussing adoption of robotics in the workplace, as suggested by Hoske, M. T. (2018), implementing more robots and advanced technologies will increase the volume of jobs in any industry. Unlike Hoske, Lee, K.-F. (2018) argued in his article titled, 'Tech companies should stop pretending AI won't destroy jobs' in the MIT Technology Review that accepting artificial intelligence and inducing robotics in various organizations with jeopardize the jobs' security for many employees in the organization itself. On the other hand, allowing robots to carry daily work activities are perceived by many scholars as unethical. Wagner, A. R., Borenstein, J. and Howard, A. (2018) addressed this issue by stating that, "Overtrust of robots describes a situation in which a person misunderstands the risk associated with an action because the person either underestimates the loss associated with a trust violation; underestimates the chance the robot will make such a mistake; or both".

Having day to day work automated is actually beneficial for employees to ease them from the burden of repetitive activities, however it might induce some ethical issues in a sense that full dependence on robotics and over trust might result in some risks that would not be acceptable if the task was performed by a human. For instance, processing some confidential information and accessing the database of Etisalat to perform a single task.

Etisalat is a well known firm in the telecommunications industry, infact it is the leading telecom organization in the Middle East and considered to be the most valuable brand in the region, according to Geronimo, A. (2018). With automation being adopted by such a leading firm in a dynamic industry, many firms will consider following this trend. It is also important to understand the innovative nature of the telecom business, as Hrnjic, A. et al. (2018) explained in his article titled 'Innovative Behavior and Employee Job Satisfaction in Telecommunications Sector' in Journal of Economics & Business, and the level of satisfaction of the current employees within this business. Examining this will enable us to understand the willingness of the current employees to embrace such changes of inducing machines within the workplace and how will they deal with such changes. It is important to prepare the workforce for such changes and allow them to explore the various amendments within their daily job routine as revealed by Knoess, C., Harbour, R. and Scemama, S. (2016). In this Harvard Business Review, the authors mentioned that companies will only benefit from the new automation model only by preparing their people to the

robot adoption since this will allow them to be highly specialized and experienced with the new trends in the business.

It is true that there are concerns that technology will replace workers, since the new way of work is transforming so much. As explained by Singh, G. and Debasish, S. S. (2016), the matter of the jobs in the era of automation is controversial, in a sense that automation will eliminate some jobs, create other jobs, and will require the workforce to master new skills with the implementation of new technologies.

Methodology Design

This paper aims to research the relationship between implementation of a new work process and employees' performance by examining the roles of trust and motivation of employees within the Business Support Desk department within the Enterprise Sales in Etisalat. The data analyzed was primarily based on the information collected from employees within the department, collectively from twenty-three respondents. Survey questionnaire was distributed among twenty staff that are in direct contact with the applied robots. Interviews were also held with three staff from higher managerial level.

One of the most prominent trends within any industry is the drive to employ Robotic Process Automation (RPA), especially as one of the elements of the Lean approach. The full implementation of RPA is riddled with challenges relating both to the reality of everyday business operations and the social effects of the changing job market according to Kopeć, W. et al. (2018). From here, we infer that implementation of such trends in the workplace will change the procedure of work creating new job opportunities. On the other hand, such trends might alter the employees either positively or negatively which drives us to understand the significance of robotics implementation on work-related attitudes and behaviors. Therefore, we can infer the below two hypothesis which will be studied throughout our research:

Hypothesis 1: Robotic Process Automation implementation is related to employees' motivation.

Hypothesis 2: Robotic Process Automation implementation is related to employees' trust in Etisalat.

The above hypotheses will also guide to the research questions on which this study is primarily based. These questions are noted below:

Question 1: As new technologies bring robots side by side with human workers, they are mostly effective when they complement humans, not replace them. What are the various implications of this implementation?

Question 2: Etisalat must adapt to the outcomes of robotics implementation. How will Etisalat adapt the operating model within the concerned departments in response to Robotics Process Automation adoption?

Data Collection

Data Collection Method

Data collection is the most important part to develop a valid study. Both quantitative and qualitative approaches are important for a research paper, as per Using data collection to strengthen research projects [electronic resource] (2008). While quantitative method is mainly concerned with numerical values, qualitative method is used for a more in-depth analysis of the case which might be more applicable in this research. However, when collecting the data required for this paper, both approaches were applied. For the purpose of this research questionnaires were constructed and distributed to twenty employees in the Business Support Desk department. Additionally, one to one interviews were held with three senior staff within the same department in Etisalat to gather some important information on the robotics validity in the workplace and its various implications within the workflow. The conduction of the research used the questionnaires and the outcomes received as a guideline while performing the interviews to content the research's objectives.

Below are some sample questions that were included in the survey and the interviews.

(A full detailed form of the survey is obtainable in Appendix 1)

(A full detailed form of the interview questions is obtainable in Appendix 2)

Survey:

How aware are you with the term Robotics Process Automation? Do you know this has been applied in some processes within the Business Support Desk department?

- A. Extremely Aware
- B. Very Aware
- C. Moderately Aware
- D. Slightly Aware
- E. Not Aware

Did you try using any of the robotics implemented within the department?

- A. Yes, I have tried a robot
- B. No, I did not try using a robot
- C. Not Applicable

What do you think about robots implementation for the day to day activities?

- A. Very Useful
- B. Somewhat Useful
- C. Neutral
- D. Not Useful
- E. Extremely Not Useful

Interview:

- What is the impact of automation on workers? In your opinion will this cause higher unemployment rates?
- What skills and experiences are required to be brought to the roles demanding automation?

Sample Selection

The method of non-probability sampling was used to select the sample of the research discussed in this paper. According to this sampling method technique, the sample space was selected depending on their knowledge and expertise in the department within its various processes and responsibilities held. These staff were selected to take up the questionnaire because some have used the automation process for their daily tasks, also most of them have a relevant work experience in order handling and processing customers' requests. With respect to the interviews, those were held with three senior managers in the Business Support Desk Department, including Senior Manager-Sales Support Team, Manager Processing, and Director Business Support Desk. Each of these managers, has many staff under their leadership of which some were trained to use automation for their daily processes. Interviews were held in Etisalat building, and conversations were held separately and all were done smoothly. It is important to also note that the data was gathered from participants with varied demographics including age, gender, education, and ethnic backgrounds. These demographics might not alter the data gathered massively, however this will interpret the various point of views of the employees on the research subject.

Data Analysis

The main purpose of analyzing the data is to get information and examine how automation is affecting the current staff in the organization. The data collected was all investigated using two main computer programs, SPSS and ATLAS.ti. Both programs were used to analyze the data collected from both questionnaire and interviews in order to draw a conclusion on the topic of this paper. SPSS was used to study the data collected from the questionnaires given to twenty different employees, whereas ATLAS.ti was used to study the data inferred from the interviews.

(A full detailed form of the data collected from both surveys and interviews is obtainable in Appendix 3).

Quantitative Analysis

Quantitative data for this research were all gathered from the surveys distributed. SPSS software was used to analyze the data collected in this form.

The data collected were not all numerical, thus for analysis and study purposes the variables were converted to numerical values to perform the study. Below is an excerpt from SPSS with all variables plotted.

Figure 1

	EmploymentYears	Role	Satisfaction	SuccessImportance	RequirementAwareness	RPAAwareness	TryRobot	Opinion	RPAEfficiency	RobotsvsHumans	RPAProgramming	LearnSkills	Communications	RobotExperience	F
1	5.00	1.00	4.00	4.00	3.00	3.00	1.00	2.00	2.00	4.00	3.00	2.00	3.00	3.00	
2	4.00	2.00	4.00	4.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	2.00	2.00	
3	5.00	1.00	5.00	4.00	2.00	2.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	
4	2.00	2.00	4.00	4.00	3.00	3.00	2.00	3.00	3.00	4.00	3.00	2.00	2.00	4.00	
5	5.00	1.00	3.00	4.00	1.00	3.00	2.00	2.00	2.00	4.00	2.00	3.00	2.00	2.00	
6	4.00	3.00	4.00	3.00	2.00	2.00	2.00	2.00	1.00	4.00	2.00	2.00	2.00	3.00	
7	5.00	2.00	3.00	3.00	3.00	2.00	1.00	1.00	2.00	2.00	2.00	3.00	3.00	3.00	
8	5.00	4.00	4.00	3.00	2.00	2.00	2.00	2.00	1.00	4.00	3.00	2.00	3.00	2.00	
9	5.00	2.00	2.00	4.00	3.00	2.00	2.00	1.00	1.00	2.00	2.00	2.00	2.00	1.00	
10	2.00	3.00	5.00	4.00	3.00	3.00	2.00	3.00	3.00	4.00	2.00	2.00	2.00	4.00	
11	3.00	1.00	4.00	3.00	3.00	2.00	1.00	1.00	2.00	2.00	2.00	2.00	3.00	1.00	
12	3.00	3.00	4.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	
13	5.00	5.00	4.00	4.00	3.00	3.00	2.00	3.00	3.00	4.00	3.00	3.00	3.00	4.00	
14	3.00	1.00	5.00	4.00	2.00	2.00	2.00	3.00	2.00	4.00	2.00	1.00	1.00	4.00	
15	4.00	4.00	4.00	3.00	3.00	3.00	1.00	1.00	1.00	3.00	2.00	2.00	2.00	2.00	
16	3.00	3.00	4.00	4.00	3.00	3.00	2.00	3.00	3.00	2.00	4.00	3.00	4.00	4.00	
17	5.00	2.00	4.00	4.00	2.00	3.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
18	4.00	2.00	3.00	3.00	1.00	2.00	2.00	3.00	3.00	3.00	5.00	3.00	4.00	4.00	
19	5.00	1.00	3.00	4.00	2.00	2.00	2.00	3.00	3.00	4.00	4.00	2.00	3.00	4.00	

Statistical Results for the main variables:

Statistics		Employment Years	Role	Satisfaction	Opinion	Learn Skills	Robot Experience	Recommend	Section to apply RPA	Customer Satisfaction	RPA Awareness	RPA Efficiency	Robots vs Humans	RPA Programming
N	Valid	20	20	20	20	20	20	20	20	20	20	20	20	20
	Mis sing	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean		4.1000	2.2000	3.8500	2.1500	2.2000	2.8500	1.3000	2.9000	2.3500	2.4000	2.1500	3.1500	2.6000
Median		4.5000	2.0000	4.0000	2.0000	2.0000	3.0000	1.0000	3.0000	2.0000	2.0000	2.0000	3.5000	2.0000
Mode		5.00	1.00	4.00	3.00	2.00	4.00	1.00	3.00	2.00	2.00	2.00	4.00	2.00
Std. Deviation		1.07115	1.19649	.74516	.81273	.61559	1.08942	.73270	1.29371	.67082	.59824	.74516	.93330	.94032
Percentiles	25	3.0000	1.0000	3.2500	1.2500	2.0000	2.0000	1.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
	50	4.5000	2.0000	4.0000	2.0000	2.0000	3.0000	1.0000	3.0000	2.0000	2.0000	2.0000	3.5000	2.0000
	75	5.0000	3.0000	4.0000	3.0000	3.0000	4.0000	1.0000	4.0000	3.0000	3.0000	3.0000	4.0000	3.0000

Findings

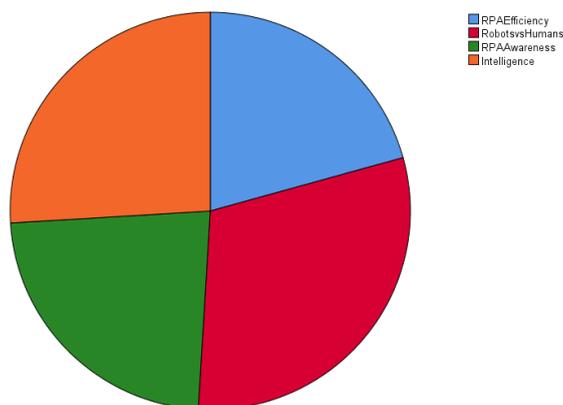
We have a total of twenty observations collected from twenty participants. Out of the twenty questions in the survey distributed, we have only performed statistical analysis for thirteen variables displayed above, which will support us in coming up with an analysis to test the two hypotheses constructed earlier. From the above results we can infer the below:

- 50% of the staff that took the questionnaire served in Etisalat more than five years.
- Majority of the staff studied are working as Business Sales Support Managers.
- Majority of the staff are satisfied with their current jobs in Etisalat.

- Most of the employees were familiar with the term Robotics Process Automation and knew that it was applied within the department of Business Support Desk, infact some advised that they have used this new implementation.
- Most of the staff agreed that Business Process Automation results in better efficiency and higher employee satisfaction.
- Nearly 50% disagreed that robots might replace humans in their jobs, and confirmed that their current roles within the department cannot be fully dependent on robots.
- Most results indicated that staff are willing to train and learn new skills that will enable them to deal with the new automated implementation and be able to use the robots better.
- They resembled the understanding that robots are fully programmed by humans and will only provide whatever humans encode them with.
- 50% of the staff who are currently working as Business Sales Support Managers and are dealing with customers on daily basis to process their requests noted that customer satisfaction has slightly increased since automation was implemented for the reporting and other processes.
- Almost 80% of the correspondents recommended to apply robotics automations within other departments in Etisalat.

To examine this further, below are four important variables showing that staff are mostly aware of the robotics process, encourage its implementation, and confirm that robots are intelligent.

Figure 2

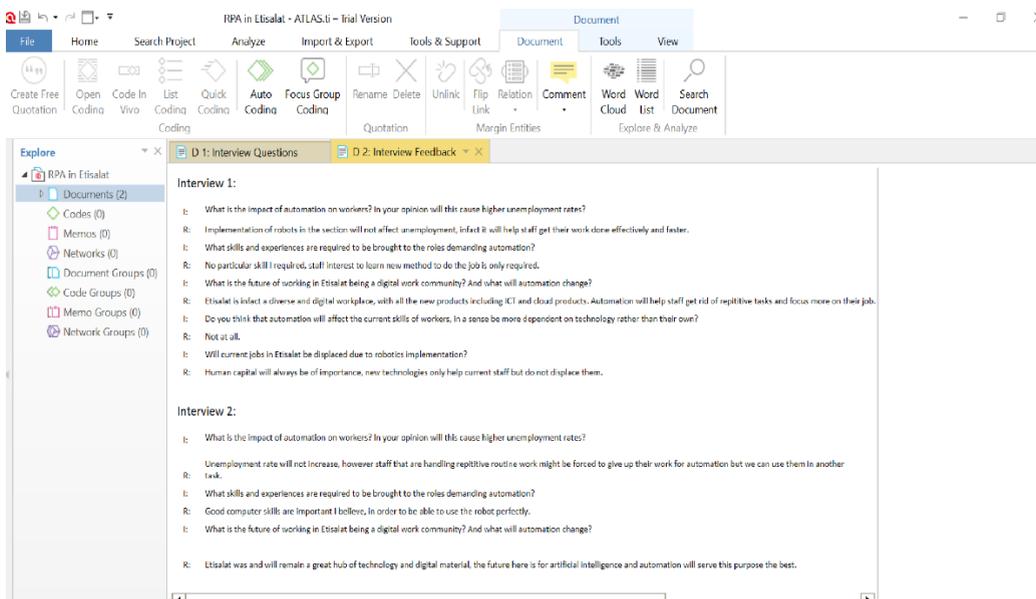


Qualitative Analysis

In this research, qualitative approach is very important since we are trying to define the issue that a new process or procedure in the workplace can affect the work environment and the workers in this field. Qualitative data for this research were all gathered from the interviews performed with three senior managers in the department. ATLAS.ti software was used to analyze the data collected in this form. The main defect in this analysis is that participants did not provide full answers, the feedbacks given were not much elaborated however the following is an analysis of the data provided.

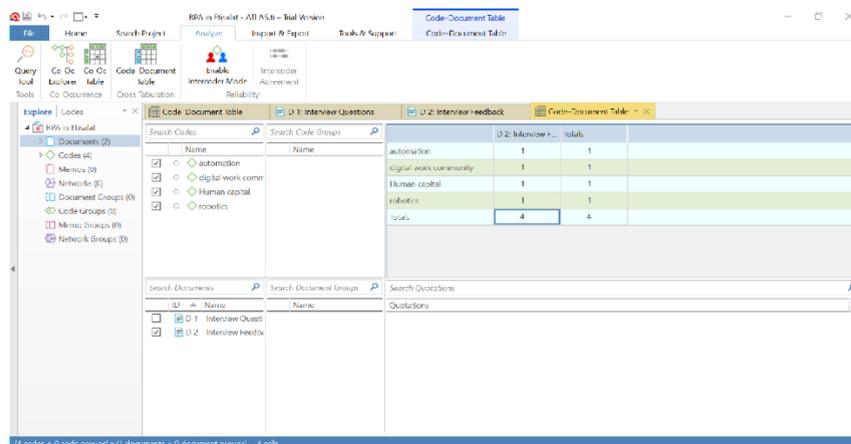
Below is an excerpt from ATLAS.ti with all interview questions and feedback plotted.

Figure 3



Four codes were set within the software to test the feedback of the interviewees: automation, digital work community, human capital, and robotics. These codes were used to check the similarities among the responses of each of the participants in the interviews held with the senior managers in the Business Support Desk department. Detailed interviews' feedback is available in Appendix 4. When examining the various answers of the interviews, we can infer that the management in the department is highly supporting robotics implementation and the use of automation within the different sections of the department. Being a leader in the digital world, Etisalat strives to adopt the latest trends in the technology to be applied in the firm and robotics automation is one of these new and trendy implementations.

Figure 4



All of them supported robotics and confirmed that its application will never alter or threaten the jobs of current and future employees. They have also all agreed that all staff must use such trends and benefit from its use to support them in their day to day activities.

Hypotheses Relation to the Data Collected:

Hypothesis 1: Robotic Process Automation implementation is related to employees' motivation.

Hypothesis 2: Robotic Process Automation implementation is related to employees' trust in Etisalat.

The data collected and studied strongly supports the above hypotheses. After gathering the data from the questionnaires, the major outcome was that employees showed great trust in Etisalat since the majority confirmed that this implementation of the robotics will not threaten their current jobs in Etisalat. They have also displayed high motivation which was visible when answering the question related how automation helped in their tasks and if they recommend that automation be implemented in other departments. Referring back to the research questions, we can conclude that according to the study held, robotics automation served as a tool to help employees within the organization. Etisalat values its staff and consider them as an important asset that cannot and will never be replaced by a machine. Humans are the creators of such programs that will support them fulfil various tasks rather than displace them. Mentioning that, the operating model within Etisalat has to be altered by inducing special attention to the departments that are currently automated and preface to introduce automation to other departments in order to deliver its business strategy at its best.

Conclusion

The main purpose of this research is to examine the various feedbacks of employees on the automation of processes on their work process, in the workplace, and their generalizations on how will this affect their job. Also, to study the importance of robotics automation processes and what efficiencies will this technology bring to Etisalat.

Additionally, new technologies might be of resistance especially from current employees in the organization although higher management consider automation as highly innovative and very important to scale up against other firms in the same field. Being an employee in Etisalat facilitated all means of study and data collection to perform this research. At the beginning, the majority of the discussions that were held in the workplace where challenging in which one party supported the implementation of robotics automation and the other party displayed worry from this implementation that was perceived to threaten their current jobs.

This was the main reason that derived the idea to propose for this discussion. Upon collecting the data for this paper, it was observed that the first impression on the robotics implementation was perceived to be not correct, since the feedback turned out to be positively supporting automation. Most of the staff inferred that automation is important and was helpful to them. The data analyzed additionally, confirmed that the employees are not threatened by this new process and this implementation will never jeopardize their jobs. They are confident that automation will aid them to fulfill their tasks and perform them efficiently, however will not replace them in the workplace. The concerns about technology replacing the humans in many industries are not new, in fact this has been widely discussed. Nevertheless, Etisalat was an example that technology is an improvement to expand the capabilities of the current employees to be applied to their work and help them in the workplace. With the support of such new technologies, the jobs might be reshaped but never replaced by machines as suggested by all participants in which the data were collected for the research.

Recommendations

Given the results that were obtained from the data collected throughout this study, we infer that automation implementation is positively related to the hypotheses raised earlier which states that it is correlated with employees' motivation towards their roles and their trust in Etisalat. For that, some recommendation can be implied to benefit the most from this technological trend.

First of all, extensive training sessions for automated processes can be arranged to train the staff that are currently using robotics and other employees that might use this technology in the future. This will help them master this technique and be constantly aware of any changes that might emerge later. Second, since robotics implementation was recorded to have positive impact on most of the employees who participated in this study, then it is suggested to implement automation in other departments.

This will allow employees to be more creative in their work since they will be more focused and free them from the routine tasks which will be taken care of by the robots. Also, lessons learned from previous experiences should be validated, thus the team should study the current implementation of automation and be able to learn from the cases or mistakes that might have been observed in order to continue with a seamless implementation of more robots in the department. Finally, being a leading firm in the telecommunications industry, Etisalat is expected to be continuously adopting new technologies that will help in commencing its service provisioning by the best means in the market, and being a member of this organization, all employees should adhere to such changes.

Appendix 1

Questionnaire Distributed

Dear Participant:

My name is Mariam AlNuaimi, from Business Support Desk team under Pre-Sales and Customer Service Delivery within Enterprise Sales. I am currently studying for Master Degree, and working on a research project titled Robotics Process Automation implementation in Etisalat. Because you are a member of the Business Support Desk Department, I am inviting you to participate in this research study by completing the attached survey. This questionnaire consists of twenty questions and will require approximately ten minutes to be completed.

Thank you for taking the time to support in my research.

1. How many years have you been employed with Etisalat?
 - A. Less than 6 months
 - B. 6 months to a year
 - C. One to two years
 - D. Three to five years
 - E. More than five years

2. What is your main role within the department?
 - A. Business Sales Support Manager
 - B. Processing Analyst
 - C. Service Delivery Specialist
 - D. Quality Check Analyst
 - E. Client Shared Services Specialist

3. How would you rate your level of satisfaction in your role?
 - A. Dissatisfied
 - B. Somewhat dissatisfied
 - C. Neutral
 - D. Satisfied
 - E. Very Satisfied

4. How important is the success of Etisalat to you?
 - A. Not important
 - B. Not sure
 - C. Somewhat important
 - D. Very important

5. Are you aware of all the requirements for raising a new request?
 - A. Extremely Aware
 - B. Very Aware
 - C. Moderately Aware

- D. Slightly Aware
- E. Not Aware

6. How aware are you with the term Robotics Process Automation? Do you know this has been applied in some processes within the Business Support Desk department?

- F. Extremely Aware
- G. Very Aware
- H. Moderately Aware
- I. Slightly Aware
- J. Not Aware

7. Did you try using any of the robotics implemented within the department?

- D. Yes, I have tried a robot
- E. No, I did not try using a robot
- F. Not Applicable

8. What do you think about robots implementation for the day to day activities?

- F. Very Useful
- G. Somewhat Useful
- H. Neutral
- I. Not Useful
- J. Extremely Not Useful

9. Do you agree that Business Process Automation results in better efficiency and higher employee satisfaction?

- A. Strongly Agree
- B. Agree
- C. Neutral
- D. Disagree
- E. Strongly Disagree

10. Do you agree that robots might replace humans in some jobs? Meaning, do you think that your current job within the department might be fully dependent on robots?

- A. Strongly Agree
- B. Agree
- C. Neutral
- D. Disagree
- E. Strongly Disagree

11. Are you aware that for Robotics Process Automation mainly programming is performed by humans?

- A. Extremely Aware
- B. Very Aware
- C. Moderately Aware
- D. Slightly Aware
- E. Not Aware

12. Are you willing to learn new skills and techniques to cope with the current changes in the department and enhance the usage of process automation and robots applied?

- A. Very Much Willing to learn new skills
- B. Willing to learn new skills
- C. Moderately Willing to learn new skills
- D. Slightly Willing to learn new skills
- E. Not Willing to learn new skills

13. Are internal communication channels which informs you about robotics implementation accessible to you?

- A. Very Much Accessible

- B. Accessible
 - C. Moderately Accessible
 - D. Slightly Accessible
 - E. Not Accessible
14. If you have used robots for reports and other processes, how do you rate your overall experience?
- A. Excellent
 - B. Very Good
 - C. Good
 - D. Neutral
 - E. Poor
15. Do you recommend robotics implementation in other departments within Etisalat?
- A. Yes
 - B. No
16. If you have answered yes for question number 15, then please specify where will it be applicable from the below sections. If you answered no, kindly select no for this question.
- A. Order Handling
 - B. Audit Check
 - C. Report Analysis
 - D. Customer Support
 - E. No
17. Do you think that implementation of automation within the department have increased customer satisfaction?
- A. Strongly Agree
 - B. Agree
 - C. Neutral
 - D. Disagree
 - E. Strongly Disagree
18. Are you encouraged to provide your feedback and share your opinions of automation implementation with higher management within the department?
- A. Strongly Encouraged
 - B. Encouraged
 - C. Neutral
 - D. Discouraged
 - E. Strongly Discouraged
19. In the future, what percentage of work process flow you think the robot might consume?
- A. 80%
 - B. 60%
 - C. 50%
 - D. 20%
 - E. Not Sure
20. Finally, to what extent you think robots implemented for our processes are intelligent?
- A. Extremely Intelligent
 - B. Very Intelligent
 - C. Moderately Intelligent
 - D. Slightly Intelligent
 - E. Not Intelligent

Appendix 2

Interview Questions

- What is the impact of automation on workers? In your opinion will this cause higher unemployment rates?
- What skills and experiences are required to be brought to the roles demanding automation?
- What is the future of working in Etisalat being a digital work community? And what will automation change?
- Do you think that automation will affect the current skills of workers, in a sense be more dependent on technology rather than their own?
- Will current jobs in Etisalat be displaced due to robotics implementation?

Appendix 3

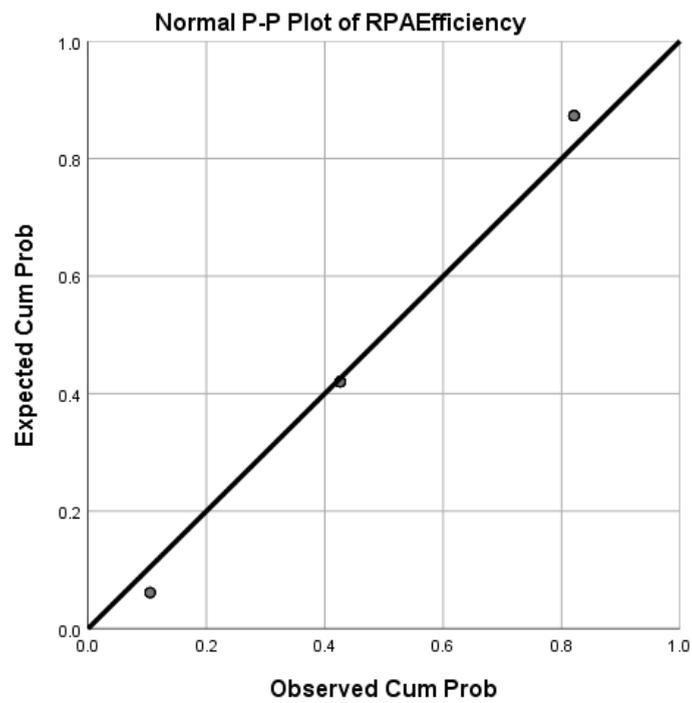
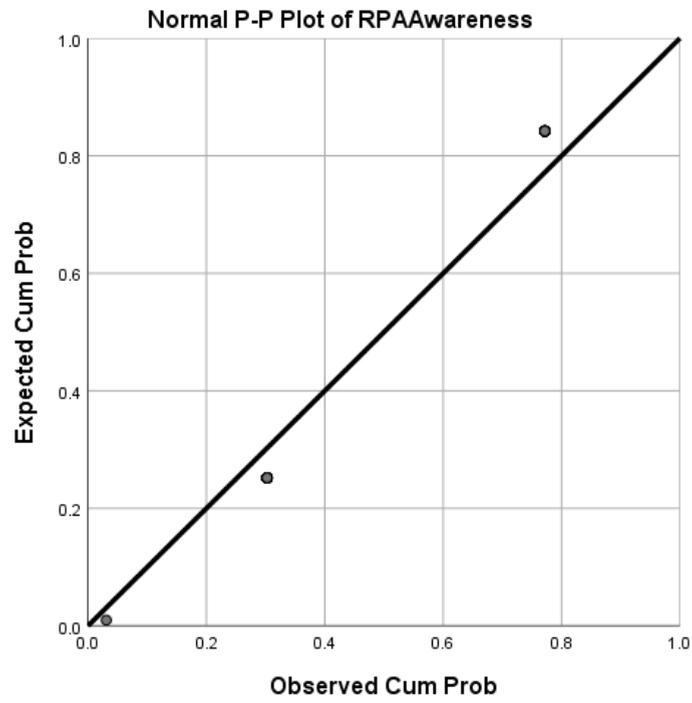
Survey Statistics

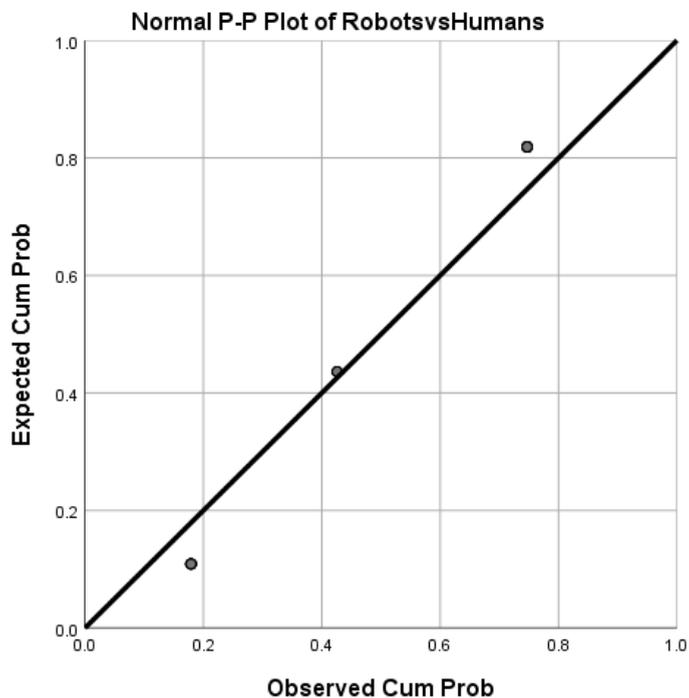
Source is SPSS.

Statistics														
		Employment Years	Role	Satisfaction	Opinion	Learn Skills	Robot Experience	Recommend	Section to apply RPA	Customer Satisfaction	RPA Awareness	RPA Efficiency	Robots vs Humans	RPA Programming
N		20	20	20	20	20	20	20	20	20	20	20	20	20
Mean		4.1000	2.2000	3.8500	2.1500	2.2000	2.8500	1.3000	2.9000	2.3500	2.4000	2.1500	3.1500	2.6000
Median		4.5000	2.0000	4.0000	2.0000	2.0000	3.0000	1.0000	3.0000	2.0000	2.0000	2.0000	3.5000	2.0000
Mode		5.00	1.00	4.00	3.00	2.00	4.00	1.00	3.00	2.00	2.00	2.00	4.00	2.00
Std. Deviation		1.07115	1.19649	.74516	.81273	.61559	1.08942	.73270	1.29371	.67082	.59824	.74516	.93330	.94032
Percentiles	25	3.0000	1.0000	3.2500	1.2500	2.0000	2.0000	1.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
	50	4.5000	2.0000	4.0000	2.0000	2.0000	3.0000	1.0000	3.0000	2.0000	2.0000	2.0000	3.5000	2.0000
	75	5.0000	3.0000	4.0000	3.0000	3.0000	4.0000	1.0000	4.0000	3.0000	3.0000	3.0000	4.0000	3.0000

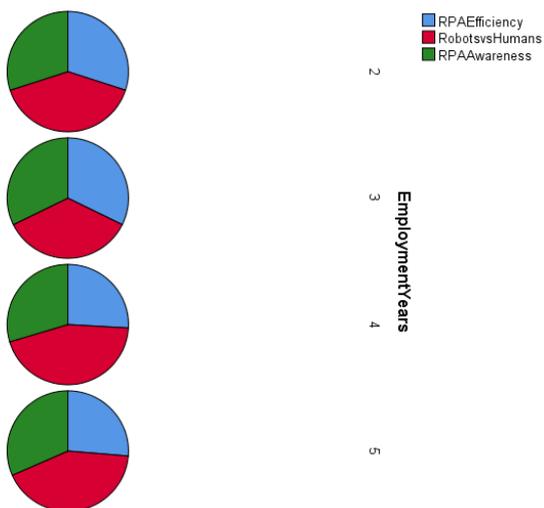
Estimated Distribution Parameters					
		RPA Awareness	RPA Efficiency	Robots vs Humans	Robot Experience
Normal Distribution	Location	2.4000	2.1500	3.1500	2.8500
	Scale	.59824	.74516	.93330	1.08942
The cases are unweighted.					

Normal P-P Plots: RPA Awareness, RPA Efficiency, & Robots vs. Humans.





Below is pie chart displaying number of employment years against the three variables shown above: RPA Awareness, RPA Efficiency, & Robots vs. Humans. The below charts indicates that more years of experience the staff has, the greater trust he/she has in the company knowing for sure that robots will never replace humans.



Appendix 4

Interviews Feedback

Interview 1:

- I: What is the impact of automation on workers? In your opinion will this cause higher unemployment rates?
- R: Implementation of robots in the section will not affect unemployment, infact it will help staff get their work done effectively and faster.
- I: What skills and experiences are required to be brought to the roles demanding automation?
- R: No particular skill I required, staff interest to learn new method to do the job is only required.
- I: What is the future of working in Etisalat being a digital work community? And what will automation change?
- R: Etisalat is infact a diverse and digital workplace, with all the new products including ICT and cloud products. Automation will help staff get rid of repetitive tasks and focus more on their job.
- I: Do you think that automation will affect the current skills of workers, in a sense be more dependent on technology rather than their own?
- R: Not at all.
- I: Will current jobs in Etisalat be displaced due to robotics implementation?
- R: Human capital will always be of importance, new technologies only help current staff but do not displace them.

Interview 2:

- I: What is the impact of automation on workers? In your opinion will this cause higher unemployment rates?
- R: Unemployment rate will not increase, however staff that are handling repetitive routine work might be forced to give up their work for automation but we can use them in another task.
- I: What skills and experiences are required to be brought to the roles demanding automation?
- R: Good computer skills are important I believe, in order to be able to use the robot perfectly.
- I: What is the future of working in Etisalat being a digital work community? And what will automation change?
- R: Etisalat was and will remain a great hub of technology and digital material, the future here is for artificial intelligence and automation will serve this purpose the best.
- I: Do you think that automation will affect the current skills of workers, in a sense be more dependent on technology rather than their own?
- R: Ofcourse, automation will affect workers' skills, they will be focusing on more important tasks and leave tedious and routine part of their job to the automated processes and robot to do.
- I: Will current jobs in Etisalat be displaced due to robotics implementation?
- R: I don't think so, our staff are great asset of this company, and being a digital community we skill require the expertise of these people to complete the journey.

Interview 3:

- I: What is the impact of automation on workers? In your opinion will this cause higher unemployment rates?
- R: We have observed some resistance at the beginning of th implementation of robotics, they might have been discouraged, but we have affirmed that this will be helpful rather than an extra implementation. Although some may think that robotics will cause unemployment, this is surely not the case. Robots will only help you finish your work not take it from you.
- I: What skills and experiences are required to be brought to the roles demanding automation?
- R: Software experience, ability to encode and decode the robot. We are arranging for training sessions every now and then for staff to master this.
- I: What is the future of working in Etisalat being a digital work community? And what will automation change?
- R: Our staff understand fully that Etisalat is a large telecom firm, that is digitalized and is adaptive to change according to the market. Automation serves this purpose of being a digital firm that cares for the efficiency of its deliverables enabling staff to complete their day to day work effectively and easily.
- R:
- I: Do you think that automation will affect the current skills of workers, in a sense be more dependent on technology rather than their own?

R: Technology is important and the market in the globe is changing widely, we will be depending on technology but this doesn't mean that it will replace current workers. We can create other job opportunities for them to still serve the company better.

I: Will current jobs in Etisalat be displaced due to robotics implementation?

R: I have just answered this question, again robotics will not displace jobs, but some reporting staff for example might be used for another work and we can keep robots perform the reporting required.

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Environmental, legislative and health messaging interventions for reducing road traffic crashes in the United Arab Emirates

Dina Al Nuaimi

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Abstract

The purpose of this study is to determine potential risk factors and minimize the negative impacts of the severe road traffic crashes (RTCs) in the United Arab Emirates (UAE) by evaluating potential contributing factors. Secondary data were obtained from the literature review of the published articles and government reports. This literature review focused on the literature produced from 2004 to the day on RTCs. All articles published in the previous sixteen years on RTCs were analyzed. The review was performed in November 2020. Investigation of RTCs statistics in the UAE indicated that about 98.8% of accidents were due to human factors. Also, 0.2% of accidents attributed to road-related factors and 1.0% to the vehicle's factors. The abrupt turn was the leading cause of RTCs (22%), come after its excessive speed (12%), lack of vehicle user's estimation (12%), omission and inattention, and neglect the sufficient space between cars (10%). Driving while intoxicated and crossing the red signal led to 2% of RTC. There were more lethal RTC throughout March, May, June, July, and December. Also, the more serious RTC were between 10:00 pm, and 5:59 am. The more severe accidents happened in the rainy, stormy, dusty, and foggy climate. About 8% of injured drivers and 35% of motorbike riders were smaller than 18. Most of the RTC (64%) occurred at night due to the night's weakened visibility and speed. It is necessary to execute applicable evidence-based and valid awareness and educational programs for all youth drivers. Also, there is a need to encourage traffic safety and law for road safety. The distracted driving and adolescents who are driving without licenses must be controlled.

1. Introduction

RTC is each harm arise from vehicle crashes on public streets (Singh, 2015). RTCs are the leading cause of death of individuals aged from five to twenty-nine years old. Approximately 73% of the whole road traffic fatalities happen between youth males below 25 years old, and they are almost threefold, possibly to die due to RTC as for young females. RTCs caused 1.35 million deaths every year. RTCs expense nations three percent of the total gross domestic product (GDP) (WHO, 2018).

Daily, around 3,700 individuals die worldwide in RTCs. RTCs are the eighth primary reason for death worldwide for all age cohorts. RTC's mortality rate is more in low-income nations by three-fold than in higher-income nations (CDC, 2020).

RTCs are among the significant causes of children's death in the UAE. Every two from three children with lethal injury die because of RTCs. The UAE's traffic law No. 177 of 2017 aims to save more lives and decrease traffic casualties to 3 per 100 thousand inhabitants instead of 6 per 100 thousand according to Vision 2021. The mortality rate of RTC reached 3.83 per 100,000 people in 2018 (U.AE, 2020).

The literature on RTCs in the UAE is little in examining drivers' behavior. Also, few studies in the UAE revealed the importance of environmental factors in RTCs. Few studies examined the seasonal variations of RTCs or the sequential chronological order for RTCs. This study aimed to determine potential risk factors in the UAE by evaluating potential contributing factors. Though some risk factors were examined before, this study intends to evaluate potential factors' interaction. The RTCs in the UAE have not been adequately discussed in the literature. Therefore, this research was conducted to fill gaps in the literature.

2. Method

Secondary data were obtained from the literature review of the existing peer-reviewed articles and government reports. The review focused on the literature produce from 2004 to the day. Thirty-five articles were included in the review. A literature review was conducted using two search strategies: Firstly,

gathering and determining related literature by applying academic research electronic databases such as Google Scholar, PubMed, Scopus, Elsevier BV, Emerald insight, BMC Public Health, ResearchGate, and Science Direct. Secondly, the review was further accompanied by the World Health Organization reports, Centers for Disease Control and Prevention reports, and related governmental reports. The review was performed in November 2020. The literature was examined, and articles that were not written in the English language were excluded from the review. Also, Articles that have only published abstracts and no similar full-text articles were excluded from the review. The keywords used in this search strategy were road traffic crashes, road traffic injuries, road fatalities, safe road strategies, safe vehicles, and road safety campaigns.

3. Results and Discussion

3.1. RTCs Factors

Table 1. Haddon matrix

PHASE		FACTORS		
		HUMAN	VEHICLES AND EQUIPMENT	ENVIRONMENT
Pre-crash	Crash prevention	Information Attitudes Impairment Police enforcement	Roadworthiness Lighting Braking Handling Speed management	Road design and road layout Speed limits Pedestrian facilities
Crash	Injury prevention during the crash	Use of restraints Impairment	Occupant restraints Other safety devices Crash protective design	Crash-protective roadside objects
Post-crash	Life sustaining	First-aid skill Access to medics	Ease of access Fire risk	Rescue facilities Congestion

Source: (WHO, 2004)

The Haddon matrix is an investigative instrument to assist in determining RTCs factors. The significant RTCs factors involve vehicle occupant factors such as excessive speeding, fatigue, driving while intoxicated or under the influence of a psychotropic substance, inattentive driving, and disuse of safety devices. Also, factors related to roads and environment like unsecured roadway network and low visibility due to environmental causes and weather conditions, vehicle factors like the absence of accident protection systems such as braking and maintenance, Insufficient execution of traffic laws, and insufficient after accident care (WHO, 2004).

3.2. Factors related to the Vehicle Occupant

3.2.1 Speeding

Drivers' speed is affected by the driver's age and sex, how many people in the vehicle, road design, vehicle power, and speed limit. It is also impacted by the number of vehicles on the road, general speed, and weather conditions (WHO, 2004). About one-third of lethal RTCs are related to excessive speed. A rise in the average speed by 5% rise will lead to a 20% rise in RTCs and a 10% rise in road traffic injuries (RTIs). The high speed impacts the driver's cognitive ability to manage unpredicted circumstances. When the speed rises, the driver's view field will decrease and reduce the chance of road users taking precautionary measures (Paho, 2018).

3.2.2. Driving while intoxicated or under the influence of a psychotropic substance

In drink-driving, the danger of RTC begins at a lower blood alcohol concentration (BAC) and rises notably if the driver's BAC is 0.04 grams or more per deciliter (g/dl). In drug-driving, the danger of exposure to RTCs raised to varying levels basing on the used psychoactive drug (WHO, 2018). Psychoactive drugs impact the brain's performance and cause impaired driving by retarding the reaction time, decreasing consciousness, the road following, and vehicle controlling (WHO, 2016).

3.2.3. Disuse of safety devices

Nonuse of safety restraints such as seat belts, child seats, helmets, and booster seats are the main risk factors for the deaths and injuries related to RTCs (WHO, 2004). Proper motorcycle helmet usage will decrease the danger of head injuries by 69%. Using a seat-belt decrease the danger of fatality between drivers from 45 to 50%, and the mortality rate and RTIs between rear-seat passengers by one-fourth (WHO, 2018).

3.2.4. Distracted driving

Distracted driving is every action that distracts awareness from safe driving, involving using a mobile phone, eating or drinking, talking to individuals in the vehicle, fiddling with the radio system or navigation system (NHTSA, 2020). Using mobile phones during driving leads to involvement in RTCs more by four times compared to driving without using the phone. Using a mobile phone during driving affects the reaction times to braking and traffic signals. It is also hard to keep on the right path and enough distances between vehicles while using the mobile phone (WHO, 2018).

3.2.5. Driver's age and human factors

The drivers aged between 16-17 years are at high crash risk. The crash risks are high in the twelve months after issuing the driving license due to thrill-seeking, intolerance to alcohol, and excessive speed. The RTCs rates of male drivers whose age between 16-20 years are threefold the accident rate of male drivers whose age 25 years old or more. Also, drivers aged between 20–29 years more vulnerable by three-fold to the danger of an accident in comparison with drivers aged thirty and more (WHO, 2004). Most RTCs are related to human factors such as anger, depression, and aggression. The youth drivers are involved in RTCs due to their irritability and anger (Gicquel et al., 2017).

3.2.6. Fatigue

in New Zealand, factors that significantly raised the danger of RTCs include sleepy drivers or drivers sleeping less than five hours. In the United States (US), 52% of 107 accidents were due to fatigue, and 18% were due to drivers falling asleep (WHO, 2004).

3.2.7. Inadequate visibility

Inadequate visibility can lead to angled accidents, head-on accidents during the day, or rear-end accidents in fog during the day and night. In low and middle-income nations, walkers and vehicles are not appropriately visual is considerably a dangerous problem. There are fewer roads with appropriate lighting in low and middle-income countries, and the other may not have any lighting (WHO, 2004).

3.3. Factors related to Roads and Environment

3.3.1. Unsecured roadway network

Road Safety can be ensured by providing appropriate means for walkers, bicyclists, and motorcyclists. Actions like footways, cycling paths, secure cross points, and speed humps are essential to decrease the danger of RTIs between road users (WHO, 2018). Roads must be designed in a way to let the safe vehicle driving. Sharpened curves, drop-off, blind turns, and poorly designed roads may lead to dangerous driving situations (Safe Roads USA, 2019).

3.3.2. Unsafe road conditions

Unsafe road conditions include potholes, missing barriers, missing and confounding road signs. Potholes are structural defects in the road surface caused by heavy vehicles. Failing to place barriers separate vehicles raises the probability of RTCs. The missing rods signs will make the drivers confused and exposed them to the crash risk (Safe Roads USA, 2019).

3.3.3. Weather condition

Weather conditions are attributed to about 11% of lethal RTCs in the US (Safe Roads USA, 2019). Adverse climate conditions lead to serious RTCs, particularly in poor-visibility situations due to fog. The inadequate visibility conditions seriously impact the drivers' sightline and result in a lack of correct road geometry data and the actual traffic stream condition. In the US, statistics revealed that 600 deaths and 16,300 RTIs every year are due to fog-related accidents (Wang, Zhang, Feng and Wang, 2020).

3.4. Factors related to Vehicle

3.4.1. Un safe vehicle

Regular vehicle inspections for overloading and maintenance for trucks and buses are essential for old vehicles. In trucks, the bad brakes are a significant risk factor for crashes (WHO, 2004). Safe vehicles have a significant role in avoiding accidents and decreasing RTIs. The United Nations (UN) regulations for vehicle safety asking vehicle producers to align with front and side crash rules, and the vehicle must be equipped with electronic stability control, airbags, and seat-belts (WHO, 2018).

3.4.2. Vehicle Type

The large vehicle has a significant impact on the risk of serious RTCs. Fatality rates in truck crashes were 12.7% compared to car and bus, about 8.4% and 3.6%, respectively. In 2011, 3757, individuals died in large truck crashes in the U.S. From 2009-2011, the deaths related to large truck crashes raised by 11% (Liu et al., 2018).

3.4.3. Overload

Overload is a risk factor for RTCs in heavy vehicles. Overload raise the risk of serious crashes. Between the speeding situations, the overload rate was about 11.66%. In 1990, overload contributed to 5.1% of RTCs in Kenya (Liu et al., 2018).

3.5. Insufficient after Accident Care

Enhancement of the after-accident care needs ensuring accessibility to care before reaching the hospital in proper time and enhancing the quality health care of before hospital and in hospital, by professional training and educational courses (WHO, 2018). Fatalities were indeed avoidable in a large portion of individuals who died due to RTCs before arriving at the hospital. Around 50% of deaths related to RTCs happened in a couple of minutes at the accident location or before arriving at the hospital. The fatalities were relatively few for injuries sent to the hospital (WHO, 2004).

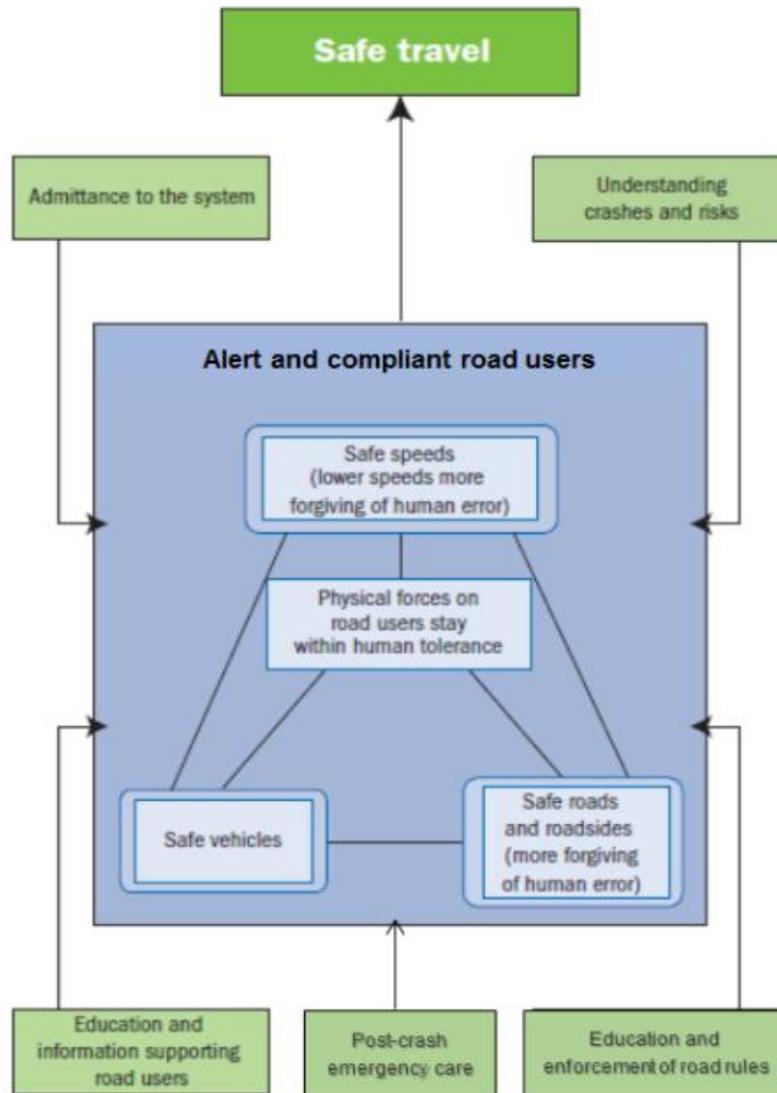
3.6. Insufficient Execution of Traffic Laws

As long as the traffic law are not imposed, they are unable to achieve the anticipated decrease in RTCs due to particular behaviors. Therefore, insufficient enforcement of traffic laws will lead to noncompliance and refusal with these laws, and they will not impact the drivers' behavior. Efficient enforcement of traffic laws involves initiating, continually improving, and implementing laws at all levels that handle the risk factors of RTC. Also, it involves the determination of suitable penalties (WHO, 2020).

3.7. Interventions

Safe System approaches target establishing a road network capable of suit human error by producing a safe environment and supplying efficient post-accident care. Intervention procedures in the system handling all accident-stages and ensure the safety of participants in road traffic. Legislative that leads to broad user deference with road regulations and rules are essential and procedures that prevent the entrance and exit orders of users and vehicles to the street network (PIARC, 2020).

Figure 1. Safe System Model



Source: (PIARC, 2020)

3.7.1. Legislation and vehicle occupant behaviors

Executing legislation on main risk factors related to the vehicle occupant behaviors are significant elements of combined policies to prohibit RTCs. A rigorous implementation should conduct safety restraints' legislation to achieve its goals efficiently. After the widely announced enforcement campaign and increasing the penalty by two-fold for the disuse of safety restraints, the seat belt application rates increased in Korea from 23% to 98% within a year (WHO, 2004). In the U.S, obligatory child-restraint laws resulted in 13% rise in usage of child-restraint and 35% decrease in RTIs (WHO, 2018).

3.7.2. Speed management

Maximum speed in the cities must not exceed 50 kilometers per hour (km/h). Speed laws must be coupled with adequate enforcement to prevent RTCs and save more lives. Speed management places adequate speed limits and persuades drivers to select reasonable speed in the current conditions by education and promoting. It is also recommended the careful application of engineering sound and physical treatments and speed camera to the road to force vehicle drivers to drive more slowly (WHO, 2018).

3.7.3. Reducing driving under the influence of alcohol and psychotropic substance

Best practice for driving under the influence of alcohol laws involves BAC limit of 0.05 g/dl for the individual, while the BAC limit for youth and beginner drivers is 0.02 g/dl (WHO, 2018). Alcohol treatment programs can apply for drivers seized for driving under the influence of alcohol. Treatment will be efficient if integrated with penalties. Besides, educational programs in schools for teens are efficient at teaching them the dangers of riding with intoxicated drivers (CDC, 2020). It is essential to implement drug-driving law and force penalties to comply with the legislation's demands and enhance the behavior (WHO, 2016).

3.7.4. Rise the usage of motorbike helmet

The Best practices for the use of helmet laws involve the need for drivers and passengers to put on the helmet on all streets (WHO, 2018). Intervention programs such as learning programs in school, society-based programs, awareness campaigns, and learning discussions, which include discounts on the buying of helmets and gifts, can raise helmets' usage. Intervention programs resulted in raised the usage of helmets and reduced RTIs (EuroSafe, 2012).

3.7.5. Rise the usage of seat-belt

Policies to raise the usage of seat belts include seat belt laws, penalties, and awareness campaigns. Raise penalties for breaking the seat belt usage laws may involve increased fines or black points on a driving license. Integrating law implementation and media awareness campaigns efficiently reach individuals with lower seat belt usage rates like youth (CDC, 2020). Using a seat-belt decreases the fatality risk between drivers by 45 to 50% and the danger of fatality between the back-chair passengers by 25% (WHO, 2018).

3.7.6. Rise the usage of child restraint

Policies to raise child restraint include child restraint laws, awareness programs, and education programs. Child restraint laws need the usage of confirmed restraint equipment suitable for children's weight and age. Also, they include improved execution programs for kid's safety through mass media. Rewards and teaching programs can recompense parents or kids with vouchers or gifts to properly use car seats (CDC, 2020). The usage of child restraints can result in the reduction of fatality to child passengers by 60% (WHO, 2018).

3.7.7. Roads Safety

Enhancements of road infrastructure, especially design criteria that concerned about pedestrians and vehicle drivers' safety, are significant for road safety. Separating the various types of road use will removing conflicts among fast-moving and susceptible road users. Danish studies reported a 35% decrease in cyclist injuries after the establishment of bicycle lanes along the side of city roads (WHO, 2015). Roadways must be planned to decrease the requirement for driver decisions and to decrease unpredicted conditions. The similarity in highway layout characteristics and traffic regulating appliances are significant in decreasing the number of needed decisions, and the road users will know about what to anticipate on a specific kind of highway (Ahmed, 2013).

3.7.8. Vehicles Safety

Vehicle safety criteria include dynamic and computerized technology that improves a vehicle's stability, motorbike anti-skid brakes, and braking system which can decrease RTCs (Ward, 2019). The UN rules for pedestrian safety promote the forgiving vehicle's forepart such as softer bumpers and elimination of unneeded rigid bodies to decrease the intensity of a pedestrian effect with vehicles. The UN's rules ensure that improved seat-belts are implemented by vehicle manufacturers and confirm that occupants can be safely taken out from their chairs if an accident happens (WHO, 2015).

3.7.9. Road safety campaigns

Road safety campaigns increase public awareness by giving information about new legislation or adjusted traffic laws, and enhancing knowledge of the vehicles' latest systems. They also educate the people about road traffic safety, risk, and proper precautionary behaviors such as winter tires, accident risk, and using a seatbelt. Road safety campaigns change the primary factors that impact road-user's behaviors, like confirming that most individuals do not drive under effect of alcohol and conceptions about speeding. They change problem behaviors or preserve aware safety behaviors and reduce accidents' frequency and intensity (Robertson and Pashley, 2015).

Road safety campaigns applying individual communication, roadside message delivery, and enforcement policies to deliver awareness messages can result in more significant RTC reductions. Attaining rapidity in delivering a campaign message regarding the targeted behavior can raise campaign impact in a shorter time; the long-term impacts can attain applying mass-media delivery of campaign message (Phillips, Ulleberg and Vaa, 2011).

3.7.10. Improving after accident care

Urgent actions fundamental for efficient care for the harmed includes initiating emergency care, care at the crash location, transport, and hospital care. Initializing emergency care requires a valid calling number all over the nation, simple to recall, and free. The prehospital care provides the needed care for harmed people at the right time at the crash location through equipped ambulances and expert health care practitioners and makes sure they reach a convenient hospital with trauma care professionals (WHO, 2018).

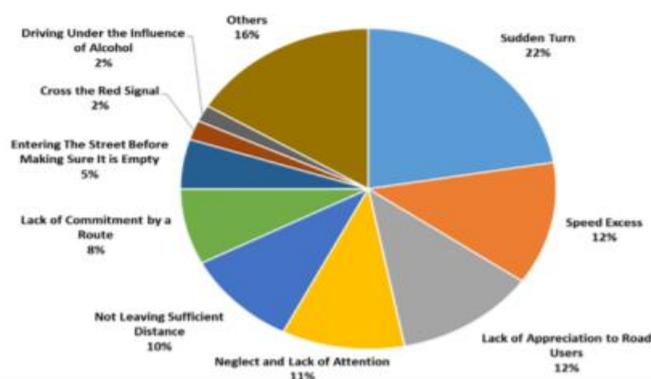
3.8. RTCs in the UAE

The UAE has stringent laws for alcohol use, a rigorous licensing system, and advanced roads infrastructure, and correspondingly RTCs mortality rate has declined too. However, the mortality rate is considerably higher than in nations with identical GDP and socio-demographic measures. Although the increasing awareness about the severe impacts of RTCs in the UAE, they did not include in the country's research priority (AlKetbi, Grivna and Al Dhaheri, 2020). Investigation of RTCs statistics in the period 2012 - 2016 in UAE indicated that 98.8% of accidents were due to human factors (Ankit, Hamidi and Sengoelge, 2018).

3.8.1. Human factors

About 0.2% of accidents attributed to road-related factors and 1.0% to the vehicle's factors. The abrupt turn was the leading cause of RTCs (22%), come after its excessive speed (12%), lack of vehicle user's estimation (12%), omission and inattention, and neglect the sufficient space between cars (10%). Driving while intoxicated and crossing the red signal led to 2% of RTCs (Ankit, Hamidi and Sengoelge, 2018).

Figure 2. Leading causes of death due to RTCs in UAE 2012-2016



Source: (Ankit, Hamidi and Sengoelge, 2018)

3.8.2. Chronological sequence for RTCs and environmental factors

More RTCs were throughout March, July, and December in Dubai (AlShamsi, AlShar and El-Sadig, 2020). On the other hand, RTCs in Abu Dhabi were high in May and June. Also, RTCs were high between 8:00 am and 4:00 pm; however, the more serious injuries were between 10:00 pm and 5:59 am. Besides, more than 99% of RTCs happened in clear climatic situations, while more serious accidents happened in rainy, stormy, dusty, and foggy climate. Crashes were more throughout winter, spring, and less in summer. The hot climates, sandy winds, dust, and fogs were leading factors in many RTCs due to poor visibility. Also, there were more RTCs in July because of tire burst and failure (de Albuquerque and Awadalla, 2020).

3.8.3. Young Drivers

Although legislation and raised law enforcement, seat belt usage low, specifically among young UAE citizens, and mobile phones during driving is common. In the UAE, the license is obtained at the age of 18 years. About 8% of injured drivers and 35% of motorbike riders were smaller than 18. The road layout in Al Ain with long ways to include three lanes lets the youth drive fast speed. Also, there was a significant rise in RTCs among young on the weekend days due to dangerous speeding, disuse of restraints, and driving under alcohol (Grivna, Eid and Abu-Zidan, 2017).

3.9. Interventions to Reduce RTCs in UAE

During previous decades, different UAE sectors like police, transport, and health collaborated to decrease the burden of RTCs. UAE established new and modified laws and regulations, implementing speed limits, enhanced road layout, and conducted different awareness campaigns (AlShamsi, AlShar and El-Sadig, 2020).

3.9.1. Traffic fines

Various nations execute different procedures of fines, black points, and penalty plans to impose traffic laws. Although the UAE raised the traffic fines, RTCs stayed fixed over the period from 2012 to 2016 (Ankit, Hamidi and Sengoelge, 2018).

3.9.2. The black points

The black points validity in Canada is a two-year while in the United Kingdom is three-year. In the UAE, black points validity is one year; therefore, it can be useful to increase black points' validity for long-duration to indicate the dangerously and severity of carrying out violations during driving (Ankit, Hamidi and Sengoelge, 2018).

3.9.3. Speed cameras

The UAE is using speed cameras to decrease the rate of road traffic violations relying on French accomplishment. The usage of speed cameras in France reduced the mortality rate by over 20%. Also, RTIs reached 1% in 2010 compared to 26% in 2002 (Ankit, Hamidi and Sengoelge, 2018).

3.9.4. law enforcement policies

The UAE's enforcement strategies can involve registries about federal alcohol abuse and RTIs that contain information on prevention action like the application of safety constraints and helmets according to the kind of road user. The data can help reduce the high incidence of head injuries due to RTCs between children and youth sitting in the back seats in the UAE. The initiation of laws on speed limitations and restrains usage was practical and led to useful results (Ankit, Hamidi and Sengoelge, 2018).

3.9.5. Raise the age of getting a driving license

In US, increasing the age of getting a driving license eliminated almost all RTCs at sixteen. Also, in the Kingdom of Saudi Arabia. Therefore, this strategy can be useful in UAE (AlKetbi, Grivna and Al Dhaheri, 2020).

3.9.6. Road safety campaigns

A wide range of research has revealed the efficiency of road safety campaigns in decreasing RTCs by 9%, reducing speeding by 16%, raising seatbelt usage by 25%, and raising risk comprehension by 16% (Robertson and Pashley, 2015).

3.10. Strengths and Limitations

The study has several strengths. The study findings are useful for a directed intervention plan for UAE drivers and other countries with a high occurrence of RTCs. The results are also useful to Gulf Cooperation Council countries as they have the same road design and driving behaviors. The study's findings can be used in other countries because different nationalities live in the UAE, and there are no variations in behavioral factors among UAE citizens and non-citizens. Study results add information to the present literature and can be used to enhance the interventions to reduce RTCs. However, of the original thirty-eight studies convenient to this literature review, eight were excluded for nonconformity with the choice standards; therefore, their results were not involved in the ultimate analysis. Six studies were removed as only the abstract was published, and there were no similar full-text articles. Also, two studies were removed as the full-text articles were not written in the English Language.

4. Conclusion

The prevention of RTCs needs efficient management to set prospective, evidence-based actions, defeating obstacles that impair their execution. Efficient interventions to prevent RTCs include planning safe road infrastructure, enhancing vehicles' safety characteristics, improving after accident care for casualties of RTCs, placing and implementing laws regarding the main risks, and increasing public awareness. Extra enforcement policies are required to address the burden of RTCs. It is necessary to execute applicable evidence-based and valid awareness and educational programs for all youth drivers. Also, there is a need to encourage traffic safety and law for road safety. The distracted driving and adolescents who are driving without licenses must be controlled.

Conflicts of Interest

The study was conducted without any commercial or financial relations that could be interpret as a possible conflict of interest.

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Potential Environmental Monitoring Applications of Unmanned Aerial Vehicle in the United Arab Emirates

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Abstract

Unmanned aerial vehicle (UAVs) refers to a category of aircraft that have the capability of flight without the onboard presence of a pilot, thus requiring remote control. Use of UAVs has the potential of solving a myriad of environmental issues and increasing the quality of data collected from ecological analysis, thus providing a safer, cost-effective, and more efficient method of predicting and controlling ecological activities. The aim of this manuscript is to explore different types of unmanned aerial vehicle technology in the field of environmental monitoring. The application of UAVs can enhance environmental monitoring and protection in many applications in the UAE. The study attempts to suggest and highlight potential unmanned aerial vehicle applications that may be helpful to monitor air quality under certain circumstances where the conventional methods can not be used. The SWOT analysis on the potential UAV application has been conducted based on recently published literature on different applications of Unmanned aerial technology. The SWOT analysis revealed that the best potential application of UAV technology in the UAE would be to monitor harmful gases. The advanced technology of UAVs has developed a new micro-drone with some gases detectors that help in monitoring the gases of concern. This micro-drone weights 200 grams, and it is an excellent wireless flying drone with a measuring system that can monitor and measure different gases such as hydrogen sulfide (H₂S), Carbon Monoxide (CO), Carbon Dioxide (CO₂), and Ammonia (NH₃), and it can be loaded with more detectors to identify toxic gases which may help in assessing the potential sources of such gases. Overall, the potential applications of UAV technology extend to facilitating environmental conservation and monitoring toxic gases, which will improve air quality and controls air pollution in UAE. Moreover, the existing applications of UAV technology have proven to be rapid, flexible, cost-effective, safer, and more efficient in the collection and measurement of samples.

Introduction

Unmanned Aerial Vehicle Technology

Unmanned aerial vehicle technology has become popular and increasingly useful in various sectors of research and development. Typically, UAVs refer to a category of aircraft that have the capability of flight without the onboard presence of a pilot, thus requiring remote control (Lakshmi Narayanan & Ibe, 2015). Unmanned aerial vehicle technologies have different features and components. It is made of light materials and able to fly autonomously with cameras and gives a wide range mission from above. UAVs are classified into different types based on various characteristics. Typically, the differentiation criteria entail size and payload, flight endurance, flight range, flying altitude, and capabilities (Berie & Burud, 2018). Ideally, these traits are interconnected; hence larger UAVs have a more significant payload capacity, flying altitude, flight endurance than smaller UAVs. However, the most common criterion for classifying UAVs is a wing type.

History and Development of UAV Technology

Military is the first sector that use UAV technology since it plays a main role in monitoring and provides security, targets identification, assessing damages after wars, and in many other sensitive areas. However, currently unmanned aerial vehicle technology usage has expanded in different applications around the world. This technology provides us more understanding of environmental process and how to deal with them. UAVs used for deep ocean's exploration, monitor pollution spread, aerial mapping and nature monitoring, monitor climate variables and studying volcanoes. There are several useful applications of UAVs in environmental monitoring, such as: water quality, checking air quality and controlling air pollution, combating forest fires or wildfires, biodiversity, weather forecasting, environmental disaster management, and monitoring land degradation. Overall, unmanned aerial vehicle technology (UAVs) has the capability of solving a myriad of environmental issues and increasing the quality of data collected from

ecological analysis, thus providing a safer, cost-effective, and more efficient method of predicting and controlling ecological activities.

Aim

The aim of the study is to discuss different types of unmanned aerial vehicle technology that can be used in the field of environmental monitoring and find the best potential application for existing gap in the UAE.

Significance of the Study

The central importance of this paper is to help in providing detailed information about the potential unmanned aerial vehicle application for toxic gases emissions to overcome and monitor air pollution issue in the UAE. Besides, the paper will offer general information to readers about various applications of unmanned aerial vehicle technology. In general, the significance of the paper is to suggest and highlight potential unmanned aerial vehicle application that will be helpful to air pollution problem with conducting SWOT analysis on the potential UAV application.

Scope of the study

The paper was involved different studies that discuss UAVs applications in the field of environmental monitoring. Articles issued between 2010 and 2020 were used to collect needed data. Moreover, the paper includes UAE's potential application of Unmanned aerial vehicle technology in the field of environmental monitoring with SWOT analysis, recommendations, and conclusion.

Literature Review

Water Quality

Unmanned aerial technology has been used in monitoring water quality and controls water pollution. In the United States, the US department of agriculture invested one million dollars in a water sampling project. At the same time, countries like Spain through the Spanish Donana National Park have allocated a significant amount of funds and time to R&D of drone technology in monitoring water quality (Gallacher, 2017). UAVs are advantageous over conventional boats since they are timesaving, cost-effective, and repeated sampling can be done with increased accuracy (Kingham, 2019). Ultimately, the sensors in UAV can conduct water analysis by measuring temperature, conductivity, pH, the levels of dissolved oxygen, and the water's subsequent oxidation-reduction potential.

Checking Air Quality and Controlling Air Pollution

UAVs technology is used in monitoring air pollution hotspots like industrial and construction sites, which would encourage adherence to environmental regulations. The recent development in UAV sensor technology has incorporated compact bundled packages that are capable of quantifying a myriad of air pollutants and natural elements. Specifically, the UAS sensors are able of measuring air pressure, the levels of CO, CO₂, O₂, O₃, NO, NO₂, SO₂, NH₃, CH₄, H₂, H₂S, HCl, HCN, Cl₂, and other particulate airborne matter. Therefore, drone technology is useful in monitoring air pollution hotspots like industrial and construction sites, which would encourage adherence to environmental regulations (Gallacher, 2017).

Another study was done in Greece used UAV to monitor air pollution in the urban areas. The UAVs were prepared with wireless sensors that provide 3D visualization and collect data to measure different pollutants such as CO, CO₂, O₃, NO₂, SO₂, NH₃, and temperature as well as humidity (3D air quality modeling with sensor drones in Greece, 2019).

Combating Forest Fires or Wildfires

UAV technology has been useful in combating forest fires in a myriad of ways. Firstly, before a fire, UAVs are used to assess the hydric stress and risk index of a given forest cover. Secondly, UAVs are useful in the fire detection, confirmation, localization, and monitoring. Lastly, UAV technology is applicable in the assessment of the effects of the fire in the target area. In the United States, the fire-fighting department, in conjunction with the forestry department, constantly employ the use of UAV technology in fighting wildfires and forest fires (Ollero, Martínez-de-Dios & Merino, 2006).

Biodiversity

UAVs technologies have been used in mapping and monitoring biodiversity by providing high quality 3D maps. It is useful to monitor and study the living system by providing detailed information about species distribution and identify any dangers to different kinds of animals and plants (Institut de Recherche pour le Développement, 2016). Moreover, in Nepal, South Africa and Namibia, fixed-wing drones was used to prevent illegal hunting of endangered species, by collecting data and evidence (MURISON, 2019). Therefore, UAV technology is useful to protect some endangered animal species.

Weather Forecasting

Meteorologists are incorporating drone technology in data collection to assist in studying climate, thus providing more accurate predictions of future changes to global weather systems. Although most data is collected from stationary infrastructures of via geospatial imaging, the use of UAVs provides a versatile option that is capable of keeping up with dynamic weather patterns (“How Drones Will Impact Society: From Fighting War to Forecasting Weather, UAVs Change Everything,” 2020).

Environmental Disaster Management

According to Hildmann and Kovacs 2019, UAV technology is used in the assessment of the aftermath of environmental disasters as well as in disaster mitigation. Some potential hazards from industrial facilities pose a significant risk since some toxic materials like gases that are invisible and odorless, which makes them an environmental challenge that is difficult to track and manage. Moreover, UAV technology is essential in the events of a gas leakage; thus, it incorporated in various problems all over the cities to produce reliable environmental surveillance of the urban settlements. Ultimately, real-time sensory data from UAV technology is crucial in environmental disaster mitigation and response.

Monitor Land Degradation

According to Themistocleous 2017, in dry land in Mediterranean, land degradation in the form of desertification is a significant challenge that needs continuous monitoring and control. UAV technology is potentially useful in monitoring variables and risk factors of desertification, like overgrazing, aridity, and vegetation loss. UAV aerial images are capable of producing digital evaluation models (DEMs) that monitor and track any changes in micro topography as well as changes in vegetation patterns.

Consequently, the digital evaluation models and orthophotos are essential for determining the current tools for desertification. Ideally, UAV technology facilitates remote sensing and the production of high resolution spatial and spectral imagery of underlying vegetation cover at low costs and better quality compared to stationary airborne sensors. Moreover, the UAS sensors can be retrofitted with multispectral cameras capable of measuring pressure, temperature, relative humidity, surface temperatures, gasses, and radiation; thus, UAV technology has the potential to measure a broad range of ecological phenomena. For example, a fixed-wing drone equipped with digital cameras was used in Morocco to collect data of soil erosion (Irene, Sebastian, Klaus, & Johannes, 2012). Therefore, UAV technology is be able to track and monitor possible causes of desertification like aridity, intermittence of rainfall, overgrazing patterns, and vegetation stress.

Unmanned Aerial System (UAS) Capabilities

Unmanned aerial vehicle technology (UAVs) has different capabilities of exploring a lot of environmental problems and improve the quality of data collected. Fundamentally, the UAS is equipped with various sensors to enhance the functionality of UAVs. For instance, UAS is equipped with a visible commercial camera (VIS) that has facilitated the exploration of vegetation monitoring (Ventura, Bonifazi, Gravina & Ardizzone, 2017). The VIS is capable of multiple visible spectral indices such as the Normalized Green-Red Difference Index (NGRDI), the Excessive Green Index (EXG), and the VEG index that are essential for vegetation mapping (Gupta, Ghonge & Jawandhiya, 2013). Ideally, these vegetation indices are cost-effective equipment for biomass estimation and generating yield variation maps in agricultural decision-making.

Additionally, UAS is equipped with Light Detection and Ranging (LIDAR), commercial red-green-blue (RGB) cameras, red-edge, near-infrared, laser scanning systems, and thermal infrared spectral bands. Primarily, these innovations in sensor technologies have enhanced the effective implementation of UAS forestry monitoring (Berie & Burud, 2018). Some infrared sensors, such as thermal imaging systems have been applied in forest fire monitoring (Bin Abas, Bin Mohd Rafie, Bin Yusoff & Bin Ahmad, 2016).

Laser scanners have been incorporated in predicting forest canopy cover, biomass estimation, and recent studies relating to the volume of wood. Additionally, UAS technology has facilitated numerous opportunities for research into the exploration of natural resources by providing detailed spectral data that has a broad scope of environmental uses.

Table showing various applications of different UAS sensors (Tmušić et al., 2020)

Sensor type	Specifics	Main applications
RGB	optical	Aerial photogrammetry, SFM-based 3d modeling, change detection, and fluid flow tracking
Multispectral (<10-20 bands)	Multiple wavelengths	Vegetation mapping, water quality, and classification studies
Hyperspectral overlapping contiguous bands	Analyzes the shape of the spectrum	Vegetation mapping, plant physiology, assessing water quality, in mineral exploration and mapping, in studies involving plant phenol typing
LIDAR (Light Detection and Ranging)	Surface structure	3D reconstruction, in the mapping of various digital terrains, in generating canopy height models, in erosion studies and studies related to plant structures

From the previous literature review, UAVs extended in many researches. It has been entered the field of environment in different ways which had a positive outcome. As known, air pollution is one of the challenged issues in the UAE. Industrial toxic gases emissions are one of the significant causes that leads to air pollution issue. UAVs technology can monitor air pollution hotspots like industries and construction sites. Since air pollution issue is existing in the country; therefore, the best potential application of UAVs is monitoring toxic gases to control air pollution.

Potential Environmental Monitoring Application of UAV Technology in the UAE Issue and Current Situation

The best potential application of UAV technology in the UAE would be to monitor toxic gases. Toxic gases released from industrial sector can be invisible and odorless which make them challenge to be identify; in addition, these gases may contribute to increase air pollution issue. These gases posed a threat to natural environment and human health. Moreover, the exposed employees to these toxic gases are threatened to lose their lives. Therefore, these gases should be highly monitored and restricted by laws and regulations. Nowadays, monitoring of air pollution and toxic gases emissions is done by using fixed monitoring stations, as well as toxic gases detectors. There are two types of toxic gases detectors such as: fixed on-site gas detectors and mobile gas detectors that can be carried with the equipment.

Toxic Gases Micro Drone

Advanced technology of UAVs has developed new micro- drone with toxic gases detectors that helps in monitoring this issue. This micro-drone is weighted 200 grams, and it is an excellent wireless flying drone with measuring system that can monitor and measure different toxic gases such as hydrogen sulphide (H₂S), Carbon Monoxide (CO), Carbon Dioxide (CO₂), and Ammonia (NH₃), and it is able to identify toxic gases sources. This micro drone is function by using gas detectors and electrochemical sensors. Detectors are protected and eligible to function in different temperature and humidity (Bartholmai & Neumann, 2010). The benefits of the potential application of UAV technology is tracking toxic gases which will help the UAE to instigate better mitigation measures to enhance air quality. Ultimately, the UAE would be able to effectively monitor and plan for the mitigation of toxic gases in the UAE with less effort, flexible and cost-effective environmental surveys.

SWOT Analysis of potential UAV Application in the UAE (Toxic Gases Micro Drone)

Strengths

- Modern toxic gases micro drone provides rapid, flexible, and cost-effective environmental surveys that enhance real-time toxic gases monitoring and analysis (Feuilherade, 2018)
- Micro drone enables a myriad of measurements and sampling procedures using the sensors incorporated in UAS, thus provide much accurate information and precise locations of sources of toxic gases which enhance monitoring process (Paneque-Gálvez, McCall, Napoletano, Wich & Koh, 2014).
- Toxic gases micro drone eliminates the potential hazards and risks to environment and human life since they can operate in hazardous, toxic, and dangerous environments, thus it protects the environment and facilitate the safety and health of surveyors.
- Toxic gases micro drone is capable of transmitting information wirelessly, thus promoting speedy analysis and measurement of samples.
- Sensor technology in UAS like accelerometers, gyroscopes, and compasses enables accurate navigation of drones in areas where visibility is compromised, thus facilitating navigation and accurate detections even in different temperatures and humidity and in far locations.

Weaknesses

- Micro drone currently lacks artificial intelligence thus have limited guidelines on environmental protection activities (Pesce, Shi, Critto, Wang & Marcomini, 2018)
- Toxic gases micro drone development and research is a costly endeavor as the technology incorporated into the UAS is difficult to innovate and expensive to integrate with toxic gases detection protocols.
- Toxic gases micro drone is using rotary-wing which may impact the accuracy of data collection from the air which will affects results analysis.
- Micro drone has a safety risk of collision inanimate objects, and the ground level since remote control can be easily disrupted by power shortages.
- Micro drone is a weak substitute concerning labor intensity as the technology requires high skill to operate and navigate.

Opportunities

- Toxic gases micro drone has potential integration capabilities with other technologies like robots, thus facilitating a myriad of opportunities such as the source identification of toxic gases from various sources like different industries, underground mines, and other places.
- Toxic gases micro drone has the potential to facilitate the development of safe and free of pollution environment in the UAE by monitoring industrial activities.
- Micro drone facilitates data collection for far inaccessible areas.
- Micro drone enables people to work from a centralized point, thus improving the coordination and efficiency of the UAV data collection and analysis.
- Micro drone provides a better monitoring and fast identification of danger points before the incident escalate; thus, it minimizes disasters.

Threats

- Micro drone faces a threat from robotics and the Internet of Things (IoT), which could potentially perform the same duties (Manfreda et al., 2018).
- With the improvements in sensor technology, environmental measurements, and health samples could be obtained from a stationary point yet provide the same quality of data (Roder & Choo, 2019).
- Micro drone may lead to the laying off of many people as a single drone may be more efficient and less time consuming than several physical environmental surveyors.
- Toxic gases micro drone may overlook certain conditions not included in its programming that an actual environmental analyst would find crucial.
- Micro drone may fall down which will threat surrounding people's safety; as well as it may not be acceptable to UAE's culture as public may consider digital sensors break their privacy.

Conclusion

In conclusion, UAV developed from the military use to the civil use such as in environmental purposes. UAV has been useful in monitoring water quality and monitor water pollution, checking air quality and controlling air pollution, combating forest fires or wildfires, biodiversity, and weather forecasting. Moreover, UAV technology helps in environmental disaster management by mitigating and assessing the disasters, and land degradation. The potential applications of UAV technology extend to facilitating environmental conservation and monitoring toxic gases, which will improve air quality and controls air pollution in UAE. Moreover, the existing applications of UAV technology have proven to be rapid, flexible, cost-effective, safer, and more efficient in the collection and measurement of samples.

Recommendations

Firstly, UAV technology such as toxic gases micro drone may be insufficient in monitoring and tracking toxic gases; thus, it is essential to integrate this technology with other automated systems like artificial intelligence. Secondly, UAV technology such as toxic gases micro drone should be structurally designed for specialized environments to facilitate the monitoring and detection of toxic gases in areas with harsh terrain or dangerous ecological conditions. Thirdly, micro drone must be provided with sustainable, more efficient, and eco-friendly energy sources, such as solar energy, to cover power shortage. Fourthly, UAV technology such as toxic gases micro drone should incorporate technology that allows for toxic gases detection and onsite control for air changes hence facilitating real-time toxic gases monitoring measures.

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The Impact of Innovation Tools in Marketing on Business Growth

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Abstract

This research examines the impact of innovation tools in marketing on business growth. The main objectives of this research are to determine the relationship between innovation tools in marketing and business growth rate, to investigate the results of using Innovation tools in marketing on business growth and to evaluate how do small and medium businesses contribute to economic growth. The method used in this research is quantitative method. Quantitative method is suitable to be use in this topic, because it can be counted and measured easily, also it offers closed-ended questions through survey questionnaire with predefined answer options. Reviewed articles explained the impact of Innovation tools in marketing on business growth. Businesses and corporations tend to innovation adaptation direction, this will open a new opportunity to be more competitive and attractive in the market. Also, the customers will have higher value to be considered before applying innovation which leads to have inclination in business growth, and the results are proven in a large number of examples, such as, the performance of organizations can be increased by implementing specific innovation activities, implementing marketing innovation and product innovation together, that will lead to gain rapid and effective benefits. So, there is a positive relationship between product improvements and business growth. Customer's satisfaction is one of the main purposes of having a business and the effect of local either small or medium businesses in developing the national socio-economic growth. Customer focus is an essential aspect in innovation process adaptation, which allocating a budget of learning about customers is a smart step to save time and effort. The literature review will discuss the marketing innovation, customer focus and business growth. Then the methodology design will explain the proper and best methodology practice that should be used, for example, the sample, data collection and data analysis. Finally, the expected results will be discussed in conclusion part.

Keywords: Innovation, innovation tools, marketing innovation, business growth, small and medium enterprises.

Introduction

Innovation initiates a new value, concept, system and product to the market and makes a huge difference in the marketing industry (Martín-de Castro, et al., 2011). There are three stages of innovation, it can be an outcome, a process and a mindset. These three aspects work together to develop any corporation in enhancing their business. There are two types of innovation which are leading toward having sustainable competitive advantage in business world, technological innovation and non-technological innovation (Weerawardena, 2003). To achieve sustainability of competitive advantage, it requires to focus on customer needs and target, then innovation tools in marketing will help to reach business growth with high sales product. Locally in business market, small and medium businesses are more likely to adapt innovation tools. Therefore, lead to contribute in economic growth (Al-Ansari, 2014). I chose to review the topic of the impact of innovation tools in marketing on business growth for several reasons, first because innovation is a renewable topic, contributes in different fields to change the way of people think and work. Second, innovation marketing is playing important role in business world, it is essential to know more about the recent advanced tools to implement. Also, to have experience on developing our skills to achieve required vision in business world in the future.

Literature review

Marketing innovation

In business world, innovation is the most significant factor that helped economic growth in the last decades, which led organizations and governments to invest a large budget to implement innovation (Rebane, 2018). According to the study, innovation is a tool which assist businesses to use their resources efficiently in order to develop a competitive advantage (Knight & Cavusgil, 2004, as cited in Gupta et al., 2016). Also, Schumpeter (1934) states that the performance of the organizations can be increased by implementing specific innovation activities. Innovation is a new business term, which expanded actively in last decades, it's a key factor changing tool that can be used to implement new methods and new technologies with a massive change degree in an organization (Euchner, J.,2013).

There are three different aspects of innovation, firstly, to consider innovation as an outcome, second aspect, innovation in terms of process and lastly innovation in terms of mindset. Innovation as an outcome includes many important stages, such as product, marketing, supply chain, and business model. Second aspect, innovation as a process focuses on how innovation can be organized to achieve required outcomes, which are innovation process, and developing new products process. Third aspect is innovation as a mindset, where when there is a flexible organizational culture with more freedom, employees will have a high chance to innovate and work with more passion. If all organizational members understand these three elements, then they are more likely to take right decisions in the right time with respect to innovation terms (Kahn, 2019).

The main aim of marketing innovation is to contact with customers and consumers, that might happen by new and different levels, which involves new types of promotions. Marketing innovation focuses on deriving demand by creating awareness among customers, brand recognition, and product uniqueness (Kahn, 2019). There is a bond created among marketing innovation and product innovation. The purpose of marketing is to increase and accelerate the process of sales and products as much as possible. As an example, in Danish skill- intensive organizations, they found that productivity growth increased when both of product and marketing innovation implement together, rather than implement each of them separately (Junge, Severgnini & Sørensen, 2016, as cited in Rebane, 2018). So, organizations should implement both marketing innovation and product innovation together to gain rapid and effective benefits.

Customer focus

The main concept of business innovation is adding new value rather than creating new things, and to consider innovation as a relevant, it should add a value for customers firstly, thus for the corporation itself. Customer focus is an essential point to consider before start to innovate and make any changes in a business (Sawhney, Wolcott & Arroniz, 2006). Businesses are able to create value through saving time, effort and allocate a budget of learning about customers, thus, will lead to create 'economies of scope in use' (Visnjic, Wiengarten, & Neely, 2016).

Business that have a solid customer orientation accordingly have a competitive advantage, because it considered the customer value in terms of maintenance and creation a top priority (Olson, Slater & Hult, 2005, as cited in Hortinha, Lages, & Lages, 2011). Therefore, businesses might use demand analysis which is type of strategic marketing, that allow to have feedback and answer the question of who are the customers of the new product? Demand analysis depends on a segmentation method, it includes dividing the customers into groups whose members have similar characteristics, which called market segmentation, then offering goods to each group regarding their specific needs and requirements (Melnik & Dehtyarova, 2012). Customers satisfaction is one of the main purposes of having a business, because this is the way toward business success and sales product or services flourish. Therefore, businesses should have the ability to offer customers continuous improvement on their capability of producing products/ services or competitors offers, in terms of cost, product/ service quality, long- term benefit management (Story et al., 2017).

There are two types of customers, individuals and organizations that use products in another circle of business. For example, x-company manufacture and export aluminum, and y-company produce products by using the manufactured aluminum from x-company. This aspect offers many opportunities for business to innovate with respect to the customers segments and unstated needs that might not existed before. Also, as an example of the customer orientation advantage, developing the innovation capabilities. When businesses develop new technologies, businesses should specify the appropriate customers for the new technologies to ensure the success (Yalcinkaya, Calantone, and Griffith 2007 as cited in Hortinha, Lages, & Lages, 2011).

As an example, Virgin Mobile in USA focused in a certain group of consumers, who are under 30 years old segment. Virgin Megastore used demographic segmentation, which classify the people and customers depending on age, gender, income, nationality, religion, etc, to attract a specific group and offer convincing promotions, such as shortened pricing, entertainment features that is an important value to add specially for this group, and there are no contractual commitments to simplify buying process. After three years from 2002, virgin megastore started to compete in the market, with having millions of subscribers (Sawhney, Wolcott & Arroniz, 2006).

Business growth

One of the most important impacts of adapting innovation in businesses is business growth performance (Forsman & Tamel, 2011, as cited in Al-Ansari, 2014). Businesses and corporations are more likely to adapt innovation, because innovation allows them to have a higher opportunity to take place in this competitive market, to give their customers more value, and to increase businesses growth (Australian Chambers Business Congress, 2011, as cited in Al-Ansari, 2014). Prajogo (2016) shows in his study that there is a positive relationship between both product and process innovation with business performance.

Thus, product and process innovation are considered to be effective sources of competitive advantage. Also, another conducted research about how product and process innovations affect the business growth show that there is a positive relationship between product improvements and business growth (Wolff, Pett, and Walker, 2004, as cited in Gunday et al., 2011). Therefore, there are many features that makes a corporation differs from others. Corporations that have a high business growth performance are more likely to be competitive because of its valuable, exceptional and its unique recourses and abilities, and innovative capacity is responsible of its sustainability (Porter 1980; Barney 1991, as cited in Al-Ansari, 2014).

Small and medium businesses are able to adapt innovation to different fields of their businesses, such as management, daily practices, marketing approaches and business operations (Ghobadian & Gallear 1996; Vossen 1998, as cited in Al-Ansari, 2014). Small and medium businesses are playing an important role in developing national social and economic growth (as cited in Al-Ansari, 2014). Also, they are essential forces to join together the markets and economics process (as cited in Al-Ansari, 2014). Those businesses are important in implementing innovation activities, developing the local entrepreneurship, and having the capability to exploit each opportunity from globalization (UAE MFT 2012, as cited in Al-Ansari, 2014). Furthermore, entrepreneurs who are responsible of small businesses have become more aware of the importance of operating their personal and businesses networks in more strategical approach, as an example, create further various and weak ties to help their businesses to cope with complicated and globalized markets (Johannisson, 1998, as cited in Varis & Littunen, 2010). Moreover, the analysis results of another study show that when there is internal improvement of innovations, significantly the performance of small and medium businesses increase (Rosenbusch et al., 2011).

Methodology Design

The method that will be used to collect the required data of the impact of innovation tools in marketing on business growth is quantitative method. Quantitative method used to quantify the issues and the problems by generating numerical data that can be transformed later into statistics and generate results from a large sample group. The purpose of using quantitative research method is that mainly to testify the hypotheses

of the market, make predictions, and figure out the causes and the effects of the concerned issue pointed from the customer or a corporation. In this topic, the cause is innovation tools in marketing and the effect is business growth and to test the hypothesis if there is an adaptation of innovation tools in marketing strategies for business, then the business growth rate is expected to increase.

Sample

The sample of the selected method will be large and randomly selected, including 500 small and medium enterprises from different sectors of businesses, which will lead to different mentality in business wise, gender male or female, and different age categories. Having data from 500 enterprises will make the results more accurate, specific, reliable and relevant. However, the more quantity of people experiences and get exposed to the survey, the more answers received and the accuracy percentage will be elevated.

Data collection

The data that will be used and collected in this method are statistics, figures and numbers. Those inputs are based on selected and accurate measurements by using the updated and common used data collection instruments. Quantitative method will be implemented in different forms, such as online surveys, which is the most used form to conduct survey, since it is quick and widespread across the enterprises. Also, face-to-face interviews, which relies on physical appearance that will lead to a very honest and accurate answers. Telephone interviews, where the survey will be conducted away from the participant. The benefits of using an online survey are low cost budget, where it doesn't require much money to be paid, it is very easy to manage and distribute among small and medium enterprises, participants have the total freedom to solve it at any time. While telephone interviews can offer an opportunity to clarify elements with participants, and the ability to ask further questions if required.

Quantitative method will be used in forms of questionnaire, which there are questions with set of answers to select, and depends of the question requirements either to select one or more answers. The questions are well structured to analyze the important variables that affected the business growth and the relationship between innovation tools in marketing and business growth rate. Quantitative method is suitable to use in this topic, because it will be counted and measured easily, offer closed-ended questions and predefined answer options will make the data analysis faster and easier.

Data analysis

The first step after collecting the required data from the large sample will be data coding. Coding will help in reducing the large amounts of information from participant's responses into a form that is easy to entered into a database by assigning a number for each response. Quantitative method includes a large sample that need to be coded and analyzed so, the second step will be using SPSS software program for data entry, SPSS is a statistical analysis tool that used for solving various research problems and hypothesis testing, which is a suitable tool for the selected methodology in this research.

Results & Discussion

A survey questionnaire was conducted to gain further knowledge about the impact of innovation tools in marketing on business growth. It included thirteen closed questions distributed among 13 participants who are having different educational and work experience background, the results were as the following, first, marketing innovation plays an important and significant role in business sector. In addition to marketing innovation, if there is a flexible organizational culture, then the employees are more likely to innovate and create continuous improvements if needed, focusing on the employees lead the organization to higher opportunity to massive success. Second, a customer focus also is an important factor to be considered in any business, but at the same time not the main priority when it comes to any business decision, because there are many different important factors are affected together, such as, cost, employees capability and available resources. Third, adapting Innovation tools in marketing leads to business growth, which Innovative capacity is responsible for business sustainability. Finally, these results lead to have a positive relationship between implementing innovation tools in marketing and business growth.

Conclusion

This research topic will be using quantitative method that includes survey questionnaires from different small and medium enterprises in the market to collect the required data from the different forms used and analyze them in very simple forms. After reviewing various researches about the impact of innovation tools on business growth, the expected outcome findings are as following, the performance of the organizations can be increased and enhanced by implementing specific and effective innovation activities, where innovation is a tool that assists businesses to use their own resources efficiently in order to develop and collect competitive advantage. Also, implementing marketing innovation and product innovation added together will lead to gain rapid and effective benefits. Moreover, customer's satisfaction is one if not the main purposes of having a business, because this is the most operative and functional way toward business success and sales product or services flourish.

The major demand from the organization is to become the best if not the finest in the business growth. So, understanding what the customer wants and focusing in a certain group that interests the customers at the beginning of the business give a higher opportunity to have higher sales rate in terms of their requirements by using innovation tools via marketing. Furthermore, there is a positive relationship between both product and process innovation with business performance, which lead to have a positive relationship between product improvements and business growth. Also, corporations that have a high business growth performance are more likely to be competitive because of its valuable, exceptional and its unique recourses, abilities and innovative capacity is responsible of its sustainability. In addition, small and medium businesses have a great impact on increasing economic and business growth, adding new values for customers and consumers, offering new opportunities to other businesses to grow, enhancing the living style, and creating more job opportunities for the people. Using Innovation tools in marketing might have different effects in business growth, some businesses could benefit in a rapid manner if suitable tools were used, and some of businesses might have negative effects. There are many factors should be included to success, as an example, financial situation of the organization or the business is very important to be considered before applying any innovation tool. As a recommendation, businesses should apply different innovation tools in each phase and process of the business, to have an opportunity to increase the business growth rate, and to be competitive in the market.

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Appendix

Survey questionnaire

1. Your age. (Under 20/ 20-25/ 26-35/ 36-50)
2. Your gender. (Female/ Male)
3. Your education level. (High school degree/ Diploma degree/ Bachelor's degree/ Master's degree/ Doctorate degree)
4. Employment Status. (Employed/ Unemployed/ Student)
5. Innovation in marketing is playing important role in business world. (Strongly disagree/ Disagree/ Neutral/ Agree/ Strongly agree)
6. Flexible organizational culture leads employees to have high opportunity to innovate. (Strongly disagree/ Disagree/ Neutral/ Agree/ Strongly agree)
7. Innovation is the ideal gate for businesses to success in the competitive global economy. (Strongly disagree/ Disagree/ Neutral/ Agree/ Strongly agree)
8. A customer focus should be your main priority when it comes to any business decision. (Strongly disagree/ Disagree/ Neutral/ Agree/ Strongly agree)
9. Customer's satisfaction is the purpose of having a business. (Strongly disagree/ Disagree/ Neutral/ Agree/ Strongly agree)
10. Innovation allows Businesses to have a higher opportunity to take place in this competitive market. (Strongly disagree/ Disagree/ Neutral/ Agree/ Strongly agree)
11. Adapting Innovation tools in marketing leads to business growth. (Strongly disagree/ Disagree/ Neutral/ Agree/ Strongly agree)
12. Businesses that have a high business growth performance is more likely to be competitive in the market. (Strongly disagree/ Disagree/ Neutral/ Agree/ Strongly agree)
13. Innovative capacity is responsible for business sustainability. (Strongly disagree/ Disagree/ Neutral/ Agree/ Strongly agree)

Research Proposal VR and AR in Education

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Summary

Background

With the help of technology number of devices and software have been invented that have changed the method of performing activities in different fields like education, health care, business, and so on. Virtual reality and augmented reality are the wonderful inventions of technology that have changed the traditional passive method of learning into a new effective one.

Aim and objectives

This research aims to find out the role which virtual and augmented reality play in education system development. Also, to find out the negative and positive aspects of using virtual and augmented reality in the education system.

Methodology and analysis

Both qualitative and quantitative data collection techniques will be used in this research. The survey will be used as a quantitative technique, while the interview will be taken as a qualitative collection technique. For analysis, descriptive statistical techniques will be used. The sample size will be kept 5 for interview analysis. The sample size for the survey will be 20. A convenient sampling method will be used for the selection of the sample. The sample for the research will be the people related to the education field, including teachers, education policymakers, and students.

Significance of research

This research is very important as it will make a greater contribution to the literature available on a virtual and augmented reality, especially related to the field of education. Also, this research will provide several practical implications that can be adopted for bringing more improvement in education with the help of virtual and augmented reality technology.

Limitations and recommendations

Although this research will contribute theoretically and practically in the topic, it still has few limitations recording its sample size and framework. Future research can increase the sample size to get a more accurate result. Some mediator and moderator variables like knowledge about how to use technology can be added in this framework to make it more strong.

Introduction

Due to the improvement and evolution in technology, methods of performing activities are changing day by day. Virtual reality and augmented reality is the precious gift of technology that has changed the method of delivery of education and made it more effective. For over two decades, virtual reality and augmented reality existed in various forms.

Virtual reality and augmented reality can be successfully used in the field of education, but the high cost has always been a major obstacle. However, the advent of low price virtual reality technologies and devices has made its adoption quite easy for the common man and for different fields. In 2014 Google released its Google cardboard, and since then, the virtual reality world has been turned upside down by it. It is the lowest cost head-mounted virtual reality equipment and can be purchased for the price as low as 15 dollars (Acosta et al., 2019). Users can get immersed in the virtual reality world with the help of stereoscopic lenses present in the cardboard. The immersive and interactive experience offered by virtual reality has made it possible to use it as a strong tool in the field of education. Studies related to engineering, foreign languages, and social science can be easily done using this app. Virtual reality devices are now widely distributed in the market place, and they are available at affordable rates (Aldalalah et al., 2019).

Due to the important role which virtual reality and augmented reality can play in different fields, there is a growing body of research in this regard. A number of researchers have explored this in different sectors like health, business, technology, and so on. Therefore, it has raised the need to explore this technology, so the important question is what are the main roles of virtual reality and augmented reality in the field of education? Therefore, the first objective of this research is to explore the use of virtual and augmented reality in the field of education, and the second objective of the study is to highlight the benefits and drawbacks of using these devices.

Literature review

Virtual reality and augmented reality concept

Virtual reality is available in different forms since the 1960s, and now it represents devices that are used for creating, immersive and interactive environments in visual realism. Desktop VR is considered as least type of virtual reality, and it is the part of the 3D world showed to people in the computer monitor (Barroso-Osuna et al., 2019) This virtual reality device is immersive, and it plays the role of the window to the 3D virtual world. In the present world, the most common example of desktop VR is the 3D virtual world of second life (Aldalalah et al., 2019). Cave automatic virtual environment is considered as the intermediate type of virtual reality, and it is characterized on the basis of projectors representing the virtual environment on the walls present around the users.

In the most immersive type of virtual reality, a stereoscopic head is being used. It is the head-mounted display and helps to understand where the user is looking. The hybrid form of visualization is known as augmented reality, and it makes use of both real and virtual worlds. In 2016 augmented reality became the part of the popular world with the advent of smartphone games known as Pokemon Go. The methods used for determining how to augment the image plays a key role in the augmented reality classification. Image processing is used in the marker-based augmented reality for the purpose of identifying the point in the real-world and for displaying the virtual content based on the marker (Turan et al., 2018).

Applications of VR and AR in education

AR and VR are successfully in use in the field of medical and various surgery trainers, and simulators use virtual reality, including temporal bone surgery, laparoscopy, and also in dental training practices. Tactile feedback is provided with the help of some of these virtual reality applications. Autonomy, lung dynamics, and laparoscopy can be visualized with the help of augmented reality (Syawaludin and Rintayati, 2019). For example, Miracle is the representation of the system for using a camera to mimic the mirror view of the user, and the image is superimposed generated with the help of CT scan.

Science education also makes use of the virtual reality, and it can be used for chemical reactions visualization and even learning of molecules present in the component. Marker-based augmented reality is used for visualizing the process of respiration and also human meiosis in a clear way. Abstract concepts can be visualized easily by using virtual and augmented reality devices. A variety of augmented reality apps are in use to test the introductory electrical engineering courses. Electrical machines working on the basis of AR and VR are being used for displaying animations and instructions. A markerless system has been formulated with the help of virtual reality, and it is known as ELECT3D (Craciun, D., & Bunoiu, M. 2016).

The third application of AR and VR in the field of engineering is ElectAR, and it offers assistance to make recognition of the marker located on the course study notes and illustrations. Moreover, virtual reality also offers help in microcontrollers and Arduino boards (Fuchsova and Korenova, 2019).

One of the biggest uses of virtual reality in the field of history is that it makes use of the virtual field trips of historical sites and historical events can be witnessed at first hand. Virtual reality has also helped to conduct behavioral studies for the purpose of recreating scenarios that can otherwise cause problems or prove to be dangerous. Interactions with native speakers can be made by using virtual reality in the field of foreign languages. 3D virtual worlds based on the desktop VR are mainly used in this practice. With the help of internet distance learning is made far more accessible and rich in terms of content than ever before. All these areas are indicating that virtual and augmented reality is in use successfully in different fields of education (Elmqaddem, 2019).

Advantages of virtual reality

The strengths of virtual and augmented reality in classrooms have been shown with the help of numerous studies in the last two decades. With the help of AR and VR, the role of the teacher is changed, and he no longer performs the duty of knowledge deliverer; rather, he becomes the facilitator. Students are offered help by VR and AR teachers to explore new areas and to learn. This is strongly in favor of the constructivist theory of learning. Students feel more empowered using this practice, and they stay engaged due to having absolute control over the learning process. Students are given the opportunity of processing at their own pace, and they can also learn techniques and practices with the help of conducting experiments.

Moreover, abstract concepts are made clear to students with the help of virtual reality. The traditional learning process is mostly language and conceptually based, while virtual reality increases the active learning of students and help them to grasp the abstract knowledge. Virtual reality particularly offers benefits to low spatial ability learners. Systems or objects of widely different scales can be comprehended with the help of virtual reality (Gheorghe et al., 2018). For example, with the help of charcoal mini blast furnace virtual reality application, it gets possible for students to get a big and clear picture of the entire system work and also to explore the individual components of the system. The new possibilities in the realm of testing and design have been opened with the help of changes made in the virtual reality world.

For instance, it is possible to copy the digital prototypes and also to modify the time required for building and testing the physical prototypes. Moreover, the immersive nature of virtual reality can also offer help for blocking out the distractions so that it gets possible for students to merely focus on the learning objectives. Students can be transformed from passive learners to active learners with the help of the interactive nature of the virtual reality. In this way, the motivation of students is increased, and their overall control over their own learning is increased (Karagozlu et al., 2019).

Limitations of the virtual reality

With the advancement in technology, it is quite important to make use of virtual reality tools in an effective way. For the last many years, cost and computing power have been the major barrier in the use of virtual reality in the field of education (Acosta et al., 2019). Furthermore, there were certain types of virtual reality equipments difficult to use. With the help of technological up-gradation, the overall size of the virtual reality devices has been reduced. Another point of failure is added due to relying excessively on the virtual reality environment. Just like computers, the chances of breakage of virtual reality devices are quite high,

and the risk of malfunctioning also tends to increase based on the overall usage of the product (Sun et al., 2019).

Therefore, such type of situations can be avoided with the help of keeping backup devices on hand. Several participants in virtual reality studies tend to face situations of nausea, vomiting, headache, and motion sickness. Minor headache is developed among the user of virtual reality, and it is proved with the help of many studies (Masalimova et al.,). Additional time is required both by teachers and students to develop an understanding of the usage of virtual reality devices. For example, if the head-mounted display is not adjusted in the appropriate manner, then it can cause images to appear blurry and distorted (Siegle, 2019).

The cognitive load of learning is also part of the virtual reality learning, and it involves understanding how to perform navigation and exploration in the virtual world. It is not possible for the majority of teachers to develop their own virtual reality applications due to lack of time and the technical skills required (Makransky and Lilleholt, 2018). Therefore, in order to develop and maintain the virtual reality devices, the involvement of third parties is essential. It is also important to make sure that the program used can undergo modification and customization with the help of instructors. Virtual reality technology can also never lower the importance of lesson planning or the importance of teachers in the classroom (Marcel, F. 2019).

Summary

Conclusively, the application of virtual reality and augmented reality in the field of education has been made easy because of the removal of cost barriers. Virtual reality devices are now available for users at the lowest possible cost. In different fields of education, VR and AR are successfully used and have increased motivation levels and learning capabilities of students to a significant extent. In virtual reality, classroom teachers play the role of facilitators rather than knowledge providers.

They try their best to help students in the learning process with the help of virtual reality. However, while considering all these factors, the negative aspects of AR and VR in the field of education cannot be neglected. VR usage might cause a feeling of motion sickness, nausea, and headache among learners.

The chances of malfunctioning of the devices are quite high. To avoid the negative impacts of the VR device malfunctioning, a backup device must be available. Teachers find it hard to develop their own virtual reality devices because of the high-cost features and time investment. However, while keeping in view all these factors, the positive impacts and benefits of AR and VR in education cannot be neglected.

Methodology

The previous studies have used primary and secondary methods both. Most of the studies cited in the literature have a primary method used because it tests how VR and AR could be used in education and another discipline. However, many studies in the literature are also qualitative in nature. Meta-analysis is also very common in the field of study. Quantitative methods have also been employed in a few studies. This method was used to test the effectiveness of VR. The secondary method has also been used in the literature.

The benefit of the primary method is that it collects firsthand information from the respondents. The quantitative method helps in getting specific results, whereas qualitative research leads to the open-ended conclusion. A different form of method has been used to assess the role of AR and VR in education. No doubt, there is a need for concrete research in this field since AR and VR are new concepts. However, the past literature is enough to build on an argument that could be used for further studies. I think the usage of the primary method is important in any research. If the method is primary, the results are more credible, and the behavior of the population is reflected well. On the other hand, if the research is secondary, the research is based on existing, credible research.

However, as a researcher, I think the literature should contain more researches based on primary data. The primary data gives real-time information about population behavior. For instance, if a survey and interviews are conducted from the respondents belonging to the education sector, including teachers and students, it will provide quality data that could be transformed into information and then used for decision-making. Overall, researches that are more primary are needed in the literature.

The sampling technique that will be used for sampling selection for this research is convenient sampling. Convenience sampling is an easy method of selection of samples in which the person who is easily available is selected as a sample. This type of sampling technique is used in the research where there is less complexity. Therefore the sampling technique will be best suited to this research. However, people who will be selected sample must be related to the field of education, as this is the research related to education.

So, the sample for this research will include students, educational policymakers, and teachers. Moving to the data collection method, this research will use the primary data collection method. In the primary data collection method, first-hand data is collected, which is the requirement of such type of researches. Two techniques of Data collection will be used in this research, including interviews and survey methods. The sample size for the survey will be 20, while the sample size for the interview will be 5. The instrument used for survey data collection will be a questionnaire consisting of 19 items related to variables. Five questions will be designed in order to collect data from respondents.

For the interview, five open-ended questions will be asked from respondents who will be free to answer them. However, the questionnaire will consist of 19 close-ended questions, which will restrict the response of respondents to the available options. For the purpose of Data collection, which is a lengthy and technical process, people will be trained. The people who will conduct the survey do not require the training as it is not a technical process. However, the people who will conduct interviews will be given training first about how to deal with respondents and how to collect accurate response without biasness from respondents. This training session will consist of 3 days program in which data collector of the interview will be given training related to all aspects mentioned above. The process of Data collection will be expected to complete in 20 days. The survey method does not take a large span of time, but the interview Data collection method is lengthy and time taking. Not more than two people per day will be taken to interview so that accurate data can be collected.

For the purpose of analysis, this research will use a descriptive analysis technique in order to derive a result. Mean, median, and standard deviation values will find out in order to check the accuracy of the hypothesis. The data will be shown through charts and tables so that a clear and accurate depiction of results can be obtained in research. The analysis will be done through SPSS (Statistical Package for the Social Sciences) tool. SPSS is selected because it is one of the powerful programs that is characterized by its great ability to process data, perform complex statistical analysis, and it can be used in all scientific research methods. After entering the digital data obtained from the questionnaires or interviews, SPSS tool will perform the analysis (statistical analysis).

Expected findings

In this study, the importance of virtual reality and augmented reality in the field of learning and education is discussed and presented comprehensively. The findings of this study are expected as follows: the augmented reality provides an interactive and attractive way of learning difficult concepts and abstracts for the students in schools. Till now, the practice and affordability of the devices and technology of augmented reality were not feasible for the schools and organizations related to education. In present times, with the development and advancement of technology, augmented reality devices and practices are now feasible and affordable for the organization.

New devices and software are developed to provide an interactive and unique learning experience to the students in schools and homes. Augmented reality is also very helpful for use in the classroom to make learning more effective. A teacher who uses augmented and virtual reality in the classroom plays the role of a facilitator for the students. This technology has several advantages of using in the classrooms for

learning purposes, and it is noted that with the help of virtual and augmented reality technology, the creative and imaginative skills of students can be enhanced and polished.

The traditional teaching system provides the passive learning experience to the students by just listening and writing the information. But with the use of augmented and virtual reality systems for learning and educating, the students have the opportunity to experience the concepts and abstracts of different subjects with the help of a visual presentation. In this way, the learning experience for the students is more direct and interactive. Students also get involved in the learning process more deeply and actively. The augmented and virtual reality blocks the distraction from outside and improves the quality of focus in the process of learning of the students. As this technology is engaging and attracts the attention of the students, it enhanced and increased the capabilities of students more effectively and quickly. With many advantages of virtual and augmented reality, there are also some drawbacks to the use of this technology in the classrooms. With the increased use of this visual technology, the students can experience headaches, sickness, and stress.

Constant and increased use of this technology can also cause damage to the eyesight and vision of the students. The data used for virtual and augmented reality can be hacked, corrupted, or can be lost. Devices used for this technology can be difficult to learn to operate for the students. Devices used for this technology are mostly delicate and are vulnerable to get broken when used by the children in classrooms. However, the advantages of using virtual and augmented reality are more than drawbacks, with the careful and planned use of this technology, the drawbacks can be minimized, and the effectiveness of this technology can be increased.

As every study has some limitations, this study also has few limitations, the sample size for the collection of data in this study is very limited and less, the high the sample size of the quantitative data, the more accurate result it provides. The small sample size of the survey for the collection of quantitative data is due to constraints of limited resources, time, and scale of this study. Future studies in this field can increase the sample size to get more accurate and clear results with less margin of estimation in the results.

The conceptual framework for this study is consists of only two variables, which show the relationship and impact of one variable on other. This conceptual framework is very basic and does not have the capability to present a detailed view and characteristics of the relationship between the observed variables. Future research in this field can add a mediator in this conceptual framework to check the direct and indirect relationship of the observed variables. Mediator variables can be the knowledge of the use of virtual and augmented technology along with virtual and augmented reality technology and education. Future research can also expand the scope of this study or can check the impact of virtual and augmented reality usage in fields other than education.

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Need Assessment Plan To Integrate M-Learning In Public Schools In The UAE

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Abstract

Mobile learning is a method of learning in which the students are provided the chance to learn, understand and seek knowledge via the use of mobile devices and the advanced technological gadgets, and the students can get an education while staying at their homes. This reflection report is based on the assessment of mobile learning in the primary public schools of the UAE. For the purpose of the assessment of mobile learning in the primary public schools of the UAE, the methods of the needs assessment have been adopted for this study. The needs assessment was conducted in order to find out the gaps between the expectations and the real outcomes of the use of mobile learning in the primary public schools of the UAE. The main objective of this study was to locate, retrieve, and design the needs assessment plan in order to implement mobile learning technology in the primary public schools of the UAE. The results of this need assessment plan suggested that the mobile learning is the need of the time and it should be implemented in the primary public schools of the UAE as the safety and the security of the students is the most important concern for the state and in this pandemic of coronavirus, it is not safe for the students to move to the schools. Therefore, this needs assessment plan is suggestive of the implementation of the mobile learning technology in the primary public schools of the UAE. Moreover, different requirements for the implementation of mobile learning technology in the primary public schools of the UAE have also been explored and addressed in this study.

Keywords: *mobile learning, needs, assessments , online learning, distant learning*

Graphical abstract



Introduction

Mobile learning is comparatively a newer method of learning than the formal learning system, and this method has made the learning easy and informal. In this mode of learning, the students tend to understand and learn the lesson via the online system or via the use of mobile devices. Mobile learning is a new method of learning, and this method of learning includes the use of mobile devices for educational and learning purposes. This is a new system, but it is not that new as a lot of the people have explored this area and presented different views. The needs assessment plan is a comprehensive plan to evaluate the differences among the desired outcomes and the present outcomes while assessing the gaps in the performances.

In this research study, the needs assessment plan is implemented on the use of the mobile learning system in the public schools of the UAE, and the outcomes were computed. This is a deviation from the old and formal method of learning, and the students are very happy and taking an interest in this mode of learning (Gourova, Asenova, & Dulev, 2013). It seems that this mode of learning has become a necessity for the era as the schools and the other educational institutes were closed due to the spread of the novel coronavirus. This has made it compulsory to incorporate the mobile learning system in the states of the world and helped in the continuation of the education and the learning of the students, even in this pandemic situation of the novel coronavirus. Even before the start of the pandemic of the coronavirus, the system of mobile learning was implemented in some states and certain institutes, and it was found that this system was very successful and showed amazing results (Naciri, Baba, Achbani, & Kharbach, 2020).

However, in the implementation and the integration of mobile learning in schools, certain issues were faced, and therefore, the implementation of mobile learning was possible in all the schools in different states (Abu-Al-Aish, 2014). UAE is one of the developing states of the world, and the development rate of the UAE is rapid and fast. In fact, it is among the fastest developing states of the world. Technological usage has been increased tremendously in the past few decades in the UAE, and this increased technological usage has helped the state in progressing at a rapid rate. Being a developing state, the educational system of the UAE is partially modified, and only certain educational institutes have the facility of mobile learning for the students.

The reason for this is that the implementation of mobile learning is not that easy as it requires comprehensive planning, specialized skills, and designs for the proper implementation of the mobile learning system (Nedungadi, & Raman, 2012). Moreover, the students should also have a certain understanding of the system so that they can learn through the mobile learning system (Grimus, Ebner, & Holzinger, 2012). This research report is intended to explore the needs of the mobile learning system in the public schools of the UAE and in the different educational institutions. This report will also highlight the pros and cons of the mobile learning and will evaluate the basic need assessment plan and will elaborate the barriers in the implementation of this system in the public schools of UAE up to the primary level as well as the impacts of the learning environment while implementing this model of learning in UAE.

Literature review

M-learning is the next phase of e-learning, and it allows the learning of students irrespective of the time, place, and location (DeGani, Martin, Stead & Wade, 2010). There are multiple studies in the literature that explains different aspects of the m-learning in school education. According to Georgiev, Georgieva, and Smirkarov (2004) that mobile learning devices like iPods, iPads, and other applications are very effective for disabled students and for students with special needs. They also argued that mobile-learning technology helps these students to access the curriculum and to monitor the academic progress.

Similarly, in another study (Attewal, 2005), the advantages of m-learning are explored, and it has been found that m-learning in schools increased the independent and collaborative learning experience of the students, improved different learning skills of the students included literacy and numeracy, reduce the formalities of traditional learning, increased the self-esteem, attention span, and self-confidence of the students.

In another study (Shein, 2012), it has been argued that the need assessment for utilization of mobile learning technology in schools is important, but it also requires certain protocols which include training of teachers, changes in policies and curriculum design, availability of mobile learning devices to the students and the most important is the budget planning to maintain this learning.

Another recent study conducted by Nikolopoulou (2020) highlighted different challenges and drawbacks of mobile learning and the advantages of mobile learning in this Covid-19 pandemic. It has been argued by the author that m-learning is a blessing for the education system in this pandemic. However, there are certain drawbacks of mobile learning as well, which may include the expensive education system, the gadgets used for mobile learning are usually expensive and fragile, and this is one of the major hindrances in this system. Moreover, the internet availability and connectivity is another issue; the use of the technological gadgets and internet for the primary schools' students is not healthy from any perspective,

the kids of the growing age may also face certain health and growth issues due to excessive usage of these technological gadgets.

Literature reveals that there is no proper framework that could reflect the implementation, effectiveness, and process of mobile learning. This has left the mobile learning ineffective in many different ways. Serious issues have been faced by the teachers in creating prolific learning designs. In order to enhance the process of mobile learning, several attempts have been made. In this vein, the main focus has been kept on the conceptualization of the construct mobile learning. In reference to the implementation of mobile learning in the education sector, teachers and educationist have reported that there are serious issues regarding the incorporation of mobile learning content as the process, and this variable is yet not well explored. Consequently, it lacks clarity in terms of implementation and related operations. Literature reveals that teaching could be significantly enhanced by the implementation of the latest wireless technology but only when there are proper pedagogical frameworks pertaining to mobile learning (Park, 2011). Mobile learning could add professional development in different sectors once it has a proper framework.

Another study investigating the impacts of m-learning in Public schools have revealed that mobile learning has become an inseparable art of smart learning classrooms. Many of the educational institutes have incorporated m-learning technology in their smart learning classrooms to make their students open to positive usage of the technology for educational purposes. Yet, the study has revealed many challenges. One of the major challenges was that the smart classroom became quite complex with the integration of all the components/elements of the m-learning. Lack of effective management in this regard hampered the learning environment (Al-Hunaiyyan, Al-Sharhan, & Alhajri, 2017).

A study was conducted to evaluate the impacts and effectiveness of the implementation of the m-learning on grade 6th students. In this regard, the teachers' perspective was taken into account. The results of the study revealed that many of the teachers felt frustrated during the process of implementation. Along with this, anxiety and uncertainty were heightened as the teachers were uncertain regarding its effectiveness. Many of the students lack access to 24/7 to computers, laptops, or other such gadgets. Moreover, lack of connectivity (internet) was also another issue identified as a hurdle to the smooth implementation of the e-learning.

Lastly, the study has revealed that there are time constraints as well as students are not much familiar with the m-learning, nor the teachers are efficient in this regard (Fitts, 2015).

A critical review of the implementation of m-learning in the teaching and learning process has proved to be influential but not to a significant extent. Literature reveals that teachers are not well-trained in implementing m-learning in their classroom settings. Consequently, the natural learning environment of the classroom is significantly negatively impacted. The attention that students require and the quality of learning are reduced. The study revealed that m-learning is making students familiar with the technology and endorse the positive usage of it. But at the same time, it is found to be less influential in the teaching and learning sector (Pedro et al., 2018).

In a research study (Crompton, Burke, & Gregory, 2017), it was found that the mobile technology is one of the most recently used technology for the education sector and the use of the mobile technology for the educational as well as for the learning purposes will increase the interest of the students in the education and will ultimately improve the standards of the education in the long run. The research study also highlighted certain other benefits of the mobile learning and elaborated that the use of the mobile learning will improve the overall system as the coming era is the era of the technological advancements so the use of the mobile learning for the education will play an important role in making the students learn and understand this technology in a better way. This will help the students in their professional careers and the coming future lives.

Fu, and Hwang (2018) found in a systematic review that mobile learning is a very good and effective way of making the students learn and understand the lessons, and it is also cost-effective and easy as compared with the other conventional method of learning. Moreover, it was also found that this method of learning has made the learning easy and safe for the students and the parents of the students are a bit more satisfied with this system regarding the safety and security of the students as compared with the conventional learning methods. However, there are certain issues and problems of this system as well about which the parents are worried, and these include the health issues of the students, particularly the issues of the visions and growth-related problems, the issue of the internet connectivity and internet access to the students can be hazardous as they may get access to the immoral websites and may get involved in time-wasting activities like gaming. So further research regarding these issues is still required in this regard.

Need assessment goals and objectives

This report is intended to explore the needs and wants for the implementation of the mobile learning system, and this report has the following basic objectives and goals.

1. To locate and retrieve the educational sources regarding mobile learning integration needs assessment in public schools.
2. To design basic mobile learning needs assessment plan addressing particular needs of learning environments.
3. To provide carefully constructed comments on the conducted needs assessment plan.
4. To assess the barriers in the implementation of the mobile learning system in the educational institutes of the UAE.
5. To acquire a comprehensive skill of preparing and designing mobile learning assessment plan and generate an understating relating to issues affecting mobile learning integration in schools, colleges, and departments of education.

All of these objectives and goals will be addressed in this research study, and the results will be computed after the implementation of the statistical tests and the assessment methods.

Questions

This research study was the need of the time because due to the recent viral pandemic of the novel coronavirus, the educational system was almost collapsed, and this was the only way to make the educational system work and to make the students learn along with the system of the online learning. The basic research questions to conduct the mobile learning needs assessment plan may include but not limited to the following

1. Why is it necessary to implement the mobile learning system in the educational institutes?
2. What are the issues in the implementation of the mobile learning system in the educational institutes of the United Arab Emirates?
3. What is the importance of the mobile learning system in the educational sector?
4. What are the basic skills required for the implementation of the mobile learning system?
5. What are the environmental as well as the cultural hindrances in the implementation of the mobile learning system in the educational institutes in the United Arab Emirates?

Methods

This research study will follow the different methods for the data collection and construct the design of the basic needs assessment plan. The methods which can be used in this research study may include the survey method, the questionnaires, and the questioning response and the recording, and the reviewing methodology. Besides these methods, this research study will also include certain other methods of the assessment of the data as well, which will help in the data analysis and in determining the needs and the demands for the implementation of the mobile learning system in the schools.

In this research study, different research steps will be taken like; first of all, the previous literature will be explored to find out the gaps in the research and the previous literature and to finalize the topic for the research, after the literary search, the basic structure of the research will be constructed. The data will be

collected from the public sector primary schools of the UAE via the use of the different strategies and methods. After the data collection and grouping, the next step will follow the pathway of statistical testing. The collected data will then be tested by the use of different statistical methods, and the results will finally be concluded. From the results, the true and honest conclusion will be drawn, and the conclusion of this research study will meet the basic research goals and objectives of this research study.

Thus, the research will be conducted in this way. In short, this research study will follow the SQ4R strategy for the data collection, which is comprised of the Survey strategy, the Questioning strategy, the Reading strategy, the Responding method, the recording method, and the Reviewing strategy while for data management and assessment certain other strategies will be used as the strategy of the observational analysis, the strategy of the concepts testing, certain technological strategies like SPSS or Excel and other similar strategies will be used for the data assessment, evaluation, and the analysis. All of these methods and strategies will be used to conduct this research study and will help in achieving the basic goal of this research study.

Instruments

The instruments are actually the tools or the techniques used for the conduction of any research study. There are different tools and instruments for different research areas. For the needs assessment, the tools may include the tools for the observational assessment and the analysis, the tools for assessing the actual performances as well as the actual outcomes, the tools for the evaluation and assessment of the desired performances as well as the desired outcomes and finally the tools and the instruments for the calculation of the differences between the actual and the desired outcomes and the performances. Thus, finally assessing the needs for changing the system and the implementation of the new method in the previous system. The tools or the instruments related to the technological advancements can also be used for the purpose of the conduction of this research study. The tools or the instruments used for the conduction of this research study may include the following instruments (Motiwalla, 2007)

1. Concepts tests and the knowledge surveys
2. Reports and peer reviews
3. Questionnaires
4. Technological instruments like SPSS and Excel to compute the differences

These instruments can be used in the conduction of the research study and in the needs assessment of the mobile learning system in the public sector schools of UAE. These instruments can be used for different purposes and can help in reaching the main goal of the research study. Thus, these tools play a key role in the conduction of this research study. It must be noted that the tools can be dependent upon the technology or on humans for the implementation and usage.

Technological resources

The technological resources are those resources that can be used as a resource for the research study and are based on or are dependent upon the technological gadgets for their usage like the mobile devices, and the systems, and the software. As the mobile learning is about the use of the mobile devices in the education sector and the mobile devices are the technological devices, therefore in order to conduct the mobile learning need assessment, it is a must to use certain technological resources. The technological resources used in this research study include the use of the following

1. Laptops and Computers
2. Internet usage
3. Mobile devices
4. Different search engines like google scholar and Research Gate and other similar search engines for previous work in this regard
5. Computing software like SPSS and Excel

All of these are the technological resources that can help in the conduction of this research study, but these are in the technological group because the usage of these resources is dependent upon the use of technological resources. These can be used in different situations, but all of these are the necessary resources for the conduction of this research study.

Human resources

The human resources are those resources which are based on the human asset. Technological advancements are tremendous, but despite all of the technological advancements, there is still a need for the human resources in each and every field of life and particularly for the needs assessment plans. This is the main reason that despite tremendous and huge technological advancements in every field, still the human asset is recognized as the primary asset in every field, and the human resource is given the prime importance. Another reason for human resource importance is the innovative ideas implemented and presented by humans.

The technological gadgets can do the things for which they are directed to do, and they cannot have any innovative idea in any difficult situation while the humans do have the innovative ideas and this is why the humans' resources have the prime importance in every field and in particular, in the field of research. The human resources which have been used for the conduction of this research study may include

1. The planners
2. The designers
3. The researchers
4. The students
5. The teachers

Process of analyzing

After the data collection and observations, the needs and the demands must be shortlisted and prioritized on the basis of the assessment and the analysis. There are different tools and the processes of the data analysis which have been used for this purpose of shortlisting and prioritizing the needs for mobile learning in the educational institutes of different states of the world (Cheon, Lee, Crooks, & Song, 2012). The important methods and the processes of the analysis used in this study may include the following:

1. Observational analysis
2. Concept maps analysis
3. Concept testing process
4. Knowledge survey processes
5. Examining process
6. Analysis via the use of the Excel
7. Analysis via the use of the SPSS and other such software
8. Large class assessment method

On the basis of these processes of the analysis, the needs for the use of mobile learning in the educational institutes of the United Arab Emirates have been highlighted, and some basic needs and wants may include

1. The need for precision in the educational system
2. The need for technological advancement
3. The need for designing and implementing a comprehensive plan
4. The need for the incorporation of modern technologies in the education system
5. The need for improving and updating the conservative learning method
6. The need for mobile learning in global pandemics like the novel coronavirus pandemic
7. The need to continue education while on a journey or to travel somewhere
8. The need to learn via the use of portable devices even if one cannot get the chance to go to the educational institutes

Personal reflection

Mobile learning is a new way of learning, understanding, and seeking knowledge. This method of learning is very important and beneficial, and it is the need of the time in this present situation of the novel corona pandemic. Mobile learning has a lot of benefits which may include the benefits of making the lessons interesting and attractive for the students, making the students learn the lesson in a better way, saving the time and money which students have to spend in terms of traveling to and from schools, making learning comfortable and easy, and providing the chances to the students to have easy access to the education. The safety and security of the students are also ensured in this system.

These all are the pros of mobile learning, and besides these, it is also making distant education easy, and the assessment of the students can also be made by using this technology. However, there are certain drawbacks of the mobile learning as well, which may include the expensive education system, the gadgets used for the mobile learning are usually expensive and fragile, and this is one of the major hindrances in this system, the internet availability and connectivity is another issue, the use of the technological gadgets and internet for the primary schools' students is not healthy from any perspective, the kids of the growing age may also face certain health and growth issues due to excessive usage of these technological gadgets, the chances of the time-wasting have been increased as the children will also have access to the other online gaming apps, and many other similar issues can also be faced due to the usage of these gadgets.

However, as a whole, the benefits of this system are more than the hazards in this era; therefore, this system should be implemented in the public primary schools of UAE.

Future actions

It can be noted that mobile learning is very important, and it must be implemented in the educational system as it is the need of the time as well as it will help the students to acquire knowledge with interest and zest. For the implementation of the mobile learning system in the educational institutes, certain actions are mandatory. The necessary future actions may include the following

1. Teachers training for the use of the mobile learning system
2. Students training for the use of the mobile learning system
3. Provision of the mobile devices to the students and the young adults
4. Changing the overall system of education
5. Encouraging the use of mobile devices for learning and educational purposes more than their usage for entertainment purposes

Conclusion

In short, it can be concluded from all of the above discussion that mobile learning is the new method of learning, and this method is incorporating the technological advancements in the learning processes. The needs assessment plan is a comprehensive plan designed and implemented to determine the desired outcomes, the desired performance, the current performances, and the outcomes and then finally to compute the differences between the present situation and the desired situation by finding the gaps between the two performances.

This plan when implemented in the educational sector for the use of the mobile learning system, it was found that in order to make the educational system more effective and efficient, it is a must to implement the mobile learning system in the public schools of the United Arab Emirates. It was also found that in order to implement this system in the educational sector, different actions and the resources will be required along with the training of the teachers and the students to use this system for learning purposes. This is a new system, but it is not that much new, and many researchers have explored this area in the past, but this is a multidimensional area of research and lacks the multidimensional studies. Therefore, it is the need of the time to conduct multidimensional research studies regarding this topic. Moreover, technological advancements are rapid, and new modifications and innovations are being added in the system with every passing day. Thus, in order to incorporate recent trends, further research is still required in this regard.

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Appendix

Checklist for Need Assessment of Mobile Learning in Schools

Note: Strongly Agree (SA)/ Agree(A)/ Neutral(N)/ Disagree(D)/ Strongly Disagree (SD)

Please Tick the most appropriate and relevant option for the given questions.						
No.	Questions	SA	A	N	D	SD
1	M-learning tools remove the limitation of time and space from traditional resources					
2	M-learning techniques will generate effective learning-teaching environments					
3	The Teaching-Learning process (planned interaction that promotes behavioral change that is not a result of coincidence) should be performed with M-learning technologies.					
4	Teacher can use M-learning techniques as a good discussion tool with students in the learning activities					
5	M-learning techniques can be used to supplement or in place of the traditional education					
6	Most learning activities can be realized by means of M-learning techniques and strategies					
7	M-learning techniques will be more fruitful for the students of kindergarten to fifth grade					
8	In this pandemic of the corona where online teaching is only the way to continue education will work as a blessing in disguise					
9	M-learning techniques facilitate teaching the subjects in my content/grade level					
10	M-learning technologies provide effective methods for exact transmission of knowledge in learning activities					
11	Teacher-student communication is facilitated by means of M-learning tools					
12	Utilization of M-learning technologies in public schools increases students' motivation					
13	Utilization of M-learning technologies in public schools increases students' interests					
14	Students can have more effective communication with mobile technologies than traditional methods					
15	Kids are more attracted to M-learning techniques; therefore it will enhance their learning					

Social Innovation System

Reforming school education in the wake of the advent of the 4th Industrial Revolution

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Abstract

This is a new concept for a radical reform, a quantum leap of school education in the wake of the advent of the fourth industrial revolution. Purpose is to have a much more innovative society and to close the gap of intelligence capability with the AI and robots, who are already here. It is all geared to increasing IQ and innovation capacity in a dramatic way. We can wait for the brain chip, but in the meanwhile radical reforms of the school education are required, with a very tightly knit coupling between school education and industries. It is about learning through doing and much more, and no more pretending. It is about involving school children of all ages in a three hours paid work per day, orchestrated by a learning and innovation driven framework. There will be a great impact on economy too due to the early contribution of school children to innovation and production in all facets of life. Children make a large percentage of society.

Schools have antiquated systems, and which were adequate some 60 years ago. They are based on only pretending to do things, but never a real engagement, and with the notion of preparing the children for the future. Obviously also keeping the children busy for so many hours per day in the school building. Things are changing very rapidly on all fronts of technology and society, and there is no more possibility to prepare the children for the future, since the future is already here and is changing constantly and rapidly.

Keywords: School Education, innovation, AI, Robots, 4th industrial revolution

Introduction

With the advent of the 4th industrial revolution, including AI and robots, the notion that schools prepare the children for the future becomes irrelevant, because the future is already here and is changing constantly and rapidly. Robots will be roaming the streets very soon everywhere on the planet, and man will be colonizing the moon and the planet Mars, and it does not make any sense that school children are still doing pretend stuff all the time at school.

Methodology

This work is at the concept development / modelling stage. Methodology is based on description of the present situation in the school education and highlighting its weaknesses and underlining the need for radical change with the advent of the 4th industrial solution and suggesting a new model. This model is based on the international broad experience of the author in R&D in the USA and the UK, in innovation in general, but indeed on training for innovation, including training of young people.

Results and discussion

Instead of being prepared for the future, school children should be engaged and doing the real thing and not pretending, and they will be contributing to the progress of economy and society and indeed to the 4th industrial revolution, and starting their productive life early on at a very early age, like 6 years old when they start school. See **Graph1**.

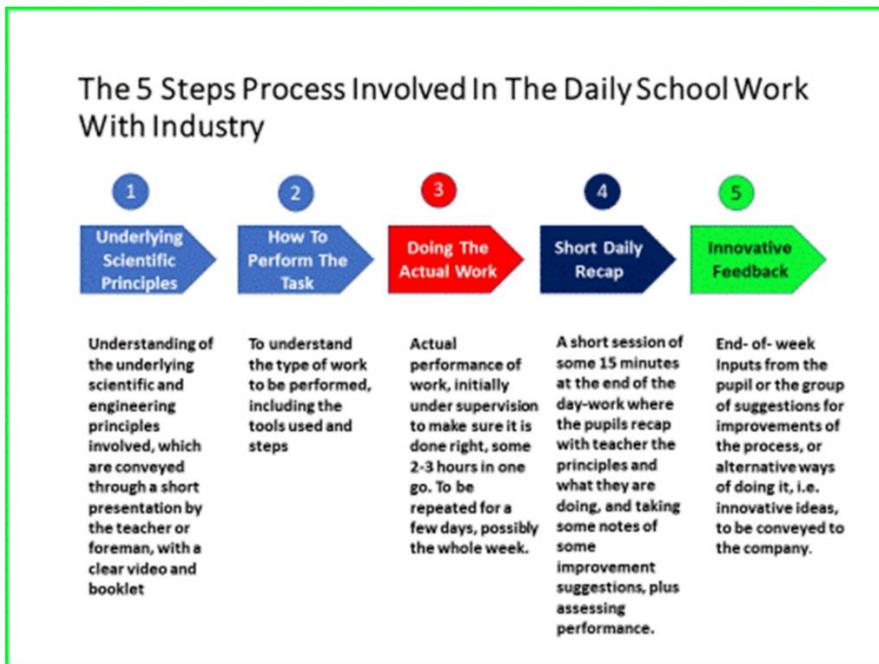
Graph1: School children learning by doing through some 3 hours per day paid work.



ABOUT THE INTEGRATION AND WORK: Schools will be integrated tightly with economic and social sectors, and children will be performing paid work for some 3 hours per day. They can work the whole week on a specific activity or project in the industry. Every week or ten days the work done changes to another industry. Besides the 3 hours direct contribution, and the travel time, the rest of the day if any is for theorizing, physical activities, and playing as done now.

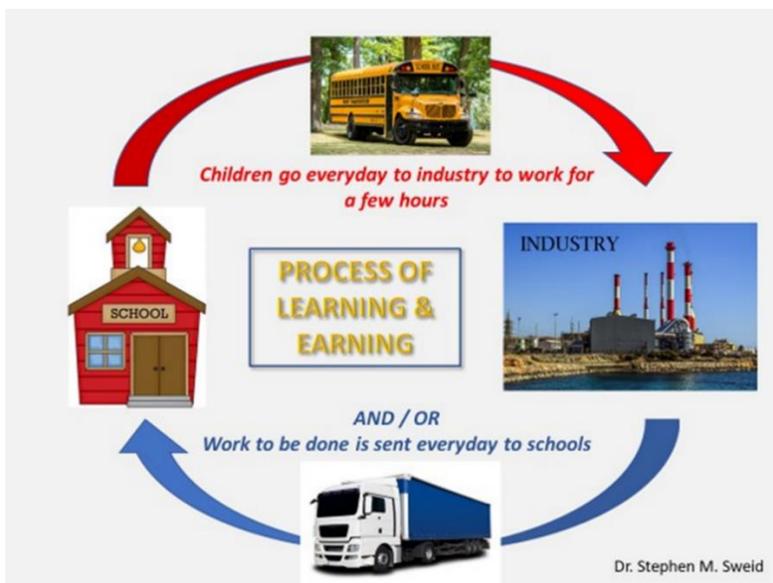
ABOUT THE 5-STEP PROCESS: This work will be orchestrated by a learning and innovation driven system, a five-step process, See **Graph 2**, like they first learn the principles governing the task, and then learn how to perform the job, and then they perform the job at hand, with short daily recaps, and at the end of the week they have to figure out how to come up with new innovative ideas for the task, such as better ways of doing things. These suggestions are fed back to the respective sectors. This has nothing to do with child labor but can be compared to internship with a much more structured approach (The five step process) focusing on learning and innovation. Children will be much happier doing the real thing and contributing.

Graph2: The learning and innovation driven 3 hours per day work is orchestrated by the five-step process geared to top notch learning and innovation.



ABOUT LOGISTICS: Children are taken to the industries by buses or the work is brought to them to the schools, See **Graph3** and in some cases, work can be performed online. Safety aspects will be paramount.

Graph3: Logistics of school children working in the industry: They are transported by buses to industries, or work is brought to them to schools. Some work is online



WIDE SPECTRUM: There will be a wide spectrum of levels of complexity of the paid work to be done depending on the age of the child, but also interest, and there will be a wide spectrum of

technologies involved, leading edge and traditional, and there will be infinite types of jobs to be carried out in all sectors, See **Graph4**.

Graph4: The table shows the endless work possibilities and projects for school children to contribute to, depending on the age group, covering all industries, and including leading edge and traditional levels in each industry.

The Wide Spectrum of Possible Work Programs Covering All Industries, Levels, and Ages													
AGE (yrs)	Industry 1		Industry 2		Industry 3		Industry 4		Industry 5		... Industry XYZ		
	Leading Edge Level	Traditional Level											
6	Work Programs	Work Programs											
7	Work Programs	Work Programs											
8	Work Programs	Work Programs											
9	Work Programs	Work Programs											
10	Work Programs	Work Programs											
11	Work Programs	Work Programs											
12	Work Programs	Work Programs											
13	Work Programs	Work Programs											
14	Work Programs	Work Programs											
15	Work Programs	Work Programs											
16	Work Programs	Work Programs											

CHILDREN ARE ABLE: Children can do wonders, and they learn things quickly, like now children can use a mobile phone at the age of three or earlier. They can play LEGO for hours. Even now you have older children becoming entrepreneurs. Children in many countries help their families. Their contribution to society is feasible and beneficial.

BENEFITS TO CHILDREN: Children will be doing the actual things and not just pretending, and they will enjoy this practical work. They will learn much more by doing and experimenting and become more intelligent and indeed exponentially more creative and innovative. Children will be living and making the future, and not just getting prepared for it. They will be happier being part of it all.

BENEFITS TO SOCIETY: This integration of school and industry will couple the children generation into technology and progress, and will have a big impact, and will give a chance to humanity to stand out in creative thinking and innovation, and to counter the possible dominance of robots.

Interest of Author / Consultant: Author would be interested to collaborate with an education entity, private or government, including schools, willing to try out this approach on a small scale (prototype) or as a pilot project.

Stephen Sweid spent many years of his life practicing innovation doing R&D work in leading edge technologies in semiconductors and lasers in the USA and the UK. He also carried out intensive training in creative thinking and innovation in a wide spectrum of industries, for

corporations but also SMEs in different countries, not to mention business and technology studies. He has many publications in the domain.

Example of a Prototype or Pilot project for the school Integration Project, as suggested by the author: See **Graph5**.

Graph5: Example of a possible prototype or pilot project to get involved in for taking concept to the next curve of reality.

- **Two** age groups of school children
- **Two** industries
- **Two levels:** Hi tech and traditional
- **Two kinds:** Work with material and programming
- **Two** countries

Conclusion

Radical changes of the school system in the world are a must in the wake of the 4th industrial revolution. Humanity should stand out in IQ, creative thinking, and innovation to counter the possible dominance of robots. Suggested model for integration of schools with industries is feasible and a necessity, and children of all ages will be making the future and living it too, and not just getting prepared for it. Children will be much happier and will start their productive life early on.

Dubai ELECTRICITY & WATER AUTHORITY (DEWA)

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Executive Summary

DEWA was found to be implementing the EFQM model through which they focused on developing a positive culture and bring innovation within their work to provide the customer with an innovative solution. The study mentioned DEWA efficiency to provide its customers with low-cost clean energy and a system to reduce water wastage. DEWA was found to reach the resident of every UAE citizen through its innovative solution due to which, 90.1% of the customers were found to be satisfied with their service. Nevertheless, using the EFQM model, DEWA focused on its vision to provide UAE with clean energy, however, this aspect tempts DEWA to think about innovative measure based on using solar energy only instead of using other renewable energy source and solving the problem of the water crisis. Therefore, though EFQM lets DEWA develop strategy, based on their vision yet their approach becomes unidirectional in nature.

Introduction

The study comprises of analyzing DEWA's business excellence models as well as reviews its quality, shortcoming, and areas that could be improved.

Aim: This study aims to critically evaluate the business excellence model of DEWA, review it, and identify the issues present within the model by collecting the required information through interviews. Moreover, the aim of the study is also to provide and suggest improvement strategies to DEWA.

The **significance of this study** is that it will describe effective strategies through which businesses or organization could enhance their service quality. Besides, the study will also showcase technique and measures needs to be adopted to make the business operation sustainable, reliable, and efficient.

Literature review

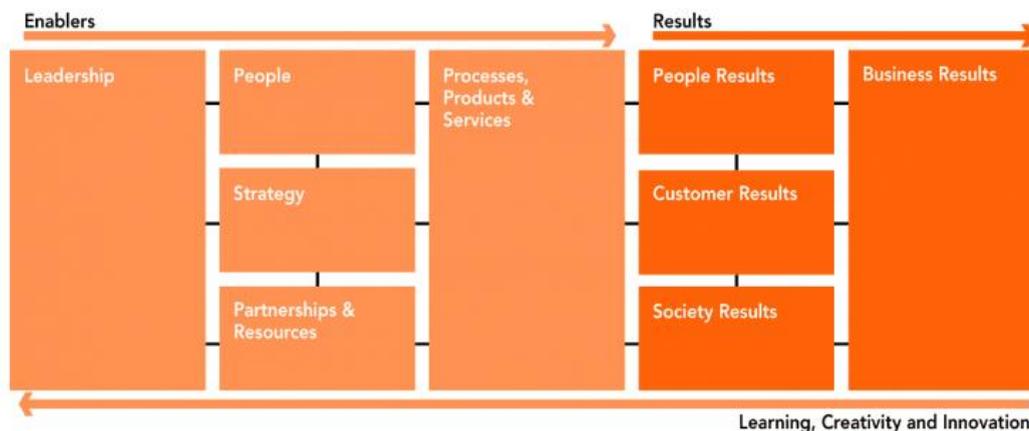
Business Excellence model and its application

According to (Para-González, Jiménez-Jiménez, & Martínez-Lorente, 2018), the business excellence model is regarded as a framework that mentioned different practices, an organization needs to perform to manage its operation, and achieve result based on fundamental values of the organization. In short, the author mentioned that the set of practices, an organization needs to perform to operate its business in a well-structured and systematic way to enhance its business performed forms the business model. Further, these models are being used by the organization to measure their business performance. Some of the most used business excellence models used globally are the Baldrige model used in over 25 countries including the US and New Zealand, the EFQM model used in the European nation, the Japan Quality Award model used in Japan, and so on. Nevertheless, every organization from any nation could implement and use the business excellence model.

EFQM concept and its advantage in DEWA

According to (Al Nuseirat, et al., 2019), the EFQM model is a framework that is based on six different enablers and a result category. The six enablers consist of leadership, people, organization policy & strategy, processes, and resources & partnership of the organization (Business Excellence and the EFQM Model, 2015). The resulting category consists of customers, society, key performance and people result.

Figure 9: Showing the EFQM model



(Source: (Business Excellence and the EFQM Model, 2015))

Therefore, the author mentioned that implementing the EFQM model within the organization would help the organization to build a result-oriented operation, focusing on the need of the customer (Al Nuseirat, et al., 2019). The author also mentioned that EFQM is efficient enough to make efficient working culture. In this way by the application of this business excellence model DEWA found to promote innovation within the workplace and ensures that employees within the organization are guided properly by the leader at every level of the organization. The enabler factors can be managed in the company by the involvement of the effective leaders.

By the involvement of the leaders and managers, internal conflict can be managed in the company. Partnership and resource managed has to be according to the issues. For example: For leadership management, DEWA has to focus on the transformational leadership to reduce internal conflict. However, DEWA had won the European Foundation for quality management Excellence model, and they are the first company outside Europe to win this Award and the first in the Award's history to win it from the first application (DEWA, 2019).

Limitation of incorporating the EFQM model in DEWA

According to (Al Afifi, 2015), the disadvantage of using the EFQM model is that it is costlier for SMEs to incorporate this model as the scheme for Award recognition along with the selection procedure is costlier to be implemented. The author mentioned that this model focuses much on enhancing the quality of the organization, however, business excellence also includes involving innovation, continuous improvement, and maintaining consistent improvement for a longer period. The author defined that excellence is achieved through developing the strategic plan to counter the futuristic problem before it is being evolved. Thus, the author mentioned EFQM did not provide much evidence to excel in its internal working operation to mitigate the evolving issue.

Research methods

DEWA background:

Dubai Electricity and Water Authority (DEWA) is a UAE based government owned organization that was found in 1992 to provide the people of UAE with adequate supply of water and electricity. The headquarters of DEWA is situated in Dubai and until 2019; it has a workforce of more than eleven thousand. Dubai

Electricity and Water Authority (DEWA) have incorporated the European Foundation for Quality Management (EFQM) model in its working operation to enhance its quality and management process. The result of this incorporation was that, in 2019, DEWA received the Global Business Excellence awards for its different initiatives related to customer services.

Vision and Mission

The main vision of DEWA is to provide Dubai with at least 75% of power output using clean and renewable sources, till 2050 (DEWA, 2019). Due to this reason, DEWA has developed different initiative to use renewable and clean source of energy.

Collecting the Data

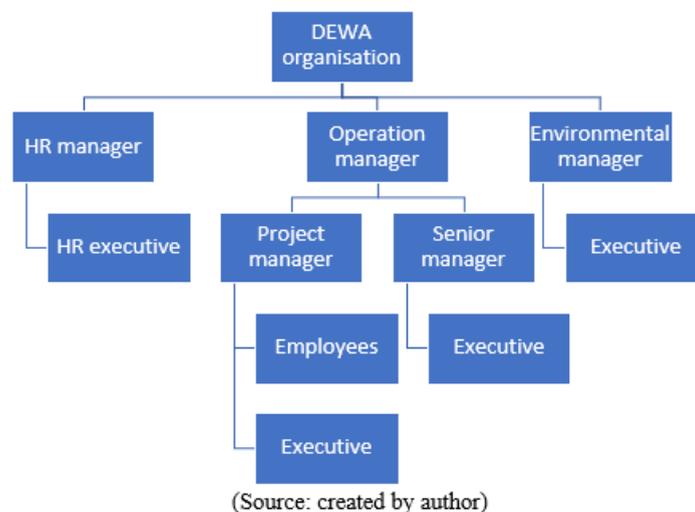
The study involves the use of a primary data collection method through which, primary data are solely collected by the author of this study. To collect the primary data, this research focused on collecting qualitative data so that in-depth information about DEWA's strategies to achieve high-quality customer services as well as loopholes within the strategies could be known. Due to this reason, the study involves using the interview as the tool to know about the EFQM model used within DEWA.

The interview will be conducted using the phone. The participants were contacted on their telephone or smartphone and their responses were recorded using the recording system. The interview is with nine people working within DEWA that are currently involved with the adoption of different strategies and project to enhance DEWA's business model.

The participants of the interview consist of DEWA's HR manager, operation manager, environmental manager, project manager, senior manager, HR executive, senior executive, and 2 employees working in the solar and water project of DEWA. The HR manager and HR executive work within the Human resource department of DEWA and they were involved with hiring, recruitment, and coordinating with the workforce of DEWA.

The operation manager of DEWA maintained and monitored the different operations and projects of DEWA while the project manager directly reports to the operation manager and manages the individual project. Further, the environmental manager analyzes the project and operation to identify the impact of the operation on the environment. Additionally, the senior manager along with the senior executive and two employees worked in different projects of DEWA, thus, they know about the working operation and strategy used by DEWA to enhance their service quality.

Figure 10: DEWA's organization structure



The participants were involved in responding to the open-ended question asked to them. The participants were asked three important questions regarding DEWA's business excellence model as well as the loopholes present within the organization (*see appendix*). The questions that were asked with the participants of the interview are defined below.

- What is the reason due to which DEWA was able to win the EFQM business excellence award?
- What is the problematic area that DEWA needs to improve to enhance its service quality?
- What will be the best strategy for DEWA to further improve its service quality and enhance their shortcoming within its excellence model?

For the analysis of data collected through interviews, in-depth analysis will be conducted focusing on five aspects that include DEWA's service quality, business excellence model, Dewa's strength, shortcoming, and improvement strategies for DEWA.

Finding and Analysis

Service Quality of DEWA and discussion on DEWA's business excellence model

The analysis of the interview reveals that DEWA was found to incorporate the EFQM model to enhance its business performance and improves its service quality. The result of the incorporation of the EFQM model was that DEWA has won the Global Business Excellence Awards in the year 2019 for providing newly defined excellent customer services.

With the incorporation of the EFQM model, DEWA was able to build an efficient working culture, provide value to their customer, incorporate digital and innovative way into their operation, and helps DEWA to reach its vision. The main vision of DEWA is to provide Dubai with at least 75% of power output using clean and renewable sources, till 2050 (DEWA, 2019). Due to this reason, DEWA has launched various initiatives and perform the operation to build the solar park.

For instance, currently, DEWA is working in its third phase of solar park in which DEWA is planning to build an 800MW solar park with an advanced solar tracking system. The importance of this project is that it could increase the efficiency to use solar energy almost by 20-30% (DEWA_Officials, 2020). Furthermore, the reason DEWA won the business excellence awards is for providing its customer with water meter infrastructure that has the ability to measure water consumption, notify the customer about their water consumption, and identifies leakage within 2 days. With this system, the customer or Emiratis were able to pay fewer amounts and at the same time, water wastage is significantly reduced.

Therefore, the analysis reveals that DEWA, incorporate innovative measures and advance technology in the form of AI to reduce wastage and enhancing their service. Moreover the successful factor and prerequisite for the successful implementation of the business excellence were that DEWA has efficient performance management strategies through which they were to continuously monitor their services. Besides, the prerequisite that helps DEWA to successfully implement the EFQM model was that they were able to build an efficient working culture that focuses on continuous development, use the innovative measure to solve problems, and brainstorm ideas or strategies to identify the most effective solution for an issue.

DEWA's strength and the effectiveness of DEWA's Business Excellence model

The EFQM model provides DEWA with a set of practices to enhance the leadership approach of DEWA so that efficient strategy could be designed to align different stakeholders of DEWA and efficient utilization of DEWA's resources. With the EFQM implementation, the interview analysis reveals that DEWA provides required help to its employees at each of its levels.

For instance, the operation manager coordinates with different project managers of DEWA while the project manager coordinates and aligns the working operation of executives and employees. the practices of guiding employees at each level of the organization hierarchy as well as creating an innovative culture within DEWA's internal working culture has enabled DEWA to reduce electricity losses from its

transmission and distribution to 3.2% which is 6-7% in the countries such as the US and other European countries (DEWA_Officials, 2020).

Moreover, compared to other nations, DEWA was able to reduce its water wastage by 6.6% compared to North America who was able to reduce their water consumption only by 15% (DEWA, 2019). Besides, with the use of advanced technology and efficient use of smartphone technology, DEWA's customers were able to communicate with them 24*7, due to which, proper communication was established between them. The initiative through which DEWA was able to communicate with their customer or vice versa is the "Smart Response" service through which, technician within DEWA gets informed about the problem and they could take appropriate measures directly.

The smart response initiative paves way for DEWA to save up to 300 gallons of water along 17 million AED. Further, an initiative such as "Shams Dubai" encourages the owners of building to incorporate solar panels to use clean energy while the launch of the Al Namoos initiative proves to be efficient for the customer to get electricity connection within 5 days and with less paperwork. Another profitable and innovative initiative by DEWA was the "My Sustainable Living Programme" through which customer was able to delimit their carbon footprint, lowers their electricity bill and provide the customer to monitor their water usage (DEWA, 2019).

The stepwise practice and implementation process of the different initiatives by DEWA is the result through which, DEWA was able to save 2 terawatt-hours of electricity along with 7.4 billion gallons of water from 2009 to 2018 that could be equivalent to an amount of AED 1.2 billion (DEWA, 2019). Besides, the 2015's "Green Charger" initiative by DEWA encourages the customer and people to use the hybrid vehicle that could lower the air pollution level (DEWA_Officials, 2020). Therefore, the strength of DEWA could be analyzed from this evidences as every initiative develop and implemented by DEWA reaches the people and provide DEWA with outstanding outcomes. Nevertheless, the practices mentioned in the EFQM model provide DEWA with ways to measures the customer happiness level that directly reflects on the satisfaction level of the customer. The performance management metric within the EFQM level mentioned that 90.1% of the Dubai customer has 90.1% were found to be happy with DEWA's customer service.

The shortcoming of DEWA and measures for the improvement of DEWA's shortcoming

On the other hand, the analysis of the interview reflects some of the issues within DEWA operational practices. The analysis reveals that even though DEWA has worked extensively in generating clean solar energy and reduces water wastage, however, DEWA becomes unidirectional in implementing innovative approach as they only focused on innovative measure using solar energy underestimating the power of other renewable sources of energy such as wind, hydro and biofuel. Moreover, the demand and cost of drinking water were still found to be high (Al Nuseirat, et al., 2019). DEWA focusses on water management, however, DEWA should need to investigate and research on converting seawater into freshwater using the reverse osmosis desalination process. The advancement in the desalination process will help DEWA to reduce UAE's freshwater crisis.

Further, the analysis of the interview also reflects on the presence of a lack of coordination among the different departments of DEWA. It was found that the HR manager plays an intermediate role among the different departments of DEWA due to which miscommunication was established. Further, though the EFQM model established a leader in every hierarchy of DEWA yet, the leadership approach and style are not defined within the EFQM model due to which, coordination problem was found to exist within the internal working culture of DEWA. Therefore, to solve the internal conflicts and align communication, change in the leadership approach i.e. democratic approach along with the incorporation of ERP system is essential. The leader should focus on building the team and creating a culture in which brainstorming of the idea would be done. Moreover, with technology such as the MIS system, ERP system, cloud computing, and real-time monitoring system, the database could be maintained over the cloud and reached every department at the same time.

Conclusion and Recommendation

From the above, it could be concluded that DEWA has implemented the EFQM business excellence model within its operation due to which, they were able to focus extensively on their customer service. The study concludes that DEWA not only provides its customer with an advanced solution, however, it also solves the daily life problem of the customer by reducing their electricity costs and providing them a way to monitor their water consumption.

From the study, it was found that DEWA was able to create initiatives and efficiently implemented those strategies so that not only customers will get the benefit but environmental problems such as carbon emission, plastic usage, and so on could be reduced. Nevertheless, DEWA was found to focus less on motivating its employees as the presence of internal conflicts due to improper leadership approach and miscommunication exists. Thus, to tackle the problem, the study concludes the use of a democratic approach along with the incorporation of ERP, MIS, cloud computing, and real-time monitoring system. Moreover, some of the recommendations through which DEWA would be enhanced its customer services are discussed below.

- The EFQM model tempts DEWA to integrate leaders at every hierarchy and operation, however, they fail to communicate with the extensive workforce. To solve this problem, DEWA should occasionally conduct a training program at a span of 4-5 weeks in which, issues within the operation could be discussed in detail. For example, making informal program training and gathering on the restaurant to help them get to gather and know each other.
- However, for solving the issue quickly, DEWA should need to build an anonymous system in which every employee could access it and notify the higher authority of the required issues so that a proper intervention plan could be built.
- DEWA should need to work on other renewable sources of energy such as hydro energy, wind energy, or biofuel. With the use of these renewable resources, DEWA would be able to further reduce the cost of electricity.

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Appendix

- 1) **What is the reason due to which DEWA was able to win the EFQM business excellence award?**
 - HR manager: DEWA has acquired a skilled and talented workforce along with an efficient working policy to achieve sustainability
 - HR executive: DEWA focusses on minimizing its waste and incorporating innovative idea to reduce waste
 - Operation manager: Every operation of DEWA focused on using green energy
 - Environmental manager: In my opinion, the removal of plastic from the different operation of the DEWA and use of biodegradable products along with the use of the renewable source to power their operation
 - Project manager: DEWA tries to use the innovative idea to eliminate waste from its every project
 - Senior manager: The use of artificial intelligence and water meter infrastructure proves to be efficient in the development of strategies to deal with water leakage and connection problem
 - Employee (Solar project): the development of solar park and providing green energy is one of the reasons DEWA achieve wins the EFQM excellence award
 - Employee (Water project): The continuous development to generate a large volume of solar energy through minimizing carbon emission are the reason DEWA achieves EFQM award
 - Senior executive: DEWA's development to build clean energy and monitor water consumption and reduce water leakage throughout the MENA region paves them to win the EFQM award.

- 2) **What is the problematic area that DEWA needs to improve to enhance its service quality?**
 - HR manager: lack of skilled employees is a problematic area for DEWA
 - HR executive: In my opinion, irregular and improper support from top management is a key issue
 - Operation manager: Lack of coordination among the different department is an issue
 - Environmental manager: Proper utilization of resource to its full extent is an important area that DEWA needs to focus
 - Project manager: Proper coordination among the group and department needs to be maintained
 - Senior manager: the presence of close vertical communication is an important issue
 - Employee (Solar project): higher officials and senior did not provide continuous support
 - Employee (Water project): Lack of rewards within DEWA sometime demotivates employees
 - Senior executive: improper planning and scheduling of work misalign the operation of different department of DEWA.

- 3) **What will be the best strategy for DEWA to further improve its service quality and enhance their shortcoming within its excellence model?**
 - HR manager: To integrate training program to attract young talent towards DEWA
 - HR executive: To provide training to the existing employees to enhance their technical skills
 - Operation manager: the integration of ERP and MIS system could align the working process of DEWA's different department
 - Environmental manager: Use of solar energy along with biofuel to generate more energy
 - Project manager: Focus on using biofuel as the energy source, reduce waste and reduce the problem of the water crisis
 - Senior manager: TQM and Lean management strategy need to be incorporated to align the working operation
 - Employee (Solar project): Proper investment to increase resources
 - Employee (Water project): Collaborate with a foreign nation to increase their solar energy generation capacity and identifying water leakage problems quickly.
 - Senior executive: Needs to incorporate advanced water management technique

Social Innovation Systems - Case Study of Emirates Foundation (Volunteers.ae Platform)

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Introduction

Volunteering is a form of social and economic development in local communities that aims to improve human life. It is also a fun work that enhances skills, development, and social interaction. Although it does not provide material gain, the opportunity to do good in society gives volunteers a sense of achievement, which enhances self-confidence, self-respect, and contentment with life. Volunteering has many benefits. It increases social and professional skills such as problem-solving, innovation, critical thinking, communication, teamwork and leadership skills. Volunteering is also an excellent way to gain new experiences, connect with others, and create new friendships. In addition, improvement in community life through volunteer activities can contribute to enhancing trust, tolerance, solidarity, and exchange between citizens and local communities. (Segal and Robinson, 2020).

Volunteering is an important component of any strategy related to [poverty reduction - sustainable development - health and education - youth empowerment - climate change - disaster risk reduction - social inclusion - social welfare - humanitarian work - peace building]. Volunteering helps achieve the goals and objectives set in the United Nations Millennium Declaration, and the Millennium Development Goals in particular (UNV, 2021).

The UAE emphasizes the culture of volunteer work in promoting sustainable development and building a better future for new generations. There are many voluntary organizations that organize volunteer work and community service activities throughout the country. It is possible to volunteer time and provide services for any social and charitable cause by communicating with charitable institutions registered in the UAE that sponsor and encourage volunteer work in the country such as [the National Voluntary Program for Emergencies, Crises and Disasters - Dubai Day - Takatof - Sand - Emirates Red Crescent Authority - Emirates Academy To volunteer in Abu Dhabi - Dubai Volunteer Program - Dubai Chamber Initiatives - Dubai Cares - Sandooq Al Watan - Volunteer Incubators - A group of volunteer work teams] (eGovernment Sector, 2020).

On 02 June 2017, His Highness Sheikh Mohammed bin Rashid Al Maktoum - Vice President - Prime Minister - Ruler of Dubai, and His Highness Sheikh Mohammed bin Zayed Al Nahyan - Crown Prince of Abu Dhabi - Deputy Supreme Commander of the Armed Forces, launched one of the most important projects of the Year of Giving 2017 The “National Volunteer Platform”, which aims to consolidate volunteering and serve the nation and one of the most important features of the Emirati society, through the national platform “volunteers. Emirates”, developed by the Emirates Foundation, in cooperation with the Ministry of Community Development, government institutions, private sector institutions, and public benefit associations, wishing to offer volunteer opportunities with thousands of registered volunteers from citizens and residents wishing to serve the community, or to employ their skills and specialties in various fields of Volunteer work available in the state (Khaleej Times, 2017).

The platform provides volunteers with many advantages, including the opportunity to choose the field that best suits the individual's interests and experiences, build a personal record for the volunteer, the opportunity to run for innovative volunteer projects, access the largest number of specialized volunteering opportunities, and accreditation and documentation of volunteer hours (Khaleej Times, 2017). The platform is distinguished by its analytical capabilities, linking all segments of society with different age groups, and with institutions and agencies that provide volunteer opportunities, and provide many volunteer opportunities, within the interests of those wishing to volunteer in several fields such as [education - humanitarian work - elderly care - the health sector - sectors of culture. And arts and sports - entertainment - environment - community service - making hope and professional development - international volunteering - responding to emergencies - people of determination] (Khaleej Times, 2017).

The platform will provide a clear mechanism and policy that organizes the mechanism for the work of the volunteer teams and unifies them, and the methods of achieving harmony between the outputs of volunteer work in the country, with the directions of government policy and the national agenda, as well as enhancing awareness of the need for diversity and innovation in offering volunteer programs, and implementing workshops and training programs in the country, intensively and continuously (Khaleej Times, 2017).

Through the "National Volunteer Platform", an intelligent system will be established based on a wide database that coordinates the volunteer work efforts in the country and organizes and unifies them between individuals and institutions (Khaleej Times, 2017). In this context, the Ministry of Community Development cooperated with the Emirates Foundation, a pioneer in youth development and volunteering, to launch the platform “volunteers.ae”, which will benefit all segments of society, as it will provide a database and accurate statistics in the field of volunteering at the national level to government agencies, as well as support individual volunteers to fulfill their societal role and contribute to the development and sustainability of their society (KhaleejTimes, 2017).

Research Methodology

Through this research, we will explain to you how the change has resulted in the UAE Volunteer Platform's acquisition of all registration sites and links for all the volunteer program and institutions in one easy-to-use and interactive platform to serve the volunteer parties and

organizations, to promote the culture of volunteering and help others and making the UAE an inspiration to other countries. The method that has been adopted in this research study to find out the impact of the UAE volunteer platform acquisition on all the registration links for voluntary organizations in the UAE and the extent to which volunteer parties benefit [volunteers - voluntary organizations] by conducting a survey of the Emirates Platform for Voluntary Work management.

The questionnaire was distributed to volunteers, given the circumstances of the Corona pandemic [Covid-19], and various questions were asked to the people who participated in a survey.

The Emirates Foundation reason for implementing the change

According to (Nadina, 2011), organizational change could be proactive or reactive. Proactive change is when the organization internally decides to change to meet a desirable future state or objectives. However, reactive change is when there are outside events, policies, or factors that force organizations to change (Nadina, 2011). Research and studies showed that when implementing change around 70% of change initiatives tend to fail for several reasons (Sackmann et al, 2009). The volunteering activities went through several changes to enhance the experience of the volunteers and unify the efforts of the entities. Hence, in 2017, Volunteers.ae Platform was launched (Baldwin, 2017). In 2020 with COVID-19, there was pressure in the medical sector globally and the leaders of Emirates Foundation decided to develop the platform to have online, and in the field volunteering activities. Also, the government of the UAE has decided to consider Volunteers.ae the official volunteering platform in the case of emergency & crisis (NCEMA, 2020).

In 2007, Emirates Foundation launched a program called Takatof (Khaleejtimes, 2008). The word “Takatof” is an Arabic word that means to be with each other and help each other (Takatof, 2018). Takatof was a program that enabled the community to volunteer (Takatof, 2018). After two years, the Emirates Foundation introduced another volunteering program called Sanid (Sanid, 2018). The word “Sanid” is an Arabic word that means to support (Sanid, 2018). It is considered a volunteering program during emergencies, where volunteers will receive professional training and preparations to deal with emergencies and respond to several critical situations (Sanid, 2018). Those programs gathered a huge number of volunteers. However, it was noticeable in the following years that every entity whether it is in the public or private sector started introducing a volunteering program or requesting volunteers (Totton, 2017). Moreover, groups of youth have created volunteering teams in different fields in order to participate in volunteering activities (MOCD, 2017).

The volunteering activities went through several changes in order to enhance the experience of the volunteers and unify the efforts of the entities. Hence, on the 1st of Jun 2017, His Highness Sheikh Mohammed Bin Rashid Al Maktoum Vice President and Prime Minister of the United Arab Emirates, and Ruler of Dubai and His Highness Sheikh Mohammed Bin Zayed Al Nahyan Crown Prince of Abu Dhabi and Deputy Supreme Commander of the United Arab Emirates officially launched Volunteers.ae Platform which is an initiative launched by Emirates Foundation with coordination of the Ministry of Community Development (Baldwin, 2017).

In 2020 with COVID-19, there was pressure in the medical sector globally. The management of Emirates Foundation took a decision to develop the platform in order to have online, and in the field volunteering activities. Moreover, the government of the UAE has decided to consider Volunteers.ae the official volunteering platform in the case of emergency & crisis (NCEMA, 2020).

In 2017, the Emirates Foundation took proactive action by launching the volunteers platform to raise the standards of volunteering (MOCD, 2017). The platform enables the opportunity for public and private sector organizations to register and post volunteering & training opportunities (ADDED, 2020). In addition, the system documents all volunteer activities, issue certificates, and calculate volunteering hours (KhaleejTimes, 2017). Upon COVID-19, the previous proactive approach to implement change enabled Emirates Foundation to work with the National Emergency and Crisis and Disasters Management Authority to consider the platform as the national volunteering platform in the case of emergency and crisis.

Moreover, the management introduced a new interface and introduced online and on the field volunteering opportunities to offer assistance to the 1st line of defense against COVID-19 (NCEMA, 2020). The proactive movement in 2017 has led to having a platform with more than 400 thousand volunteers, 450 entities, and more than 6500 completed volunteering activities & during Covid-19 more than 16502 volunteers from 126 nationalities have participated in the UAE Volunteers Campaign through Volunteers.ae in one month (Mohamed, 2020).

The Change Model

The non-profit organization, Volunteers.ae seems to have implemented Kotter's 8 step change model process for restraining challenges in wake of the COVID-19 pandemic, the model can be analyzed as:

1. Increasing Urgency

Before initiation of strategy formulation, the non-profit firm (Volunteers.ae) established the need for urgency, to change its operations processes, and this urgency is important for making a change. This step in the process includes identification of threats, development of various different scenarios that could happen in the future, and making strategies or modifying strategies according to that, to avert any risk (Knepper, D'Agostino and Levine, 2015). Any opportunity is scanned in the environment and implemented with brute force (Online Volunteering by Volunteers.ae).

2. Building Guiding Team

Effective leadership in the organization is important for building a coalition and making a team, for analyzing the organization's weak spots and strategies to fix them. The non-profit (Volunteers.ae) had a guidance team that analyzed the weak points of the organization and fixed them to prevent future downturns (Rogers, Rogers and Boyd, 2013).

3. Developing Vision

The development of Vision is done in order to increase the synergies within the organization, which is the sole factor that achieves the organization's goal. This step commences with determining the values that center the change, and the development of a short summary regarding the prospective future of the company gives direction to the vision and helps in executing the strategies formed for its implementation (Rogers, Rogers and Boyd, 2013).

4. Communicating Vision

Frequently communicating the vision convincingly, and connecting the vision with significant factors like performance reviews and training, etc. and handling of concerns with full involvement and honesty has gone a long way for Volunteers.ae, which is why most of the volunteers join the organization through word of mouth (Pambreni et al., 2019).

5. *Removing Obstacles*

Assuring that organizational structure and process are aligned with the organization's vision to ensure the overall development. Checking the barriers and any resistance continuously makes the change process implementation smooth (Al Saraidi, Awofeso and Dolan, 2020). Actions must be taken to remove any obstacle and people must be rewarded for their support in the change process and implementation.

6. *Creating Short term wins*

Motivation is a powerful factor that makes organizations achieve their goal faster with better efficacy and effectiveness. Short term wins in the early stages of the implementation increases morale and gives a sense of victory in the beginning. Creation of various short term targets instead of one long term target, to ensure the victory in achievement, also, includes less expensive/ resource needy with minute changes of failure (Oreg, 2018). Finally, rewarding the people involved in the process of target victory must be rewarded to maintain the morale of volunteers/ workforce.

7. *Consolidating Gains*

Every win and victory should be analyzed in order to ensure the whole system established is working efficiently, or not, and improving continuously learning from the success. Keeping new ideas and implementing is done at this stage for overall growth (Cho, Bonn and Han, 2018).

8. *Anchoring Change*

For this process to complete, it must be assured that change is an integral part of organizational structure and is visible in every aspect of the organization. New Ideas and values should be included within the organization by hiring new talent or providing training to existing ones. Remember and recognize the key people which helped in organizational change and resulted in the overall development of the organization (Small et al., 2016). After this, new strategies should be prepared to replace existing key changes as time passes, to provide opportunities to new talents for helping organizations grow further.

These 8 steps in the process are a start to implementing changes in the organizational structure for good and must be followed regularly as it increases workforce engagement in strategy making and it makes them feel valuable, which can increase their efficiency and effectiveness.

Resistance

The non-profit organizations rely solely on the volunteers to achieve the missions according to community needs, where the economic downturn causes significant resistance to changes happening in the community. The UAE's economic downturn caused a dismissal of a considerable number of foreign employees, and some organizations cut the salary of its local employees. Like has in the recent COVID-19 pandemic, more than 70 million people were discharged from their job responsibilities (Magnúsdóttir, 2018). Donors pull their resources back and refuse to back the firm because the economic states are not stable, affecting their financial conditions. In fact, budget cuts by the government lead to less monetary resources with the non-profit organizations makes the achievement of the mission difficult (Magnúsdóttir, 2018).

The workforce has made resistance, volunteers, and governments as well in adapting to the situations. Challenges and resistances faced by the non-profits like Volunteers.ae are:

1. *Government regulations and tax reforms*

The corona pandemic has caused a major economic downturn in every major economy including, the UAE. The biggest challenge that Volunteers.ae faced was that other government organizations preferred to create their own volunteering platforms rather than partnering with them, which led to the lack of sponsors which affects the growth of the company (Magnúsdóttir, 2018). Most organizations deducted from the employees' salaries with the taxes that the government implemented which affected the non-profit organization like Volunteers.ae. As a result, the organization was left with no choice but to lay off some workforce, and therefore, they were not able to handle projects due to lack of workforce and sponsors (Magnúsdóttir, 2018).

2. *Volunteering Challenge*

Volunteers are mostly expected not to receive payments, and in current economic conditions they have to contribute huge resources (time) to the organization. The challenges arise when the volunteers are not able to devote enough time to make ends meet, this leads to a reduction in efficiency and effectiveness of the non-profit's missions (Magnúsdóttir, 2018). For example, the volunteers don't have the capability to balance between volunteering hours and their own jobs. However, due to working from home, organizations are expecting employees to work more than their original working hours.

3. *Technology Concerns*

The on-field volunteering is an easy process, but in recent time COVID-19 has forced to lock ourselves into our houses, because of which on-field volunteering is not possible, and nonprofits face a lot of technology and software restraints for innovations in creating the online platform for volunteering, which is easy, feasible to most volunteers and requires less time (Magnúsdóttir, 2018). If inactive and insufficient software that is used in the volunteering process is outdated, the organization needs a huge amount of time to adapt to a more friendly interface to transfer the operations on, and this becomes difficult as the fundraisers and donations have already declined and growth is stagnant. But using the right and efficient technology can bring positive returns to the non-profit organization, which can lead to better communication, which can lead to more donations, and more automation in the process leads to less dependency on human volunteering and workforce, this leads to steady growth in hard times. According to Volunteering.ae organizations they implement a friendly platform that will ease the processes of donation, by allowing the donors to send their donation through SMS and bank transactions.

4. *Impact on relationships and infrastructure*

Due to the pandemic, the organization (Volunteers.ae) has ordered its volunteers and workforce to work from home, this has created a big relationship gap between the volunteers and the people they serve, and this gap caused miscommunication issues between both sides. On the other hand, a limited number of employees are currently allowed to work from the office again, and the management teams are expecting from those limited employees to perform tasks that are to be performed by large teams in normal conditions (Magnúsdóttir, 2018). In this case, Robust strategies and plans have to be ensured to cover large masses of people to perform humanitarian missions to grow society. Innovations in technologies, operations, and various other fields are necessary to make sure continuous availability of services to the people.

Volunteers.ae should be focusing on the core missions and responsibilities, as well as recognizing innovations. Prior to the current pandemic, the organization implemented an online volunteering

platform which made them adapt to the new situation easily. This experience must be taken into consideration while creating and implementing new ones.

Critical Success Factors of Change Management

According to By (2005), most of the companies incorporating optimization of processes, deploying strategies and operational betterments know that change is not concerned just with the cultural shift. It is the method in which the cultural shift has occurred towards the personal motive parallel with the values making a basic difference. More often the companies develop a strategy centered on the mechanisms and tools; however, they fail to realize that organizations consist of people having value and purpose. If the companies fixate on the purposes and values of those people, they can easily motivate workers to develop a work setting incorporating excellence and endure it for the long term (By, 2005).

According to Paton and McCalman, (2008) when it comes to implementing a major transformational change, the companies want to change management but they don't exactly know what change management means. It is often considered as a tactical additional element to a product or project. While lots of companies consider it a step-in change management that is the portion of the overall documents of the project. While in reality, the change management in a transformational project is a constantly evolving part to maintain competitive advantage and growth of the company all over the project as well as after project completion.

The major thing is accomplishing the objectives and motives of the change contract in a sustainable way. This is considered as a trademark of accurate change management, wherein the critical factors of success operate (Paton and McCalman, 2008).

Following are the ten critical factors for change management

1. *Continuity of Leadership*

The underlying stability is necessary for sustaining effective change. The establishment of consensus at the managerial level aids in ensuring the arrangement of policies, projects, and people in the Emirates foundation. The sense of the staunchness and lucidity of the course even in the middle of the change will be delivered successfully to the workers (Ewenstein, Smith, and Sologar, 2015).

2. *Constancy of Purpose*

It is very hard for the Emirates Foundation to align the groups, people, and functions with the goals of the initiatives taken for change management. This alignment is required to assure the movement of every entity of the organization in the same direction. The translation of long "To Do" lists are done for the major initiatives lacking the context. For years some processes and methods have been followed without any question do not sneer with corporate strategy. The issues are shifted downwards to junior levels or sidestepped completely and transferred upwards to the senior levels (Fritzenschaft, 2013).

3. *Consistency of Method*

Stability is one of the most significant things to implement change management. The consistency of processes and methods make it easier to adapt to change in the Emirates foundation. The adaptation and change can be disrupted when the methods get changed for instance, when the new

manager uses unfamiliar and new terms or newly hired supervisors provide directions that are different than the one before (Fritzenschaft, 2013).

4. *Clarity through Communication*

Smooth communication is very important for managing change, the communication is required to be clear, consultative, directive, and frequent. Communication is considered as a glue for change management. The managers of the Emirates foundation have to be explicit in providing directions to each department or section regarding volunteer works (Ewenstein, Smith, and Sologar, 2015).

5. *Mutual Change Purpose*

In managing the robust case to accomplish the change in the Emirates foundation. The aim is to achieve something more than awareness through the change and creating some buzz and energy. However, first of all, clarity is required to be achieved, it must be known that the people are ready to adapt to the changes if not then make them ready to adapt to the change. The awareness of the requirement of the change is significant to be produced in the Emirates Foundation to enhance volunteer works (Lauer, 2010).

6. *Effective Change Leadership*

Another important factor in managing change is effective leadership. According to Kiarie, (2012), the leaders of the Emirates foundation are required to provide guidance, support, and directions to the subordinates in the way of achieving change. When the guidance and directions are provided, the employees are delighted when the leaders demonstrate the commitment to the change through their actions as well. The sudden change takes the organizations and the people out of their comfort zone. There will be a subtle movement for taking things back to the position where they were before and the resolve of the leadership will be tested as some executives and employees can initiate this movement. Then, for accomplishing successful change there will be required commitment to notice the movements and do what is necessary to accomplish change (Kiarie, 2012).

7. *Powerful Engagement Process*

Some robust processes of engaging the Emirates foundation in the change are required. Such processes are engineered to develop commitment, motivate new behavior, and instill new skills. Then a framework is offered that establishes commitment and aids employees to embark on the activities required to be performed to accomplish change in the Emirates Foundation (Kiarie, 2012).

8. *Committed Local Sponsor*

The front-line managers and mid-level executives in the Emirates foundation are required to be enabled for taking the responsibility to deploy change in their authoritative area. However, first of all, they by themselves are required to commit to the change and then demo that commitment. They are required to lead the change and then connect the requirement for the change to the importance of why the change is necessary for the people (Kiarie, 2012).

9. *Strong Personal Connection*

The leaders and managers in the Emirates Foundation are required to establish a robust personal connection of the people with the change. The personal connection could help in building personal commitment. For instance enlightening people with the advantages of working in new ways. This

could help people to commit to the change more quickly and sooner they adopt the new behaviors (Fritzenschaft, 2013).

10. Sustained Personal Performance

The reactions and concerns of the people to the change can be addressed more effectively by utilizing the issue of performance sustenance. The assurance of help and support by the managers of the Emirates foundation during the transition phase and behaviors adaptation to those involved with the change. This helps the people to shift through the transition phase quickly to prevent adverse effects on performance and decent performance is maintained during the process of change (Fritzenschaft, 2013).

Data Analysis & Recommendations

32 participants have filled the survey, the percentage of female participants was 56.25% where the male participants were 43.75%. 66% of participants were from the youth population between 18 to 32 years old. We have evaluated the new design and function of the platform, as well as the user experience in actual volunteering activities, in addition to the general satisfaction of change across the UAE to improve the volunteer's experience. With regards to the change of volunteering platform, it has scored 72/100. The user experience in actual volunteering opportunities has score 82/100. The satisfaction of the improvement efforts of volunteers experience across the UAE has scored 86.25/100. Those results show that there were great efforts in order to react due to the need for change, however, there is a requirement for more efforts to enhance the platform as well as the volunteer's role and experience whether in physical or remote volunteering opportunities.

Through the research, and survey the team has come up with four recommendations that will add more value and raise the satisfaction of the volunteers which are:

- 1- Volunteers.ae platform will need to enhance the platform, specifically the android and iPhone applications in order to enhance the user experience through the platform
- 2- Volunteering opportunities need to be analyzed and evaluated in order to meet the expectations of the volunteers
- 3- Volunteers expect that the registration and volunteering process is to be faster, easier, and more efficient.
- 4- Introduce volunteering opportunities that directly focus on enhancing the skills and abilities of the volunteers through training, and coaching.

Summary

This study addresses change management in the domain of the Emirates Foundation volunteering platform. The Emirates foundation wherein developing such an environment that could encourage volunteering to shape a robust program that will help Abu Dhabi city to become a major city of volunteering. For collecting data, A survey was circulated for volunteers to express their opinion on the volunteer platform in the UAE. The challenges faced by the Emirates Foundation in implementing the change were also discussed.

The resistances and challenges included government regulation and tax reforms, volunteering challenges, technology concerns, and impact on infrastructure and relationships. While at last the

critical factors of change management were discussed which included Continuity of Leadership defining its importance for change, Constancy of Purpose to accomplish effective change, Consistency of Method outlining the role of stability, Clarity through Communication mentioning how important the communication skills are, Mutual Change Purpose to build harmony, Effective Change Leadership to outline the importance of effective leaders, Powerful Engagement Process to keep firm engage in activities directing towards change, Committed Local Sponsors to achieve change in the organization easily, Strong Personal Connection to provide arguments regarding the need for change, and Sustained Personal Performance to provide assistance to the employees to maintain decent performance during the phase of change.

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Appendix I: Survey Questionnaire

1. Did you use volunteers.ae through COVID-19 to participate in a volunteering opportunity?
2. Rate the new design and functions of Volunteers.ae platform.
3. Did you face challenges to volunteer through the platform during COVID-19?
4. Rate your experience as a volunteer about the volunteering opportunities.
5. Rate your satisfied about the changes that occur to improve volunteers experience across the UAE.

Applying Innovation for Organizational Success in the UAE

Mayid Alshaer

Abstract

This research proposal will be assessing the impact of applying innovations for organizational success in the UAE. The research aims at comparing the performance of organizations in the UAE before and after applying innovation, thereby identifying the impact of innovation on organizational efficiency. Therefore, the collected data will help determine various performance variables, including change in organizational and workforce efficiency, resource usage and change in the quality of services or products. The literature review showed that many UAE organizations had implemented innovations in their workplace. These innovations had improved organizations' operational efficiency, scaling up the financial and non-financial metrics of firms. The proposed study will use a mixed-method design, allowing for numeric and non-numeric data analysis. Moreover, interviews and surveys will be the primary data collection tools. A total of 21 firms, with three from every emirate, will help complete the study. The researcher will use Zoom to conduct three interviews in each organization and email the surveys to 20 respondents in every organization, leading to a sample size of 483. Statistical and content analysis will facilitate data assessment, establishing valid and reliable findings. Particularly, SPSS will be suitable for analyzing quantitative data, whereas Nvivo will analyze qualitative data. However, some participants may not respond to all the survey questions, requiring selecting different respondents to cover incomplete surveys. The study will likely reveal that infusing innovation in organizations can optimize resource usage, enhance operational efficiency, and boost aggregate organizational and human capital performance. The study will confirm that the impact of innovations in workplaces varies across organizations. The findings from the research will encourage additional studies in this body of knowledge.

Keywords: Organizations, Innovations, success.

Introduction

The articles reviewed in this research proposal dissected the criticality of using innovation in the workplace. Most articles defined innovations as ways used by organizations and individuals to conceptualize new services, products, and processes or approach the existing products, processes, and services in improved ways (Meissner & Kotsemir, 2016). Moreover, most researchers stated that adopting technology can positively influence a company's core and peripheral operations' performance levels and efficiency (Purcell, 2019). Several themes appear in the articles reviewed, providing the direction of the literature review.

Literature review

Benefits of Applying Innovation

Researchers have shown that innovations promote performance and expansion levels (Solanki, 2020; Ameen, Al-ali, Isaac, & Mohammed, 2020). For instance, after adopting the ERP systems, Etihad Airlines prompted real-time data analysis processes, enhancing decision-making and marketing operations (Nkasu, 2020). Further, many municipalities in the UAE have adopted innovation to improve their efficiency ("UAE Public Sector," 2017). For instance, the Dubai Municipality has adopted several innovations, such as the e-payment infrastructure, to boost services' quality (Ahmad & Khalid, 2017). By adopting the FinTech services, the municipality has upscaled its tax collection levels. Citizens have also found the system highly convenient because they can currently make payments quickly. Therefore, we can infer that the adoption of innovations created value for the customers and other primary stakeholders served by Dubai Municipality.

Furthermore, innovations improve firms' competitive advantage, enabling them to remain relevant. The competition level in the current corporate world has risen steeply, causing organizations to implement

innovations and appropriate operational frameworks (Vasilev, Bakhvalov, Prikhod'ko, & Kazakov, 2017). Most firms have anchored their operational strategies and business models on relevant innovations, buffering their operations against the competition (“UAE Public Sector,” 2017). Recent research has forecasted that more than eight billion devices will access the internet by the end of 2020, revealing that an increasing fraction of the global community will consume most information on online devices. Since the future is mobile technologies, UAE’s firms could adopt innovations compatible with mobile devices.

Using innovations delineate organizations, cementing their influence – in terms of market size and customer base – in the sector. Studies have shown that upper management sanction some innovations to create a unique brand (Alghawi, Ameen, & Bhaumik, 2019). The Dubai Municipality has attained this by offering unique and almost monopolistic services (Ahmad & Khalid, 2017; Obeid, Nusari, Abuelhassan, & Bhemic, 2019). The provision of unique products enables organizations to attract and retain potential customers, enabling them to perform at high levels (Alghawi, Ameen, & Bhaumik, 2019). Dubai Municipality and Etihad Airlines are some of the region's success stories (“UAE Public Sector,” 2017; Solanki, 2020). Therefore, other entities can borrow the leaf and adopt innovations likely to boost their overall performance levels.

Technologies Used in Applying Innovations

Technologies and innovations *are* highly interlaced, although they differ on various fronts. Primarily, technologies play a central role in propelling innovations by positively influencing experimentation and tinkering, accelerating the innovation process. Technology has infiltrated nearly all aspects of human spaces in the current modern world (Gabitova, Karavaeva, Nigmatullina, Ivanova, & Lebedev, 2020; Alnajjar, 2017).

The technological world continually changes, disrupting many critical processes (Vlados, Deniozos, & Chatzinikolaou, 2018). Notwithstanding, studies have shown that technology has become a valuable enabler in the workplace (El-Kholei & Al Jayyousi, 2019). For instance, technology helps to create and sustain brands by aiding the application of customized innovative solutions. In the UAE, for instance, innovations have been instrumental in maintaining many brands by shielding them from the debilitating effects of stiff competition (Gabitova et al., 2020). Many analysts have argued that adopting technology has been a driving force for most firms.

Currently, Industry 4.0 technologies have been central to facilitating the implementation of innovations in many workplaces. The most relevant and widely applied Industry 4.0 technologies include machine learning, artificial intelligence, big data analytics, Internet of Things (IoT), cloud computing, mobile technologies, and cybersecurity (Elhoseny et al., 2018). These technologies' success depends on the level of their alignment with the acquired innovations (Yeow, Soh, & Hansen, 2018). A high level of matching eliminates the encumbrances that could sabotage applying the operational strategy (Balakrishnan & Das, 2020). Most organizations rely on big data analytics in the UAE to identify common themes and trends in their service delivery. Therefore, after establishing the themes, firms then apply innovations to achieve the desired goals and objectives. In a nutshell, various Industry 4.0 technologies have been pivotal in promoting innovations in several UAE organizations.

Impact of Innovation on Organizations Efficiency in the UAE

Studies have shown that adopting technology can positively improve the aggregate performance of an organization. Charles (2014) revealed that innovation's most critical performance variables include financial strength, resources availability, sales revenues, goodwill, public image, productivity, and staff quality. An organization's continuity and growth are contingent upon the staff (Tortorella, Miorando, Caiado, Nascimento, & Portioli Staudacher, 2018). More importantly, an engaged, happy, and satisfied workforce improves the likelihood of success.

Organizations improve workforce engagement in the workplace after adopting technology, causing an uptick in performance variables (Tortorella et al., 2018). For instance, in 2018, the First Abu Dhabi Bank (FAB) piloted an AI-powered solution with AI-Futtaim. Using artificial intelligence and machine learning,

this leading financial institution sought to improve decision-making processes' efficiency, enabling better performances ("UAE Public Sector," 2017). When launching this innovation, the firm's senior management suggested that the objective was to help customers grow revenues. However, on a deeper level, this solution's primary role was to analyze vast volumes of customers' data, enabling the organization to make timely and informed decisions.

The Connection between Organizational Productivity and Innovation Use

Studies reveal that the top echelons in organizations adopt technologies to leverage their benefits (Mohamed, Khalifa, Al-Shibami, Alrajawi, & Isaac, 2019; AbudlHabib & Al-Dhaafri, 2018). Across the UAE, many organizations have infused innovations in their operations, accruing various benefits ("UAE Public Sector," 2017). Therefore, these innovations have positioned the mentioned organizations at vantage business points, growing immensely to provide high-quality and customized services and provide (Ahmad & Khalid, 2017). On the flip side, though, some studies have shown that innovations can cause negative impacts on organizations.

Some researchers have revealed that the overreliance on technology tends to suppress some critical elements of humanity (Mohamed et al., 2019). For instance, innovations play a central role in the decision-making process. Further, surveys have shown that the Emirates Group has failed to improve some of its services despite adopting innovation (Mohamed et al., 2019). Such cases of failure point to the lack of guarantee that implementing technology leads to better outcomes. Perhaps, the most debatable issue associated with the adoption of innovation remains the possible impact on employment (Mohamed et al., 2019). Notably, many opponents of using technology in workplaces have held that their use threatens human capital.

The Research Gap

The literature review dissected findings established from some previous studies. Notably, most of the reviewed studies focused on the influence of using innovation on organizations' success. While the studies discussed the organizations' performance before and after implementing innovations, most did not use quantitative data. Most studies only collected qualitative data about the impact of the innovations, leaving a gap that requires quantitative data.

Moreover, the literature review showed gaps in the innovations that find wide application in organizations, the process of identifying the appropriate innovation, the effective way of applying the technology, and the common encumbrances that undermine the innovations' intended impact. Because of these gaps, an urgent need is for many researchers to advance the research in this body of knowledge, providing reliable information that could improve the body of knowledge and inform decision-making in organizations. Therefore, the current research seeks to respond to the developed study question by collecting mixed data, expand the findings in this area.

Methodology Design

A methodology is one of the main sections of a research proposal. The section dissects various concepts, including study design, sampling, data collection modalities, and data analysis. Researchers often align their studies with the elements of the Sounder's research onion.

The proposed study will use a mixed-method design, combining qualitative and quantitative data. This design will be the most appropriate because it will promote the collection, measurement, and analysis of the numeric and textual data about the impact of innovations on organizations. Collecting perceptual and statistical data will be pivotal to augmenting the research, enhancing its reliability and validity.

The study will use a simple random sampling technique to select study participants and organizations, eliminating bias that could sabotage the validity, reliability, and quality of the findings. The researcher will email the data collection tools to the selected responders. Notably, the sampling process will select respondents from the UAE's seven emirates. The researcher will choose three organizations in each emirate, cumulatively leading to 21 firms.

Interviews and surveys will be the main data collection tools. Markedly, the researcher will conduct 3 interviews in each organization, cumulating to 63 interviews. 20 employees from each organization will respond to the survey questions, implying that the study will analyze 420 surveys. Thus, the interviews and surveys will lead to 483 participants. This sample size will be suitable because the proposed study seeks to cover all UAE areas, enabling applying all organizations' findings across the country. The researcher will email the surveys to the respondents. However, to conduct the interviews, the researcher will use Zoom, enabling a significant face interaction level. Notably, interviews efficiently judge the interviewees' non-verbal cues, provide flexibility, and respond better. Surveys, on the other hand, are essential for gathering data from a large cohort of participants.

The researcher will use a string of data analysis tools appropriate for deriving meaning from integrated numeric and non-numeric data. SPSS will be suitable for analyzing quantitative data, creating frequency tables, graphs, and determining the collected data's statistical significance. Further, the SPSS will measure several statistical elements, including central tendency measures, analyzing the similarity and variations in the collected data. Content analysis will be relevant for assessing qualitative data collected in the study. The researcher will use Nvivo software, which is suitable for analyzing unstructured qualitative and mixed-methods data gathered from interviews, surveys and focus group discussions. Nvivo, to explore qualitative data, and SPSS, to analyze numeric data, will be suitable for this study because they align with the adopted research design.

The methodology explored in this section will be appropriate for completing the proposed study, providing data essential for informing decision-making in UAE organizations. However, despite the appropriateness of the adopted methodology, the researcher must validate the collected data. The researcher will use a series of tests to determine the validity of the results. Firstly, accessing samples will be critical for investigating the internal and external validity of the data. In this case, the research will access the samples by conducting Zoom interviews, which will help identify participants' behaviors that might sabotage data quality.

Several challenges could emerge while conducting this proposed study. For instance, some participants may not respond to all questions in the survey. In such cases, the researcher will use random sampling to identify additional respondents to help cover incomplete surveys. Moreover, some respondents might provide misleading data. The researcher will employ various validity tests to eliminate data with extremities.

Further, the researcher will test the validity and internal consistency of the collected data by cleaning it. The cleaning process will entail identifying extreme data values, thereby eliminating them to prevent obscuring the actual impact of innovations on organizations' success. Moreover, the research is feasible because it will inspire further study in the current body of knowledge. As stated, several gaps exist in this study, requiring further studies. Thus, the findings from this study could provide the ground to encourage more studies.

Results & Discussion

Business organizations in UAE have increasingly adopted innovations to influence their success. The current age of information and technology has transformed many aspects of human life, with technologies finding inroads in business organizations' operational models. Studies have shown that organizations in the UAE have adopted different types of innovations to enhance efficiency, optimize resource usage, improve employees' performance, and increase capacity utilization. These advantages transcend the internal aspects of the organization. Markedly, the adoption of innovations creates value for all the primary stakeholders of an organization. Despite the findings established from previous studies, the literature review showed that some gaps still exist in this body of knowledge. The current proposed research seeks to establish findings to fill an aspect of the gap yet explored.

The collected data will establish findings revealing the implications of applying innovations in organizations. The proposed study will likely establish findings that are in tandem with those realized in

the previous studies. Markedly, the study will likely reveal that infusing innovation in organizations can optimize resource usage, enhance operational efficiency, and boost aggregate organizational and human capital performance.

The study will possibly confirm that the impact of innovations in workplaces varies across the type of the organization, core products/services, characteristics of the primary stakeholders, and location. Moreover, the findings will inform the upper management's decision-making, leading some firms to adopt technologies that can drive their core and peripheral operations. The study will also enable the organizations to determine the encumbrances that have prevented them from realizing the stated outcomes. Such firms could then adopt a different operational framework to address the identified bottlenecks, elevating their financial and non-financial performance levels. In a nutshell, the current proposed study's expected findings will influence whether UAE's organizations adopt or overlook innovations in their workplaces.

Conclusion

The established findings will have practical and theoretical significance in the body of knowledge. Despite the theoretical narratives surrounding innovation adoption in the workplace, hardly any researchers have dissected the issue. The current proposed study will investigate a significant number of beneficial implications associated with implementing technology in workplaces. Specifically, the study will focus on organizations, providing financial and non-financial metrics of these entities before and after implementing innovations.

Data analysis will indicate the relevance of the theoretical narratives associated with adopting technology in firms. Importantly, the established findings will likely change the theoretical and practical overview of the innovations in organizations in the UAE and beyond. The debate about the impact of innovations in firms has constantly pigeonholed people into different categories, influencing their infusion. For instance, top management in many organizations could find the most appropriate theoretical approaches when implementing innovations. Moreover, senior management could also predict the implications of adopting innovations in the workplace.

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Change Management's Critical Success Factors

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Abstract

Organizations oftentimes undergo changes in order to keep up with equally pressing changes in the market and industry. In relation, there are various external and internal factors that influence said change in organizations, including technology development, changes in government policies, innovation, new leadership, and office relocation, among others. Organizational change, being a constant and unavoidable phenomenon, involves certain risks and challenges. This consequently gives rise to the importance of change management, specifically with how important an effective change management is for organizations to manage risks and accomplish success. In that regard, this report aims to examine the change management concept and at the same time, the different critical success factors. The primary motivation behind this report is to develop a more in-depth understanding about organizational change and how this can be managed successfully.

The concept of change management places emphasis on developing a vision for change which directs and/or guides the whole change process. It is also the continuous process of transforming the organizational structure and capabilities in order to serve better its internal and external stakeholders. Alongside this, change management underscores the need and importance of empowering the members of the organization who serve as change agents facilitating said change. Because change management has become a necessary element in organizations, organizations are prompted to develop an effective strategy that matches the process, thereby leading to improved competitive advantage and organizational growth. The importance of change management is also evidenced by how it plays an integral role in maximizing profits, in promoting a positive culture, in harnessing leadership skills and potentials, and in fostering efficiency and collaboration among employees.

This research utilizes qualitative research, specifically secondary research in order to collect the data needed to identify the most common critical success factors of change management. Using secondary data analysis, 15 online journal articles were accessed and analyzed, revealing five themes that represent the top five success factors namely employees and employee involvement, leadership, communication, organizational culture, and management support. In order to effectively facilitate change, this study suggests that transformational leadership strategy be implemented, effectively manage resistance to increase level of employee participation, and ensure a systematic and orderly implementation of organizational change.

Introduction

Different changes continue to affect organizations today, which call for the effective implementation of change management. These changes occur from the internal and external business environments and can generate positive or negative impacts to organizations. Change is unavoidable and unstoppable, which further urges organizations to adapt change and consider it a huge part of the organization (Jalagat 2015, p.1233). At the same time, the reality of change calls organizations to effectively implement change management. Thus, change is entwined with certain risks and therefore requires effective management for organizations to be successful (Karnouskos 2015, p.2). In this report, the concept of change management and its critical success factors will be explored, with the aim of understanding change in organizations and how it can successfully be managed.

Different factors influence change. As what Hashim (2013, p.686) discussed, the external factors of change include (1) development of technology; (2) changes and transformation of new materials; (3) market or customer changes, such as the change in taste, preferences, and

requirements; (4) changes in the government policies and legislation; (5) the changes in national or the global economic condition, trade policies and regulation; (6) social and culture value change; and (7) innovation and activities of the competitors. On the other hand, Hashim (2013, p.686) underscored the internal factors or triggers as (1) development and innovation in the manufacturing process; (2) new ideas of the products that can delivery customer value and satisfaction; (3) relocation of offices or factors closer to customers, suppliers and the market; (4) new product and service design innovation; (5) new leadership or management team; and (6) insufficient knowledge and training programs.

Because of these internal and external factors, change management is indeed essential. More so, to be successful, it is important for firms to identify the different success factors, which are mainly explored in this report.

Change Management

To best understand the critical success factors for change management, it would be helpful to understand the concept of change management. According to Lorenzi and Riley (2000), change management is the “process where organizations get into its vision or future state, with attempts made to facilitate the journey” (p.118). Such definition underscores the need to develop a vision for change in the whole journey of change management. This is followed by empowering the people or members of the organization who are also involved in the change management process—particularly acting as the change agents who will attain the vision. Also, change management is composed of effective tactics and activities that allow change agents to accomplish the new established vision.

Meanwhile, change management can also be defined as the process of continuously renewing the direction and structure of an organization, alongside its capabilities, in order to serve the changing needs of both internal and external stakeholders (Moran & Brightman, 2011). With the constancy of change in organizations, Thomas (2014) underscored that change management has become a requirement and should be accompanied with suitable strategy and managerial skills. Organizations should also successfully manage change in a highly volatile and constantly transforming business environment, in order to succeed and sustain its competitive advantage.

Also, Hashim (2013) underscored that change management is important as it portrays an essential role developing an organization, with its capability to offer stability. This is made possible by assessing and scrutinizing the internal and external changes affecting the company. Change management can as well offer solid base for value and reputation, while maximizing profits. Change management is also instrumental in providing sound culture and working system. It can also create top bottom approaches needed to assist and promote culture. These aspects offer basis for the leaders or managers and employees do their best and portray their roles in an efficient and effective manner. More so, change management urges the development and implementation of training and development to boost employees.

Critical Success Factors for Change Management

Change management is challenging to implement in organizations. Apparently, one factor has been observed in literature when exploring the critical success factors of change management—the types of organizations. In this section, the critical success factors for change management are discussed in the context of private organizations, rather than public organizations. In a study of Karnouskos (2015), the theoretical investigation identified key factors that can be influential in leading effective change management in modern companies. These factors included the following:

- Employee – Results stated that employees are significant contributors of effective change management and it is essential for companies to perform measures gaining their trust, making them understand of the change process and overall vision, and deal with their potential emotions.
- Leadership – In the change management process, the researcher discussed that leaders can guide and motivate the employees. To do so, leaders should be able to effectively communicate a clear vision and forecast any parts not understandable or understood by the employees. Leaders in a changing organization should also practice what they preach, by being the first to embrace change and being the first to use the new processes.
- Training and Development – The third factor is one process or strategy that can be used by organizations to aid and support employees during the change implementation process. It is important that employees are adequately trained to effectively utilize the different tools and strategies of change management. If not, the effects can be wide and unpleasant considering that the employees' self-confidence only develops into change resistance.
- Reward and Recognition – Findings of the research stressed that rewards and recognition like incentives provided to employees can mean more motivation and less opposition to the changes to be implemented. Rewards and recognition are also linked with employee commitment and satisfaction, which urges the modern firms and organizations to invest in rewards and recognition strategies or measures. It is also essential for companies to pay attention to the short-term wins.
- Culture – This factor is essential as it plays a major role in institutionalizing change or the change process, apart from being relevant in planning and execution stages. Firms that are multi-cultural in nature must as well investigate its cross cultural dynamics. It can be recalled that culture is composed of attitudes and beliefs, which can be influenced by change or can even inflict change.
- Politics – Politics as a change management success factor is seen in this study as a positive component—in which the powerful leaders and coalitions would assist and establish support to accomplish efficient change process.
- Information Systems – Information systems were considered as one essential factor for effective change management of modern organizations as it can support important change management processes like assessment, understanding and measurement. IS can also be used to ease change processes and monitoring, while also providing proof of tangible gains. These benefits would also serve as positive effect multipliers to the process of change. IS can also empower employees who are essential in the change management process, via their skills and potentials to act as catalyst of change.

Another study as well rendered similar results above, which mainly involved change in projects. Nahmias, Crawford and Combe (2010) underscored the organizational factors that are also influenced by the factor. One is organizational culture, which can affect how easy or difficult a project should undertake to be successful. The other is resistance, which can determine if a project can increase or decrease resistance. Teamwork was also cited as an influential factor, especially in supporting employees through the change process.

The degree of leadership's support for change is another factor as leadership has been key to successful implementation of change in the firm. Organizational communication was also underscored as it is needed in explaining change in the organization. The other factor is organizational systems and processes, which can affect the manner of implementing a project solution that needs to work and adapt certain processes and systems. The last factor cited was organizational structure that can influence how projects are run—either hierarchal or flat.

In another study, Li (2018) investigated how certain organizations can accomplish successful change implementation, with the help of Kotter's eight-step organizational change model and the 3-H factor or heart-head-hand theory. The researcher found polices like Mini-CEO management

and Talent Engagement Department as factors that can create culture in organizations. The Mini-CEO management was described as vertical management model that can empower and enable department heads. On the other hand, the Talent Engagement Department policy is used to change the role of human resources or the employees to proactive from passive ones.

Conclusion

Implementing change in organizations is challenging. Because of such challenge and complexity during implementation stage, the people involved in the change management process should carefully study and assess the different critical success factors in change management. Based on the literature review conducted, the different success factors affecting change management are leadership and the dedicated or committed employees; the culture, processes like training and development, communication, rewards and recognitions; tools like information system (IS); and politics. Indeed, change management can be successful with the combination of leadership and people, sufficient resources and culture. Organizations should ensure that these factors are provided and managed well and efficiently, in order to acquire positive change management results.

Methodology

In this section, the methodology used for the research is explored which covers the type of approach used, the data collection procedure, and the data analysis.

Qualitative Research Approach

In this research, qualitative research is employed. Defined as the use nonstatistical methods of inquiry and analysis, qualitative research is primarily descriptive and inductive. In the study of Shakouri (2014), it was noted that qualitative research is used to generate hypotheses and unlike quantitative research, interpretation and analysis of data are more subjective. In relation, using qualitative research has several significant advantages. According to Rahman (2017), qualitative research allows researcher to better understand the participants through a subjective interpretation of their experiences and insights.

The analysis and description of data enables a more detailed approach of data presentation. This results in a more in-depth understanding of a given problem or topic under study (Queirós, Faria, & Almeida, 2017). However, there are also limitations to qualitative research. To mention, issues regarding the replicability of findings is one of the method's disadvantages. Its non-use of statistical techniques and/or numerical data also leads to difficulty and/or complexity of presenting and simplifying the research findings (Daniel, 2016).

In this research, the use of qualitative research was used because it allows the researcher to obtain rich data with regards to the critical success factors of change management as identified in existing studies. The qualitative research thereby allows the researcher to answer the study's primary research question: What are the critical success factors of change management? Aside from this, the approach enables a thorough analysis of how organizational change can be effectively managed in order to accomplish the desired outcomes.

Data Collection

There are several data collection techniques under qualitative research such as interview and observations. However, for this research, the process of collecting data is facilitated by using existing studies or data sources, otherwise termed as secondary research. According to Martins,

da Cunha, and Serra (2018), secondary research is performed by using datasets that are not obtained by the author or are obtained by other researchers.

There are several sources of secondary data, including government documents and reports of private agencies. For this research, the secondary data used are obtained through web scraping, a method wherein the researcher utilizes the Internet and accesses online databases in order to find relevant reports and articles that can be used for the study. As Martins, da Cunha, and Serra (2018) further noted that with using the Internet to find relevant information, it is important to use strong keywords. For instance, in this study, keywords such as change management and CSF are used.

Included in the data collection process when conducting secondary research is to use inclusion criteria in order to narrow down the list of sources to be used and analyzed. For this research, only sources that were published not more than ten years ago are included which means that the sources published between 2010 to 2021 are utilized. By setting this criterion, the researcher is assured that the information presented are timely and relevant. Aside from the data the sources were published, the researcher also takes into account the content of the sources to make sure that they are relevant to the study topic and that the information they contain is useful in answering the identified research question. Based on the criteria established, the researcher identified 15 online journal articles to be used and analyzed.

The following articles are outlined in the table below.

Author/s and Date Published	Title of Article
Arifin (2020)	Factors Influencing Employee Attitudes Toward Organizational Change: Literature Review
Obonyo & Kerongo (2015)	Factors Affecting Strategic Change Management and the Performance of Commercial Banks in Kenya: A Case Study of Kenya Commercial Bank in Nairobi Region
Odera & Muendo (2017)	Factors Affecting Strategic Change Management in the Public Sector: A Case of The Ministry of Energy and Petroleum
Belias & Koustelious (2014)	The Impact of Leadership and Change Management Strategy on Organizational Culture
Rizescu & Tileaga (2016)	Factors Influencing Continuous Organisational Change
Nyaungwa, Linganiso, & Karodia (2015)	Assessing the Impact of Change Management on the Performance of Zimra Region 1 in Zimbabwe
Ján & Veronika (2017)	Examination of Factors Affecting the Implementation of Organizational Changes
Li (2018)	A case study of the critical success factors for organizational change of a public listed corporation: Hong Kong Broadband Network
Aljohani (2016)	Change Management

Makumbe (2016)	Predictors of Effective Change Management
Al-Khaffaf (2012)	Applying Change Management Critical Success Factors in Bank of Jordan and Capital Bank
Appelbaum, et al. (2017)	Factors that impact the success of an organizational change: a case study analysis
Akbar, et al. (2019)	Success factors influencing requirements change management process in global software development
Levasseur (2010)	People Skills: Ensuring Project Success— A Change Management Perspective
Lines, Sullivan, Smithwick, & Mischung (2015)	Overcoming resistance to change in engineering and construction: Change management factors for owner organizations

Data Analysis

Secondary data analysis (SDA), as indicated by Ruggiano and Perry (2017), is the process of investigating the data collected from the previous study. There are different ways in which SDA is performed and for this research, the SDA approach undertaken is the in-depth analysis of themes that have emerged from the parent study. In other words, this study identified the consistent themes present in the 15 articles in the above table. The themes that were obtained from the analysis are those which the articles mainly emphasized. To note, all the themes that are presented in the Findings section are the top five critical success factors of change management. This process of finding themes in secondary data is also termed as thematic analysis which, according to Vaismoradi, Jones, Turunen, and Snelgrove (2016), is the analysis of textual data for easier and more in-depth interpretation and understanding. By developing and/or identifying themes, it will be easier to find meaning in textual data, denoting that the themes entail a more cohesive understanding of the data collected.

In the study of Johnston (2014), it was identified that SDA has a variety of strengths and limitations. Among the advantages of the procedure include cost-effectiveness and convenience. These benefits are rooted on the fact that the researcher already has the necessary data for the study without having to allocate financial resources and time to collect it. In this study, for instance, the use of SDA has helped accelerate the research process and by accessing the Internet to find the secondary data, the researcher was thereby presented with a large pool of sources which were consequently narrowed down according to the inclusion criteria established.

Findings

From the secondary data analysis performed, the themes presented in this section represent the top five critical success factors of change management that are consistently emphasized or presented in the 15 journal articles obtained online. These five success factors are what majority of the articles have deemed to be most important in propelling success in change management, given how they have a significant contribution in helping organizations effectively manage change and overcome the challenges that come alongside change implementation.

Change Management CSF: Employees and Employee Involvement

Employees and their involvement are both significant in the success of the change process. Eleven of the 15 journal articles included in the SDA have mentioned the role of employees and their participation in ensuring that the change objectives are met and the optimum change outcomes are achieved. According to Arifin (2020), employees are the actors implementing the changes, thus their attitudes towards change and involvement in the process are critical in producing positive results. Also, Ján & Veronika (2017) have noted in their study that the employees can help lead the organization towards either success or failure in change management.

For example, a company lacking competent staff is more likely to experience more difficulties in managing change, potentially resulting in change failure. In addition to this, Rizescu and Tileaga (2015) entailed that collaboration and teamwork enable employees to use their own competences to address any issue in the change implementation process and accomplishment process improvement as a result. In relation, the application of different change management interventions is more effective when employees collaborate and become more involved in the process. Employees who are committed to the vision and goals of the change are more willing to work together to accomplish said objectives (Levasseur, 2010).

In line with all this, organizations understand the need of involving the right employees. As indicated in the findings of Lines, Sullivan, Smithwick, and Mischung (2015), it is important to make employees more involved in the change process as this will reduce resistance that is a barrier in change success. Even if there are only a few employees showing disfavor and resistance to change, the organization will surely encounter difficulties. According to Aljohani (2016), when employees are resisting, they are therefore not willing to make efforts to support the organization in its pursuit, thereby possibly resulting in change failure.

Change Management CSF: Leadership

Of the 15 journal articles utilized in this research as sources of secondary data, 9 cited leadership as a critical success factor of change management. Leadership, as Odera and Muendo (2017) indicated, is an essential component in steering the direction of the organizational change being implemented, making sure that it yields positive outcomes for the employees and the organization as a whole. As a matter of fact, leaders play a role in developing change practices that are clear and consistent with the vision and goals and at the same time, in reinforcing a climate of trust and confidence among the employees.

It is additionally noted by Li (2018) that leaders lead change, which means that they make the decisions in identifying the appropriate actions and ways of thinking that guarantee change success. Using CTI as an example, Li (2018) revealed that it was the company's leaders and their initiatives that have saved it from falling into an organizational trap. With that, leadership is therefore more than just about running the business so that it can reap profits, but it is also about directing people with a clear-cut purpose and maximizing the use of resources so that organizational changes implemented can lead to opportunities in the future.

The importance of leadership in the success of change management was also highlighted by Nyaungwa, Liganiso, and Karodia (2015), revealing in its findings that 45% of its sample participants have indicated the need for effective leadership in change management. This was further explored by Obonyo & Kerongo (2015) who mentioned that whichever context of change, leadership is integral. Leaders who are quick to identify the need for change and perform the necessary planning to ensure that the change will be implemented successfully. Also, effective

leadership encourages the employees to fully aware of the need for change and be more involved in the change process. This explains the reason why leadership is one of the elements of a successful change strategy. Specifically, transformational leadership is deemed the most effective approach in managing change, considering that change implementation requires energy, commitment, and a defined vision in order to achieve the desired outcomes (Belias & Koustelios, 2014). Other authors including Makumbe (2016), Akbar, et al. (2019), Al-Khaffaf (2012), and Appelbaum, et al. (2017) have also underscored that leaders should be credible in developing and implementing policies that facilitate successful change.

Change Management CSF: Communication

In SDA, eight of the journal articles utilized have indicated communication as a critical success factor. One of which is the study of Nyaungwa, Linganiso, and Karodia (2015) which revealed that when communication flows freely within the organization, employee involvement and commitment increases and barriers such as resistance to change are addressed. In addition, Odera & Muendo's (2017) findings noted that by adopting effective communication, a suitable environment is created which contributes to the success of the change process.

This is because effective communication allows employees to understand the situation and be more aware of the need for change. Moreover, when employees are provided with adequate information, they are more motivated and more willing to cooperate with whatever that is needed to be done. Support from the employees, as Rizescu and Tileaga (2016) has additionally mentioned, can be gained through effective communication.

In relation, the study of Levasseur (2010) mentioned the need for two-way communication when implementing change. This means that managers need to communicate with their employees, filling them in with the necessary information about the change, why it is important, and what to expect from it. At the same time, employees must also give feedback about the situation so that any of their concerns can be immediately addressed. Effective two-way communication can also help managers to encourage employees' involvement in the change process. According to Al-Khaffaf (2012), through communication, leaders can discuss the change vision and ideas and motivate the employees to take part in the activities.

Change Management CSF: Organizational Culture

The fourth critical success factor that the journal articles have consistently emphasized is organizational culture, as five of them have indicated the role of culture in the success of the change process. As noted by Odera and Muendo (2017), organizational culture, which is defined by the values and day-to-day behavior of the employees and of the organization as a whole, can either create barriers to change or propel the organization towards effectiveness.

In fact, when an organization's culture is characterized by biases, it will be difficult for the organization to successfully implement the change process as these biases will erect barriers such as resistance and lack of commitment. Obonyo and Kerongo (2015) have also mentioned in their study that organizational culture, which is associated with the style and processes of management, is critical in influencing the managers and the employees in having a positive approach or response to change.

For instance, culture enables the members of the organization to be more open and see the need for change, understanding that by implementing new policies and processes, problems can be solved and customers' needs can be effectively met.

Appelbaum, et al. (2017) also entailed that if culture of the organization does not match the new behaviors resulting from the change implementation, then the change process cannot even be considered a success. This explains the reason why leaders need to ensure that the organizational culture is not only open to the changes, but is also aligned with the new practices and policies introduced. With that said, leadership and organizational culture are regarded as two correlated factors in change management.

According to Li (2018), leaders are the ones responsible in shaping the cultural force of the company, which means that they have the authority to change it according to what fits the organization and the changes implemented. As a matter of fact, there are instances wherein organizational culture is one of the aspects being changed and when this is the case, leaders have to make sure that the new culture is one that leads the employees and the entire organization to increased effectiveness.

Change Management CSF: Management Support

The fifth critical success factor of change management which is mentioned in several articles (3 out of the 15 journal articles) is management support. In the study of Akbar, et al. (2019), it was revealed that the importance of management support lies on how change implementation can be complex, given the possibility of frequent requirements change. With that, management needs to show support and commitment towards the execution of the wide range of change management activities. Associated with leadership,

Levasseur (2010) noted that management support would show employees that they are well-guided all throughout the transition, which can help them feel less frightened of the change and the implications it brings. When the top management exhibits neither support nor commitment during the change implementation process, motivation and involvement of the employees will consequently be affected. The same was also emphasized by Nyaungwa, Langaniso, and Karodia (2015), denoting that commitment and support of the management can result in increased commitment of the employees to change.

Conclusion

Change management can be challenging and complex. Nevertheless, with change being an unavoidable phenomenon, organizations are prompted to take into account the various factors that can influence to the success of the change implementation. In this research, using the secondary data analysis, it was identified that the top five critical success factors of change management include employees and employee involvement, leadership, communication, organizational culture, and management support. All these five factors have their individual impacts on the outcomes of change process and with organizations' pursuit of achieving positive change outcomes, each of these critical success factors must be given substantial importance.

Implications for Future Research

Since this research covers the critical success factors of change management, this can be utilized by researchers to expand how each of the factors can be optimized in order to guarantee change success. The research can then be of use among researchers in identifying underlying effective strategies for each factor. Aside from this, the research can also be of aid to managers and leaders of organizations when implementing change. This will help them identify what needs to be done in order to ensure that change management will be successful. However, since this research only utilizes secondary data analysis, future researchers can further expand on the topic and utilize other data collection methods such as survey and interview in order to delve into the context of critical success factors of change management.

Recommendations

In managing change, organizations need to adopt strategies that would help them effectively accomplish their desired change objectives. Taking into consideration the top five critical success factors, the following are recommended for organizations:

- i. Adopt a transformational leadership strategy: According to Al-Qura'an (2015) transformational leadership is the most suitable leadership strategy when managing organizational change. This is due to how transformational leaders are effective in guiding and motivating employees towards a defined change vision. Also, this leadership style strategically facilitates collaboration within the organization.
- ii. Implementation of change must be systematic and orderly: Associated with communication, the implementation process must be properly planned out and coordinated from the top management down to the bottom-level employees. This ensures that all employees understand why the change needs to be done and that they know the direction of change (Jalagat, Jr., 2015).
- iii. Effectively manage employee resistance to increase employee participation: As Jalagat, Jr. (2015) indicated, leaders need to implement strategies that will encourage employees to be more involved in the change process, thereby increasing their intention of resisting to the change. By applying appropriate strategies, resistance can be addressed and change success will be accomplished.

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A digital payment solution for higher educational institutions

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Abstract

Financial technology innovation impacts and changes different sectors in different ways. In Palestine, according to the Palestinian Central Bureau of Statistics for the year 2018, the number of graduates of Palestinian higher education institutions is 40,000 annually; also, the number of licensed educational institutions in Palestine is 49, of which 15 universities grant bachelor's degrees, from these numbers this sector should be handled as a large customer base for financial institutions and to make improve the financial inclusion process in Palestine.

The investment in the digital Education Revolution after the pandemic of covid-19 goes heavy, deploying high-speed internet in educational institutions and building teacher's capability to use digital technologies. These changes are in both the content and delivery mechanisms of education and learning outcomes.

Moreover, regulations on using digital payment solutions increased in Palestine in an incentive way; these regulations led to improved fintech innovations in many aspects of Palestine's life. Therefore our paper focuses on the educational system to study the effectiveness of fintech in this sector by delivering a mobile payment application for high educational institutions to improve the payment process for the students also introduce convenient financial services in modern ways, and see the best deployment process for this service and technology in the educational sector.

Keywords: *Financial technology Fintech, Financial inclusion, payment system, educational institution, mobile payments, digital money.*

Introduction

Helping students through technology by digital payment solution depends on mobile application, introduce an integrated payment platform as partnership between from one side FSP (bank) in Palestine which has the financial experience and a large base of customer, to make app registration easy and compliance to the KYC, eventually they have knowledge in the digital app tech requirements ,through their existing experience operating banking mobile applications, leverage of banks offices and branch to be an agents where most of banks have a branches and ATMs near every educational institutions to act as agents to support and provide the suitable liquidity to exchange digital money. and the government education controller or regulation or educational institution by own on the other side Hence, finical institutions able to trace the family transactions and improve the subsidized loans process by the government and finical lending institutions to make educational lending.

This information leads to the fact that our Palestinian community is Interested in the affiliation of his youth with education, as a traditional habit, especially in the lack of opportunities under occupation. Our problem that I want to focus on is that those secondary graduated students have to make the affiliation and registration on around country colleges and unveracities. Our educational institutions depend on traditional ways of registration and paying the tuition. You have to go to one of the bank offices in which the targeted college that you intend to affiliate with has an account and buy a membership joining card to make online registration by a website; after that, you have to back to deposit your first tuition by over the counter OTC services in the bank

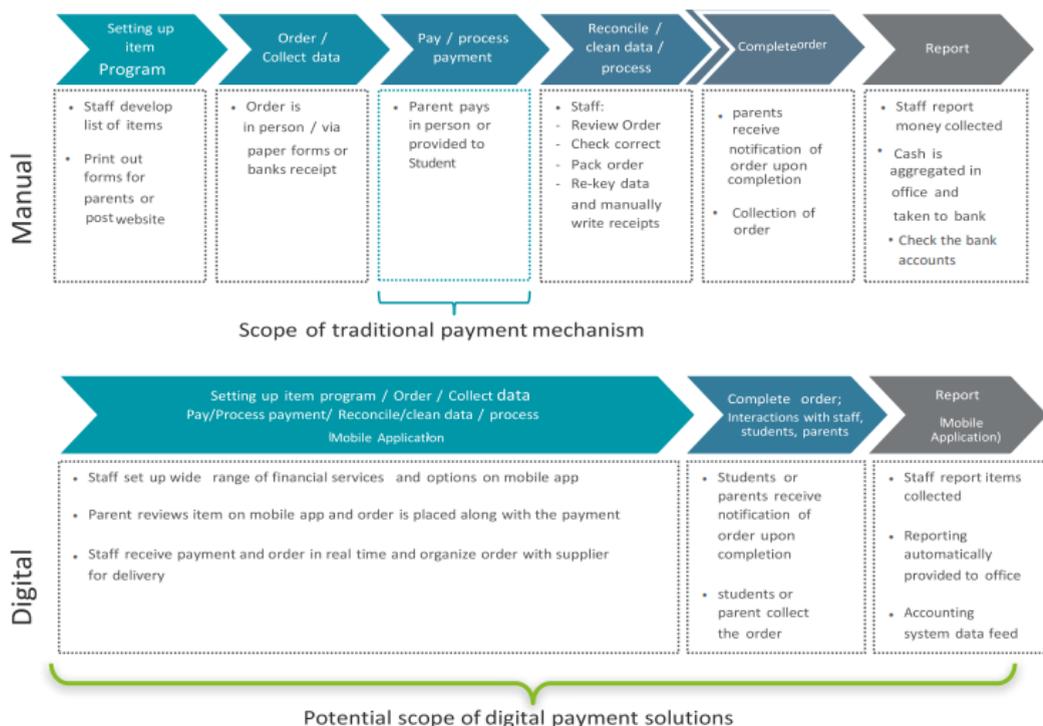
branch, and you have to do this step every semester. all of the previous make the payment process complicated for the students and their families where we have more than one million workers inside Israel, and most of them are non-bank people, according to the Palestinian monetary authority we have just 29% of adults in Palestine have a bank account, so, the need for the digital educational service integrated with financial services and digital money, helping in transferring money between students and families across the country, make registration in collages convince, and scheduling the tuitions, then deliver financial services like digital credit and lending, also Crowd-donating and Crowdfunding, improve the using of digital money in many aspects in the university life requirements for students.

Literature review

The mobile app is a sub-set of a broader trend of innovation in financial technology enabled by the accelerating evolution of digital technology and providers, resulting in innovative new digital services.

This trend central manifestation shifts from cash payment methods to digital channels, the lite cash stage. This shift to digital makes it easier for financial institutions and new players to develop more services that make convince payment process, with solutions trending towards payment is seamlessly integrated with product selection. Figure 1 compares both process details and instructions after reviewing the procedures on the university's daily work.

Figure 1: Comparison between Manual and Digital payment process.



The manual payment process wastes time and effort from bank employees and university accounting departments, parents, and students. Some of the attributes observed with legacy payment processes are as follows:

1. **Inefficient manual processing:** Paper-based forms for data collection from students and parents, cheque collection, and physical transfer to bank branches. Therefore, manual reconciliation of payments collected from parents with bank statements and Paper-based processes for order management, order accomplishment, and confirmation.

2. **Risk of fraud and loss:** Paper processes for collecting cash, cheques, and sensitive payment card details also leading to mistakes and fraud Risk of money lost, overpayment, and underpayment, human error and personal security matters for staff depositing cash, management systems lose visibility of funds usage, be leading to fraud.
3. **Poor user experience:** It is Difficult to track activities and notices Time-consuming interactions between stakeholder, staff, and parents, and working parents who cannot be there in person within university office hours to make payments, The embarrassment of having less cash amount to complete payments or declined in office and front of other parents

Methodology

The mobile app will contain the financial and non-financial transactions whereby the students will make a registration process, which will include a document, so we need the smart app, to make the security level high, we need to have two-factor authentication. The user has to provide two different factors to authenticate, so we chose the One-Time Passwords and Fingerprint Biometrics, where the mobile device has to support fingerprint scanners. Our communication channel, which we intend to use to communicate with the back-office system, is a Native Mobile App, supported the android and IOS operating systems; the devices have to be smartphones where most students use these days. In terms of deployment, the bank has to build and develop an in-house app from scratch to consider all app delivery requirements, they have full control over the data. Then we have to select the vendors in this stage; the bank which the ministry of education has to sign with, has experience in this sector, especially in terms of building and deploying a new mobile app. Hence, the less structured technology deployment is my choice; this led to a better understanding of the vendor solution.

On the other hand, this makes the vendor or the bank to understand the institutional requirements. Starting with the kick-off meetings between the ministry and the bank and required third party vendors, then to the crucial step, requirements analysis to planning for refining of the client's needs. Also, they have to out with the specification document workflow process, configuration settings, customization, and data migration methods. The procure hardware requirements need to choose for any additional functionality services to the customers, therefore, the parties have to prepare the configured version of the software that matches the needs before going to the install step. The user acceptance testing is the next stage where the parties need to check whether the system meets the requirements or not, agreed on the specifications. The staff training is the following step and ensures the quality of support service before the final stage, where the partnership needs to Go live. Eventually, the system goes to the ongoing support mode, whereby the dedicated helpdesk can respond to the issues.

Results and Discussions

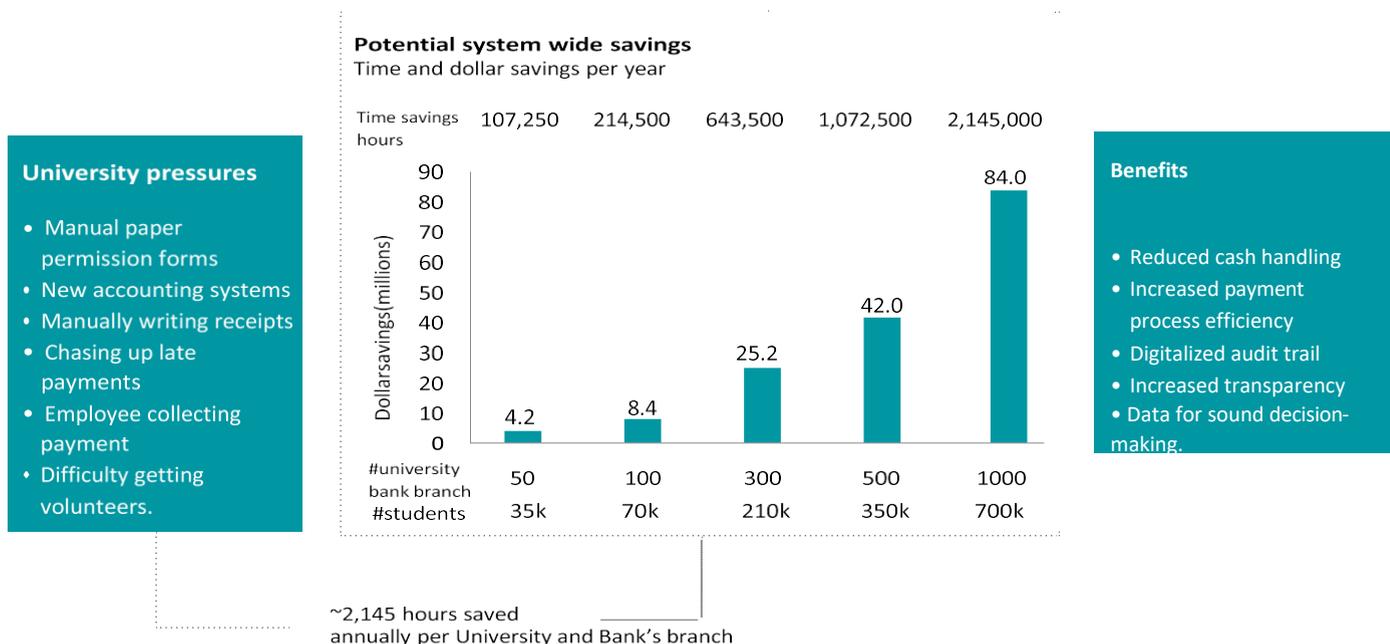
Adaptation of educational mobile payment system have been decreased a variety of challenges on manual processes such as:

1. Significant administrator time for an educational institution and banks.
2. Paper records and cash process belongs to the high risk of theft and fraud.
3. Hard and poor user experience for students and parents.

Adopting innovations fintech methods in student/parent payments is a way the education sector can gain the benefits that digital disruption is delivering to other sectors; figure 2 shows the potential saving time and cost for each university that will save after adaptation the digital

payment solution, shown information comes after calculating individuals payment process and effect of this adaptation on both side of stockholders Banks and education institutions pre a year of using the mobile application for payment system and the benefits of using such an app to save time and costs.

Figure 2: Potential saving for both banks and educational institution.



The benefits in this kind of adaptation which will reflect on the stakeholders, can be included as below:

1. **Save administration time:** Putting student payments into the digital field also saves administrators time from processing payments. This can save manual processing time compared with the legacy processes and handling and delivering physical cash.
2. **Reduce late payments:** using mobile application to chase late payments automatically means fewer payments late and less administration time is used to track late payments.
3. **Record keeping:** Payment transactions are held in the digital sphere, so records are consistent, available, and not at risk of loss. The digitization of such transactions also allows for a greater ability to track and trace transactions that have been made, enabling financial institutions to score the parent's creditworthiness.
4. **Convenience:** Students and parents can process transactions at their own time and in a convenient way. This is especially important in busy families with both parents working and keep student focusing on their studies without worrying about the ability to get the money from their families.
5. **Improve security:** Mobile app payments have the benefit of removing legacy monetary transactions, e.g., cash. Lite cash is needed to remove security risks thereby. Mobile app payments also will always utilize highly secure banking infrastructure.

Conclusion

As the previous illustration shows, there is a significant benefit in digitizing parent/ student-facing payments processes and the education sector. In addition to driving efficiency by digitizing transactions between institutions and parents/students, the risk of errors is significantly reduced, while all stakeholders' experience is improved. Further, digitization aids the sector in facing issues by funding challenges and cost obligations, increasing management oversight terms, scrutiny on funds usage, and the need for improved data for decisions.

Also there is trends, stand out as influencing payments process, not in the education sector but also implications for payments and the education sector are joining multiple providers together into an ecosystem. This builds on a broader technology trend towards open Application Programming Interfaces (APIs) that enable multiple parties to connect to the same system and integrate functionality. This flexibility in operation improved multiple service providers to present their services on a shared platform and make financial service customization (even on a university -by- university basis). This allows for API calls to a university payments application program with a connected digital mobile app from a chatbot using natural language queries that make API calls into a university accountancy package or student information system to remind parents.

Implementing an automated transaction mobile application in an education sector can deliver significant benefits and has implications can be considered for particular stakeholders as highlighted below:

1. **Educators and Administrators:** Saving up administration time allows for greater focus on investment in learning outcomes for students and greater efficiencies for non-teachers and volunteers, resulting in improved support and schools' operational efficiency.
2. **Government:** Government has the potential to resolve audibility, processing inefficiencies, and fraudulent behaviors. Drives greater efficiency in funds usage and increased effectiveness to target universities and students.
3. **Parent / Students:** Provides convenient, secure, and safe digital mobile app payments. Freeing up parents' time allows for greater focus on their kids' education whilst reducing the risk of children missing out on optional university activities due to inadvertent non-payment.

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Innovation and Change Management in e-Education

LEAD 612

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HBMSU learner#: 200116491

Scenario idea

The Department of Higher Education Affairs is facing poor performance, and an external evaluator has been hired, and the results of the evaluation were:

- Old internal system and its failure to keep pace with change.
- Administrative corruption led to poor productivity and outputs.
- Psychological stress that employees face which affect job performance

A work team supported by the Board of Directors, and constant follow-up by the CEO, was formed under the name of "Committee for Restructuring the Department of Higher Education Affairs" and the team includes:

- * Mohamed Salem Zayed, the director of the committee
The Deputy CEO of Human Capital and Administration Affairs
20 years of experience in the field of change and human management
- * Salama Khalifa Rashid, Deputy Director
Deputy CEO of Training and Development Affairs
17 years of experience in the field of institutional training and developing programs
- * Fatima Rashid Suhail, the committee's rapporteur
- * Ahmed Khaled Butti, Member
- * Rashid Amer Saeed, member

The committee's main goals to make change include:

- 1- Changing the organizational structure and its system and reviewing its internal regulations.
- 2- Changing and developing training system and its internal regulations.
- 3- Conducting interviews by a neutral committee (temporarily).
- 4- Penal procedures for administrative and behavioral violations.

Since we can see that recruitment and promotion to a leadership rank are based on favoritism despite the lack of experience, skills, and efficiency, and that interviews are such formalities, we decided to form a higher committee to make an effective change in job society.

Committee's work duration: two years, renewable.

Scenario information and application:

Actions implemented:

- 1- Re-evaluating all jobs and structure and abolishing unnecessary jobs.
- 2- Testing leadership positions in 3 aspects:

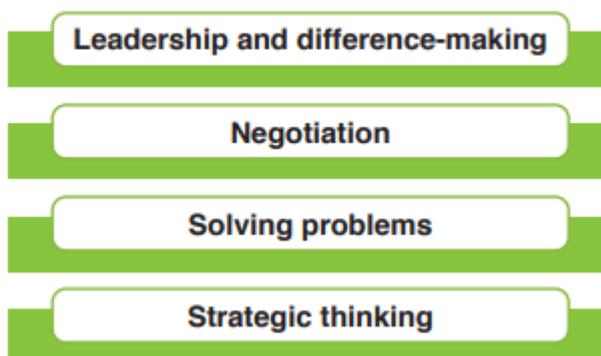
A- Values:



B-Knowledge:



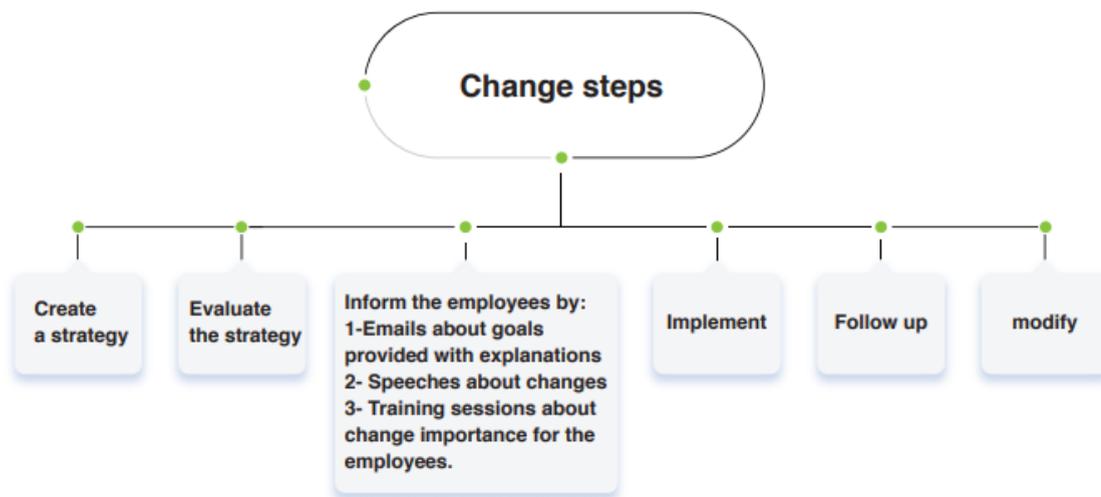
C- Skills:



- 3- Developing a training plan for leadership positions if their success in action 2 did not exceed 50%-70%.
- 4- Measuring the newly employed people's performance during a trail period with a 360-degree feedback periodically for two years by their department, employees, and clients.
- 5- Making sure that the person is working in the right place where he can be creative,

according to international tests.

- 6- Submitting a monthly report on the achievements and how they were implemented and developed, and on strength and weakness points.
- 7- Retiring the inappropriate person to a leadership position (if they exceeded legal age) or recruiting them in a suitable position as a consultant with a two-year program
- 8- Future plan:



In fact, I associate change with John Kotter's following steps:

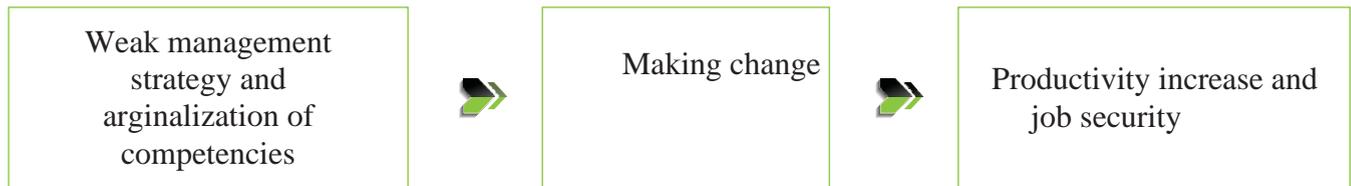
- * Change need: for making change just to change will not create a motivation and easy change method to implement. 75% of company management has to adopt change and believe in it, in another word: the leader has to make a considerable effort in the first step to achieve a real take off.
- * The need to form a strong alliance: Work has to be as strong team and alliance, which continues with the urgent need for change. Sources of change: social standing, experience, strong personality, and influence.
- * A clear vision and strategy: for change cannot be obtained without a clear vision of the new stage we are making change for.
- * Publishing the vision: After preparing the strategy and the vision, they have to reach everyone using a communication method and channel.
- * Getting rid of obstacles: Imagine a successful change without resistance, it is impossible.
- * A short-term success achievement: Noting gives joy and victory more than success.
- * Supporting and promoting small successes: It is important to look for development and improvement in every project, and to know how to build on and enhance it.
- * Establishing change as a part of the company's culture: This is an important and necessary stage for change to be the core of the organization and the company

I think that change will cause a stir at first, especially among the incompetents, and they may resign or object, but what will be actually gained are:

- * Job security
- * Job integrity
- * Fair competition
- * Happy job environment
- * Building a strong organization internally and externally

* Internal and external institutional reputation

Positive and negative results:



There is no doubt that everything has positive and negative sides, especially with change which most of employees and managers in organizations do not prefer

From my point of view as a CEO who is supported by senior management to make a change with presenting the plan and receiving corrections from them, the positive sides are:

- 1- Building an attractive and encouraging environment by placing the right person in the right place
- 2- Encouraging employees to perform well
- 3- Knowing the deficiencies of persons and the structure

The negative sides are:

- 1- The clamor that will happen at the beginning
- 2- Trying to stir up the administration
- 3- Sensitivities

Resources

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Research on the problem of sand encroachment and its impact on transportation

Homod Al-bdrani

Patent from King Abdul-Aziz City for Science and Technology - Kingdom of Saudi Arabia

Abstract

This paper discusses treatment of sand encroachment through sand bumpers as rectangular sheets that are installed on both sides of the road when it passes through the moving sand dunes at an angle of approximately 45 degree. When a sandstorm blows, these bumpers block the path of the winds and divert it from the horizontal direction to the semi-vertical direction towards the asphalt road, so that the grains of sand on the road will be blown and expelled for continuing its course instead of blocking it in front of the afforestation fence or accumulating that on the road. The sand bumpers consist of sheets of Shinko or reinforced fabric that are fixed in the ground or floating on the surface of the sand and operating in moving way that does not obstruct the vision in front of drivers. The length of one bumper ranges between three to six meters, with a height from one to two or three meters approximately. Bumpers are set next to each other and separated by medium distances, covered by the side protection of the bumper (Figure 8). Several attempts have already been made to combat sand encroachment on the external roads, but they have not proved usefulness in the long run, where process includes spraying burnt oil on the sand near the road, but it could not last more than a few months until the wind removed it, as well as afforestation and the iron fence prevent temporarily the sand until workers just come to remove that, in addition to the high cost of afforestation in terms of fetching water and maintaining irrigation in the harsh desert conditions, as well as blocking visions from drivers, where the Ministry of Transportation brought foreign experts to address this problem, but they could not reach a solution .

Keywords: Sand bumper, Sand encroachment, Sand drift, Sand dune, afforestation.

Introduction

The task of this study is to overcome the aforementioned obstacles by erecting these bumpers on both sides of the road for blocking the path of the winds and diverting them intensely on the asphalt road, so the moving sand can continue its course instead of accumulating behind the afforestation fence or the iron fence, through benefiting from strong wind movement in the asphalt road for preventing not being accumulated.

Sand bumpers don't need a periodic maintenance or follow-up, as in the case of afforestation, in addition to difficult irrigation of afforestation in sandy areas that do not retain water, whereas sand bumper process never obstructs the vision due to its moving property when necessary, as sand bumper remains in a sleep position until the sandstorm blows, then rises automatically until the storm ends, thereafter it returns to its previous status, and the aim of this study is to find an eternal and continuous solution, not a temporary and short-term solution to the problem of sand encroachment on external roads. The specifications and features of this study will be better clarified through description of the introduced topic by the best embodiment of the idea regarding this study of sand bumpers, which is shown by an illustrative example in the attached drawings, as follows:

Figure (1) shows the exterior shape of the sand bumper while it was blocking the winds.

Figure (2) the horizontal plan and the names of the parts that make up the bumper.

Figure (3) shows the length of the bumpers and the distances between them, while they are being installed on the road.

Figure (4) shows how the winds are diverted from the horizontal path to the vertical path towards the asphalt road.

Figure (5) shows another example of bumpers, below which the vector or the condenser appear.

Figure (6) shows another example that shows work of the bumpers in the event of change towards the storm.

Figure (7) shows another example floating on the surface of sand with a flat base made of a group of reinforced concrete blocks.

Figure (8) shows another example floating on the surface of sand with a flat base made up of a group of blocks fixed by pipes through which cavities pass into the inside of the block.

Review of the literature

The sand bumpers consist of a ribbed Shinko or zinc which is installed inside a frame and fixed on a pipe of a certain size, at its two edges a small pipe of lesser size is inserted and welded in the I-beam bridge which is fixed in the ground at a suitable depth and the other side rises from the surface of the ground about half a meter in figure and in order to allow the bumpers moving, they have been equipped with fasteners to fix them at a certain incline, and a spring helps reduce the weight of the bumper so that the wind can erect it, and to reduce the weight of the bumpers, zinc can be replaced by a special reinforced fabric or any other lighter material, such as plastic that resists heat and bending, or some flexible metals that can return to their previous position after bending. The pipe can also be replaced by a chassis that at its two edges it ends with two rings fixed to the bridge by means of hinges.

The bumper can also be installed by a movable base floating on the surface of the sand dunes consisting of a group of high-quality blocks prepared to pass poured reinforced concrete or pipes through holes and cavities inside the block according to the required space.

Figures which indicates the idea of invention as aforesaid:-

Figure -1-

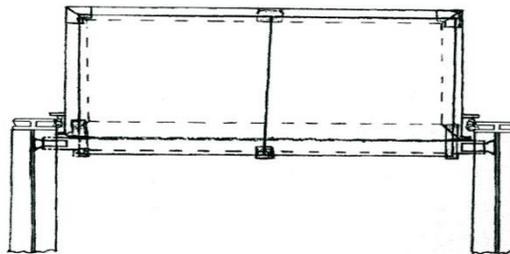


Figure -2-

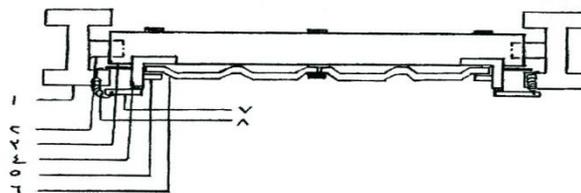


Figure -3-

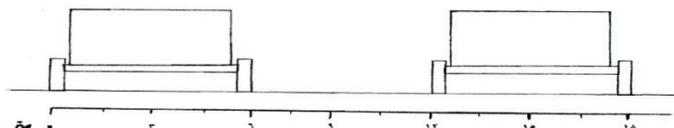


Figure - 4-

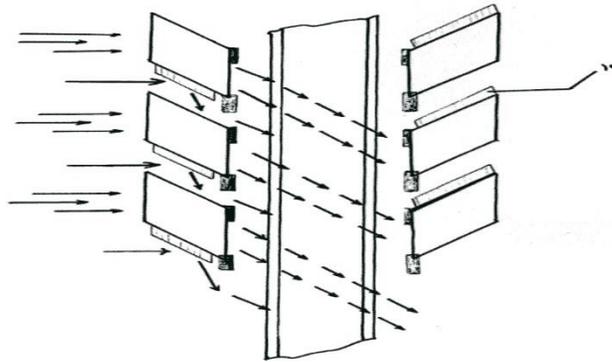


Figure -5-

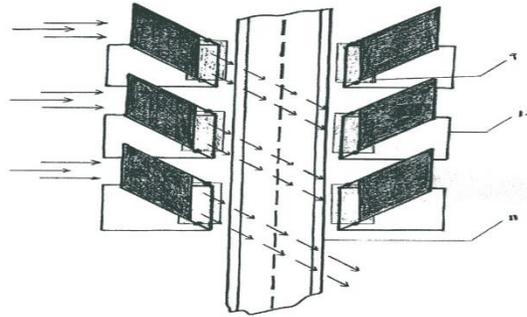


Figure -6-

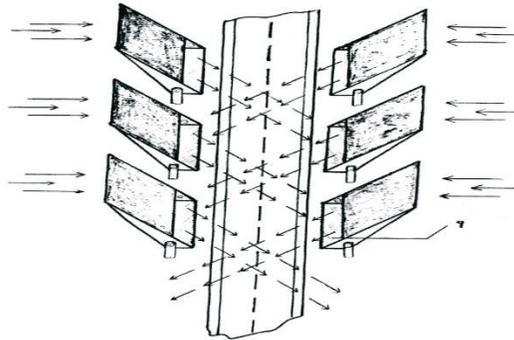
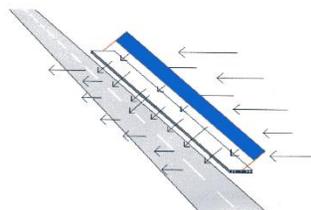


Figure -7-



Figure -8-



According to Report on sand density at the Riyadh - Khurais road after making a field trip to the sandy areas at the Riyadh-Khurais road, it was found that the sand density begins after Al-Hofuf road opposite Saad National Park, specifically at the metric plate No. 125 and continues on Al-Hofuf Road until it exceeds the Khurais center by a distance of 8 km and ends at the metric plate No. 177.

The places in which the bumpers have to be erected are separated and far from each other according to the sand density gathering with limited lengths and often that ranges from 100-200 meters, and this distance is the width of the single path for the movement of sand, but in some places it is very abundant and this is called the area (sand dune) or extension sand dune road represents the backbone of the movement of sand, and it differs from one place to another, as its width at the beginning of the sample reached 12 km connected according to the attached diagram that shows three levels of sand movement and its density:

First level: light movement, with a distance of 19.700 km

Level two: rapid movement, with distance of 16 km

The third level: very rapid movement, its distance: 16,300 km

So the total sand distance: 52 km.

Based on the vivid observations of some of the billboards located on the sandy roads, this effect was clearly visible, as a comparison was made between two billboards, the first large and erect vertically, and the second smaller in size than the first and erect slightly diagonally backward against the direction of the wind. Its size, which does not exceed half the size of the first, gave a protection area greater than that of the first panel, due to its inclination backwards against the wind.

It was also evident from the observation that there is a sand gathering outside the protection zone from the four sides, especially the back side and also the two sides, and this proves undoubtedly the ability of the bumper to pass the sand inside the protection zone, as the force of the winds shows the effect on shoveling the soil from under the billboard despite the hardness of the ground on which the billboard is erected, which results in the stripping of foundation slab and the possibility of the billboard falling.

A result from the aforementioned signifying the necessity to place a movable concrete form under the bumper in order to stabilize it, preventing soil erosion, redirecting the wind path to the horizontal direction again, and also to facilitate moving the bumper to another place.

According to Haitham Habib, Sand encroachment has caused many death cases for example mother of a young man who worked in the security of King Fahd Airport in Dammam, informed that her son used to kiss her forehead every day, preparing himself to complete his marriage ceremony, that she would lose her son due to a traffic accident that led to lose his life, when he lost control of his car because of the sand dunes, which It spreads on King Fahd International Airport Road, colliding with one of the heavy equipment parked on the side of the road.

Many road users on the highways - specifically the Riyadh-Dammam Road complain that they are surprised by the presence of sand dunes due to the continuous encroachment of sand, especially in the seasons in which the wind speed increases, and contributes significantly to the increase of sand

dunes gathering on the roads, which causes confusion For vehicle drivers, and it exposes them to the risk of accidents, which prompted many highway users to demand solutions to confront this fearful encroachment.

Overgrazing and deforestation

According to Abdel-Baqi Al-Tisan stated that the phenomenon of sand encroachment, desertification and erosion as the global phenomenon, which many countries complain about, due to the lack of water and rain, in addition to the dust-laden winds and desert countries, such as the kingdom known for the large area of its deserts, which leads to the influence of its cities and farms, blaming some actions taken by the citizens and residents resulted from lack of awareness, where that has greatly affected the loss of vegetation cover, as a result of overgrazing or unauthorized logging (deforestation), which resulted in a marked decrease in Agricultural areas and increasing desert areas, adding that at the same time in which many bodies are working to reduce the natural factors that contribute to the encroachment of sand, many people contribute to the increase of "desertification" due to ignorance and lack of awareness, in addition to ignoring many recommendations preventing overgrazing or logging in some areas that need more agricultural areas.

Lack of Collective efforts

Abdel-Baqi pointed out that there are no collective efforts to develop radical solutions that would stop this phenomenon. Municipalities, agriculture ministry, as well as private companies are all working individually to develop solutions that cannot be used in the future, which wastes many efforts and energies. The Ministry of Municipal and Rural Affairs, represented by the municipalities, is attentive to the creation of "agricultural fences" outside cities, especially in directions that witness strong winds and strong sand encroachment, to be a "natural bumper that helps eliminate this phenomenon, suggesting that the treated water from sewage should be utilized to irrigate "fences" that require large quantities of water.

Directing cleaning contractors

Hussain Al Balushi stressed that the Municipality directs the cleaning contractors to remove any sand accumulations on the roads, especially in summer times, in which the dust-laden winds are active, in addition to intensifying the planting of trees, in order to make them certain that it is one of the best solutions. To eliminate this phenomenon, he added, "We are fully prepared to cooperate with any party in order to reduce the encroachment of sand that pleases many motorists who are afraid to use land roads."

Experiments to stop sand encroachment

Some countries were able to succeed or reduce sand encroachment in large proportions, or repel the dust-laden winds, especially after they noticed what might be caused by ignoring this natural tide on villages and cities, as Al-Omran ancient village, which was located in the northeast of Al-Ahsa Governorate, was subjected to a complete burial, due to Sand encroachment which made the Ministry of Agriculture, since the seventies, pay attention to this phenomenon, and carrying out

several experiments in order to stop this encroachment by benefiting from the experiences of other countries, as quantities of asphalt were sprayed on sand dunes to prevent them from encroaching the roads, but this method was not Feasible in the long run, because after a period of time, the sand covers these layers and continues encroachment.

Agricultural fences

After that, palm fronds fences were made, but they also did not withstand the force of the winds, to be an experiment with temporary results as well, after which the Ministry of Agriculture sought help from experts from Australia and China, to develop long-term strategic plans to confront this sand tide. The experts suggested planting of Athel plant (*T. aphylla*) in the northeastern region of Al-Ahsa governorate, in large quantities and in different ranks, who were helped at that time by the abundance of water in the governorate, which played an important role in the success of this project, as known the “sand block project in Al-Ahsa, after which it turned into “Al-Ahsa National Park.”

It consists of many trees, to be a fence and a natural barrier to repel natural attacks from sand encroachment on the northern and eastern side of the governorate, which confirms that biological and natural solutions are the best in the long term, but the difficulty of applying this experiment to many regions of the Kingdom due to the lack of water abundance.

The Ministry of Transport provides heavy machinery and workers to lift and clean the road from sand, and this is considered a temporary solution, where this sand will soon return again with any new waver thereof. Without taking measures to eliminate this phenomenon and treat it appropriately, as the sand dunes gathering caused frequent accidents.

According Al Saud, Mashael who participated in the activities of the symposium on the phenomenon of sand encroachment on the railways related treatment methods, which is organized by Saudi railways organization in cooperation with the General Secretariat of Arab Union of Railways, at the headquarters of the Chamber of Commerce and Industry of the Eastern Region during the period from 12-14 Muharram 1424 AH corresponding to 15- March 17, 2003 , where participation of the researcher who is working as an assistant research professor at the Geography Department of the College of Arts, King Saud University, and currently seconded to Space Research Institute at King Abdulaziz City for Science and Technology is represented in a working paper entitled (Study of the sand drift in the Dahna desert on the Riyadh-Dammam road and related treatment methods), her participation has focused on studying sand encroachment in the Dahna desert, especially in the area crossed by the Riyadh-Dammam road in the sandy region located at the two mouths of Wadi Atshana (Wadi Saad), Wadi Atshana (Wadi al-Jafi) and Wadi al-Dhalawi, a few kilometers north Saad traffic station and plantation of the Ministry of Agriculture and Water, where the study area is away from Riyadh of about (115) kilometers to the northeast.

The worst thing is that the Dahna desert, which the researcher chose as a field for her study, represents a major obstacle to passenger and commercial transport between the two central and eastern regions, and along this desert there are oil installations in the Khurais area, as well as agricultural projects in the Haradh region.

According to what the researcher specified, the study aimed to monitor the daily and monthly quantity of sand drift from the eight directions of the winds in the Dahna desert, as well determining the volumetric properties as well as some chemical elements affecting the size of the creeping sand, and calculating quantity of sand deposited after each storm, and finally the mathematical and statistical treatment of the results and related analysis so that this becomes data to design models for reducing the risk of sand drift in the various affected areas throughout the Kingdom of Saudi Arabia.

According to the study, the researcher in studying the aforementioned area has conducted a field study that lasted from (March to August) to measure the sand drift using two sand traps and calculate quantity of the creeping sand after each storm by means of a millimeter test tube, as well as collecting samples of the creeping sand according to Certain considerations and related laboratory analysis to determine the volumetric properties of sand and define the chemical elements affecting the size and weight of the creeping sand. Princess Dr. Masha'el bint Muhammad Al Saud concluded her study by noting that the Space Sciences Institute at King Abdulaziz City for Science and Technology periodically receives various satellite shots covering most regions of the Kingdom so that the researchers of sand encroachment can track the rates of sand encroachment and sand drift, and sand dunes encroachment in the regions suit human settlement and agricultural production or in the affected areas. Therefore, this sand dumpers will be a permanent solution for this issue.

Al-Arfaj has revealed to (Al-Jazeera) that the tender for the creeping Sand Detention Project, north of Wadi Al-Dawasir, was awarded to Masar Al Qimma Contracting Establishment in solidarity with Al-Jazeera establishment, which includes planting more than 136,820 seedlings in the first sector, which starts from the north of Al-Sharafa and extends to the west with a distance of 9 kilometers ... indicating that the executing organization will supply and extend the irrigation networks and establish two water tanks with maintenance and operation for a period of 6 months, adding that the execution period of this important project, which the people of the province has always demanded, is 9 months at a total cost of 4.5 million riyals, stressing that the rest of the project will be completed within the coming period.

Al-Arfaj said: The total distance expected to be covered by the creeping sand block project in all its stages is about 23 km. The contractor has been handed over the first phase of it with a length of 9 km.

The project will be implemented with a distance of 500 meter -1000 meter) from borders of properties surrounding the cities and farms of Wadi Al-Dawasir and it will be in the shape of a crescent from the north, northeast and northwest sides, indicating that the project aims to limit the heavy damage caused by the creeping sand on the borders of Wadi Al-Dawasir cities and farms at heights exceeding 20 meters in some locations, as there are agricultural lands and homes that have been affected by these sand dunes, that confirms the importance of the project.

Rania- Wadi Al-Dawasir road witnessed the accident of a trailer truck and injuring its expatriate driver. The reports confirmed that the sand accumulated on the road, which closed one of its lanes, was the reason for this accident a result of the truck sudden collision with it, and the accident occurred near the Wadi Bisha bridge at the intersection with the road linking Rania and Wadi Al-Dawasir. Many passengers have confirmed that the road is dangerous to lives , moreover this road lacks many security and relief agencies , indicating that there must be an entity responsible for this vital road.



The creeping sand blocks the roads of the villages in Al-Leith

Al-Leith Governorate has recently been exposed to a wave of dust, which has led to the closure of a large number of roads leading to the village of Al-Husayniyah Al-Wattayat, Al-Jahr and Salam Al-Zawahir.

According to (Al-Jazeera) During a tour of a number of villages in the governorate in the village of Al-Husayniyah, we met citizen Ibrahim Al-Sebaei, who described the matter as difficult, as he says: I have come to many officials in the Al-Leith municipality for more than four months in order to remove the creeping sands, but unfortunately, we did not find any response, which made the matter worse, as there are elderly and families who take this only way to go to and Ghamqa hospitals and health center.

On the other hand, Hassan Omar and Ali Omar demanded the officials of the Al-Leith municipality to remove sand from the road leading to the village of Al-Husayniyah, and in Al-Wattayat, Mubarak Al-Rahmani says that we no longer benefit from the current road and we take the dirt roads to reach our goal in light of sand encroachment on the road that the Al-Leith municipality paved for our village.

Methodology

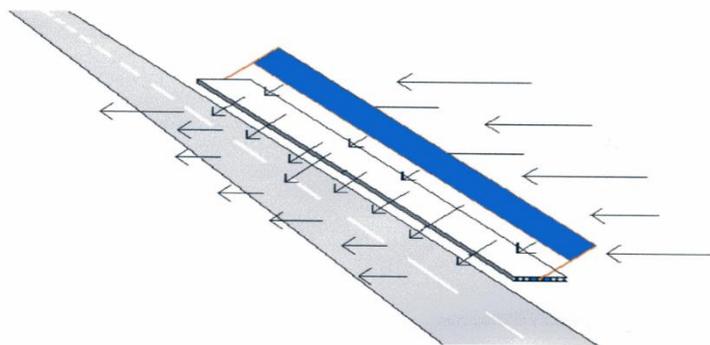
The idea of this study is based on making use of the natural winds to blow and expel sand that usually collects on the external roads This is done by erecting rectangular plates on both sides of the road when it passes through sand dunes moving at a suitable inclination angle. When a sandstorm blows, these bumpers block the path of the winds and work to divert them from the usual horizontal direction to the semi-vertical direction of 45 degrees towards the asphalt road to carry out the process of blowing and expelling the grains of sand that usually collect on roads and railways to continue their course instead of being blocked by fence or afforestation.

The sand bumpers consist of sheets of Shinko or reinforced fabric that are fixed in the ground or floating on the surface of the sand, and they operate in a moving way that does not obstruct the vision in front of drivers.

The length of one bumper is from three to six meters, with a height of about one to two meters, and it is placed next to each other and separated by medium distances that are covered by the side protection of the bumper.

The idea has been mentioned in numerous studies and conclusions that prove its effectiveness and its ability to influence the fight against sand encroachment and no need for being maintained, as well as studying all the negatives that could result from installing them on the roads in addition to the most appropriate and optimal ways to implement and install them.

The following drawing shows the location of the bumper near the side of the road, and the arrows indicate the movement of the winds as they concentrate on the road. When the wind blows, the position of the bumper changes from the horizontal sleeping position to the semi-vertical position towards the road.



This drawing shows the components of the bumper, such as the base, which consists of an innovative block that provides many possibilities, such as installing the block on the surface of the sand with the possibility of moving its location, increasing or decreasing the number of blocks required to install the bumper.

The method of fixing the block is done by means of pipes that penetrate the cavities inside the block with 2 pipes of 6 meters length, to which a pipe is added to be a passage for the moving pipe in which the Shinko or fence is fixed, which works to divert the wind path to the asphalt road at an angle suitable for blowing sand masses.

The research explains that sand drift means the granular sand encroachment, which begins to flow on the surfaces of dunes and sand masses when the wind speed reaches 55 meters per second, noting that the danger of sand drift representing in its ability to move for long distances and cover large areas in short times and at relatively slow speeds. Then the researcher applied mathematical and statistical models to the field and laboratory results and meteorological observations.

Results and discussion

For the most prominent results of this study has concluded to a number of results indicating that more than three quarters of the total sand drift is attributed to windstorms blowing from the northern directions. Most windstorms occur during daylight hours (from 6 am to 4 pm) causing stormy sand drift that exceeds three quarters of the total number of storms that blow from different directions in General. Storms ranging in speed from (53) to (12) meters per second contributing to the encroachment of large quantities of sand due to the frequent occurrence of this winds more frequently than other types of winds in this desert. The months of sand drift and sand storms are July, March, April and August in equal measure. Storms ranging in speed from (53) to (12) meters per second contributing to the encroachment of large amounts of sand.

The dune encroachment rate in the study area and during the field work period is between (125) to (925) meters. After analyzing these results, , so it is required to enumerate the areas affected by sand drift, study their natural conditions, and prepare related detailed maps, showing lines of equal sand drift, as this is useful in planning the quality and density of sand barriers in the affected areas, as well establishing field stations around the affected areas that include sand traps, devices for measuring weather and climate, collecting sand samples, and laboratories for field analyses, to be monitored by trained Saudi cadres.

The study of sand in deserts with geological, geographical, engineering and physical difference, as a single unit is away from the natural fragmentation frameworks of an interconnected ecosystem, in addition to converting the environment into numbers to be analyzed and explained within mathematical, physical and engineering standards, away from improvisation in decision-making. Evaluating theories, laws and mathematical models extracted from field and practical results to verify their usefulness.

This work also accompanies the design of mathematical, physiological and engineering models based on field or laboratory studies conducted in the deserts of the Kingdom of Saudi Arabia. Reconsidering the methods of stabilization used and applied in the deserts of the Kingdom in light of the results and theories, and this also requires studying similar projects within year, and identify their advantages and disadvantages. Establishing an integrated plan according to priorities based on the importance of the affected site and its economic and security returns, provided that this is done through coordination and cooperation between the various state agencies.

So Based on these results, the places that need bumpers can be evaluated, so we find them very necessary in the third and second levels, respectively, because their impact on the road is almost daily, unlike the first level, which can be dealt with through its relatively slow impact on the road, and most of the winds blow in one direction from the north to the south, therefore the bumpers must be placed on the side facing the winds, and between each bumper and the other at a distance of six meters, and this distance is covered by the area of lateral protection of the bumpers, because when the wind collides with the bumper, part of it goes to the sides and it is compressed between the two bumpers and rushes forward, creating the same effect as the bumper.

Conclusion

It is evident from the attached drawings that the sand bumpers designed according to the idea of this study depending on the strength of the winds that stir the sand in order to perform its work as required, where sand bumper remains static in a horizontal position almost parallel to the surface of the earth even not to obstruct the vision in case of natural weather conditions and when the wind is strongly blown, the front of bumpers will be risen due to the pressure of the wind on it from the bottom to the top, because it is prepared for this purpose, so the wind is blocked and its path is diverted from the usual horizontal direction to the semi-vertical direction at an angle of approximately 45 towards the asphalt road where the axis of the wind is concentrated on the road in order to blow and expel the accumulated sand on it (Fig. 4).

Sand bumper will be set up on both sides of the road when it passes through moving sandy areas at close distances never exceed twice the length of one bumper between each bumper, or according to the impact of the bumper required to cover the road between the two bumpers (Fig. 3) In the event that the sand is not completely removed, the bumpers can be equipped with a condenser or vector that works to intensify the wind and direct its path near the road surface until the wind pressure increases for a long distance affecting the asphalt surface (Figure 5). Likewise, in the case of sand accumulation in the spaces between the bumpers, side fins will be equipped which can transform a part of the wind towards the accumulated sand between bumpers for being pushed behind the bumpers and making this sand falls by the pressure of the winds that is resulted from the other bumpers, and then it will be blown and expelled (Fig. 4).

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Virtual Experience Economy

Change in Behavior towards Technology during Covid-19

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Abstract

The year 2020 drastically changed the way we lived. The series of events we all have witnessed recently like lockdowns, closure of air space have left all of us affected in one way or other. The world have certainly made a shift towards artificial intelligence, digitalization and other forms of technology in many aspects of life. It also looks that GIG economy might become recognized, it might grow, as more, and more workers are using technology and accepting the GIG culture. This research aims is to collect data to discover if people are comfortable using technology in their daily lives and if they think this trend of using technology will continue. The will include current trend of digital economy in Kuwait. "An economy which functions primarily by means of digital technology, especially electronic transactions made using the Internet" (OUP2017).It will look at its opportunities, challenges and whether it will expand or get weaken after the pandemic. The research will discuss some case studies, which will help in finding the role of technology in current world now affected by COvid-19 pandemic.

Keywords: Covid-19, Technology, Digital Economy, Gig Economy, Artificial intelligence, Technology usage and application, data, network, private sector, online technologies.

Introduction

Technology is a multifaceted term that has an elusive definition where it is very hard to specify it. Not only it is difficult to find a precise definition for Technology, but also it is hard to specify the influence of this term and its relationship with other concepts. Technology has affected many aspects of our life including but not limited to economy, politics, education, social interactions, and commerce (Gibert, 2003).

The importance of technology was evidenced at Covid-19 time where most of our life activities were practiced using technology. This paper will examine different technological trends, which were clearly visible in the Covid-19 era such as digital economy, artificial intelligence and the usage of technology at this specific time in Kuwait. We are living in OVID-19 since many months now. The life we all are living was least expected. If we look at some figures, we will find that a third of our world population have been in some kind of lockdown, 91% of people are not going to school as they closed, and as much as 25 million people are projected to lose their jobs. This situation has shown that new skills are needed like ability to perform work under pressure and crises, work with limited resources, learning new skills, flexibility, adaptability and much more is needed in this current and post pandemic society is needed. (The response of Arab cities to COVID-19 with respect to the provision of youth and adult education and learning, n.d.).

The organization for Economic Cooperation and Development speculated that the growth rate for 2020 year will diminish between 0.5% - 0.9% to 1.5% (Harmouzi). These changes aims at some changes, which will might appear during ongoing pandemic and even in post pandemic period. These changes will help in filling the vacuum, which was created by Covid-19. Societies, economies, organizations and individuals have to make sure that they are guiding themselves and people around them to face these times.

Literature Review

The literature review includes topics like digital economy, artificial intelligence and over all technology in the pandemic.

Digital Economy

With the rapid growth of Intent since 1990, digitization has increased and changed how customers deal with businesses and with each other (bea,2018). The development of internet is an encouraging factor for the growth of online products and services due to low operational costs and the ease of entry (Goldfarb, Greenstein&Tucker,2015). And this in its turn contributed to the evolving concept of Digital economy.

Digital economy has many definitions, as it can be defined as “that part of economic output derived solely or primarily from digital technologies with a business model based on digital goods or services” (Heek&Bukht,2017). Others referred to it as way of doing things rather than a concept, other definitions ended with a simple and direct definition that leads to “an economy based on digital technologies” (Heek&Bukht,2017).

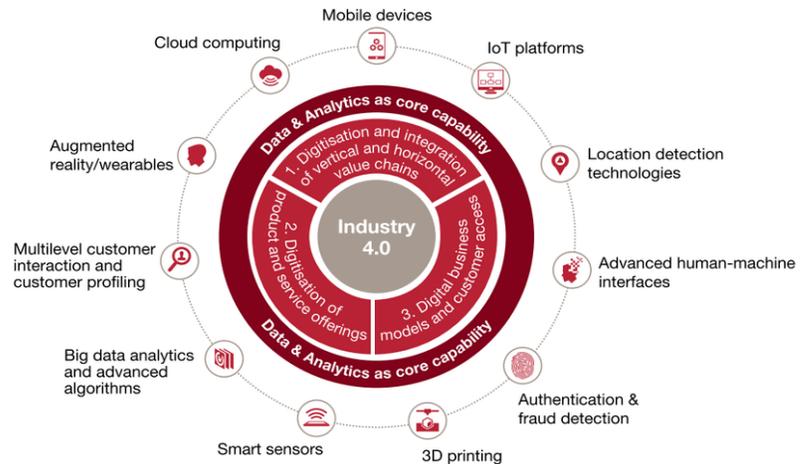
What makes the model of digital economy unique is its concentration on dynamics not static efficiency. It is dealing with new ideas, activities and products rather than higher productivity (Heek&Bukht,2017).

The essential elements of Digital Economy

There are certain essential elements that work as the foundations of that discipline including but not limited to (Kehal&Singh,2005)

- Digitalization and the intensive use of information and communication technologies.
- Codification of Knowledge
- Transformation of information into commodities
- New ways of organizing work and production.

The concept of digital economy has many recent applications and successful models such as Uber, Facebook, and Airbnb. These businesses impacted the economy through disruption of economic sectors, processes, reshaping consumer's behavior, business interactions and models (Heek&Bukht,2017).



Industry 4.0 framework and contributing digital technologies Source: Geissbauer et al. (2016)

Digital Economy Challenges

When discussing the field of Digital Economy, it can not be disregarded the challenges standing in the face of its progress and development. Some of the challenges include but not limited to (OECD,2014):

1. Definitions /Boundaries

As stated previously, there is a difficulty to find a precise definition for digital economy which makes it hard to be measured in comparison with the real economy.

2. Privacy & Trust

There is a privacy challenge clearly noticeable and related to digital economy, this occurs when the data transferred through internet is exposed to falsification, theft and unauthorized access. This in its turn affects the level of trust put into this model.

3. Universal Access

Digital economy provides small, medium and local enterprises with more opportunities through the application of information technology. For this to be successful an environment should be equipped in which all companies and individuals will be able to have equal access.

4. The invisible nature of Digital economy

Many digital activities do not have readily output. They maybe intermediate activities between customers or it may be difficult to price inputs which makes it hard to calculate the added value. The virtual nature of these activities makes them hard to track.

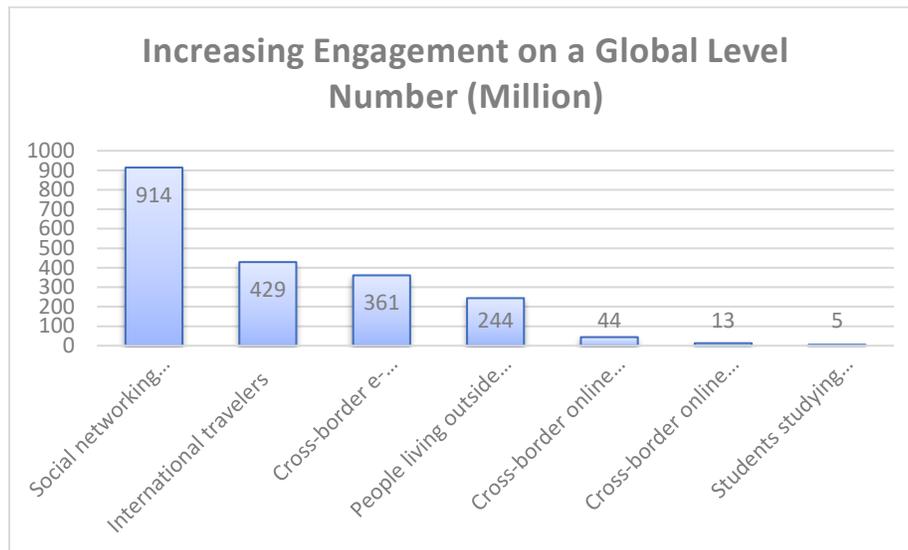
Opportunities of Digital Economy (McKinsey & Company,2015):

A) Digitization for growth, productivity and innovation

Digitization supports growth as it could achieve faster revenue growth, faster profit and margin growth, higher productivity and innovation and as a result faster wage growth.

B) Digitization of globalization

Digitization supports global interaction as data flows cross borders connecting more countries, companies, and people.

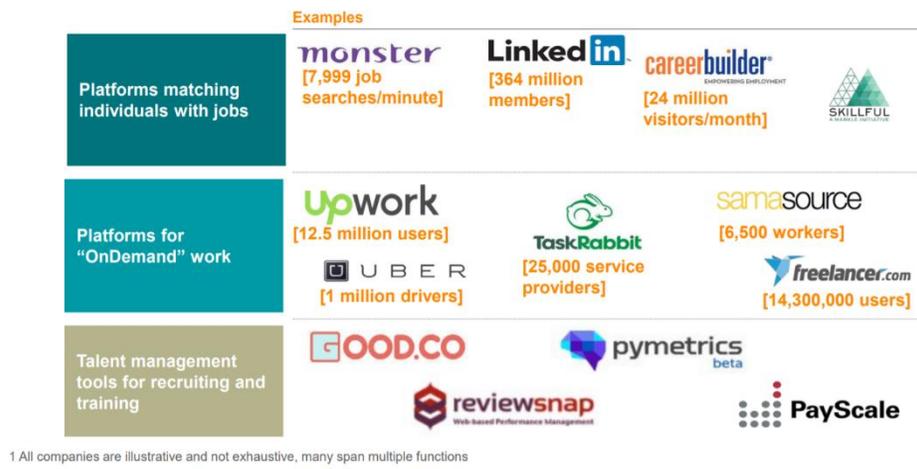


SOURCE: Facebook; AliResearch; US Department of Commerce; OECD; World Bank; McKinsey Global Institute analysis

C) Digitization of work

Nowadays, some organizations are having their digital model related to jobs and employment creating more opportunities for digital economy to contribute to the overall economy. These include platforms matching individual to a certain job such as LinkedIn, CareerBuilder and Monster. Other platforms are for OnDemand job such as Freelancer and Uber. Others are used for Talent Management and recruiting such as Pymetrics and PayScale.

Labor Market Platforms Emerging

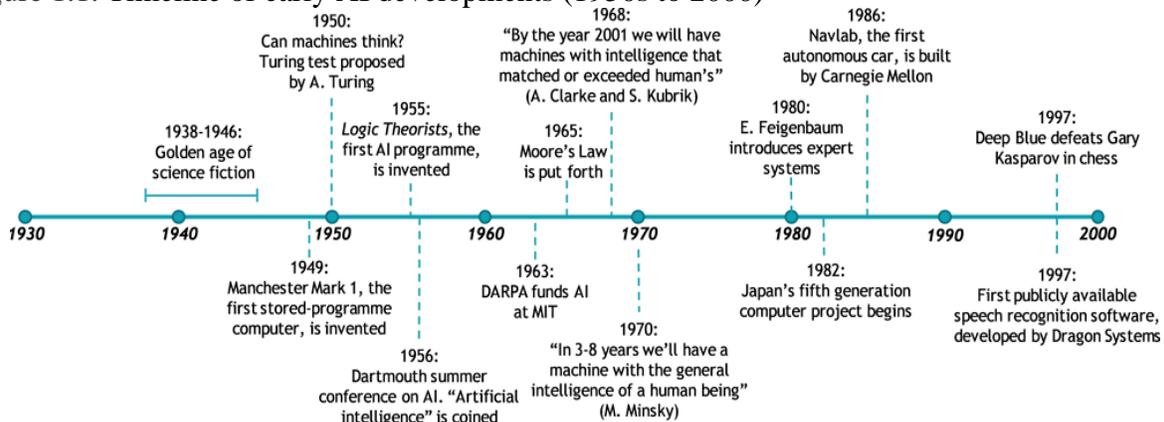


History of Artificial Intelligence

Artificial intelligence is a concept that was first referred to in 1950 by Turing when he published a paper on "can machine think?" He created a simple test where he asked a question "could a computer engage in a conversation and answer questions in a way that could deceive a human to think that the computer is a human being. This Turing Test is still used today and then Artificial intelligence concept was applied by Shannon in 1950 where there was a suggestion of creating a machine to play chess. It is worth mentioning that the early developers of Artificial Intelligence were overly optimistic which led to a decrease in the interest and the funding for this concept. The interest in this concept has evolved again starting from 1990's when IBM has developed the Deep Blue computer, which used the brute force approach to play chess.

The below timeline shows the development of the field of Artificial Intelligence from the 1950's to 2000's

Figure 1.1. Timeline of early AI developments (1950s to 2000)



Source: Adapted from Anyoha (28 August 2017[4]), "The history of artificial intelligence", <http://sitn.hms.harvard.edu/flash/2017/history-artificial-intelligence/>.

Artificial Intelligence can be defined as the “study of computations that make it possible to perceive, reason and act”(Winston,1992).

Artificial Intelligence nowadays

The Artificial Intelligence has evolved nowadays as a result of many factors including availability of big data, cloud computing and storage. This evolution led to a breakthrough in Artificial intelligence specifically called Machine Learning (OECD,2019). The artificial intelligence and the evolving of Machine learning have influenced many sectors such as but not limited to natural language processing, computer vision and language learning. Artificial Intelligence has also interesting development in sectors that are not related to computers such as medicine, health, biology and finance.

This resulted to the need of having bilingual employees who are specialized in specific fields such as law, economy and others and also skilled at Artificial Intelligence such as Machine Learning (OECD,2019).

Artificial Intelligence Illustrations

There are many illustrations for artificial intelligence such as assistant for the visually impaired people where a machine could assist a visually impaired people to cross the street or avoid obstacles. Another illustration for artificial intelligence is autonomous driving system where a machine-based system can influence its environment as to make a decision to accelerates, decelerates or turns. Another interesting illustration for artificial intelligence is a credit scoring system which is a machine-based system that influences its surrounding to decide whether a person grants a loan according to machine inputs which include the historical data on a person's profile (his ability to repay) and human based inputs including set of rules (OECD,2019).

Technology & COVID-19

Technology has played a major role in facilitating our daily activities during the Covid-19 time. Most of the activities done normally have been transferred to digital activities which are conducted online. Technology was not only used to communicate during the time of social distancing but also to do other main activities such as education, shopping and career development. During the Covid-19 time and this continues till now, we can witness an increase in the usage of online communication tools such as WhatsApp, Facebook, Instagram, Google App, Microsoft packages, ZOOM, and Skype (Anjum,2020).

Opportunities offered through technology during the COVID-19 are various as it supports growing businesses as employees are capable from working from home through being connected and offering services (Sadiaa,2019). This was clearly evidenced in Kuwait when all schools and universities operated online in order to enable the students to proceed with their studies.

Technology has also supported businesses with online presence as they proceeded with their operations and customers' purchases were facilitated through online payment gates. On the other hand, some businesses in Kuwait sought the assistance of online intermediaries such as Talabat and Boutiqaat to reach their customers and sell their products and services.

Some Case studies

The crisis, which the world is facing, has given a new push to technology and the future of this technology is unknown. However, many companies worldwide have been successful in using technology to support their operations and their causes in these unprecedented times. In this section of the research, we are presenting few case studies of such organizations from different parts of the world.

One such company or project is covid tech support and it initiated during the startup days of the pandemic. The platform let people volunteer their IT skills and help companies, groups or individuals receive technical support. So far, 1500 volunteers have registered themselves who have delivered approximately 200 projects. These delivered projects are mostly for charities, individuals or non-government organizations. (covidtechsupport, 2021).

Many companies worldwide faced liquidity challenges due to sudden change in operations due to Covid-19 pandemic. The research includes the case study of Accenture where the finance department developed new plans to keep a check on cash receivables and the payments. The finance department daily analyzed the financial data with aim of giving recommendations wherever necessary. This helped the Accenture team to get a clear picture of any issue, which might arise, in payments related to their different clients. Initially, everything was directly reported to top management so timely action can be taken. The process included building a Covid-19 dashboard. This dashboard was prepared in less time with help from other departments giving Accenture a “single source of truth” (www.accenture.com, 2021).

In words of Onkar Liddar, Assistant Treasurer, Accenture, “Accenture ability to respond to rapidly changing market condition during COvid-19 pandemic was due seamless interplay between our people and our technology” (www.accenture.com, 2021).

The Key Holding Company (KHC) is another example from United Kingdom, is another example of digital transformation during the pandemic. In times before pandemic, the people from this company use to lock and unlock buildings and this service was no longer required as many business closed. This was the time when company in order to sustain must go for a transformation. Therefore, the company with one of its partner Haulmont was able to develop a new product offering scheduled patrol in few days. Representatives of Key Holding Company mentioned that the crucial thing now days is speed. Technology comes handy nowadays, which supports the ongoing operation (Laycock).

The Arab countries popularly known as oil economies however, the pandemic has given us many examples from different gulf economies displaying technological resilience. Economies like UAE was lucky enough to get benefits of its plans like National Innovation Strategy, Artificial Intelligence strategy and Block chain strategy which helped in preparing the country for a digital move during the pandemic. Another example was the UAE’s TraceCovid app by their Health department to identify the COVID-19 people. Another example is the App called Oyoon used by Dubai police, which keeps an eye on the residents. If we look at Bahrain, the small country has always supported technology and Amazon Web Service launched its first cloud center in Bahrain in 2019. Bahrain created an app called BeAware which regulates that infected individuals wear GPS bracelets on them and were tracked through this application. (Soliman).

Conclusion

The current pandemic Covid-19 has given a new dependency on technology. It has defiantly kept the world connected and business going during this unexpected time. We are looking at a world, which is much more digitalized than it was before the COVID-19 pandemic. In this telecom, companies can play a vital role. The companies in the telecommunication should think about their investments. They do have the resources to develop their technology to resolve challenges in certain types of companies. These companies with their plentiful resources and technology are in the position to develop a kind of digital strategy. They can very well exploit their existing resources and can become pioneer of technology in their field. (Jad Hajj).

Pandemic COVID-19 has left no country untouched, so a collaboration between government and private sector is something, which many leaders are looking at to stabilize the economies and societies as a whole (Jad Hajj). Private sector can help in creating new technologies and the government sector can support in terms of legal and regulations. Friedrich Hayek, once mentioned that state intervention is critical and important in case of an emergency. As sometimes, the normal procedures like supply chains, demands and other economic mechanisms get affected in crisis time. (Harmouzi).

Technical issue has also been a challenge in these times. Problems like broadband services, network issues, demand for high bandwidth services, and demand for video conferencing, distance learning by students of all ages, poor or limited quality of international internet gateways and more are some limitations to the current usage of technical issues. It was found in many countries like Egypt, Tunisia and Palestine that most companies without any extra cost gave extra bandwidth to their users. In Arab world, countries like UAE and Oman have removed Voice over internet protocol (VOIP). This support from the private companies and government will further support technology usage in this time. (Guermazi).

The current digital environment has helped all sectors whether its Health sector, Educational Sector, Retail sector or food delivery services etc. Apart from this, many government and private sectors have been able to work and face the challenge due to use of technology. We all have realized that technology whether in forms of mobile application or websites have the potential to support different industries and sectors (Digitalisation and COVID-19: The Perfect Storm, n.d.).

The covid-19 has quickly installed a transformation in terms of technology. Individuals and organizations still looks like are trying to adapt to this new change. The current situation has kind of forced the world to take a step towards technology (Sumita Sharma, 2020). Technology has affected everyone around the world whether school kids who are receiving education online, to private and public sector employees who are working from home with digital tools or individuals who are using technology to socialize and stay connected with their network. So far, technology have hold the world together. We know that airports are not operating like before, travel and tourism is worst hit and so technology has supported everyone irrespective of their age, location or profession. Another aspect of this sudden change about the use of technology after covid-19. This still needs research as we are currently in the pandemic and the world after this covid-19 will look much different. The way we use to use technology has already changed as our daily lives got affected and in a way dependent on current and even emerging technologies around us.

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Understanding Islamic Finance in United Arab Emirates

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Secondly, I would send my appreciated for my parents and my friends and colleagues that were involved in this project, it is a huge pleasure.

Executive Summary

The aim of the study is to be able to identify the barriers that are making Islamic banking hard to grow. It will aim to understand first the status of Islamic banking, opinions about advantages and disadvantages and lastly solutions for the disadvantages if found. The tool that is used to collect primary data is the survey and it is divided into two sections. First section is self-administrative survey that is given to 40 participants. And then an interview after the last part “solutions” is completed, and the interview is with five representatives that work in managerial positions in banks around United Arab Emirates. Many interesting results were found while completing the research, but the most important are at the ending after reviewing the solutions with the representatives. Solutions that been chosen are Supporting students by investments, work with different nationalities within the officer inside the Islamic banks to increase the experience and lastly planning to create a role model for Islamic banking industry that everyone goes after to be able to have one direction by that role model.

Introduction

Islamic banking is a system that work under the laws of Islam Shari’ah. The word Shari’ah typically means Islamic law, as it covers various religious aspects that exist in Muslim life. From Banking, laws, day to day activities, economy and politics (Moghul, 2006).

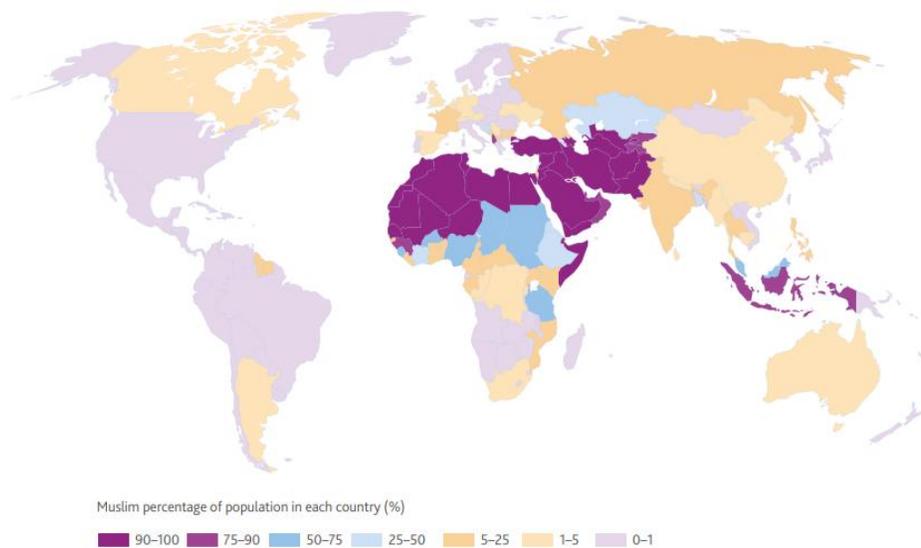
Islamic banking was made to Muslim group since it works differently than the traditional banking systems, since traditional or conventional system include interest and risk to their systems which are prohibited under the Shariah Law. Therefore Islamic banking operate in a way that allow

Muslims to use finance services such as getting loans without breaking any laws o Shari’ah such as including interests in the loans which goes against the Shari’ah law (Moinuddin, 2018).

Around 1 over 4 of the population are Muslims, the highest number of them are focused in Asia which is around 60%, and 20% are in north African while the rest are around the world. Muslims are around the world, however even with this number of Muslims the usage of Islamic banking is pretty small. Since most of them who have access to bank systems, deal with traditional bank systems and use their products. (Moinuddin, 2018).

Figure 11: Muslim Population around the world (Moinuddin, 2018).

Muslim percentage of population in each country



There are many factors from Islamic, which differ from the Non-Islamic banks (Moinuddin, 2018). Some of the following:

1. Interest Free: That all Islamic Banks are interest free as it must be free from any aspect that is related to interests unlike the traditional banking systems.
2. Avoid uncertainty or gambling: Islamic finance is free from any time of uncertainty, or gambling which is prohibited according to Shari’ah.
3. Sharing the profit along with loss: In some activities where the bank can make a deal with a customer, in case the deal went successfully the profits will be shared according to the deal. However even in loss, it will be shared between both parties.

Research Problem and Objective

Islamic Banking is considered very small compared to traditional banking, Islamic finance is not getting enough attention, unlike the known banking systems. The research aim to understand what issues that are faced by the Islamic finance in UAE, and overcome them to increase their

usage within the United Arab Emirates. The study aims to reveal the barriers faced by Islamic Bank and its users within UAE, then analyze the barriers to be able to come with solutions that can increase or improve the usage by the customers.

Literature review

Islamic Finance Benefits

Islamic finance is more beneficial than traditional systems because of number of reasons. According to Department of Finance in Dubai, then main reason is that Islamic banking is stabilized more than any other types of systems because it does not work with uncertainty at all. Which give it the higher hand to improve, gain more customers and have a better position in the market (Government of Dubai, 2016).

The benefits of Islamic banking do not apply only with customers, it does also benefit the community and the region that deals with it. It is because of multiple reasons, and that is why Islamic Banking considered to be safer to use more than traditional banking. One of the main benefits to a community from Islamic Banking is how it can affect in pre or post crisis. The Islamic finance considered to be safer when it comes to crisis that occur in the country more than the traditional banks (Mohnot, 2016).

Islamic Finance Issues

Islamic banking systems face huge issues in Non-Muslim counties such as India, which makes it hard to improve or reach a better position within the market. A study from Pondicherry university made to reveal the status of Islamic finance in India and understand why it is lacking from improvement in the country. The result of the study revealed that Muslims that lives in India are not aware of how Islamic Banking works, doesn't know about facts, issues within Islamic finance at all. This lack of knowledge with Islamic banking makes it hard to develop and improve the services within the country (Yatoo & Muthu, 2013).

Islamic banking face multiple issues that makes it hard to spread around the market, according to Law Teacher mentioned that even though the Islamic banking is rising but it is not as much as needed, and there are many factors that should be taken care of in order to be able to rise, such as:

1. Lack of knowledge of how Islamic banks work with Shari'ah.
2. Lack of government involvement.
3. No global standards for Islamic Banking.
4. Shortage in qualified students and scholars that are especially made to Islamic finance.

These are some of what makes Islamic Finance hard to grow, and by addressing them, there is a huge chance that Islamic banks improve more than normal banks. (Teacher Law,2013).

Another study aimed to reveal more information about Islamic banking growth and in how it can influence or get affected by multiple aspects, and the more it grows the more issues revealed.

One of the issues that found in the research is the prohibited products in Shari'ah, such as pork, Alcohol, or clubs. If a country has some of these or even more, it makes it hard to include them in system since it is totally prohibited in Shari'ah (El-Galfy & Khiyar, 2012). Which include that if Non-Muslims wanted to start a business by contracting with Islamic Banks and that business is related to any of the prohibited products mentioned then the deal won't work for sure and won't be accepted.

Another point to mention, that governance is one of the main issues when it comes to applying the Shari'ah principles in banking systems. According to an article published by Hadeef & Partners, it concluded that one of the main barriers to applying the Islamic banking in United Arabi Emirates is having another governing law beside the Islamic Shari'ah. This is the main reasons why learning more about Islamic banking is going down. Most of practices contain conflicts between governing law and Shariah principles as what mentioned before. These two doesn't work along together in most of the practices because of the types of prohibited activities that are included. And applying Shariah can without pervious actions can lead to closing the contracts (Rodgers, 2010).

Islamic Finance Solutions

In 2008 Kuwait Finance house presented the Baytik Ijarah card which is a product that is made out from Shari'ah since Muslims doesn't want to use credit cards. A study was made to evaluate and understand how customers are happy with the card's abilities and usage. A survey was submitted to 100 users of the cards to gain feedback about the features and get feedback. The main result of the study that customers are so happy with the card however, there are some room for improvements needed to be used such as:

1. Give customers more variety so they have different options or places to use the card.
2. Give better discounts for customers to attract more customers.

These examples that can actually increase the usage of Baytik Ijarah cards, which will eventually lead to improving services, getting more customers, and making the Islamic banking in a better position so the country can depend on it (Naser, Salem & Nuseibeh, 2013).

Artificial Intelligence is the term that used many times and everywhere nowadays, the amount of benefits that can be resulted from using AI with Islamic finance can lead to promising outcome that surely increase the usage from the customers. A study was made to understand how can AI affect the Islamic banking and in ways it can perform. The study can with great results from using an AI system with Islamic banking company. The results that it shows are as the following:

1. Reduced Errors.
2. Multi-Tasking in most routine tasks.
3. Work for long hours.
4. Efficient with huge data.
5. High level of transparency to the service.

All of the mentioned outcome from using AI, can guarantee that Islamic Finance can go from the old type of banking to advanced with higher technology Islamic Banks to be able to handle jobs faster, and perfect (Mat Rahim, Mohamad, Abu Bakar, Mohsin & Md Isa, 2018).

Methodology Design

To gain information and data the research is following a cross sectional design, and the data are both approaches which are qualitative and quantitative to achieve the enough amount of information about the following questions:

1. Demographic
 - a. Gender to find if there any differences or preferences
 - b. Nationality to know if the Islamic banks here are used by expats or UAE citizen.
 - c. Which city located, to understand where does Islamic Banking customers lives?
 - d. Understand the economic status, to know if there any differences with levels of economic and usage of Islamic Banking.
2. Islamic Banking position in UAE
 - a. How likely you are using Islamic Banks?
 - b. How people they know are using Islamic Banks?
 - c. Would you recommend using it?
3. Advantages and disadvantages that faced from Islamic and Non-Islamic Banks?
 - a. Do you recommend using Islamic Bank in UAE?
 - b. Which is better in UAE Islamic or Non-Islamic and why?
 - c. Which is better overseas Islamic or Non-Islamic and why?

Next is to rate certain departments the participant had an experience with in any of the two banks, a summary of issues that mentioned in the literature review is written as an option can be rated by the participants also.

4. The issues “Barriers” usually occur around the following departments:
 - a. Customer services
 - b. Marketing
 - c. Islamic banking features and plans
 - d. Transparency

Which means that customers have a chance to express their feedback from any of the departments mentioned above.

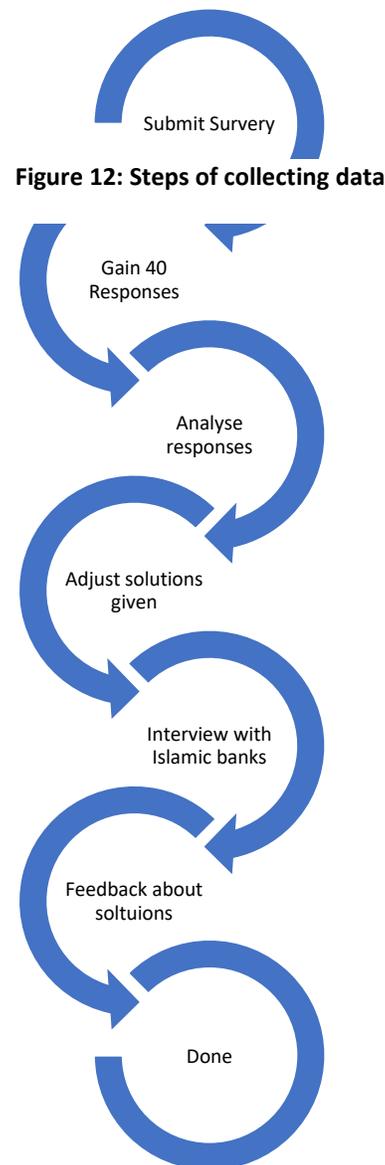
5. Last part is related to solutions of the problems that are mentioned by the participant, which will contain the same departments and the option of “Others” just in case there are other things that can the customer face.
6. After that the solutions are presented by an Islamic banking representative to be able to correct or evaluate the answers gained from customers. Only one solution is presented to the representative and it is the solution that mentioned by the customer the most. Which means that the solution that mentioned more than other is the only solution that is presented to the Islamic Bank representative.

Data Collection

The data collection process is based on primary data gained from participants of the study, and the only secondary data that is used in the data collection are the departments that have issues which mentioned in the literature review.

The first step of collected data is by submitted a self-administrative survey to the public without any rules except that the participant must have an experience with any of the both banks. Then gather feedback of the self-administrated survey to analyze and adjust answers and collect solutions given by participants. The next stage is presenting the solutions given to the Islamic Bank representative to test the solutions check whether it is useful for them or no.

The only limitation that been found while gathering data, is related to the interviews with banks representatives. Unfortunately, no way of accepted any personal names or even bank name to be shared in the study.



Analysis

Part one: Demographic:

Gender: 62% of the participant are males while 25 are females. As shown in figure 3.

local vs expatriate: Expatriate 65% of the participants study while the rest are locals as figure 4.

Cities that participants lives in: According to the data, 12 participant lives in Dubai, then secondly 9 from Rak and the rest are scattered around United Arabi Emirates according to figure 5.

Financial status: 16 out of 40 participants considered from the high class income, while 14 are for the middle and 10 participants are from the lowest as figure 6.

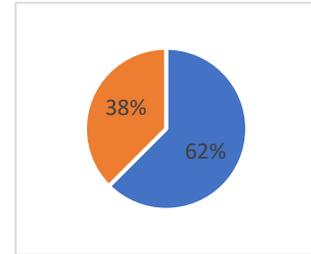


Figure 13: Males vs Females

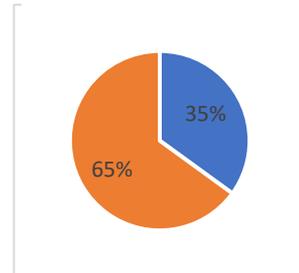
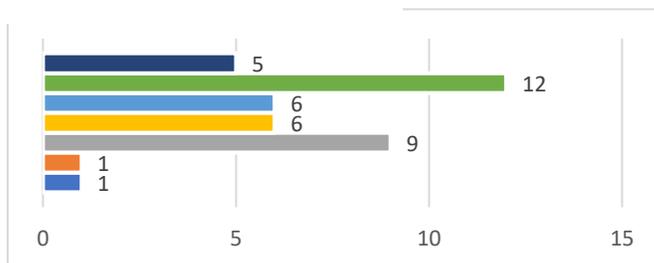


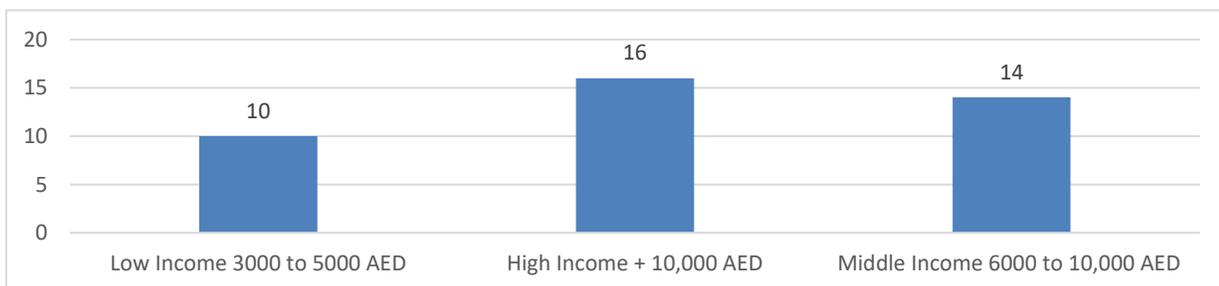
Figure 14: Locals vs Expatriates

Figure 15: Participants cities



DXB	12
Rak	9
UAQ	6
Fuj	6
AUD	5
Shj	1
Ajman	1

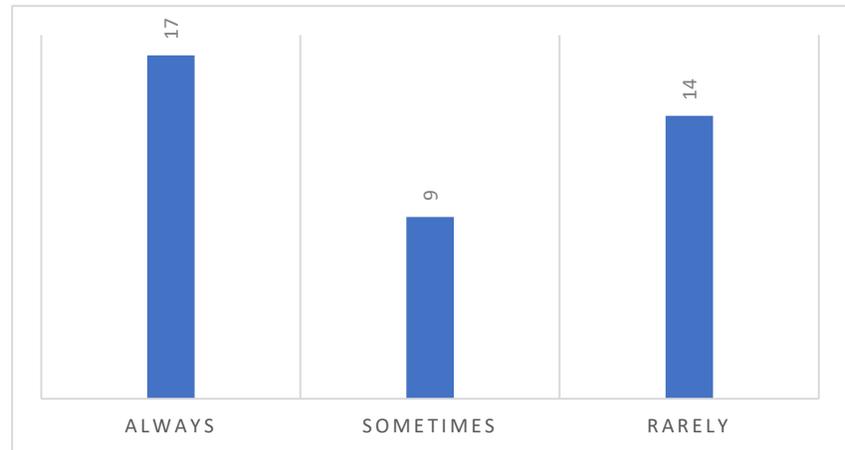
Figure 16:
Participants Income levels



Part two Islamic Status:

In this part, the focus is on understanding the Islamic bank position within UAE. The questions are the following with their answers:

People tend to use Islamic finance always but almost the same number barely use it as figure 7.



Almost 60% of the participants have at least one to three people that use Islamic finance, unlike 14% who know at least four to six people. And lastly, 27% of the participants know at least seven to ten people who use Islamic banking as shown in figure 9.

Sadly, around 43% won't recommend using Islamic banks to others as shown in figure 8.

Figure 19: Family or friends' usage

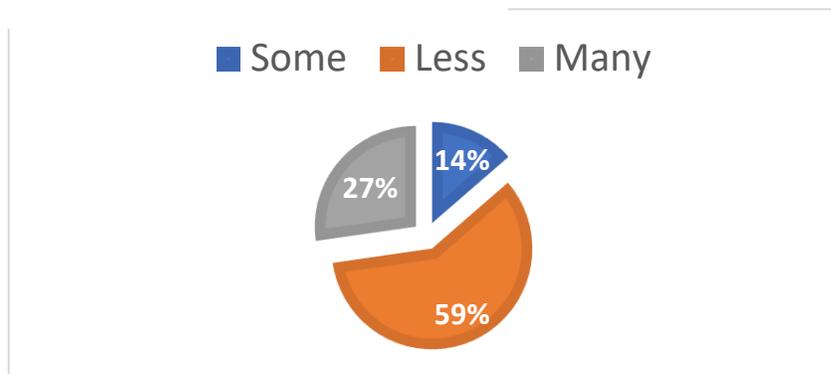
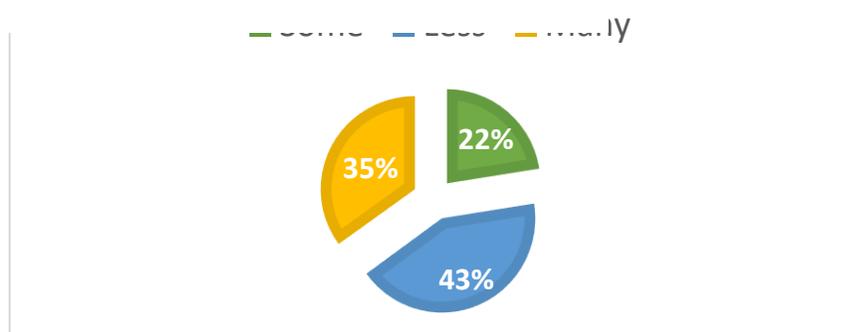


Figure 18: Recommendation to use Islamic finance



Part three, Islamic banking vs traditional:

The survey had a question where it asks the participant which type of banking they would like to use in UAE and why. It shows that, more than like using traditional more as shown in figure 10. Because of visible marketing and good customer services as shown n figure 11.

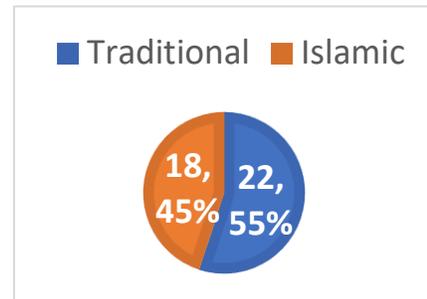


Figure 20: Traditional vs Islamic in UAE

Also, when it comes to using banks overseas, while traveling for work, visiting families or even tourism. Traditional banking took the higher hand, since again more than 60% would prefer using Traditional banks over Islamic as shown in figure 12. Because of plans that are offered with the cards and using it worldwide as what figure 13 is showing

Figure 23: Reasons for favoring Traditional



Figure 22: Reasons for favoring Traditional Overseas

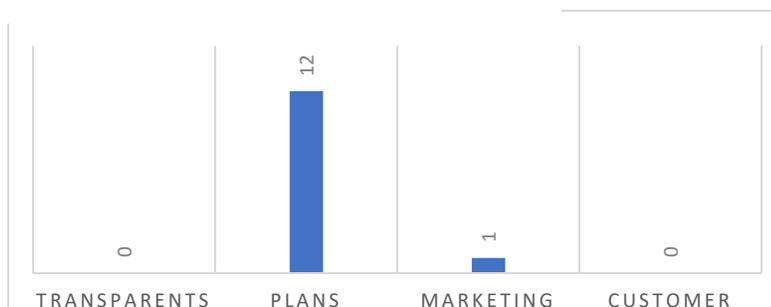
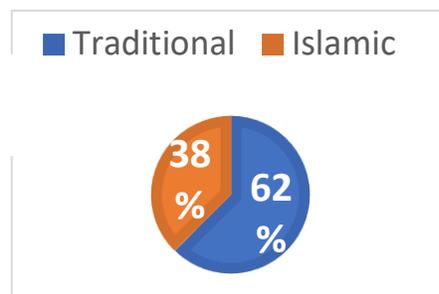


Figure 21: Islamic vs Traditional overseas



Part four, solutions for each department:

At the end of the survey, a question that indicate the main four aspects that cause issues which are:

1. Customer Services.
2. Marketing.
3. Plans and offers.
4. Transparency.

Each participant can add a solution to each department and they can choose whatever they see as a solution, then the solutions are aligned to be categorize or check their similar comments to assign them as one. In the end the solutions were listed as the following for each category:

Table 3: Customer solutions

Customer	
Use design that can adapt other nationalities	8
Adapt ideas from Traditional banks	2
Translate services to different languages	6
Use different nationalities, not only Locals	9

The most repeated answer as a solution is “Using different nationalities in the Islamic Banks”, because of many reasons such as increasing knowledge with other countries on how they deal with Islamic finance, also it can attract different nationalities to increase the usage of Islamic Finance.

Table 4: Marketing solutions

Marketing	
Create events	5
Help university students by giving investing in research	9
Fight rumors about not using Islamic finance correctly	7
Hire a marketing company	7
Reveal information about how good is Sharia in terms of lost sharing	2

Which is a very unique request that been always known in marketing, the participant agreed that such an idea can increase the relationship between the Islamic banks and the community where people can get to like them more and interact more with them.

Table 5: Plans solutions

Plans	P3
Make the process easier	6
Travel Plans	5
Do students loans	5
Increase participant with low income	10

When it comes to plans and features, it is known the most of banks offer great ones. But it comes with a higher cost which usually is the salary. Therefore usually people with low income doesn't apply in Islamic banks because they don't have any time of plans or features. And as a solution, 10 out of 40 indicated that Islamic banks should have plans suitable for low income participants.

Table 6: Transparent Solutions

Transparency	P4
Understand the market needs and act accordingly	6
Apply to all UAE finance	6
Support universities for Islamic finance to improve it in UAE	6
Provide more leaders to control the Islamic finance	7
Research is needed	3

Islamic finance and banking always had issues related to leading and management. Lack education and learning, especially a person who can hold this type of market and improve it. Therefore, one of the most repeated answer within the transparency is providing leaders that can control and improve the market and make it clear to others.

Table 7: Feedback from Islamic Banks representatives in Dubai.

Questions	Rate the solution for Customer Service.	Rate the solution for Marketing.	Rate the solution for Plans and deals.	Rate the solution for Transparency.
Interview 1	Agreed	Agreed	Not Suitable	Agreed
Interview 2	Need more clearance	Agreed	Not Suitable	Agreed
Interview 3	Agreed	Agreed	Agreed	Not suitable
Interview 4	Agreed	Not suitable	Not Suitable	Agreed
Interview 5	Not suitable	Need more clearance	Need more clearance	Agreed
Most repeated Solution	Use design that can adapt other nationalities	Help university students by giving investing in research	Increase participant with low income	Provide more leaders to control the Islamic finance

The last part of the survey is done through submitting the most repeated solutions from the customers and then hand it to 5 participants who work in Islamic Banks in managerial positions to make sure their feedback is valued.

1. Customer Services: 3 out of 5 representatives agreed that such as solutions can actually benefits them in the long term. Also, different speakers of different languages can be valued in the future to increase connection with countries that are not Muslims.
2. Marketing: 3 out of 5 representatives agreed on trying to support university students, but they won't be able to cover it fully. That is why they also added the idea to guiding students and increase their opportunities to gain investments by enrolling them into competitions.
3. Plans and features: The idea of increasing participants with low income was not accepted at all. Many reasons of why it got such an answer. Reasons such as the benefits of the bank, since it might be affected hugely because there are many low-income participants, however in the future it can happen if they are stabilized such as traditional banks.
4. Transparency: 4 out of 5 gladly accepted and were working on it already, which is the idea of having a big leader that make things easier and clearer for customers and worker. Example can be such as having a well-educated and qualified instructor to ensure learning and developments of new students to enter the field with great knowledge.

Conclusions

Islamic Banking still face some issues even though it is developing, apparently even all these years the Islamic Finance is still backing down unlike the traditional banks

Making people participate to underline problems can also underline solutions especially when it is about day to day experience. People have different opinions and situations but for some reasons when it comes to Islamic banking a number of them showed the same issues and same solution.

Simple ideas such as design and uniform of employee who work in Islamic banks make a different to people who are using the services.

Islamic finance is huge and strong concept, the need of studying it more alongside with shariah is needed. To increase knowledge about it to be able to apply it. First by providing a known role model where people can easily follow them.

Recommendations

1. More studies should be done around Islamic and shari'ah.
2. Scholars and awards should be given to whom can participant and improve Islamic financing and banking.
3. Customers should have multiple ways of using Islamic banking and more features whether in the country or overseas.
4. Plans that include families should be announces and cleared.
5. Plans for the low-income people should be taken care in order to improve their life.
6. Create designs for banks, that can attract people to feel welcomed, and it rather be cultural related more than western.

Appendices

Customer	/	Mattering	/	Plans	/	Transparency	
Use design that can adapt other nationalities	8	Create events	5	Present different types of plans	1	Understand how to process in UAE law	2
Not sure	2	Show the benefits of Islamic Finance	1	Increase branches to the other cities to use	1	Understand the market needs and act accordingly	6
Adapt modern Tech	4	Help university students by giving investing in research	9	Make the process easier	6	Apply to all UAE finance	6
No answer	1	Fight rumors about not using Islamic finance correctly	7	Travel Plans	5	Support universities for Islamic finance to improve it in UAE	6
Stop using people who look like sheikhs	7	Hire a marketing company	7	Make loans process easier	2	Not sure about that	0
Adapt ideas from Traditional banks	2	Start adding	1	Not sure about my answer	2	Focus on strategies to ensure Islamic finance	1
Translate services to different languages	6	Reveal information about how good is Sharia in terms of lost sharing	2	It looks acceptable	1	Provide more leaders to control the Islamic finance	7
Use different nationalities, not only Locals	9	Present in events	2	Do students loans	5	Clear the process of Islamic Finance	2
		Do marketing research	1	Increase participant with low inscome	10	Staff training will improve it	2
		Hire a marketing company	1	Create deals for small business	2	No enough information	1
		Reallocate the branches	1	More plans with entertainments	1	Research is needed	3
		Peak from traditional banks	1	Plans with Haj	1	I don't know about transparency and management	1
		Do interviews with celebrities	1	Make deals with features such as cinema or restaurants	1	No need, we can't affect it	1
				Create proper plans with different categories of income	1		

Appendix: Full solutions list from participants

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Innovation and Change Management in e-Education

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(Introduction) Description of change management scenario

Change management is a process that helps any organizational transitions. Its specially worked on the people side of change. It assists the employees to understand, commit and accept it in their current environments and organizations before getting into the change. Different types of change might happen in any institution. Leadership change, strategic change or either technological change. In the recent years our country has their own vision and mission to follow to achieve the highest expectation of change in ministry of education zone. Based on our country's Agenda, a great change should be happening in all life aspects by reaching 2021 and the most important change is related to ministry of education to implement a high level of education. Going through ministry of education strategic objectives, the observation will be that most of strategic objectives fall into the management and leadership system such as these strategic objectives: Achieving distinguished competence for the leadership and educational admins and staff , and eensure the provision of all administrative services in accordance with the standards of quality, efficiency and transparency. In my point of view leadership change is the most important and needed change in these days exactly to achieve sustainability in what we build and go over what remains. Since I attended my current organization and being a part of it, I am dreaming to have a chance in leadership management Change. I believe if there is successful leadership, surly there will be a successful applied of strategies and successful implementation of technology.

The scenario's idea

The organization is forced to have change management in the leadership that will focus on the admins staff at the beginning and on the teachers later on. Because we find a noticeable defect in the administrative staff between them and that is affected on their relationship with the teachers and students which leads to lack of productivity and achievement. Therefore, we decided to form and create a committee to make a real change in the admins staff of our institution and the sector manager is a part of the committee to have a real change management in addition to that one of the organization members is with committee too but in a secret way..

Scenario persona information (Details)

- A. The admins staff include 8 admins, they are
- 1- The school principal: Ms. Sabeeha Obaid (She is a manager more than being a leader, she applies macro management, reactive change is implemented in her organization).
 - 2- Head of academic affairs unit: Ms. Aisha al zarooni. (She is the successful leader and presenter in our school, she is always overloaded, creative and full of humanity and she will be agent of the change by being a main member in the change committee)
 - 3- Head of the school service unit: Ms. Samera Mohammed. (She is the right person on the right position).
 - 4- Head of student's affairs unit: Ms. Lateefa mohammed (she is a silent hard worker person)
 - 5- Academic advisor: Ms. Amal Al mazmmi. (She is quite and cool person)
 - 6- Female supervisor: Ms. Laila Ghloom (She is almost done with educational experience, on the verge of retirement and she is new in our organization).
 - 7- Security and safety specialist: Hind Mohammed (she is new employee with powerful energy)
 - 8- English Lead Teacher: Mouza Boasiba. (It's hard to know her personality, she has a fickle character, against the situations)
- B. Evaluate each admin from the admins staff with special form or survey based on their personality, position, skills, role, and achievement in the education fields.
- C. The survey will be done by the admin itself, the admins team, teachers, students and parents.
- D. Each Admin will get a Reflection on her evaluation survey to know their weakness and strengths points.
- E. The leadership change management will take a place based on the evaluation or the survey's results.
- F. One of the most important change stages is applying human development training to rebuild their weakness and improve their strengths.
- G. Apply a leadership management change as soon as its possible by following certain steps and procedures:
1. Sending an official email to inform the employees there will be a change.
 2. Implementing a lecture on the importance and the need of having a change in our institution with real evidence.
 3. Create a special meeting with the admins group to have a clear vision and to answer their questions and listen to their comments.
 4. A special meeting with each admin and going through the strengths and the weakness and provide her with the changing checklist.
 5. Going through the change with each admin.
 6. Following up.
 7. Editing with the change.

Future implications for the change management scenario

Finding out the problems it's achieving the first part of the solution. To start implementing the change on the real world for sure it will be very hard and difficult at the beginning and the employee will resist it. In my point of view a lot of emotional matters will happen especially in the female society. But the most important things to go through the change and neglect emotions.

Any change management is a double-edged weapon, it has the positive side and the negative side. The advantages should be taken the attention and the disadvantages should be ignored and neglected. After implementing the pre-change procedures, the committee faced a bad rejection of the change specially from the principal and generally from the admins staff.

At the beginning as it known that identify organization pains are tied back to leadership incompetency. After feeling of a bad resistance from the organization members, the committee tried the best to persuade the involved people to go through the change experience. After deep thinking, persuading and explaining the admins staff decided to work together and achieve this change by supporting, assisting and encouraging each other's to build and pass this change management with high expectations. As we know the admins staff include 9 admins. In my scenario the change will be 90% against the principle to achieve the highest expectation of the change.

The most important person in any organization is the principal, she demonstrates the organization based on her personality, role, achievement and position. Since The head of academic affairs unit Ms. Aisha met Ms. Sabeeha the school principal, she tried a lot to have a change in Ms. Sabeeha's personality, but she refused that. After the survey's reflection about the weakness and strengths she agreed with the change reflection and started inductively to have a change in her personality. She has to move from macro leader which care about the results to micro leader to know how to improve herself and give the employee the opportunity to gain new knowledge and develop their capabilities and performance. As it mentioned before Ms. Sabeeha is a manger morethan being a leader so this should be changed first and she has to move from reactive change to proactive change that will have a great different in her personality and with the organization members too by achieving effective communication through effective change.

To be honest she has an effective communication in managing not in leading, she is great manager, she is all in one in managing and demonstrating the other positions. Based on that the other admin are affected badly with her dealing, a very bad example, I have never ever heard that the parents contact directly with the principal , they have to contact with the head of student's affairs unit Ms. Lateefa for any academic problem or with the social advisor Ms. Amal for any behavioral problems. But in our organization all parents are contacting directly with principal for any issues even technological issue for 24 hours day and night , just an hour ago the principal called me to conform me that one of my student has technological issue in her laptop and she cannot access the exam tomorrow. In my point of view like these issues they have to contact with Ms. lateefa to find a solution for them. To achieve proactive manager Ms. Sabeeha has to avoid the communication inhibitors by communication with the right person, understanding all members culture exactly the teacher as it knowns we have a lot of teachers at schools from different cultures with different languages. Based on the language almost all of them can contact in English and related to the

culture, the principal has to know the teacher's culture specially the non-Arab teacher such as: Chinese teachers, Lab supervisors who are Indian or Filipino. Moreover, timing is important to achieve effective communication, so Mis Sabeeha has to choose the suitable time and avoid the peak time to contact with the teachers by calling them or chatting through WhatsApp. To achieve effective communication the leader should be an effective listener too, that mean the leader should listen carefully to the employees, take their opinions, and concern their ideas and questions. If the leaders avoid the communication inhibitors that mean she overcome the changing challenges.

As it mentioned before that the head of academic affairs unit Ms. Aisha is one of the committee members and she is playing the role of the agent change with the admins staff as she is in a real contact with of them and almost knows their weakness and strengths. In addition to that she has strong ability to motivate others, understand them and inspiring passion to others. As she is a successful leadership, agent change and a role model for a lot of members in our normal life, I believe she will achieve the leadership change management in our organization with the committee support by gaining commitment for the change , facilitating evaluation activities and monitoring and reporting progress of change.

After surfing on the change with Ms. Sabeeha and going through Ms. Amal's feedback with the agent change Ms. Aisha, Ms. Amal as an Academic advisor, she is achieving an effective communication through contacting with various of students, cultures, environment and attitudes. In my point of view Ms. Amal suffer from lack of leading traits. Leading traits can be gained through life coaching, courses and workshops with real applied and acting in our life situations. So, the committee will contact will the competent authority to take a part in their training and life coaching.

The head of students' affairs unit Ms. Lateefa , she was an English teacher and she get a chance to be transferred to a new position and in the same period of time they shifted her from her old school to our school to deal with the new position. So, she started a new position in a new environment with a new staff. I observed that she faces difficulties in contacting with cycle 2 students because she used to be in cycle 1 school. In addition to that Ms. Sabeeha was taking a big part of her position as she is all in one. Therefore while Ms. Sabeeha going through the change. I think Ms. Lateefa will get a chance to identify her personality and position too.

Ms. Samera is the head of the school service unit, as we said she is the right person on the right place. She can be a successful leadership based on her position she achieved the effective communication through contacting with various categories, she is the only person how contact with transportation, canteen suppliers, canteen supervisors, cleaners and even teachers and admin. We can identify her with proactive leader, leading the others who are under her responsibilities, helping them, assisting them to avoid struggling. I like her personality and her time well organizing between work and family time.

Ms. Laila actually is a new admin, she followed us during the distance learning so there is not any real contact with her and even she is grade 8 students' supervisor. And almost this is the last year in the work field.

Security and safety specialist Ms. Hind, she is in the beginning of her job journey, active, powerful, and accept any change. Through my short time face to face observation, she is a hard worker, work with passion and on time.

The English lead teacher Ms. Mouza, she is almost in the second year with her new position which is English teacher that mean English staff under her responsibilities. She was as a normal teacher in our team four three years and then she was shifted to a lead teacher after the pervious lead teacher displaced. We as a team we are lost because we are not getting any updates just sometime receiving emails without clear explanation. If we keep asking for clarification the answer will be all steps are on the email just go through it. We as a teacher we used to assist each other and try our best to be updated from anywhere. In my point of view our lead teacher has to go through the change to rebuild her personality and traits. Effective communication is disappeared so that mean there is no effective leading. The worst point I hated that we as a team are always in a bad situation that what we have been told by the lead in different than what we received from the principal and the head of academic affairs unit. As I see that there should be friendly sessions just to say what's going around us and, on our hearts, and why and to be clearer and more honest with each other.

In my point of view in the working field we must not deal with our mood among our responsibilities, and our lead is exactly that when its needed time we can't find any respond in any way at all so I think this types of personality should have some specific course to rebuild their personality and Ms. Aisha the change agent is totally agree with me.

In the middle of the change the committee and the change agent go through the organization to have the first observation. They concentrate on their observation in the most important admins who need a deep and great change and they are the principal Ms. Sabeeha, the academic advisor Ms. Amal and the English lead teacher Ms. Mouza and observing the others generally.

Starting with Ms. Sabeeha's observation, it was shows to the committee and the change agent that there is a change in her personality and started to have group share and decisions and distributing the tasks based on the team role and the members role, positions and abilities through the activation teams.

Ms. Aisha the head of academic affairs unit has been confirmed regarding her transition to another organization or school with the same position the head of academic affairs unit after a short period almost a month. So, by this way the principal will comfortable and she will accept the change as long as there is no competitor for her position and chair. Moreover, Mis Aisha will feel more comfortable to deal as the change agent in the remain period to achieve high percentage of the change.

Ms. Amal as an academic advisor she has done with the training, life coaching course and she get an opportunity from the principal side to manage and control the student's attitudes, leading the students and persuading the parents. So, she is going over the leadership traits.

Ms. Lateefa the head of students affairs unit , She is getting a chance to implement students activities , having an effective communication with the parents , but still she is poor in leading and managing the students in their attendance , events participations and implementation in outside school competitions. Ms. Aisha as a change agent noticed that Ms. Lateefa is uncomfortable in our

school and she wants to go back to her previous school and already the transfer request is completed.

The English lead teacher Ms. Mouza has been affected with the change through the training course and as the committee and the change agent observed that she started to be updated. Her changes is belonging the work only and it need a sustainability so we can say there is a change. Also, she needs a great change in her personality traits.

At the end of the change management we have to think more about sustainability which mean maintain going in the new way of the change and never return back to old way. Changing management should be a type of creating a culture of innovation to the organization that mean adding a new and unique thing to your organization. Sustain the change by creating a creative culture, building desire, communication and gaining knowledge through training, appreciation, supporting and rewarding them.

Ms. Sabeeha achieved a great change in her personality, at this time we can say that she is a successful leader and she is creating pictures of successful people to encourage the whole organization staff to be changed and provide them with pursuing opportunities. In the current time the principal believes in the micromanagement more than macro management, that means going through the details more than the result, moving around the details improve the leaders and the employee's skills and abilities. In addition to that we can say now she is a proactive leader and she has a proactive management that mean at least the organization, or the leader has a contingency plan for any sudden challenges and crisis. In addition to that she is able to dream, create and implement innovative strategies. Also, she can reshape the new operating system as needed with small updates that keep it current.

Ms. Aisha the change agent in her previous school and she was rewarded to be a school principal in her new school. She was on of the committee team and during the change she was under the observation to evaluate her for her new position. She was in the exact place with the exact role and she achieved at the end of the change. In the current time she is the leader and the change agent in her new position and organization so starting any change management to build a culture of creativity and innovation its easier from the beginning. To build a positive change she has to follow few imperatives : putting people first to inspire the purpose , to enable people with capabilities that mean in any organization people are with different tools, techniques, culture and skills so the leader has to build a collaborative environment with their abilities, and the leader should be an inclusive leader with a clear vision and roadmap and deal as a director. Congratulation Ms. Aisha you deserve it. As more you give as more you will be rewarded.

Ms. Amal thank you for being a great part of leadership change management and building collaborative environment between teachers, students and admins.

Ms. Lateefa Thank you for your creative touches around the parents and students. Have a great achieve with your previous school and keep going on creating an atmosphere full of creativity and innovation with the small kids.

Ms. Mouza after the deep sessions and rebuilding her personality, she felt that things are up and down, and all the English staff are upset about what's going here and there. She started a conversation about what's going on. So, we started to speak frankly about what's on our mind and

heart. She tried to be a good listener as much as she can. After that frankness conversation we opened a new life page. Based on that it's observed that mouza's personality is changing and she is creating a new team atmosphere full of trust, honesty, creativity, innovation and collaboration. Sustain the change is important than the change itself so make sure about it.

Following up is important to sustain the change by appreciating the teams and rewarding the team.

Editing with the change: the head of academic affairs unit Ms. Aisha transformed to cycle 3 school and a new member Ms. Mona will join our organization and she is new to her position too which is the head of academic affairs unit, so she did not know anything about the change and Ms. Sabeeha will start to guide her and explain her roles and responsibilities.

In addition to that Ms. Lateefa go back to her previous school so a new head of student affairs unit will joined our school, she is Ms. Wafa with 3 years' experience in this position so she will be more effective and proactive with the students , parents , teachers and admins.

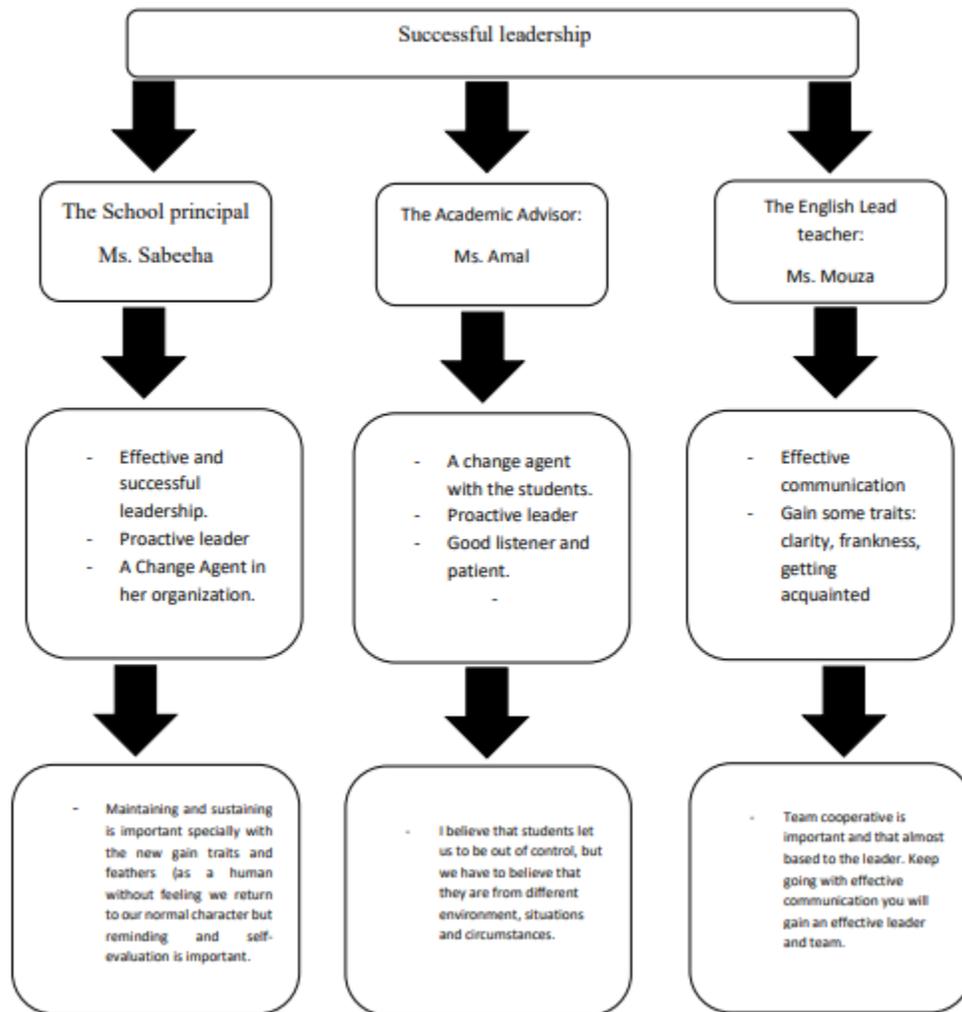
Our school is one of the biggest schools in this area and we have around 1000 students and 50 teachers, in my point of view we should have deputy academic in our school. The sector principal is told about that and she is agreeing to add Ms. Kaltham to our school and shifted her from the head of student's affairs unit to deputy academic. Almost she knows her role and responsibilities and she will work with the team proactively.

- The change advantages:

- The change started with admins staff, but it influences will reach to teachers, students and parents.
- To be a creative, innovation and a given admin or employee, you have to be in the correct place.
- Persuading, being frankly and effective communication are the keys of effective change.
- Self-transformation will improve to organization transformation.
- Drawing a clear vision and mission for the whole life.

- The change disadvantages:

- Sensitivity between the organization members.
- Living under work pressure.

The Scenario's Diagram:

How the change management will be linked to the Lewin’s model of change.

Unfreezing	Changes	Freezing
<ul style="list-style-type: none"> - Creating the change of committee. - Identifying the organization with the change process. - Build the desire to change through: Sending emails, presenting lecture and creating special meeting with the change elements. 	<ul style="list-style-type: none"> - The change agent’s role is implementing the change by going through the weakness and strengths of each change element from the admin team. - The admin team should gain the enough awareness to what is going. 	<ul style="list-style-type: none"> - The admin team implement the change by : improving the weakness, gaining the leader traits , changing the position and even the organization if its needed (Ms. Asiha has been transformed to otherschool so the principle will be more comfortable and on the other hand she will be rewarded by being a principal too. - The change will be evaluated through observation and the committee feedbacks.

Reference:

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Investigating the Impacts of FinTech on Commercial Banking in the United Arab Emirates

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Abstract

The research proposal will be investigating the impacts of incorporating Fintech within financial service industries, mainly within Commercial banking. Commercial banking is a sector of banking that offers its services and products to corporations, rather than individuals. The significance of this research will provide insights about the functioning of commercial banking and information about whether Fintechs are a threat to the financial industries. The study sample will be strictly limited to commercial banking employees, following a mixed approach in the collection and analysis of data to deeply investigate impacts of Fintech within this field of banking. The study will deeply identify the gap in technology within commercial banking through the interviews conducted, and data will be analyzed through NVivo. In addition, a survey will be conducted to help analyze which areas within commercial banking would require innovation to improve and ease services. This survey will be conducted on SurveyMonkey, an online platform that can be used to analyze the data collected directly. The research proposal also aims to look at customer satisfaction from previous years and see if a trend is established overtime; as technology improves, the services improve to increase customer satisfaction. It is expected to compare results with different commercial banks within the country to identify if similar trends are seen to produce an effective report. The study will also investigate how does the regulatory body play a role in the inclusion of Fintech within financial service industries, as previous researches have shown that regulators in different countries have helped in the development of the services due to Fintech inclusion.

Introduction

In the digital era, the abundantly prevailing modernized technology has influenced society's dependency to it in an individual's life. Technology has developed into a main source of reliance within a large range of activities, from personal activities to specific job roles, and thus making it merely impossible to endure in daily activities without it. Amongst different service sectors, the financial service industries rely heavily on technology in delivering products and services that meet customer expectations. The latest technology always offers faster speed and new features that increases convenience and introduces disruption to traditional methods of activities (Vives, 2017). Traditional business models and legacies are often strictly followed by financial industries and thus digital innovation may rise as a threat. The 2007/2008 financial crises have given an advantage for the technological startups to boost their businesses and position themselves in a competitive market whilst banks were vulnerable resolving the crisis.

Commercial banking, also known as business banking or institutional banking, is a sector of banking that provides services and products to corporations, organizations and institution. The services provided, like majority of the services in financial industries, function through technology such as trade management, asset management, merchant and treasury services, and other services (Golubic, 2019). Customers in this field of banking expect prompt results within

services to ease the corporation and sustain business deals. The engagement with Fintech firms may be a possibility to enhance and sustain the associations, or the financial industry as a whole could be a threat due to rise of Fintech. Although banks are willing to adopt these modern technologies, regulatory bodies play a role in obstructing the possibilities for these collaborations.

The purpose of this study is to highlight the emerging role of Fintechs within the accelerating growth of the digital era in the financial service industries, mainly within the commercial banking field. It is important for financial service industries to partner with Fintechs in order to coexist and maintain its position within the modern digital period; as Fintech firms have the technology and not a large customer base, whereas financial industries have a large customer base without the modern innovative technologies to ease services. The objectives of this study are to assess the effectiveness of Fintechs within commercial banking and to determine whether partnerships with Fintechs are more efficient than in-house built service technology by banks. The role of regulatory bodies in the inclusion of Fintech within commercial banking will also be identified

Literature Review

a. Types of innovation in the financial industry

Navaretti et al. (2017) have described Financial Technology (Fintechs) as the digitally innovative banking processes that may disrupt business models and applications, and the contemporary products and services directly available to customers that significantly effect the market within financial industries. These uprising firms are opposed as a threat to the traditional financial industries as they provide the latest products and services that promote a modernized method to bank.

Gomber et al. (2018) explained the three interconnected areas of Fintech engagement within financial service industries. Technology innovation is a type of innovation that involves the inclusion of the latest technological devices and software applications. This is described as the driving force to stimulate a change within the financial sector in which innovation is impossible without this initial step. The second type of Fintech engagement is Process Disruption in which amendments and modifications are processed within the daily operations of the current business model. The significance of this engagement is the usual tipping point, as many organizations tend to not divert from the legacy and traditional methods of operations. The final aspect of Fintech engagement is Service Transformation, which may only proceed following the other two crucial elements. The researchers argue that the results of partnerships with Fintechs have been outstanding, before these firms have been labeled as Fintech and considered threats. Golubic (2019) argues that Fintechs have accelerated as game changers since the vulnerability of banks due to the 2007 financial crisis. The link between the researches show that it is evident that perceptions of the financial industries to Fintechs are due to banks unable to compete technologically against the Fintech firms.

b. Commercial banking and Digital banking

Amongst the various sectors within a financial industry's business is Commercial banking, in which the clients are corporate organizations instead of individuals. In a research conducted by

Golubic (2019), a comparison between traditional and digitized methods of commercial banking, in addition to the inclusion of Fintech to this area of business and its impacts.

Commercial banking traditionally offers a wide range of services such as trade, asset management, advisory, valuation, investment banking, credit and payment services. When comparing to the digitized methods, services are provided online such as payments and transparency through trade and controls over assets. Introducing Fintechs in this area of business will introduce the latest financial innovation such as crowdfunding or peer-to-peer (P2P) lending, cross-border payments and distributed ledger technology (DLT). Ferrarini (2017) describes P2P lending as a method to receive funds through online platforms to help potential investors initiate their own businesses. Golubic (2019) describes that cross-border payment fees have the potential to be reduced when engaged with Fintechs, as not all financial services regulations apply to Fintech firms. Handro (2018) explains that DLT, commonly known as blockchain offers its services such as smart contracts, smart payments and digital assets through a network with transparency and privacy. The link between the authors is the ease and efficiency of these new technologies and services they provide to the corporate clients, as they provide full tracking and lower rates when compared to traditional methods of banking which does not offer full transparency. However, it is important to note that risks such as fraud may arise due to these Fintechs. Thus, customer safety is important when considering partnering with Fintechs.

Vasiljeva and Lukanova (2016) discussed the four elements that result into Fintech engagement. These include digital trends (for example digital currency), regulatory bodies requirement (anti-money laundry), customer pattern behaviors (engagement with technology to bank) and partnerships and investments with external stakeholders. It is evident from this research that Fintech engagement does not solemnly depend on the introduction of new technologies, but on the trends and social behavior of an individual in order to stand out. In a study conducted by Manasov and Ivanovska (2018), 39% out of 79% were millennial with the skills of “good understanding” of the latest technologies. This significance of this data is that the millennial represents a major cluster of the population and prefer to bank using the most modernized and digitized technologies, which includes banking with “tech giants” such as Amazon, Google and Apple. Nonetheless, 40% of the same population reported to bank with Facebook in the future. Thus, digital banking involves banking with the popular online platforms, as well as newest digital devices.

c. Regulatory role in implementing Fintech.

The significance of the researches conducted below reveal the convenience and ease of Fintech with approving regulatory bodies.

A study conducted by Polasik and Piotrowski (2016) was to investigate the introduction of Fintech in payment services within commercial banking in Poland. The research has a sample for 24 banks to investigate three main concepts, through a survey. The first survey was to investigate “important elements in bank’s strategy”, in which most banks voted strong customer relationship as the important strategy. The importance of this result is that banks would constantly remain customer centric within the services provided. The second survey was to compare payment services features with other banks. The results were wide-ranging, as certain banks preferred including innovative features in payments whereas others preferred increasing marketing approach. The final survey was to investigate main reason to introduce payment innovation within the services. The results were similar, as all banks would introduce Fintech

to attract customers. In addition, the aim to transition to a cashless society would require new technology to withstand the large volume of data through Big Data.

The commencement of Fintech in the financial service industries within the Chinese economy was no surprise due to the rapidly growing economy (Xiang et al, 2017). The inclusion of the latest technologies has improved the overall strategies and has increased the competitive scheme between financial industries. Customers have the ability to directly engage with these technologies due to the rise of Fintech, such as Big Data for variety, velocity and volume of data, Artificial Intelligence (AI) and Biometric Identification for personal and security identity. The ease of use and lower costs have significantly increased the customer satisfaction. In addition, the regulatory bodies have played a crucial role in the inclusion of Fintech within the rising economy, through a mandatory addition of Fintech within the financial industry framework. It is evident that regulatory bodies are important stakeholders to include these innovative technologies within the financial industries to improve services. This theory was supported by a study conducted by Zalan and Toufaily (2017), as in the Middle East region certain innovations may not advance due to “public ownership and concentration” regardless of the presence of Fintech firms.

d. Disadvantage of migration to Fintech

Vives (2017) noted that Fintechs may increase cyber-attacks and fraud regardless of it being an advantage to banks with the new innovative business approaches. This is the primary reason for regulatory bodies to restrict Fintech activities with financial industries to protect customer safety. Hackers may have access to customers’ sensitive data making them vulnerable. “Tech giants” such as Amazon, Apple and Google already have access on customers’ sensitive data from biometric identifications and emails, according to Manasov and Ivanovska (2018). In addition, bank information are set up in one device can lead to hackers accessing photos, social media accounts and even other devices due to shared accounts. Therefore, financial industries would have to consider customer safety when integrating Fintech devices. Within commercial banking, corporate data would also be vulnerable to cyber attacks.

Methodology

It is to be noted that the setting of the desired research would be limited strictly to banks; specifically commercial or business banking within the financial services field. In addition, the sample collected from this study would require being employees with a functional or business role related to commercial banking.

The most appropriate method to understand and further investigate the impact of Fintech on commercial banking would require following a mixed approach, as it is an exploratory topic to be further understood. The qualitative approach would provide a deeper understanding for the researcher with comments from employees within the commercial banking field. Interviews and focus groups are the most common and are best practice to collecting information on the topic.

For this study, interviews up to 30 minutes would need to be conducted and the subjects would be chosen through convenience sampling, based on knowledge and interactions with Fintech.

The insight collected from the interviews would provide a deeper understanding of the current “traditional” model followed within commercial banking and the expected understanding of certain employees of different generations about Fintech.

The target samples for the qualitative data collection aims to be employees within commercial banking with functional and business role as senior manager, chief operating officers and chief information officer. It would be ideal to also interview employees within the information technology division, sales team, products and services team, global trade team and operations team to gain insights about the technology and front to back end processing of the customer journey; from onboarding to account set up and the daily activities. All the interviewees will be asked the same questions to eliminate bias opinions. The interviews will be recorded for the study purpose only with consent from the interviewees and the audio collected would be analyzed through NVivo.

The quantitative approach in this study would provide an overall insight of three main elements; the areas of development technologically within commercial banking, the reason of implementation of these innovative solutions, and compare the reason of implementation of the Fintech with other banks. To collect the data, the researcher aims to send electronic copies of the survey, using GoogleForms as the platform for the users to fill in. The survey would have responses that include closed ended questions, likert scale and multiple-choice questions.

The data collected would then be analyzed through SPSS. The survey link would be distributed amongst the entire teams targeted to maximize results. The samples have also would be selected with regards to their functional role within the financial service organization being related to commercial banking. Thus, the sample for the quantitative data collection would include relationship managers, senior managers, chief operating officers, chief information officer, product and service managers and operations team.

Commercial banking customer satisfaction surveys from the organization would also need to be analyzed in order to create correlations between the enhanced digitized services and customer expectations.

Expected findings

The study aims to provide a detailed understanding of the impacts of inclusion of Fintech within Commercial banking. The mixed approach methodology of data collection and analysis aims to provide a complete insight about the overall functioning of Commercial banking and the gaps to be filled. Insights from the moment customers commence an account opening to the investment process are ideal to be gained. With the qualitative approach, the researcher aims to deeply understand the gap that the interviewees believe is the primary reason to engage with Fintech. The researcher aims to find the areas of improvement within the overall customer onboarding journey, from the front to back end, and understand the need of Fintech applied in this section. It also aims to find evidence to support the research objectives. In addition, the researcher aims to investigate deeply the main reasons for the rise of partnerships with Fintech, and to understand the main issues rising and limitations with in-house built software or technology. The researcher aims to interview at least two members from each of the divisions mentioned in the methodology section, to ensure that rich data has been collected from different points of view, before reaching saturation.

With the quantitative approach, the data result analyzed aims support the objectives as well as understand which technologies are to be prioritized within Fintech inclusion to commercial banking. The overall objective is to gain insights about experiences with the current technology used to communicate with customers, the simplicity of onboarding journey, reducing the complexity of vetting or credit checks, ability to provide services to customers with lower costs, reduced cross-border risks and ability for customers to bank with ease. Moreover, it would be ideal if the researcher could gain access to customer satisfaction survey from previous years in order to create a correlation between customer satisfaction and services offered within commercial banking. It is expected that many employees may not participate in the survey, thus the researcher aims to received at least a 70% response rate to be able to analyze the data with proper supporting evidence.

With the data collated from different commercial banking organizations, a correlation of the impact of Fintech will be conducted. This will assess and provide an average view of Fintech implementation and which area would require Fintech support.

In conclusion, Fintech firms may have a potential risk to overtake the financial service industries. However, banks courageously partner with these innovative firms in order to introduce the latest technologies within their business models and keep up with the competitive environment. The risk of collaborating Fintech with commercial banking would need to ensure that customer data, from the client and corporate ends, are not affected. Digital banking is the future of banking, and thus financial services would need to step up in the digital competitive world in order to still exist. Regulatory bodies in the U.A.E would also need to collaborate to ensure that banks do keep up within the competitiveness of the financial services due to the rise of Fintech firms.

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