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Superapps as Enterprise-wide Applications & Services in E-governance: Cases for UAE

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ABSTRACT

Title: The title of this paper is superapps Enterprise-wide applications & services in e-governance organizations. The research project will highlight the popularity of the super app and its importance in recent times.

Purpose: The purpose of this is to understand the effectiveness of super app in the government sector and the ways it is utilised by the users. It also states the ways by which super app within the government firms can usefully accomplish a wider range of services. As a result of the implementation of super apps, government firms can present their services to a huge section of their target people. Therefore, the satisfaction rate of the customers of the services or the products enhances to a considerable rate.

Problem: Along with benefits, super app also comprises of wide range of issues as it needs high-ended WIFI network services. However, such types of services are not available all times in the day and this creates an issue within the users. Moreover, the sites are sometimes hanged due to high user's accessibility and this also creates a problem within the mind-set of the customers using the application.

H0: Hypothesis: the use of super apps effectively contributes to e governance by accomplishing wider range of services and reach wider range of customers.

H1: Super app services availability depends on several factors which affects it such as WIFI availability and customer mindset

Approach: Despite of the negative aspects, the super applications are widely accepted by the users and are also utilised effectively. This is because the users can reach wide range of activities with the super app. Therefore, the trust and reliability of the customers over these application increases day by day in the recent era.

Analysis: It can be mentioned that super apps are extremely useful for the customers in achieving their services in a very short period of time.

1. INTRODUCTION

According to (Doherty and Terry, 2009; Roa et al., 2021), sustainability is one of the prime essentials and to sustain in this digital world, every individual needs to abide by and modify as per the necessities and pace of the situation. Further, if such is not

performed, then the individual or organizations operating at this time will become obsolete (Al Hammadi and Nobanee, 2019). Therefore, to maintain the pace, the maximum extent of the individual and concerns in recent times utilizes

multiple applications for performing various activities. However, it creates problems and confusion among the users to accomplish the tasks accurately (Hasselwander, 2023). To get rid of such types of issues, the concept of "Super App" came into the limelight. This paper aims to offer a brief description of the application of super app in e-government actions (H. Alzoubi et al., 2020).

As per the views of (Steinberg et al., 2022), superapps are considered an integrated ecosystem that comprises varied types of applications required by the individual or e-government concerns in the entire day. This means that the super app is a multi-functionality application that combines a wide range of features and activities within a single umbrella (H. M. Alzoubi et al., 2020; Jia et al., 2022; M. El Khatib et al., 2022a). Therefore, in this study discussion will be made on the prime intention behind it as well as analyse the way through which it could be used to fulfil the activities of the e-government.

2. LITERATURE REVIEW

2.1 Strategic technology trends of Supper Apps: Impact on business goal

According to (Bawaneh et al., 2023), the super app is considered one of the strategic technology trends that customized the needs into conveniences. The super app is recognized as a closed ecosystem that can be easily steered and offers fantastic expertise (Almasaeid et al., 2022). Due to this, the super app is gaining popularity and growth in the minds of the users. On the other hand, (Akour et al., 2023; Muhammad Turki Alshurideh et al., 2022c) described that super app is a self-consolidated ecosystem comprising a wide level of private as well as commercial services. However, super apps became successful mainly due to the inclusion of artificial intelligence (AI) and cloud platforms that can easily implement and activate the services in web or mobile apps (H. M. Alzoubi et al., 2022d). Due to this, these super apps include varied requirements like shopping, entertainment, banking options, monetary transactions, loan filling etc (M. El Khatib et al., 2022b). Thus, it can be described that super apps helped in the introduction of the APIs that ease the exchange of data and information uplifting the business of recent days. So, due to these underlined features, the super app is undeniably effective for e-government concerns and users in recent days (H.

M. Alzoubi et al., 2022a). Since most firms can unify various services within a single term as it enhances the advantages of the customers and organizations in the long run (I. Akour et al., 2022; Alzoubi and Ahmed, 2019). A Super app is a multi-purpose application that offers a variety of services to its users. For example, Super app can leverage sustainable technology to improve its business goals, benefit various industries, positively impact society, and protect the environment. Here's how:

1. Business Goals: The Super app can implement sustainable technology such as electric vehicles, route optimization algorithms, and eco-friendly packaging to reduce its carbon footprint and operating costs . By doing so, the app can enhance its brand reputation and attract environmentally conscious customers who prefer eco-friendly services (El Khatib et al., 2021).
2. Various Industries: The Super app can impact various industries such as the automotive and logistics sectors by promoting the adoption of electric vehicles and implementing sustainable logistics practices. This can drive the demand for sustainable transportation and logistics, leading to a positive impact on the environment (Aityassine et al., 2022).
3. Society: The Super app can benefit society by offering services that promote sustainability, such as carpooling and eco-friendly delivery options. This can reduce traffic congestion, improve air quality, and promote sustainable living among its users (H. M. Alzoubi et al., 2022c).
4. Environment: The Super app can protect the environment by promoting sustainable practices such as reducing plastic waste, using renewable energy, and implementing sustainable supply chain management. This can help reduce the app's carbon footprint and contribute to global efforts to address climate change (Louzi et al., 2022b; Nuseir, 2021).

Thus, sustainable technology can have a significant impact on businesses, industries, society, and the environment (H. M. Alzoubi et al., 2022e; El Khatib and Ahmed, 2020). Super apps can leverage sustainable technology to improve their business goals, benefit various industries, positively impact society, and protect the environment.

2.2. Super Apps and its purpose

Super App is a consolidated application that can offer its consumers a wide range of services within a single roof. (Al-Awamleh et al., 2022; Muhammad Alshurideh et al., 2022; Amiri et al., 2020) said that the super app offers the edge over the requirements and needs of the users (Al-Kassem, 2014). It tries to mix as well as mash a mass of unrelated activities or services within a unique application (Nadzri et al., 2023). Although, each service is not relative to one another all are essential to complete a single day or 24 hours (Abudaqa et al., 2021; Khatib and Oplencia, 2015). Moreover, the super app is developed with the use of its core functionality but it mainly scales the values of the users rather than its own (Louzi et al., 2022a). So, its demand and craze are increasing day by day in the current time as a bonfire in the entire globe. Apart from this, it is also depicted (Kurdi et al., 2022; Nuseir and Elrefae, 2022) that the supper app is a mobile or web application but it is entirely successful in offering a bunch of communication, e-commerce and e-government services accurately. So, it is said that the super app effectively embraces personal as well as professional aspects successfully.

2.3. Technical profile: Features and working of Supper Apps

The super app is an extraordinary application that can be easily operated and accessed by each individual. As opined by (Al-Marroof et al., 2022b; Sakkthivel et al., 2022) the criteria of compound purposes or features make a general application into the super app (Al-Kassem, 2017). Some of the noteworthy features of the super app that makes them indispensable to others are extensiveness, the privacy of the facts, social responsibility, problem-solving aspect and ease of operation etc which gears a huge space within the hearts of humans (El Khatib, 2015; Nuseir and Aljumah, 2020). Thus, by the implementation of various eco-friendly super apps, e-government firms easily contribute to ecological sustainability (Al-Marroof et al., 2022a).

The internal software development members implement and organize numerous inventive micro apps inculcated within the super app (Al-Kassem et al., 2022; Muhammad Turki Alshurideh et al., 2022b). With the use of these apps, the super app offers wide access to a huge range of convenient services (Aljumah et al., 2020).

Moreover, the super app works in an independent platform presenting lifestyle services to its users. This makes the daily life of the individual becomes very easy and tension free as compared to previous times (M. Alshurideh et al., 2023).

2.4. Internal technology of Supper Apps and its descriptions

Super apps present enterprises with a very comfortable solution to offer diverse customised services to customers (El Khatib et al., 2019). Super apps are implemented as hybrid apps making use of cloud services and ios applications (Nuseir, 2020). Along with this, super apps also use android applications so that all the users can easily make use of them in a simplified manner (Alshawabkeh et al., 2021; M T Alshurideh et al., 2022). The super app developers also implement capacitors as an open technology along with JavaScript to make it applicable for any sort of commercial or entertainment service (Muhammad Turki Alshurideh et al., 2022a; Khan et al., 2022; Lee et al., 2023). In contrast, if the above-mentioned applications are introduced then it could not be fruitful in developing it (I. A. Akour et al., 2022; A I Aljumah et al., 2022a). At the same time, the super app could not be such user friendly as it is in recent times (Ahmed et al., 2022). Other than this, UI/UX designs are also essential as it is extremely important for the development of any sort of web application (Alzoubi et al., 2019; H. M. Alzoubi et al., 2022f; Nuseir et al., 2023). Highly advanced technologies and licensed software are used to create super apps which can be handled effectively by customers residing in different areas.

2.5. Opportunity: Benefit and Impact of Supper Apps on business objectives

In this competitive business scenario, most entrepreneurs desire to remain in the topmost position. To do so, try to opt for the super app as it is primly essential in this digital world (A I Aljumah et al., 2022a). This is because, with the use of the super app, the organization can offer various services to its target people within a single roof of systems (Aziz et al., 2023). By doing so, the enterprises can easily branch out their services to a wider range of people and effortlessly expand their business (Al-Kassem et al., 2013; R. S. Al-Marroof et al., 2021b; A I Aljumah et al., 2022b). This will assist the business to increase its total sales

and profit margin considerably (Hani Al-Kassem, 2021). The total revenue and net income of the concern would also advance significantly in the coming days (Kassem and Martinez, 2022; Khatib et al., 2016). Along with this, the awareness of the firm within the target groups would get enhanced and this will affect very effectively the upliftment of the organization in future eras (Osman Gulseven and Ahmed, 2022). Thus, it can be stated that super apps proved extremely beneficial for the growth of businesses in the present and future eras. According to (Ahmed and Nabeel Al Amiri, 2022; Al-Dmour et al., 2023; Aljumah et al., 2021a), Super apps comprise a wide range of benefits. Among many others, some of the noteworthy ones are presented below:

- Super apps offer the facility for the users to be entertained for the entire day (Mohammed T. Nuseir et al., 2022). This is possible only due to the linking of the super apps with the social media platforms that can offer high-end engagements (O Gulseven and Ahmed, 2022).
- Super apps present competency and efficiency to the users and so a wide range of e-government services easily opt for these applications (Abudaqa et al., 2022; El Khatib and Ahmed, 2019).
- The super app also offers convenience to its users and so it is widely utilized by users of varying ages, castes, sex, race and genders (Ahmad Ibrahim Aljumah et al., 2022a; M. T. Alshurideh et al., 2023b).
- The super app includes personal and official services and so it is highly preferred by users of various age groups and companies (Aljumah et al., 2021b; Taher M. Ghazal et al., 2023).
- The super app also presents various opportunities to the users and so it is highly accepted by people in various places and concerns (El Khatib et al., 2020b).
- The super app also offers numerous e-government transactions making it easy and useful for the users.

2.6 Challenges and weakness of Supper Apps

Table 1: Table for case demonstration

Case	Demonstration	Motivation
Case A	DubaiNow Business is a super	The app allows businesses to apply

Based on the work of (A. Al-Marroof et al., 2021), the challenges of the super app are extremely dangerous since the issues of cyber-crimes are increasing day by day (Nuseir et al., 2021). As a result, the customer database of the super app can get hacked by internet hackers at any point in time and this could hamper the trust and brand image of the concern (M. El Khatib et al., 2021; M. Alzoubi et al., 2021). The problems related to services performances can differ as it is entirely related to the cloud and the internet and so it can create discrepancies (M. T. Alshurideh et al., 2023c). Therefore, it could prove harmful for the e-government firms destroying the trust in the market among many others (Alzoubi, H MALhamad et al., 2021; Mat Som and Kassem, 2013). The porous defence process of the super apps also creates difficulty within the minds of the users and it is also considered another essential weakness for super apps (M. T. Alshurideh et al., 2023a; Blooshi et al., 2023). In addition, this, single security system within the super app is also quite challenging as it does not serve accurately for customers (Abudaqa et al., 2021; Aljumah et al., 2023). The malware attracts within the applications also creates a jam or block within the services of the applications and hinders its path of the application (M. T. Alshurideh et al., 2023d; El Khatib et al., 2020a). Hence, the satisfaction rate and belief of the users also get disturbed entirely by the super apps.

3. METHODOLOGY

3.1. Case Demonstration

Four case studies will be chosen, based on the super app integration in two UAE-based super apps, in addition to two super apps which are from Latin America and Singapore. In this segment scholarly articles, and company websites were chosen to obtain reliable data. In this section through four cases, super apps and their application or usage have been depicted as a project. Furthermore, Table 1 will explain the demonstration of the apps as well as the motivation behind using these apps. This table will also describe the potential ways through which these super apps influenced the regular lives of several individuals.

<p>DubaiNow Business super app UAE Virtual platform offering information in relation to permits</p>	<p>app developed by the Dubai Department of Economic Development (DED) that provides businesses in Dubai with a range of services and information related to licensing, permits, and economic activities (R. S. Al-Marouf et al., 2021a).</p>	<p>for and renew licenses, access information about regulations and procedures, and pay fees and fines. In addition, the app provides businesses with access to real-time information about economic indicators and trends, as well as news and updates related to the business environment in Dubai.</p>
<p>Case B AD Police app</p>	<p>A super app developed by Abu Dhabi Police offering a range of services related to public safety, security, and crime prevention (Arshad et al., 2023). The app allows users to report crimes, request emergency services, access traffic services, pay fines and fees, and track the status of their applications.</p>	<p>The AD Police app aims to provide a convenient and efficient way for citizens and residents in Abu Dhabi to access police services and information. The app also aims to enhance public safety by allowing users to report crimes and request emergency services quickly and easily.</p>
<p>Case C Tawtheeq Tawtheeq is a super app developed by the Abu Dhabi government that aims to streamline the process of renting properties in the emirate.</p>	<p>The app allows landlords to register their properties and generate tenancy contracts, while tenants can use the app to search for available properties and sign contracts (Muhammad Turki Alshurideh et al., 2022d).</p>	<p>The app has helped to reduce paperwork and streamline the rental process in Abu Dhabi.</p>
<p>Case D: Al Hosn App</p>	<p>A super app developed by the UAE government in collaboration with the Ministry of Health and Prevention, offering a range of services related to COVID-19. The app allows users to access their vaccination records, book vaccination appointments, receive test results, and receive notifications and alerts related to COVID-19.</p>	<p>The Al Hosn App aims to provide a centralized platform for managing COVID-19-related services and information in the UAE. The app also aims to enhance public safety by providing users with quick and easy access to COVID-19-related services and information.</p>

4. CASE EFFECTIVENESS

This evaluation is revolving around how the aforementioned super apps have been utilized.

Case A

The DubaiNow Business app merged as one of the most secure multi-faceted super apps as well as messenger, providing free calls, video conferencing, chats as well as lifestyle utilities (Al-

Kassem et al., 2012). Moreover, this app provides valuable information and facts regarding the permits and licenses to a wide range of individual. It also offers real –time facts and details regarding eh economic situations of the nation (M T Nuseir et al., 2022a) . Moreover, users can also stay updated with the latest news, along with the users can also follow their preferred media as well as topics, can create filters, without missing any significant

stories (E. Khatib et al., 2021). Moreover, users can keep their information private and secure through this upper app (Akour et al., 2021; Al-Kassem et al., 2013; T M Ghazal et al., 2023a). The majority of the messages in this super app, channels, and groups are encrypted with features such as AES encryption. Moreover, this app also allows users to keep in touch with their nearer and dearer ones irrespective of the devices they are applying (AlDhaheri et al., 2023; El Khatib and Ahmed, 2018; Varma et al., 2023). Users can also sign in from countless numbers of devices, continuing their interactions in one go. Furthermore, the DubaiNow Business super app also assists the interested individual to renew and generate new licences within a very short period of time (H. Alzoubi et al., 2022). The licenses can also be prepared in a very hassle free manner. One of the benefits of this super app is there are no fees for subscription as well as any other hidden fees in terms of using this app.

Case B

The AD Police app has been well-received by the public, with many users praising its convenience and ease of use (Alkatheeri, et al., 2020). The app has helped to streamline police services and reduce response times for emergency services (T M Ghazal et al., 2023c; Yasir et al., 2022). In addition, the app has helped to increase public awareness of police services and encourage citizens to report crimes and suspicious activities (E Tariq et al., 2022). The app has also helped to reduce traffic congestion by allowing users to access traffic services and pay fines and fees online, without having to visit a police station in person (Khatib et al., 2022; M T Nuseir et al., 2022b). Overall, the AD Police app has been an effective tool for enhancing public safety and improving police services in Abu Dhabi.

Case C

Tawtheeq is an emerging as one of the most beneficial apps in terms of offering the facility of renting properties of diverse types and sizes in different parts of the city. Tawtheeq.com provides the facility of introducing their properties within the sites of Tawtheeq and can get a wide range of tenancy contacts (T M Ghazal et al., 2023b). Furthermore, through this app the tenants can gather a wide range of prospective clients that can prove beneficial for them (Emad Tariq et al., 2022).

One of the potential benefits of Tawtheeq in this respect is to offer various beautiful and furnished properties in a very affordable rate. Along with this, the customers can also enjoy the right of viewing the properties at their feasible times by mentioning in the applications (Farrukh et al., 2023). So, such types of apps are extremely preferred by the individual of Dubai rather than others since these applications are extremely advantageous (Nuseir and Aljumah, 2022).

Case D

The Al Hosn App has been widely adopted by the public, with many users relying on the app for managing their COVID-19-related services and information (H. M. Alzoubi et al., 2022b). The app has helped to streamline the process of booking vaccination appointments and receiving test results, reducing wait times and improving overall efficiency (T M Ghazal et al., 2023b). In addition, the app has helped to increase public awareness of COVID-19-related services and information, encouraging citizens to take appropriate measures to prevent the spread of the virus (E. Khatib et al., 2022; Mubeen et al., 2022; Nuseir et al., 2020). The app has also helped to improve public safety by providing users with notifications

5. RECOMMENDATIONS

Super apps are gaining wide attention and popularity in the hearts of people. Therefore, to retain its importance and benefits, it is better to improve its digital aspects so that, its challenges cannot restrict its services. At the same time, the companies implementing super apps also need to offer extreme back-end support for the proper functioning of the super apps. In case such is not done, then it can hinder the scope of success of the company as well as the application. Therefore, it is better to offer varied types of innovations from time to time the software developers so that they can get tallied with the current situations (Ahmad Ibrahim Aljumah et al., 2022b; Gaytan et al., 2023). Such types of improvements can also become advantageous for the users as newly added facilities could be attained by the clients with time. Otherwise, the application can become outdated and hence its importance in the minds of the people could get lowered in the coming days. Hence, the developers need to be very vigilant about the market changes so that they can be implemented

within the application to maintain their position in the market scenario.

6. CONCLUSION

From the above, it could be concluded that the structural design of super apps is extremely simple and it offers a simple platform of commitment. This platform not only presents entertainment but also assists in accomplishing varied types of important official transactions like bill payments, loan sanctions, EMI payments etc. All these activities can be attained from a single application with the use of unique functionalities of the application. Due to the presence of such types of facilities, most of the institutions, government or private are introducing their super apps to engage more and more users. Thus, a wide range of customers is signing into these apps to make life simple and hassle-free. However, to boost the preferences of super apps, they need to be designed in such a way that it becomes very simple to handle and access.

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Investigating the effect of Mobile Banking on Productivity and Service Quality: Cases from UAE Banking Sector

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ABSTRACT

"The number one benefit of information technology is that it empowers people to do what they want to do. It lets people be creative. It lets people be productive. It lets people learn things they didn't think they could learn before, and so in a sense it is all about potential." The American businessman Steve Ballmer once said.

Nowadays, being up to date with the changes in the market is a necessity for a successful business as applying mobile banking services resulted in some great changes in the bank's working system. The mobile banking application has improved the working environments for everyone involved including employees and customers; Being able to access the information when is needed and approving the transactions digitally considered an important usage of mobile banking application. However, this paper covers the effect of mobile banking on productivity and quality; it has literature review and research findings from analyzing the responses that supported research hypotheses. It also includes other aspects such as the challenges that banks are facing because of the implementation mobile banking services. However, the results indicated a significant positive impact on mobile banking adoption. Finally, the paper concludes some recommendations to enhance the provided services and improve the customers' satisfaction.

1. INTRODUCTION

Nowadays Mobile banking is a tool launched by different banks locally and globally (Lee and Chen, 2022). As we know, the Internet has a universal widespread usage, which is utilized in different ways. To be specific e-business nowadays became one of the IT applications with the most astounding effect upon the worldwide economy (R. S. Al-Marroof et al., 2021; Chaouali et al., 2020). However, in this paper we are going to shed the light on the effect of mobile banking to improve productivity and quality through the right utilization of the internet to improve business process and enhance

the transactions to serve clients demands. We are going to find out if the mobile banking is supporting the productivity and quality or not within the selected bank for our research, which is Emirates NBD bank and compare it with other banks which, are consider as ENBD competitors within the same sector.

1.1. Identifying the problem

- **Did the productivity and quality increased within the bank?**

Today most of the banks have applied the online

applications as an additional way to offer and promote the quality of delivered services, which will support them to expand their services globally (M. El Khatib et al., 2022a; Oyelami et al., 2020). Banks need to offer a superb service to clients specially those who are sophisticated and will not agree to below average services (Al-Kassem et al., 2012; Blooshi et al., 2023; Frederico et al., 2021). Therefore, IT in general and E-banking in particular have to escalate the competitiveness and provide the services that can differentiate their services from their rivals and enhance the overall access and usage of technologies via smart applications (R. S. Al-Marouf et al., 2021; Aljumah et al., 2023; Hajishirzi et al., 2022).

- **Why do you think this is a problem?**

E-banking plays a major role in contributing to the future of this developed country, however, most of the banks looks in the direction of exploit opportunities and overcome obstacles that might occur to enhance the overall performance and improve the profitability (Bawaneh et al., 2023; Çelikçapa and Emel, 2005; Louzi et al., 2022a). They are working hard to provide efficient, quick and reliable services to satisfy their customers (Ahmad Ibrahim Aljumah et al., 2022a; E. Khatib et al., 2022; Morash, 2001). Therefore, this can be a problem if productivity, quality or both of them decreased within the bank for the duration of using the smart applications, but on the other hand, it can be considered as an improvement way if productivity, quality or both of them increased (Abudaqa et al., 2021; Farrukh et al., 2023).

2. LITERATURE REVIEW

Today's world is changing due to the increased use of online access to the internet services. One very important part is the rapid growth of the Mobile banking. Just through communication, there has been a lot of exchange of finance and retail activities on the internet (Al-Kassem et al., 2013; R. S. Al-Marouf et al., 2021; ELSamen and Alshurideh, 2012). This has led to the simplification of business, increase in the efficiency and improvement of production and quality of business. The electronic banking helped in solving the issue of long queue, reduced the use of papers or ledgers, and the problems of storing information (Akour et al., 2023; Almasaeid et al., 2022; Yasir et al., 2022). This literature review will highlight the discussion of how electronic banking has improved

productivity and quality of services (Ahmed et al., 2022; Muhammad Turki Alshurideh et al., 2022c; Sardana and Bajpai, 2020).

E- Banking involves the use of Mobile Banking. The mobile banking has considered as on the convenient tools that has enabled a twenty-four hour operation and helps customers to access banking services at any time (I. Akour et al., 2022; Alshawabkeh et al., 2021; Arshad et al., 2023). This accordingly improves production and quality because it reduces the overcrowding that customers would experience in the banks. Moreover, it has reduced the cases of robbery because customers can transact at the time they feel they are safe; therefore leading to high production (Amiri et al., 2020; Mubeen et al., 2022).

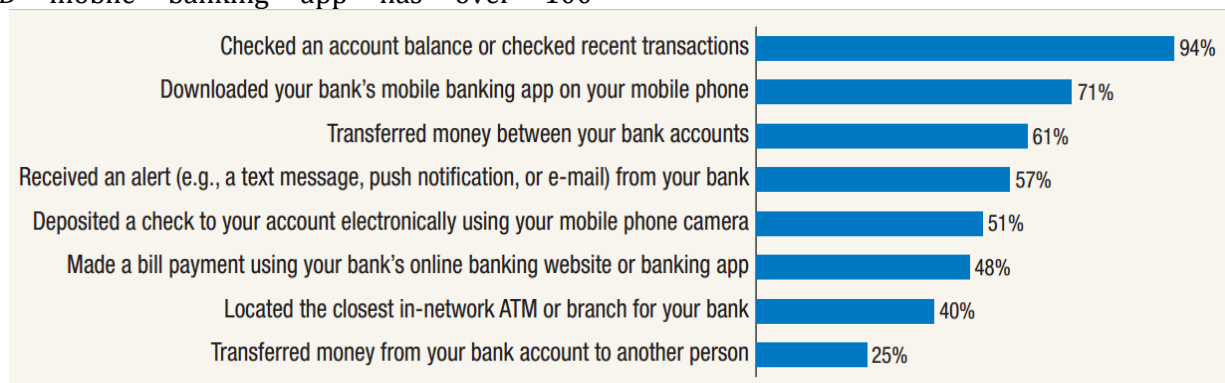
Mobile banking assists customers to make paper check deposits that transfers more money through the business and reduces the amount of expense collection. In this case, one does not have to wait for a month for the payment of services or products delivered. They are paid once the services are complete (Beshir and Zelalem, 2020; Louzi et al., 2022b). In addition, credit and debit card transactions are conducted faster through the smart phone (El Khatib et al., 2021; Varma et al., 2023). These payments are transferred electronically from the customer account into the banks account immediately, which in turn improves production and the quality of the service (Mat Som and Kassem, 2013). Moreover, the customer will be able to check for balances at any place and at any time, which save time greatly as compared to the restricted timings and overcrowding at the banks (M T Alshurideh et al., 2022; El Khatib and Ahmed, 2020; T M Ghazal et al., 2023c; Mohammed T. Nuseir et al., 2022). Therefore it is economical and thus improves production. Finally mobile banking enables payment of bills on due dates (Aityassine et al., 2022; A. Al-Marouf et al., 2021; M. T. Alshurideh et al., 2023a). At any time and place of the customer's convenience; hence, it also saves time thus improving productivity. Mobile Banking can improve productivity and quality of banking services (M. T. Alshurideh et al., 2023b; T M Ghazal et al., 2023b). This is mainly done through smart phones. Accordingly, it saves time and related costs that one has to incur while going into the bank (Alhamad et al., 2021; A I Aljumah et al., 2022;

Muhammad Alshurideh et al., 2022). This saves time for the customer and the bank and therefore the bank or the customers have to do other economical activities to earn more income (I. A. Akour et al., 2022; Sakkthivel et al., 2022). Furthermore, there are other applications that can be done through this type of banking such as credit card application, loan applications, investments and registration of utility billers which result in improving production and quality of banking services (Khan et al., 2022; M. El Khatib et al., 2022b).

According to the annual report 2014 for Emirates NBD, mobile banking services were awarded as the 'Best Mobile Banking App' for the Middle East and Africa region (Saeed et al., 2021). The report highlighted that one-third of eligible customers now are using mobile banking services resulting in digital transactions growing at 20%, leave behind various branch transactions (Akour et al., 2021; H. M. Alzoubi et al., 2022d; Kurdi et al., 2022b). The bank investment in digital banking has continued its success with increased migration of routine transactions to Mobile Banking channels. Emirates NBD mobile banking app has over 100

functionalities including mePay, the first peer-to-peer payment solution in UAE and Shake-N-Save, the first gamify, mobile only savings product in the region (Farrukh et al., 2023; Khatib and Opulencia, 2015; Nuseir and Aljumah, 2020)

Nevertheless, regarding mobile banking productivity, banks will require accurate measurements to control the numerous needed changes, for example, RSF (Required Stable Funding), which focus on long term funding sources and expressly consider the human element in producing income development (Al-Awamleh et al., 2022; Aziz et al., 2023; E Tariq et al., 2022). Consolidated with a detailed understanding of business sector potential, RSF can improve choices in a selection of contexts (H. M. Alzoubi et al., 2022c; T M Ghazal et al., 2023b). Moreover, measuring the traffic into the bank branches, the number of clients that been served through various services such as payments, deposits and loans (T M Ghazal et al., 2023a; Nuseir et al., 2023). The below chart shows some metrics of measuring productivity:



(Federal Reserve Board publications, 2020)

Last but not least mobile banking has improved service delivery extremely in recent years. This has led to the adoption of internet appliances by many customers hence; banking services are quickly moving away from office to the internet (Al-Dmour et al., 2023; El Khatib, 2015; Kurdi et al., 2022a). Besides that, customers have a perception that banking is a 24-hour service, which is a challenging aspect to managers because the internet is shifting the power from managers to customers. Thus, though mobile banking has advantages it has also its own drawbacks (Al-Kassem, 2014; Nuseira and Aljumahb, 2020).

3. METHODOLOGY

The research methods, which have been used in this research, are the qualitative and quantitative methods (Survey& Interview); where primary data has been collected from interviews/questionnaires conducted with employees from different divisions including IT, Business Development and Customer Relations within ENBD and other competing banks such as Al Hilal bank, Citi Bank and ADIB. We supported our findings by data gathered from secondary sources such as websites and journal articles (Al-Marroof et al., 2022; Taher M. Ghazal et al., 2023). However, primary data and secondary

data were combined and analyzed to find the required answers and results for the research hypothesis that are:

- Is mobile banking affecting the productivity?
- Is mobile banking affecting the service quality?

4. RESULTS

Research Findings (Questionnaire)

We conducted a questionnaire about “The effect of Mobile Banking on Productivity and Quality”. The below paragraphs will demonstrate the results of the survey which contained 14 different questions and distributed to 40 participants who are a part of banking society.

Figure No.1 “Question 1”

The first question was very straight forward which was about knowing the gender of our participants for demographic information. As shown in the pie chart figure no.1, 55% of them are males and 45% are females.

The second question was about knowing age groups of the responded participants. We found out that 40% of participants are working at bank from age group (35-44) and 33% of them are between (25 to 34) years old, the 12% from 18-24 years old and the 10% from 45-45 years old. Since most of the respondent from middle age group that indicates to the knowledge and experience they have about banking services. As shown in Figure No.2-

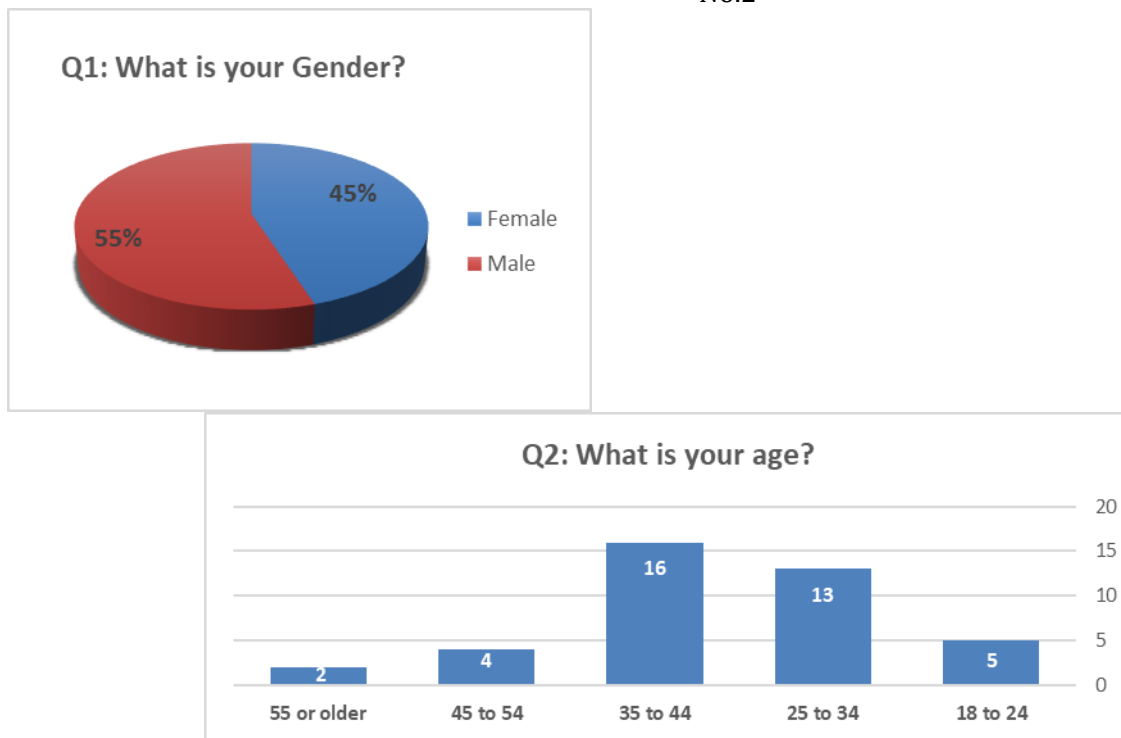


Figure No.2 “Question 2”

The third question describes the working place of our respondents. We found out that 28% of the employed participants working in the Citi bank with a three category such as customer service, business development and Information

Technology while 25% of participants working at ADIB & ENBD. The remaining 22% of participants are working at Al Hilal Bank. As shown in Figure No.3-

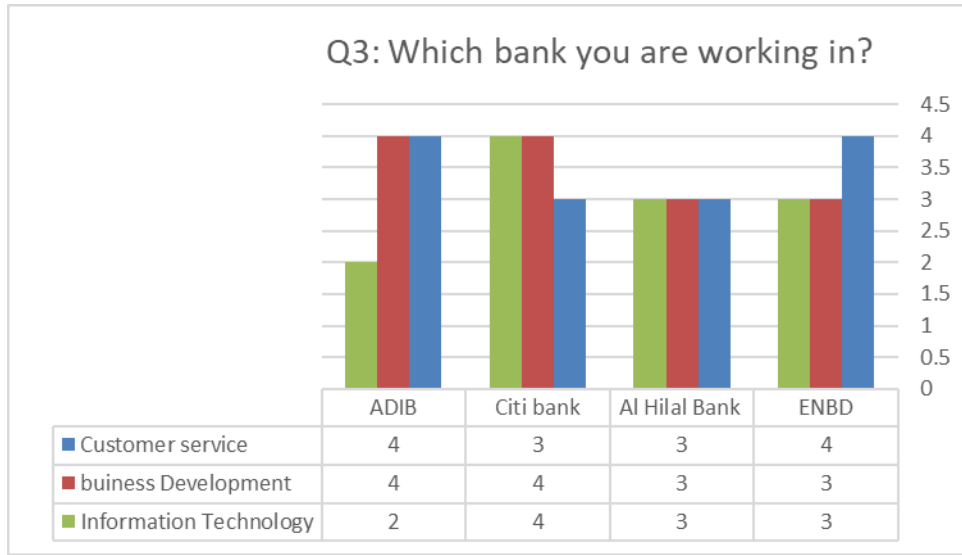


Figure No.3 “Question 3”

The fourth question was about how to assess the reliability of mobile banking services. According to the survey, six of the participants about 55% chose highly reliable of mobile banking services compared to 40% who chose reliable and the third rank shows 2% of unreliable mobile banking

services. Finally, 3% were not sure of assessing the reliability. .-As shown in Figure No.4-.This result was supportive to our research question since most of participants are agreed about the reliability of mobile banking services.

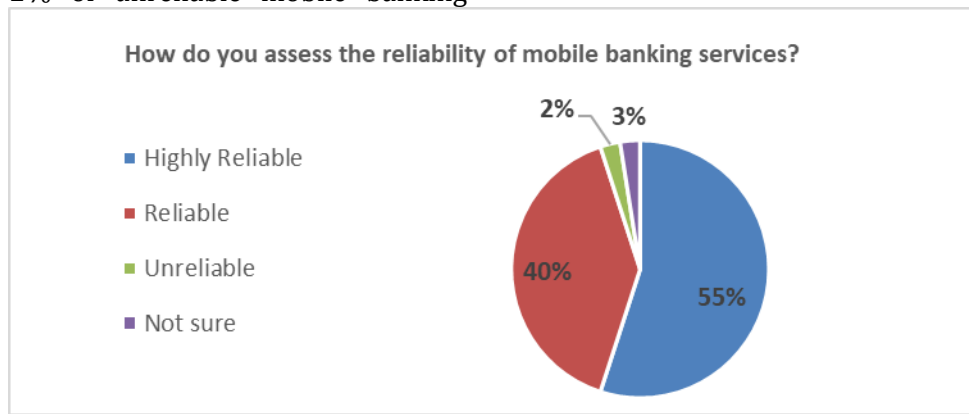


Figure No.4 “Question 4”

Question5, we applied the Likert type where we wanted to know if the respondents agree that using mobile banking services would increase the volume of work outputs in comparison to traditional banking services. Out of the results, 95% agreed on using mobile banking services

while 5% disagreed.- As shown in Figure No.5-. This result was supportive to our research question since most of participants are agreed that using mobile banking services would increase the volume of work outputs.

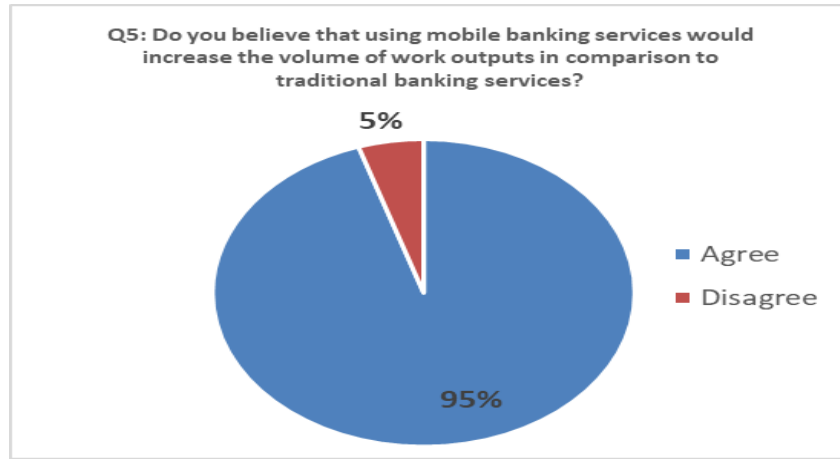


Figure No.5 "Question 5"

Also the below pie chart as shown in figure No.6, highlights the results of question six about do they believe that online transaction such as payment is more secure compared to going to bank with cash. It shows that 90% agree to statement while 10% disagree. This result was supportive to our research question since most of participants are aware of the quality of this application and have high level of trust in their banks.

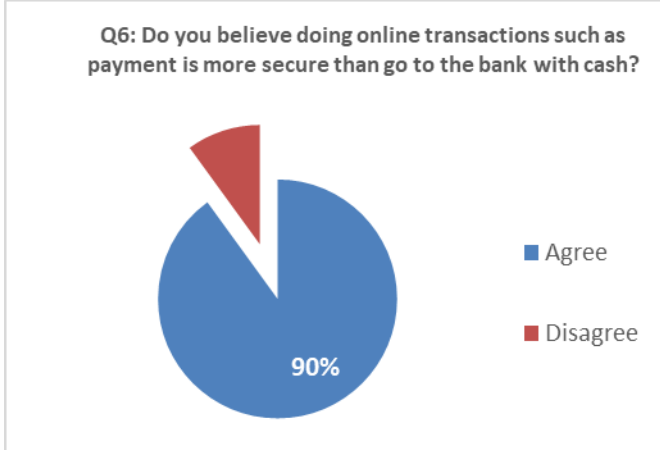
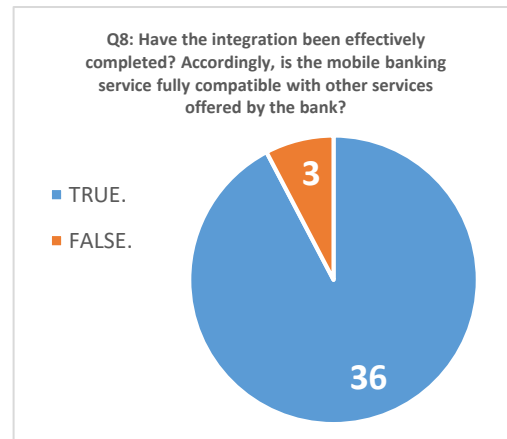
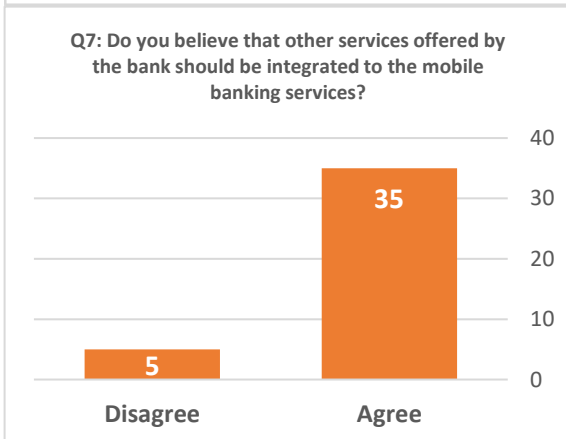


Figure No.6 "Question 6"

The seventh question findings highlight the importance of integrating services to the mobile banking services. The majority of participants 87%, agreed while the rest disagreed claiming that there is no need to integrate others services to mobile banking services and therefore, this agreement helped us to figure out the integration of services would enhance the performance and increase the productivity. Question 8 is inquiring if mobile banking services integration has been effectively completed. The results showed that 36% of participants agreed on that while the rest claimed that integration was not effectively completed. However, most of our respondents understand the application compatibility and the efforts that been undertaken by their banks to satisfy their customers - As shown in Figure No.7-8



Figures No.7&8 “Question 7& 8”

Question nine is about how efficient the use of mobile banking services compared to the traditional banking services. We found that 90% of participants agreed on the efficiency of mobile banking service while 10% only responded that they are disappointed and prefer the traditional banking services and therefore, mobile banking has significant impact on improving efficiency and increasing productivity.

Figure No.9 “Question 9”

In regards to question 10, the bar chart below shows how safe is mobile banking application. We found out that 55% feel very safe and 40% feel sometimes unsafe while 5% feel unsafe. Since more than half of respondent answered very safe that referred to the huge investment that been made by their bank providers to ensure the security of their mobile applications – As shown in figure No.10-

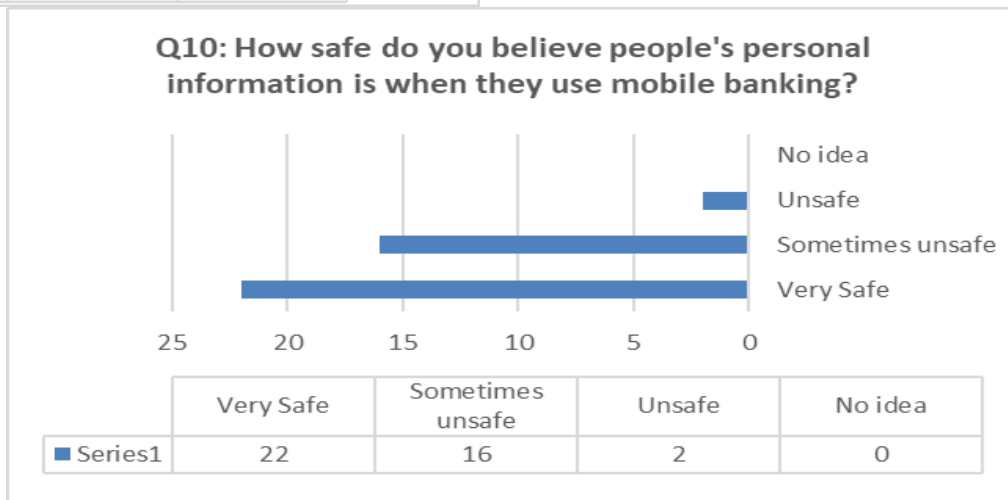
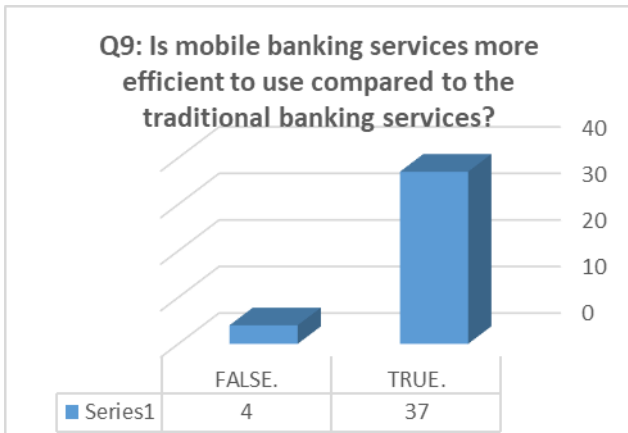


Figure No.10 “Question 10”



Figure No.11 “Question 11”

Question 11 was about assessing the quality of services provided by banks through their mobile banking application. The column chart shows that the majority of participants 52% are enjoying excellent quality of services while 40% said that they are getting good quality and 8% of them are satisfied. That illustrated the vital correlation between mobile banking services and customer satisfaction.- As shown in Figure No.11-

Question 12, we applied the Liker type where we wanted to know if the respondents agree that using mobile banking services is cheaper in comparison to traditional banking services. Out of the results, 85% agreed that mobile banking services is cheaper while 15% disagreed, and therefore mobile banking services are considered inexpensive and convenient channel for customers. - As shown in Figure No.13-

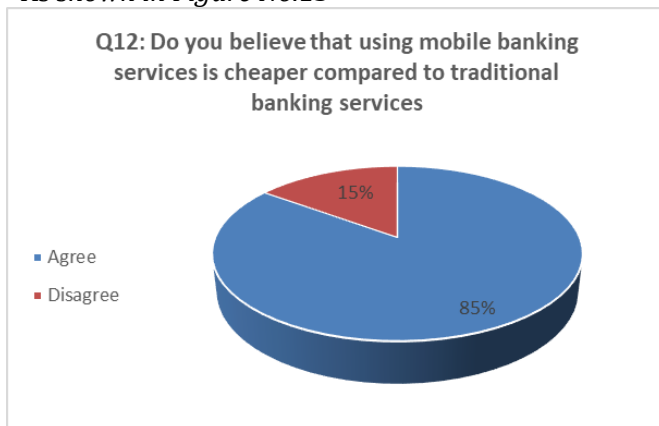


Figure No.12 “Question 12”

Question13 is about the extent risk affecting adoption of mobile banking. We found that 15% of

participants said it has large extents while 22% chose moderate extent and 33% chose small extents of risk. Unfortunately 30% of responded that it is not effecting at all. However, although mobile banking makes life simpler it has dangers.

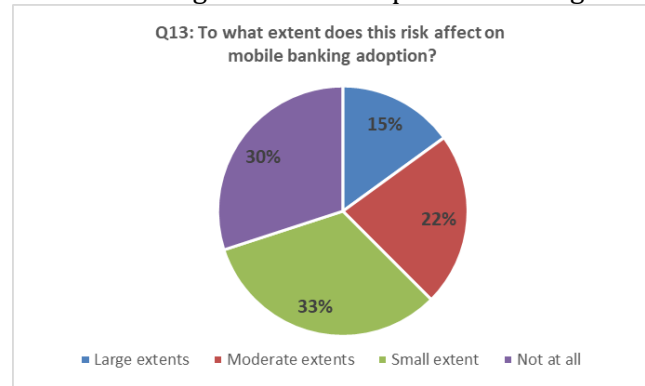


Figure No.13 “Question 13”

From the below results in the pie chart, majority of respondents 43% indicated that the major challenge is different new mobiles introduced in the market and how the Compatibility has a constructive effect on the perceived ease of use of mobile banking. The second challenge is insufficient technology infrastructure with 30% & 25% agreeing that technical issues such as system failure, processing error, software defects and inadequate recovery capabilities are other possible challenges. 2% also chose challenges of poor wireless product quality. Therefore, banks need to consider such challenge while adapting mobile banking services.

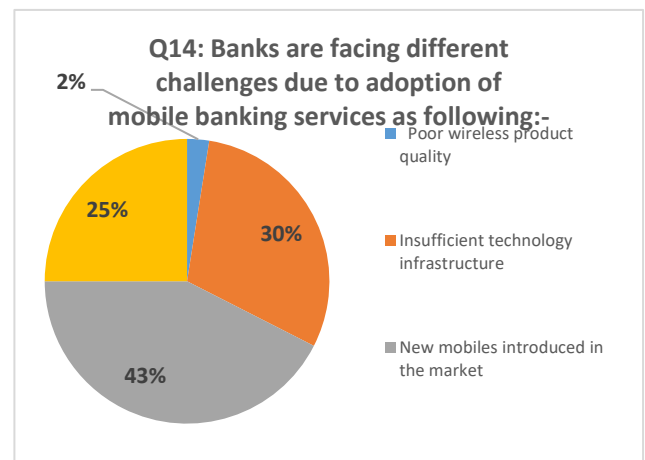


Figure No.14 “Question 14”

4.1. Research findings (interview)

In this research paper, the in depth qualitative data helped us in finding out the reasons of launching

ENBD mobile banking and what are the expected goals, and also if its new channel to the bank or an improvement tool. Therefore, we tried to discover impact of IT on banking industry as well a show it supports the overall bank productivity and quality. However, here are the results after we interviewed the staff from four different banks with different categories (IT, Business Development, Customer Relations)

- Identifying the main objective behind launching Mobile app.
- Mobile app. considered as new channel & alternative way for customers
- The positive impact of mobile app. on improving the bank productivity
- The constructive relationship between having mobile app. and quality
- The current limitations that banks are facing
- The obstacles of introducing the mobile app.
- The current challenges available in the market & if the mobile app. affects this challenge

5. DISCUSSION

The findings will be discussed from three main perspectives where the authors in each perspective will be able to discover the answers of the hypotheses mentioned previously if mobile banking is considered as alternative way, or new channel to be used and if mobile banking will increase the productivity and quality or not? The three main perspectives will be IT perspective, Customer Relation perspective and Business Development Perspective (Aljumah et al., 2021a).

• IT perspective

IT perspective is the first perspective which Mobile banking nowadays is developing very quickly and in that case banks are developing the technologies in speed manner in order to be in the same stage were others are standing on in the mobile banking sector (Abudaqa et al., 2022; El Khatib et al., 2019). Coming up with mobile banking idea assist to make customers' life much easier; if we will monitor the society, we will find that most banks' customers are using the mobile banking application to access to their accounts to manage their important transactions such as paying bills (H. M. Alzoubi et

al., 2020). Moreover, 2.5 billion transactions is the expectation from the payments council that by 2022, which will be done through the mobile banking apps, which are secured with passwords and have the same features of online banking (Aljumah et al., 2021b). Therefore customers will be using it in a safely manner and they can do the same transactions done now while visiting the branches (Al-Kassem, 2017).

• Customer Relation perspective

Moving to the second perspective, which is a customer service relation. Customer service relations can be utilized as a smart strategy because it can be used as competitive advantage as a differentiator from others within the same sector did (Alzoubi and Ahmed, 2019; Khatib et al., 2022). By providing the best service to the customer, the satisfaction level will increase and customer will maintain the loyal relationship with the bank (Gulseven and Ahmed, 2022). Therefore banks need to focus more on increasing the skills of their staffs in order to improve their ways of communication and build relations (Hani Al-Kassem, 2021; Emad Tariq et al., 2022).

Mobile banking can be the game changer in terms of the customer service side, since this facility leads to change the meaning of the service and helping to improve the service offering and enhancing the relationship between the clients and the banks they are dealing with (El Khatib and Ahmed, 2019). Moreover, within UAE specifically the number of mobile banking users keeps on increasing as a new reliable way to do their payments and transfers as it is being used as alternative way (Ahmed and Nabeel Al Amiri, 2022; El Khatib et al., 2020b). This advantage of using mobile banking encourages the employees from customer relations section to recommend their clients to try the mobile and online banking to fulfill their transactions through their application for more benefits (Aljumah et al., 2021b).

• Business Development Perspective

The last perspective is Business Development perspective; Mobile banking from business development side is allowing customers to personalize their banking experience across the smart phones and let customers' feel that they are able to manage and control their balances and financial plans easily whenever and wherever they

want. Moreover, mobile banking provides development solutions to meet society’s needs (Khatib et al., 2016).

- The below table summarized the interviews’ findings after having discussion with the selected samples:

Table 1: Interview Findings

	IT Perspective	Customer Relations Perspective	Business Development Perspective
Purpose of Mobile Banking	<ul style="list-style-type: none"> • Taking the smart technology advantage instead of doing everything manually (M. T. Alshurideh et al., 2023c). • Leading to reduce transactions in the branches and having innovative banking option (Ahmad Ibrahim Aljumah et al., 2022b). • Enhancing the customer experience (Gaytan et al., 2023). • Adding a new secure & convenient channel that would increase the bank’s ability to offer more personalized products and services(AIDhaheri et al., 2023). • A quick access to customer’s basic account information and customer will be able to monitor and check the balances anytime and also it is easy and fast facility which increases the customer satisfaction (H. Alzoubi et al., 2020). • Introducing new ways for customer acquisition in order to ease the process and make new client on boarding as seamless as possible through their journey (El Khatib et al., 2020a). • Ease of use and operates with full support from the bank (Nuseir, 2021). • Helping the bank to be more creative, apply more products, increase offerings and target each segment with offers and alerts based on their location, interests and can be integrated within their own social media channels, all at the customer convenient time (Alzoubi et al., 2019). • Allowing customers to stay up to date with all the activities, requests and suggestion (M. T. Alshurideh et al., 2023a; El Khatib and Ahmed, 2018). • Increasing the business development quality (H. M. Alzoubi et al., 2022a). 		
Term of productivity	<p>- Increasing productivity since it has less cost on the bank side and more returns, as the customers will heavily depend on doing their transactions and most of their requests will be available on the App (Nuseir et al., 2020).</p> <p><i>For example, there will be pop ups for clients if they are interested to have various types of accounts and also some advertisements in regards to loans and credit cards offers ,however, all of that will appear thru login in main page. So in that case we will be in touch with client to provide him/her of what they are interested in (Muhammad Turki Alshurideh et al., 2022b).</i></p> <p>ENBD is one of the most innovative banks in the region according to EMEA Finance. Mobile Banking App is a significant indicator to measure the productivity which is consistently ranked #1 in the Finance category in UAE App Store, over 500,000 downloads and 39% of the customers are using it for daily payments & transfers.</p>		
Terms of quality	<p>- The quality of customers’ services will be high and the errors will be less compare to errors occurred in the physical branches (M. T.</p>		

	Alshurideh et al., 2023d; H. Alzoubi et al., 2022; Nuseir, 2020). - Increasing the bank quality since it helps to finish several things like payments and transfers in efficient manners (Albalooshi, Aisha. 2020).	
Customer satisfaction	<ol style="list-style-type: none"> 1. Mobile banking can affect the customers' satisfaction and the reason is customers are keeping on looking for updated options' which make their lives much easier (Muhammad Turki Alshurideh et al., 2022a). 2. There will be an impact as customers now are having access to all of their banking and transactions details at the comfort of their hands and the majority might not need even to call the bank (H. M. Alzoubi et al., 2022b). 3. Errors will be limited and that would enhance positively customers' satisfaction (M. El Khatib et al., 2021). 4. Leads to satisfy customers needs (Ahmad Ibrahim Aljumah et al., 2022b; Lee et al., 2023). 	
New Channel or alternative way?	Alternative way: Some services and products are still available in the branches and online banking but not yet in mobile banking (El Khatib et al., 2020a).	New Channel that can replace the branches

Highlighting the drawbacks of mobile banking, all selected samples agreed that there are challenges been faced by the banks in term of using the mobile banking. The current main challenges such as:

- Server errors, can lead to unsuccessful transactions and requests and give other banks the privilege of having more features comparing to our mobile App (Ghazal et al., 2021; Nadzri et al., 2023; Nuseir et al., 2021).
- Applications require investments based on business needs, they need to have different functions and services on bank existing platforms and integration with different middle wares to keep all data synchronized. Therefore, having list of benefices added through mobile banking or online channels to ATMs and vice versa requires a strong and secure infrastructure that is flexible enough to accommodate any changes to the application quickly (M T Nuseir et al., 2022a).
- Technical difficulties such as network and system breakdowns (Almarri, Moza. 2020).
- Mobile banking at the moment is limited with certain services only and implanting the horizontal structure of new technology which would help to develop the mobile application (Kassem and Martinez, 2022).

Technology is affecting the risk profile of the banks and leads to increase other risks, which are related to legal and operational risks (E. Khatib et al.,

2021). If technology risk is not well controlled by banks, that would lead to the above mentioned challenges and also increase the opportunity of fraud internally within the bank & externally and cause huge loss. Plus, some difficulties might occur such as lack of flexibility platform; which might hold the bank from being in the lead if a new technology or mobile device is released in the market (Nuseir and Elrefae, 2022). Other difficulties include the immaturity of some technologies such as biometric recognition, some related security concerns and Lack of certain regulations among all banks during applying certain features (M T Nuseir et al., 2022b).

In addition, here we can mention that security risk is the concern of both banks and customers about the secured information while accessing the confidential accounts details through the mobile banking since the information will be in sensitive case. Moreover, the security risk and to avoid fraud cases will end up with big challenges for the banks as mentioned earlier. Plus, by having high percentage of security risk might let customer's feel that their information will be disclosed with others and therefore banks should figure ways to overcome it and ensure the highest level of security (M. Alshurideh et al., 2023).

The challenges that will result for security risks are:

- Banks are facing obstacles of introducing the new mobile application that related to promote

how secure is our application (Al-Kassem et al., 2022; Nuseir and Aljumah, 2022).

- Most of customers are not familiar with mobile banking and some services are not added to the App .

• Recommendations

After highlighting the challenges, which might occur due to technological, and security risks within the bank here are some recommendations:

- 1- Keep on educating staffs about possible fraud cases and how to control the operational system.
- 2- Keep on updating the software and hardware to make sure that the customers' data is under control.
- 3- Follow up the most recent technologies trends specially the security trend to be in safe side.
- 4- Design a system that includes a recovery abilities and control measures in order to overcome challenges.
- 5- Apply a solid and continuously followed-up implementation plan by ENBD group, in order to save money in the long term instead of just spending it on the new system.

6. CONCLUSION

Nowadays, technology plays a huge role in the different aspects of production, trade, financial transactions and daily operations for any organization. However, Information technology is considered as one of active operators that enable the banking industry to improve its performance and enhance the quality of its services. Therefore, in order to maintain a growth, banking industry needs to continually overview the latest technology trends to drive innovation, sustain a competitive position and increase its market shares.

Business and technology are two terms that you cannot separate if you want to succeed in this competitive economy. In general, success is every organization's aim and to be constantly successful is what the employees work for. As a result, businesses that create or get a hold of new creative technology have a greater chance of being one of the economy's leaders. However, we believe that every organization should choose the right option or develop a technology that suits their business objectives.

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Correlation between Project Leadership Competencies and Successful Project Management

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ABSTRACT

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One of the pillars in the success of project management is a successful leader. It's worth mentioning that the leader success is associated with possessing the best leadership competences. The research paper demonstrated multiple important competencies to achieve the success like Project Time Management, Resource Management and Communication. This is clear that such competencies are associated with Project Management Knowledge areas. The research paper introduced and defined the topic, demonstrated the research thesis statement and problem, gathered literature review and secondary data from recent sources and finally it derived the weaknesses and strength of the gathered leadership competencies.

1. INTRODUCTION

Recently, researchers thought about underlining the importance of exhibiting leadership tasks in the leader roles which, in turn, is affecting the project goals and achievement (Müller and Turner, 2010). Another article is emphasizing the importance of possessing leadership competencies in order to complete the roles and job tasks successfully. Leaders are expected to be innovative where this require certain competences to have by leaders to achieve the target (Elrehail, 2018). Despite the fact that leaders have some competencies, they should possess innovative competencies that need to be considered (Gerard and Bruijl, 2018). For this research paper, we aimed to identify the essential competencies of leader and its effect on

project management success. This topic is chosen to highlight leadership innovative competencies and recognize the contribution to the project success. The chosen research problem is stating that Issues with project performance in the organization require the development of effective leadership competencies which is the core pillar in the success or fail of project management. In the same way, the hypothesis is stating that the success in project management require a successful leader that have the needed leadership competencies and would be the solution to project failure. (Blooshi et al., 2023; Murray and Christison, 2012; Zubizarreta et al., 2021) noted in the article that, the issue in managing project successfully is directly linked to

the necessity of having the best leadership competencies. Today there is a lot of emphasis on research, and huge of researches are being generated on many focused disciplines, besides leadership theories (H. M. Alzoubi et al., 2022a; Kazmi and Naaranoja, 2015). leadership competencies are an important topic to be considered for the organization's strategy.

This research paper will demonstrate the project thesis statement, the results reviewed from literatures, recent secondary data, strength and weaknesses of the chosen leadership competencies. The research paper will focus on exploring the leadership competencies concept, show latest development on leadership competencies, and effects of leadership competencies on project management success.

- **Research Questions**

- a. What competencies should the leader have for effective leadership in project management?
- b. What are the leadership competencies associated with the project management knowledge areas?
- c. What is the effect of leadership on project management success?

- **Thesis Statement**

The project thesis statement is declaring that the project leadership have an impact on the efficacy of project management phases as a whole, hence, this is reflecting on project management knowledge areas.

2. LITERATURE REVIEW

2.1. Effective Leadership in Project Management

Leadership competency and style underlie the success or failure of a project. According to (M. Alshurideh et al., 2023; El Khatib et al., 2020b), project success is dependent on manager's ability to integrate technical and nontechnical expertise to align project goals with a business strategic outlook (Aljumah et al., 2023; Taher M. Ghazal et al., 2023). With an increase in cost, scope, and complexity of projects, leaders play a critical role in defining organizational goals and making major decisions regarding project budget, schedule, and scope (Amiri et al., 2020). These aspects bring into question the need to develop effective leadership competencies to address various project

performance issues (El Khatib et al., 2021). Thus, the analysis of effective leadership and its influence on key project indicators reveals that successful project management depends on the way a leader leverages specific competencies in relevant project management knowledge areas to create value.

2.2. Competencies of Effective Leadership

Among a range of skills and competencies required for a successful leader, some are more specific and essential for project management than others. According to (H. M. Alzoubi et al., 2022d; Aziz et al., 2023; Nuseir et al., 2021), over and above emotional, intellectual, and managerial abilities, people-oriented leadership competencies are also critical for project performance (Nuseir, 2021). Their elements are classified into three broad categories of contextual, behavioral, and technical (Alshurideh, M.T., Al Kurdi, B., Alzoubi, H.M., Sahawneh, N., Al-kassem, 2022). These competency models set the base and primary guidelines for project management to guarantee its success (El Khatib et al., 2022).

On the basis of people-oriented leadership, trust stands out as an important element of project performance. (Bawaneh et al., 2023) say that a leader must display trusting behavior to create an atmosphere of confidence among the team members. An environment, in which every stakeholder can rely on each other and accepts some level of mutual vulnerability, inspires willingness to complete assigned tasks (Nadzri et al., 2023). Thus, the leader's ability to develop trust among all the interested parties has a direct influence on project performance.

On a different front, meaningful and a two-way communication among team members also underlies successful project management. (Al-Dmour et al., 2023; H. M. Alzoubi et al., 2020) accentuate that leaders must demonstrate a high level of project awareness for effective management. This competency element enables a leader to make sound decisions in light of a specific situation, properly identify priorities, and assign roles and responsibilities relative to individual skills and project objectives and demands (Akour et al., 2023; Ahmad Ibrahim Aljumah et al., 2022a). In general, the ability to establish trust, pursue clarity in communication, and employ consistent processes compliment the leadership competencies that facilitate the process of

motivating stakeholders in achieving project goals (I. Akour et al., 2022; Lee et al., 2023).

From a more technical perspective, intellectual leadership competencies are essential for an effective project manager. (El Khatib and Ahmed, 2020; M T Nuseir et al., 2022a) define critical analysis and judgment as some of the core competencies in this category (M. Alshurideh et al., 2022). Another one is strategic perspective that enables a leader to define the project dynamics and plan accordingly. The last intellectual competency specified by (El Khatib and Oplencia, 2015; Kassem and Martinez, 2022) is vision and imagination. On this ground, such leaders can contextualize problems in specific situations and model short- and long-term solutions to guarantee sustainability in project management (Aityassine et al., 2022; M. T. Alshurideh et al., 2023a; H. M. Alzoubi et al., 2022b; Mohammed T. Nuseir et al., 2022). From an analytical perspective, the intellectual component of effective leadership inspires a goal-oriented approach to the entire process (H. M. Alzoubi et al., 2022e; Freeman, 2008). Overall, by anticipating various outcomes of project dynamics, a manager can plan corresponding strategic responses to smooth the project management curve (Kurdi et al., 2022b). On the other hand, the managerial aspect of effective leadership presents a different approach centered on human and capital resource management. According to one of the scales offered by (Aljumah et al., 2020; M. T. Alshurideh et al., 2023c; Khan et al., 2022), this category prioritizes teamwork and cooperation, directiveness, and team leadership. Teamwork and cooperation define effective communication and extensive engagement of the staff. Through information sharing, the manager clarifies roles, responsibilities and areas of cooperation, hence fostering teamwork (El Khatib, 2015). In its turn, directiveness and team leadership concern the capacity of a manager to leverage positional power to influence project team members positively, which may be manifested in job delegation, conflicting management, and task instruction (A I Aljumah et al., 2022a; H. Alzoubi et al., 2022; Khan et al., 2022). Generally, the importance of managerial competency is to coordinate project functions (Kurdi et al., 2022a).

Personal effectiveness, which falls within the area of emotional competency, is also central to

effective leadership. (Nuseir, 2020) say that this category encompasses self-awareness, intuitiveness, and emotional resilience. It generally presupposes self-control, organizational commitment, flexibility, self-confidence, and capacity to connect with others at a personal level (Al-Kassem et al., 2022). The possession of emotional competencies makes leaders sensitive to staff and other critical stakeholders, such as customers, suppliers, and shareholders. With such traits, project managers become highly responsive to the needs of key stakeholders and happenings around them with the potential to impact project performance.

2.3. Leadership Competencies Associated with Project Management Knowledge Areas

Knowledge management concerns the best ways of leveraging intellectual capital (IC) to maximize project outcomes (M. Alzoubi et al., 2021). For clarity, IC refers to “the sum of all the intangible and knowledgeable-related resources that an organization is able to use in its production processes in the attempt to create value” (Abudaqa et al., 2021; M. T. Alshurideh et al., 2023d; Hani Al-Kassem, 2021; Nuseir and Elrefae, 2022). Thus, knowledge management involves the capacity of leaders to merge the skills and capabilities of human resources with internal technological capabilities to create value for the customers. From a leadership perspective, the role requires leaders to possess emotional, managerial and intellectual competencies. As demonstrated above, intellectual skills concern the capacity of a leader to anticipate industry dynamics and change in key variables of a project to develop precise short-term and long-term strategic goals (Al-Awamleh et al., 2022; Alshawabkeh et al., 2021). Thus, these competencies define the right direction to follow, resources to deploy, and the process of integrating internal capabilities and intellectual capital to realize organizational objectives (H. Alzoubi et al., 2020).

The managerial aspect describes the way a leader integrates human and capital resources to realize the strategic outlook of a business (Al-Kassem, 2017). Together with emotional competencies (Al-Marroof et al., 2022b; M. T. Alshurideh et al., 2023b), it allows proper management of human capital for the benefit of an organization (El Khatib et al., 2019). In this case, the underlying factors concern

proper coordination of effort, management of conflicts, and adequate employee guidance, the synergistic combinations and interactions of intellectual capital and internal processes and resources underlie value creation and proper project management (Muhammad Turki Alshurideh et al., 2022b; T M Ghazal et al., 2023a; Nuseir and Aljumah, 2020). In this regard, emotional, managerial, and intellectual leadership competencies play a crucial role in knowledge management (Al-Kassem, 2014; R. S. Al-Marroof et al., 2021b).

2.4. Effect of Leadership on Project Management Success

Holding other factors constant, project management success is subject to effective leadership. According to (I. A. Akour et al., 2022; Farrukh et al., 2023), project success is manifested in four critical aspects, which include time, cost, quality, and stakeholder satisfaction. Time is a critical success factor that influences both the stakeholder satisfaction level and cost performance (Khatib et al., 2016). Delays in project completion add to cost overruns and quality control issues. Therefore, it is necessary for leaders to accurately define project timelines to ensure seamless coordination of efforts (M T Alshurideh et al., 2022; El Khatib and Ahmed, 2019; Nuseira and Aljumah, 2020). Equally, role clarification establishes the expectations of each player and areas of shared responsibility. These aspects enable workers to understand and perform their respective roles within the group, leading to timely delivery of the project (Ahmed and Nabeel Al Amiri, 2022). Essentially, project scheduling is a leadership function that requires collaboration among stakeholders to harmonize project schedules, estimates, and control mechanisms (Al-Marroof et al., 2022a). If this aspect of leadership remains uncoordinated, there is a likelihood of experiencing project overruns in terms of cost and time due to the lack of coordination of effort (M. El Khatib et al., 2022).

Leadership also influences the quality dimension of project performance. According to (A. Al-Marroof et al., 2021; Ahmad Ibrahim Aljumah et al., 2022b), quality performance is achieved if the project meets or conforms to specified requirements. At this stage, the role of the project leadership is to ascertain whether all parameters and

requirements are met and workers follow due processes (Almasaeid et al., 2022). Besides, to ensure quality, a project manager is required to oversee interpersonal processes and problem-solving activities. In this case, the idea is to create coordinated teamwork to guarantee maximum output. According to (A I Aljumah et al., 2022b; Sakthivel et al., 2022), mediating interpersonal processes is necessary for fostering teamwork skills and mutual supportiveness, which enhances the quality of output due to greater coordination of effort (Alhamad et al., 2021). On the other hand, problem-solving within group dynamics helps members of a project team to identify potential problems, generate relevant reports, and brainstorm remedial solutions (AlDhaheri et al., 2023; M. El Khatib et al., 2021).

Collectively, these activities will enhance the quality of output from such teams (Aljumah et al., 2021a).

Cost performance is the most problematic project management factor. (Ahmed et al., 2022; T M Ghazal et al., 2023b; Louzi et al., 2022a) postulate that for a project to be considered successful, it must be completed within budget. As indicated earlier on by (Yasir et al., 2022), the increase in cost, scope, and complexity of projects necessitates leaders to be proactive in defining project budget estimates, schedule, and scope and working within established project limits. Perspective (Alzoubi et al., 2019; El Khatib et al., 2020a; Louzi et al., 2022b), cost overruns are indicators of poor planning, ineffective cost estimates or inefficient cost control measures (R. S. Al-Marroof et al., 2021a; Mubeen et al., 2022). In this regard, leaders must step up and provide sound leadership to avoid periodical budget adjustments, which reflects inefficiency on the part of the project leader (T M Ghazal et al., 2023c; Gulseven and Ahmed, 2022). Lastly, stakeholder satisfaction is another critical indicator of project success. A satisfactory project not only meets the design specification of the customers, but is also completed on time and within the set budget (Al-Marroof et al., 2022b; Aljumah et al., 2021b). In this regard, (Abudaqa et al., 2022) say that project managers must show leadership right from the initiation to the implementation phase. Throughout the process, they must emphasize customer benefits and needs and stakeholder expectations (Akour et al., 2021; H. M. Alzoubi et al., 2022c). In the absence of these

elements, the project will ultimately fail (Al-Kassem et al., 2013; Varma et al., 2023). Consequently, processes and resources to create value for the customers (Muhammad Turki Alshurideh et al., 2022a). In general, the interplay of sound leadership and the effective utilization of both human and capital resources will guarantee project success.

3. METHODOLOGY

3.1. Secondary data – Case Study

Competency refers to the ability of an individual to mobilize and combine resources to implement an activity. Therefore, the Project leadership competency is an important skill and trait that project managers should apply toward the success of the project. For that, based on research performed under the title “Human Competencies of an Effective Project Manager”, interviews were conducted with people involved in projects, by which main responses perceived that there is no specific standard in place for an effective project manager leadership but there are specific characteristics such as professionalism and having necessary people skills. The following reflects the different point of view of the interviewees:

- Interviewee 1: The importance of human skills in selling the projects, engaging the team within the project phases.
- Interviewee 2: an effective project manager should reach beyond the project aim with limited resources and manages the strategic goals of the company and effective negotiation skills.
- Interviewee 3: Project manager effectiveness is measured through pursuing the value proposition of the project as well as obtaining the satisfaction of stakeholders, clients and project’s team & effective negotiation skills.
- Interviewee 4: To ensure project is delivered within the planned timeline as well as full satisfaction of the stakeholders and the project team.
- Interviewee 5: Effective project manager should have the skills to listen and talk, as well as administrative skills to track the project.

4. DISCUSSION

All the interviewees have agreed that the project

managers skills are important toward delivery of the project, though each one have different point of view pertaining the profile of the project manager effectiveness but certain skillsets should be in place to fulfill the purpose of the project.

Also, the researchers identified that the project manager main skillsets include being open minded, fair, adaptable for new ideas, risk taker, and show strong commitment to project success. With main competencies addressed which is communication, conflict management, negotiation, leadership, delegation and influencing.

Another research conducted, states that project leadership competencies is an important element in the project success, since the personality of the manager reflect of the effectiveness of the project phases. The research conducted reflected project participant point of view which stated that based on his experience the project manager was qualified, well experienced and ensured everyone fulfil their roles within the project. The study focused as well on the importance of having the top management support to establish project structure and purpose as required. Also, for the project manager to provide the necessary support and guidance for the team to perform the tasks assigned (Mat Som and Kassem, 2013).

According to a study under the title “Project leadership: skills, behaviors, knowledge and values”, the main aim of the research and the interview is to obtain an overview of the participants feedback of project manager leadership and the competencies of a good project leader. One of the participants stated that the there is no major difference between project leadership and organization leadership as the only difference is having the project or technical knowledge such as planning, measuring and controlling project delivery. The main competencies that any project manager should have behavioral, knowledge and personal skills for the project managers leadership to be considered effective.

Another research performed described that it is important for a project manager to have a situational leadership approach rather than one type leadership to ensure successful project completion, for that project managers will tend to adopt a more favorable attitude by having an open-minded approach when it relates to managing a project. Therefore, a project manager should have a well-balanced soft skills as well as the technical

skills needed to manage a project. By which, they urged the importance of having a well-designed leadership courses to train on the different leadership styles and skills that can be learned based on a high level of self-knowledge and awareness (Al-Kassem et al., 2012; E. Khatib et al., 2021).

Furthermore, a research under the title “The project manager core competencies to project success”, results revealed that communication, commitment and leadership is the important aspects for a project success (E Tariq et al., 2022). Therefore, the main competencies that any project manager should have includes self-management, interpersonal, communication, technical, productivity and managerial. Therefore, based on the results obtained there is a growing trend toward the soft skills which will enhance that the project management education to ensure the all gaps are filled between the theory and the existing practice (El Khatib and Ahmed, 2018; M T Nuseir et al., 2022b; Emad Tariq et al., 2022).

To address the main competencies that a project manager should have to lead a project, a survey was conducted in Serbian Public Sector to 110 respondents. The results revealed that the following are the main competencies in knowledge and skills identified:

- Project Time Management
- Resource and Cost Management
- Stakeholder Management
- Risk Management
- Analytical skills
- Communication
- Teamwork
- Leadership and Delegation

Results perceived illustrates that people involved in project management from different background and experience comes to one conclusion that communicating effectively is one the most important skill for an efficient project management (Muhammad Alshurideh et al., 2022; Caniëls and Bakens, 2012).

Another research performed titled “Leadership Competencies for Sustained Project Success”, stated that project success does not depend only on leaders who determine the technical factors but also application of the best leadership practices to ensure sustainability of project practices (Nuseir et al., 2020). Therefore, this study identified that the main leadership skills a project manager should

have skills including being equitable, servant, collaborative and transformative, which includes the following leadership competencies under each category:

- Equitable Leadership: social justice, power knowledge circuits, and education
- Servant Leadership: Team members relationships, project technical skills, communication and problem solving
- Collaborative Leadership: customer satisfaction, stakeholder engagement, and cultural awareness
- Transformational Leadership: Motivation, resource management, emotional intelligence, and trust

The results from this research indicated that the above identified characteristics contributed to the study advances the body of knowledge if these leadership competencies are applied within the project the same will impact positively and will lead to sustainable success on projects (Nuseir and Aljumah, 2022).

Based on the aforementioned and the different studies conducted, project managers should ensure that all skills needed either technical or soft should be in place for project success, stating communication and negotiation skills to be the most important competencies that any project leader should implement effectively toward the project success.

4.1. Strengths and weaknesses

From the different skills and competencies of project managers around the globe, there are number of competencies that they are strong in and others that they lack and are weak in. And from the above mentioned cases, it is clear from the project managers interviewed that most projects leaders lack 3 areas: the ability to engage project teams, negotiation, and communication. On the other hand, most project managers are flexible, adaptable to changes, risk takers, and are committed to achieve the project intended goals.

To elaborate, one of many strengths on emerging project management is adaptability. The current working leaders are working in an agile environment which makes them more and more flexible when it comes to changes. They adapt to new status and situations while keeping up with the new methods and technologies used to help achieve the required project objectives. Another

strength is project managers' commitment to achieve project goals and objectives (Khatib, 2022). A project manager commitment to the organization has a very strong and positive influence on the outcome of the project. One key to achieve this is to allow project managers to select the projects they are interested to work on instead of obligating them to work on projects that they have no interest in, this is because the level of interest has a clear impact on the projects potential outcomes. Moreover, project managers who are risk takers can encourage their teams to collaborate with each other, share skills and knowledge, and hence bring new ideas into their projects. Risk taking also help with different issues resolutions through the continuous various forms of discussions to improve the progress of work (Arshad et al., 2023).

From weaknesses perspectives, one of the most common reasons to project failure is lack of communication. Communication is one of many important competencies that a project manager should have, which is around 80% of the project manager role (Bhatti et al., 2022). When project managers lack the skill to be a communicator, it affects the entire project and it could lead to project failure. Poor communication can lead to critical consequences such as rework, poor quality, time and budget overrun, disputes, customer dissatisfaction, and finally project failure. To elaborate, Kuwait University had a project to construct a new campus and they experienced poor communication as a result of lack of knowledge, inexperienced project manager, and unclear project stakeholder identification. In addition to communication, negotiation is one crucial competency that should be present in a project manager as it helps in conflict management, stakeholder management, and contract management (Association for Project Management, 2020). A negotiator project manager can also use his skill in negotiating proposals, defining project scope, acquiring resources, and risk management (E. Khatib et al., 2022). Another weakness point is the inability to inspire project team members to stay committed to the project. Such competency can help improve the team performance which consequently can lead to project success (Gaytan et al., 2023). To be able to inspire and engage the team and make them feel as an important part of the project is done through assuring the project

manager's trust in them, gaining their respect, crediting them for their excellent performance, and engaging them in decision making.

Moreover, Poor leadership skills can also lead to bad project consequences. A project manager must know how to lead a project and its resources to be able to achieve the required goals. Leadership is something that a person possesses and not a trait that is held in a job title or a position (Madsen, 2019). Leaders' innovation is another project management weakness. Most of project managers do not have the innovative skills while managing the projects, which is also based on logic and available data. According to Gallagher, Innovation is a core competency where a project manager has to ensure different metrics are met beside meeting the cost, scope, and schedule. These metrics are assessing feasibility, analyzing causes, and providing and recommending creative solutions. Project managers can use different techniques in order to improve their innovation skill such as brainstorming with a team to get better ideas, The 6-3-5 method which means 6 in a group with 3 ideas found in 5 minutes, The pool method, and the Pin card method. The reason behind project manager poor creativity and innovation is that the time is a precious element in the project manager's hand, therefore, they would rather start executing instead of using these techniques.

5. CONCLUSION

Although the effective leadership competencies have an obvious impact in the success of a project, there are possibilities to possess poor leadership competencies that can lead to bad project consequences. From the literature review, the outcome declares that having effective leadership competencies will result in a successful project management and its knowledge areas. The knowledge management areas are clearly affected by emotional, managerial and intellectual competencies which may lead to achieving the knowledge area core output. The project thesis statement is stating that project management success is highly associated with having effective leadership competencies which would affects project management knowledge area accordingly. The literature review emphasized on this statement and explained that project manager effectiveness is crucial in order to have a successful project management. This cannot be achieved

without obtaining the essential competencies like negotiation and communication. This research could be a reliable resource for starting up a project with possessing the strong leadership competencies and avoid undertaking the unusable once. This research project aimed to identify all the core competencies for a successful project management, and this was achieved after relying on recent literatures.

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Smart Cities in UAE: Governance, Innovation and Quality

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ABSTRACT

This article is a trail to investigate and evaluate the quality and innovation in the governance of the smart cities of UAE. It will highlight 3 major issues: the current governance of the smart cities of UAE, the need and the role of the quality and innovation in smart cities, the need of a framework to achieve the vision of the smart cities through innovative governance. Quantitative technique is used to collect the primary data from the target audience. The target audience are high level business/management positions and technology professionals working under the governance system of smart city of UAE at different positions. The article concludes that current governance approaches of the smart cities of UAE are not much effective to cater to the current challenges of the smart city such as maximum use of the resources and attain sustainability. Some governance approaches of the smart cities of UAE need to be modified or upgraded to be able to cater to the current problems of the smart cities. There is need to upgrade or innovate the approaches of the governance to achieve the best use of resources and provide quality of life through sustainable development. The study recommended that governance of the smart cities should provide solution at a centralized single platform, the flow of information to maximize the use of resource and minimize the waste, establish digital leadership, digital learning platform and collaboration between the stakeholders.

1. INTRODUCTION

Smart city is a small or medium or large size area that adopts an innovative governance approach to design integrated and innovative policies and improve the quality life of the citizens by promoting environmental, social and economic sustainability (T M Ghazal et al., 2023a). The definition of the smart city has six axes that explain what a smart city should be. These axes are environment, mobility, citizenship, living, economy and government and political participation (Aziz et al., 2023).

Smart city governance refers to the crafting of new forms of human collaboration with the use of the ICTs in order to obtain better outcomes and allow open governance processes (H. M. Alzoubi et al., 2022h; Hani Al-Kassem, 2021).

Further, governance of a smart city is all about designing an organizational structure that seek to the higher participation of the stakeholders (such as people living in the city) into urban governance (A I Aljumah et al., 2022a). Several solutions are adopted to coordinate and to manage the projects

of the smart cities and one of them is the effective governance in the smart cities (Alshawabkeh et al., 2021; El Khatib et al., 2020a). This study is also focusing on the quality and innovation in the governance of the smart cities in general (Tariq et al., 2022b)(H. M. Alzoubi et al., 2022a; El Khatib et al., 2022).

The current governance of the smart cities is unable to cater to the challenges of the smart cities to focus on the wise use of resources and achieve the sustainable growth and development (Nuseira and Aljumahb, 2020; Wu et al., 2016). These challenges have arisen due to the ineffective governance system of the smart cities (Muhammad Turki Alshurideh et al., 2023c) (El Khatib and Ahmed, 2020). Due to insufficient involvement of the participatory governance in terms of attaining with innovation to wisely use its energy, water and other resources and further, providing solutions to maintain quality of the life of people (Al-Marroof et al., 2022b; Aljumah et al., 2021a; H. M. Alzoubi et al., 2022e) (AlDhaheri et al., 2023). In short, the governance system of the smart cities is not much smarter to optimally use the existing capacity and resources.

1.2. Research Objectives

The aim of the study is to evaluate the quality and innovation in the governance of the smart cities of UAE. Hence, the objectives of the study are as follows:

- To evaluate the current governance of the smart cities of UAE
- To identify the need of the quality and innovation in smart cities
- To suggest the framework to achieve the vision of the smart cities through innovative governance

1.3. Research Questions

1. What are the current strategies of the governance system of the smart cities of UAE?
2. What is the need of quality and innovation in the governance systems of the smart cities of UAE?
3. What should be the governance framework to achieve the vision of the smart cities of being the sustainable cities?

1.4. Research Significance

This research study is an in-depth understanding of the current trends about the smart city

governance. This study highlights the need of quality and innovation in governing a smart city through the use of information and communication technologies. It is matter of concern that technology alone cannot make a city smarter. To build a city smart, the governance of the city requires the approach of the political understanding of the technology. Several evaluation approaches and models have been put forwards in the various previous studies (Al-Kassem et al., 2013; M T Alshurideh et al., 2022; H. M. Alzoubi et al., 2022c; Nuseir, 2021). However, these studies were lacking in evaluating the innovativeness of the governance system of the smart cities. Thus, evaluating the quality and innovation of the governance systems of the smart cities is the need of the hour. This paper aims to do the assessment of the smart city governance. The findings of this research study will help to manage the emerging smart cities through quality and innovation in governance and gain economic and public values.

2. STUDY BACKGROUND

2.1. Six axes of the Smart cities

Environment: Smart cities promote energy saving, use of renewable energy, reduction of environmental pollution and reduction of CO₂ emission (Alzoubi et al., 2021).

Mobility: Smart cities promote accessible and safe transport and creation of an integrated mobility system with low environmental impact (Muhammad Turki Alshurideh et al., 2023b).

Citizenship: Smart cities promote life-long learning and education, nurture cultural diversity, civic engagement and creativity of the citizens (H. M. Alzoubi et al., 2022b; Louzi et al., 2022a).

Living: Smart cities safeguard individual and public health. It implements welfare, tourists and cultural policies and also promotes social cohesion (Abudaqa et al., 2021; Al-Kassem et al., 2012).

Economy: Smart cities promote creation of a flexible labor maker, support for innovation and entrepreneurship, especially for women and young people (Aljumah et al., 2021b; Gaytan et al., 2023).

Government and Political Participation: Smart cities encourage the adoption of transparent decision -making, promotion of political participation, creation of accessible online services (Ahmed and Nabeel Al Amiri, 2022; Almasaeid et al., 2022; Lee et al., 2023; Mat Som and Kassem,

2013)..

Governance: Governance is a very broad concept. It is the process of governing all the tasks or activities undertaken by the government, market, network, formal or informal organization through the norms, laws, power, or language (M. Alshurideh et al., 2022).

The UAE has been at the forefront of adopting emerging technologies. Research by (Tariq et al., 2022a) discusses how innovations like blockchain, AI, and IoT are being integrated into various aspects of smart city infrastructure, such as transportation and healthcare. Innovation in the UAE's smart cities extends to sustainable practices. (Al-Kassem et al., 2022; H. M. Alzoubi et al., 2022f) underline the adoption of renewable energy sources, efficient waste management systems, and eco-friendly urban planning as key components of sustainability-driven innovation (Khatib et al., 2022) (Kassem and Martinez, 2022).

Smart city initiatives in the UAE prioritize citizen satisfaction. (Al-Dmour et al., 2023) highlight the importance of citizen engagement through mobile applications and digital services, enabling citizens to actively participate in decision-making processes.

Research by (H. M. Alzoubi et al., 2022g) emphasizes the enhancement of citizens' quality of life as a primary goal of smart city development in the UAE. Factors such as improved healthcare services, education, and safety contribute to this aspect.

Quality infrastructure is essential for the smooth functioning of smart cities. (El Khatib et al., 2021) discuss how the UAE's commitment to high-quality urban infrastructure, including transportation networks and connectivity, underpins the success of smart city projects. Ensuring the quality of digital services is crucial. (Alzoubi et al., 2020; Harguem et al., 2022) explore the role of quality assurance mechanisms in digital services and the importance of continuous improvement to meet evolving citizen needs.

Moreover, the concept of smart cities has gained significant attention worldwide as urbanization continues to accelerate (Alzoubi et al., 2019; Blooshi et al., 2023)(Amiri et al., 2020; Mubeen et al., 2022). In the United Arab Emirates (UAE), the rapid development of smart cities has been a focal point of government initiatives and investments (T M Ghazal et al., 2023b). This literature review aims

to provide insights into the governance, innovation, and quality aspects of smart cities in the UAE based on prior research articles.

A research by (El Khatib, 2015) highlights the pivotal role of the UAE government in driving smart city initiatives. The UAE Vision 2021 and the Smart Dubai initiative have played crucial roles in aligning government policies with smart city development (Arshad et al., 2023; Mohammed T. Nuseir et al., 2022). As discussed by (Ali et al., 2023; Khatib et al., 2016) data governance is a critical aspect of smart cities in the UAE. The government's efforts in data management, security, and privacy are crucial for building citizens' trust and ensuring the responsible use of data (Nuseir and Aljumah, 2020) (M Alshurideh et al., 2023).

The study by (Varma et al., 2023; Yasir et al., 2022) emphasizes the significance of PPPs in smart city projects. These collaborations have been instrumental in leveraging private sector expertise and resources for sustainable smart city development (Aljumah et al., 2020; El Khatib and Ahmed, 2019).

2.2. Governance in Smart Cities

Governance is one of the six characteristics of a Smart Sustainable City. The participatory governance is responsible for the sustainable economic growth and high quality of life, with the wise management of the resources (I. Akour et al., 2022). The success of today's governance in the smart cities must be measured in terms of wise use of its energy, water and other resources and how smartly it is attaining prosperity for a sustainable foundation (M T Nuseir et al., 2022a) (T M Ghazal et al., 2023c). In short, the governance in the smart cities must practice on becoming smarter in terms of using existing capacity and resources (Akour et al., 2023). As per the author, a smart city with good governance attempts to enhance the effectiveness and quality of smart city services (A. Al-Marroof et al., 2021) (R. S. Al-Marroof et al., 2021a)(Khatib, 2022). It mandates transparency and accountability at all levels of the participatory governance (Muhammad Turki Alshurideh et al., 2022c). A good governance system provides the means to listen to the needs of the citizens, understand them, and then respond to these needs (Bawaneh et al., 2023).

It is suggested that the current governance system of the smart cities require the involvement of the

citizens in decision- making (Muhammad Turki Alshurideh et al., 2022b; M T Nuseir et al., 2022b) (A I Aljumah et al., 2022b; M. El Khatib et al., 2021). The study stated the development of the efficient and effective governance, for wise use of resources and maintaining sustainable growth of the smart cities (Nuseir et al., 2020)(Al-Kassem, 2017; Sakkthivel et al., 2022). The study suggested three approaches for this. One is by playing the role of a coordinator and bringing stakeholders together to establish new platform for collaboration (H. M. Alzoubi et al., 2022d) (Fatima et al., 2023). Second is by playing the role of a regulator and making sure that all the common standards and norms are in place (I. A. Akour et al., 2022; Nuseir and Aljumah, 2022). Third is by playing the role of a founder and ensuring infrastructure funding and demonstration of the projects (Al-Marroof et al., 2022a) (El Khatib et al., 2019).

European Parliament insisted the active participation of the citizens of the smart cities to create a sense of ownership and commitment, to ensure local level commitment and to ensure the integration of solutions across the portfolios of initiatives (Ahmad Ibrahim Aljumah et al., 2022; E. Khatib et al., 2021) (Farrukh et al., 2023). To achieve the objective and vision of the smart cities all the urban actors such as NGOs, SMEs, schools, transport, housing corporation, local government etc (Nuseir and Aljumah, 2020). has, to come together because quality and innovation in governance of the smart cities is all about the outcomes of interactions between all the urban actors in the public domain (H. Alzoubi et al., 2022; El Khatib et al., 2020b) (Nuseir and Aljumah, 2020).

2.3. Governance styles in Smart Cities

There are different governance methods to the concept of smart city, ranking from institutional conservation to institutional transformation (Louzi et al., 2022b)(Alshurideh et al., 2020). The networking environment has introduced new means of governance which are different from traditional bureaucracy (Kurdi et al., 2022b). For example, the technocratic nature of the smart cities promotes the self-governance model of the smart city (Ali Salahat, 2021)(Al-Awamleh et al., 2022). On another side of spectrum of governance models is the bureaucratic model of smart city governance under which, the local government has prominent role in the implementation and controlling of smart

initiatives in the city (Nuseir et al., 2021) (Alzoubi and Ahmed, 2019). Another governance model is the medium of spectrum of interactions and control of the local government and the other actors are responsible for managing the smart cities (Muhammad Turki Alshurideh et al., 2022a) (Ahmed et al., 2022; Nadzri et al., 2023). Now, in smart cities, the power balance has now changed and citizens now need their government while the governments need the cooperation and intelligence of their citizens to function well (M. Alzoubi et al., 2021)(Taher M. Ghazal et al., 2023; Khatib and Opulencia, 2015). This demand of the citizens has changed the governance system of the smart cities.

2.4. Needs of the quality and innovation in the governance system of smart cities

A study was conducted by (Muhammad Turki Alshurideh et al., 2023a), under which he stated that smart cities face many challenges due to their classical process of governing. Further, the results of the study (Khan et al., 2022) (Nuseir and Aljumah, 2020) stated that governance of the smart cities needs to be more innovative and advanced to meet these challenges (Aityassine et al., 2022; Al-Kassem, 2014) (Abudaqa et al., 2022). The study suggested that use of ICT in the governance can improve the political participation, implement public policies effectively, provide sector services to the people and engage the stakeholders in the sustainable development of the smart cities (R. S. Al-Marroof et al., 2021b) (Akour et al., 2021). The implementation of the ICTs (Information and Communication Technologies) improves the participation of the citizens in the decision-making processes (Kurdi et al., 2022a) (Muhammad Alshurideh et al., 2023). The implementation of the ICT facilitates in achieving the transparent governance and helps to implementing political strategies and perspectives (Nuseir, 2020).

3. RESEARCH METHODS

This section includes the research design, research technique, data collection methods, population size, sample size, sampling techniques, data analysis tools, data presentation tools and pilot testing or pre-testing.

Research methodology is a science that helps in determining that how a research can be carried out. It can be defined as the logical and systematic

way of searching information in a particular area.

3.1. Data collection

This study, both primary and secondary data are collected. Secondary data have been collected regarding the current governance system of the smart cities and the approaches used by the governance authority to achieve sustainable growth of the city. Different governance methods of the smart cities are also accessed through the secondary source of data. Various journals, reports and authentic articles are used to gather the information. The secondary data are presented in the form of literature review. The primary data are collected to know the current situation of the quality and innovation in the governance of the smart cities of UAE. This primary data has provided the access to reach to the objectives of the study. Primary data are collected through conducting the surveys.

3.2. Research Approach

Quantitative technique is used to collect the primary data from the target audience. The reason for choosing this method is that this research is related to the quality and innovation in the governance system of the smart cities. To identify the level of relationship between the variables it is necessary to have the data in numeric as it is used to perform the statistical analysis. Hence data must be collected in the numeric form with the help of quantitative research approach. Under this approach a questionnaire is prepared to collect the data.

3.3. Target Audience

There are hundreds of people in the smart city who handle various functions in various departments such waste management department, energy consumption department, water management department, information and communication department, transportation department. All these people are the target audience for the study as they know the best about the governance system of their smart city.

Target population is the people working under the governance system of smart city of UAE at different positions such as engineers, quality analysts, management experts, environmental experts etc.

3.4. Data Sampling and Sample Size

With the help of convenient non-probability sampling, a sample of 30 respondents is selected to collect data by including them in survey. The reason for choosing this sampling technique is due to the flexibility given to the researcher and the respondent to select and attempt to the survey as per their convenience.

3.5. Mode of primary data collection

Questionnaire: A structured close ended questionnaire is prepared to conduct the survey. All the questions of the questionnaire have some options and respondents have to select only one option for each question. It hardly takes 5-10 minutes to answer all the questions. Paper pen mode is used to collect the responses. This method is most suitable for the studies with small span of time.

3.6. Hypothesis

H1: Quality & Innovation in governance in Smart Cities leads to wise use of resources in the smart city

H2: Quality & Innovation in governance in Smart Cities leads to quality life and overall sustainability of the Smart Cities.

4. DATA ANALYSIS

For the purpose of data analysis a regression analysis is performed to test the hypothesis and the level of relationship between the variables. Pie charts and graphs are used to visualize the data.

Q1. Gender

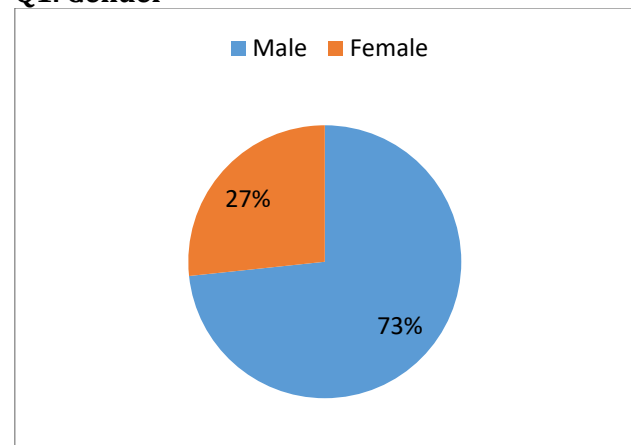


Figure 1

Analysis: Out of total respondents, majority of the respondents were male. The share of the male respondents was 73% while the share of the female

respondents working in the different departments of the smart city was 27%.

Q2. Age

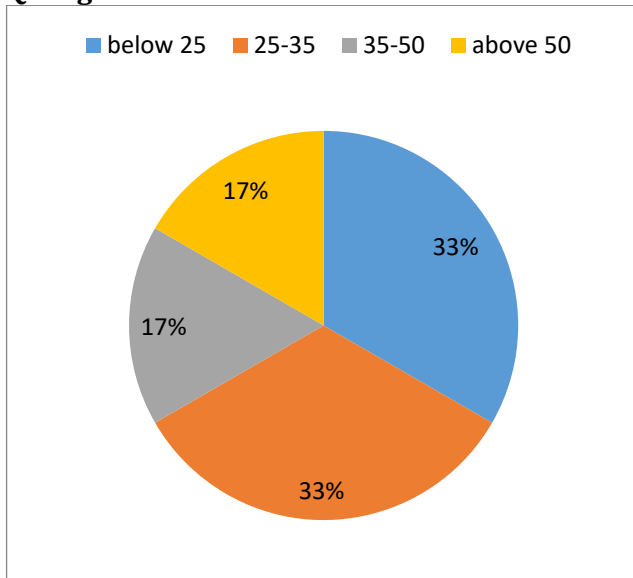


Figure 2

Analysis: Out of total respondent's majority of the respondents were from the young age group as the concept of the smart city is new and it requires more technological persons than experienced one and that is why 66% of the respondents were below 35 years of age.

Q3. Project Role

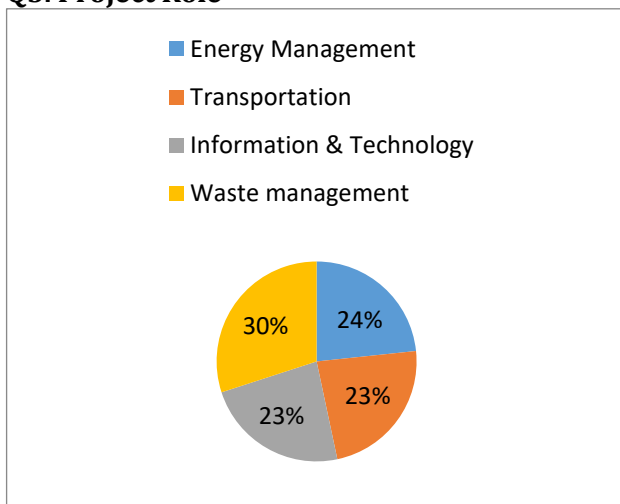


Figure 3

Analysis: Out of total respondents, major 30% of the respondents were from the waste management department followed by energy management department (24%), IT and transportation department (23%). This shows that all of the departments are covered in the study to get the overall view.

Q4. Years of Experience

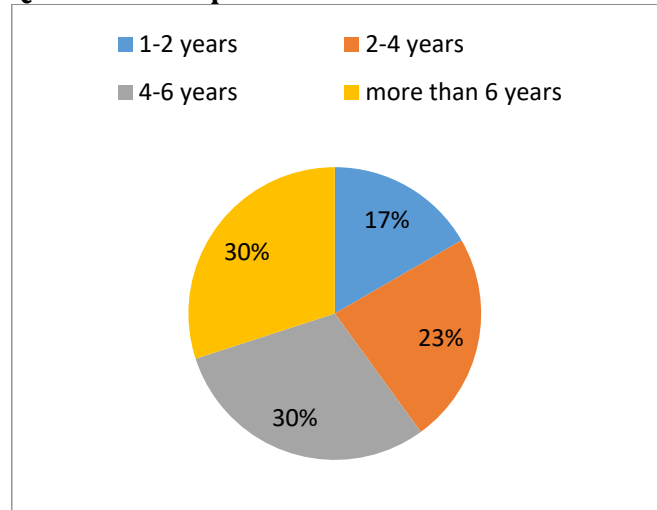


Figure 4

Analysis: Out of total respondents, 30% of the respondents were having more than 6 years of experience in their respective field. There are 17% respondents those who have only 1-2 years of experience in the field of maintaining smart cities' activities.

Q5. Whether the current governance framework is modified as per the need after the first implementation or not?

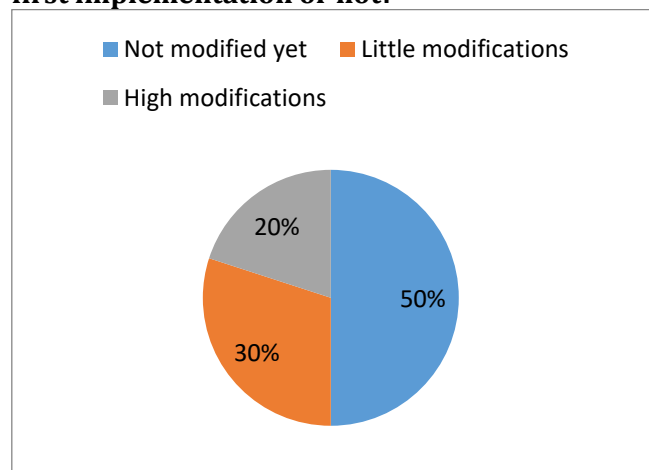


Figure 5

Analysis: Respondents are asked about the

modification in the governance system in their concerned department in response to which, 50% of the respondents stated that no modification has been taken yet in the traditional governance system of the smart city. Only 20% of the respondents stated that high level of modification has been carried out in the governance system of their department.

Q6. What is the current status of the stakeholders in the involvement of the smart city initiatives?

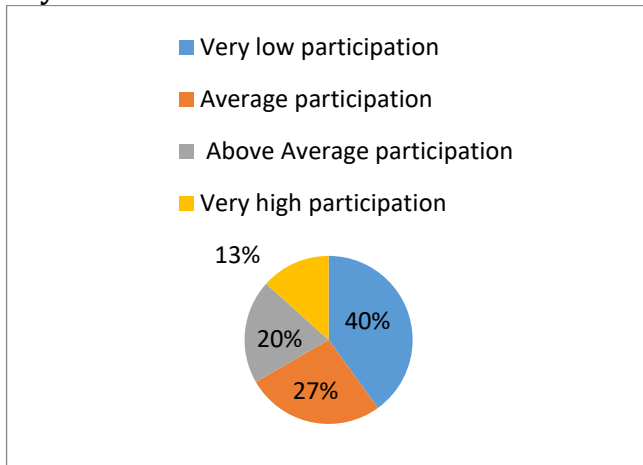


Figure 6

Analysis: Out of total respondents only 13% of the respondents stated that participation of the stakeholders is high in the governance system and the smart city initiatives while more than 2/3rd of the respondents stated very low or average participation of the stakeholders in the governance system of the smart city.

Q7. Do you agree with the fact that current governance system do not provides solutions for energy and waste management and assist for maximum utilization of resources?

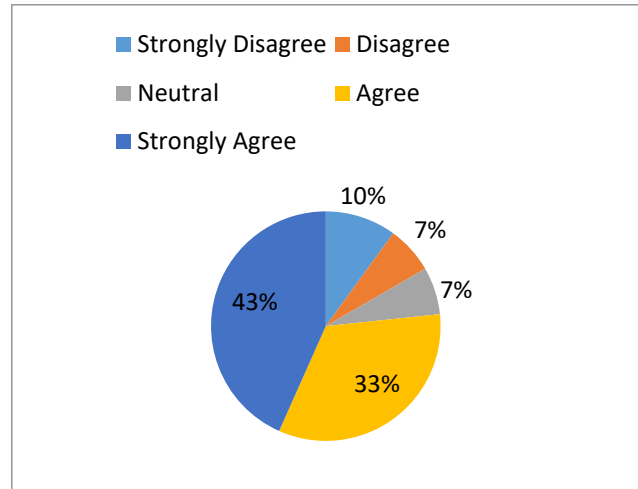


Figure 7

Analysis: Out of total respondents more than 75% of the respondents agreed with the fact that current governance system do not provides solutions for energy and waste management and assist for maximum utilization of resources.

Q8. Do you agree with the fact that the governance system of the smart cities is lacking in implementing ICTs and demonstrating its value?

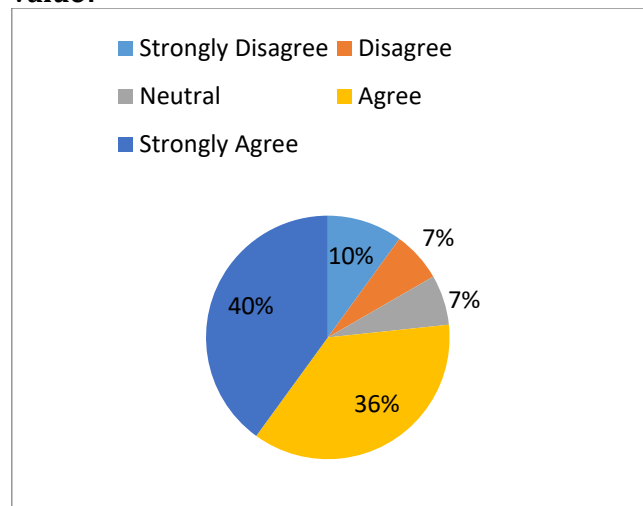


Figure 8

Analysis: Out of total respondents more than 75% of the respondents agreed with the fact that the governance system of the smart cities is lacking in implementing ICTs and demonstrating its value.

Q9. Do you agree with the fact that current governance system in the smart cities lacks in digital education of the stakeholders?

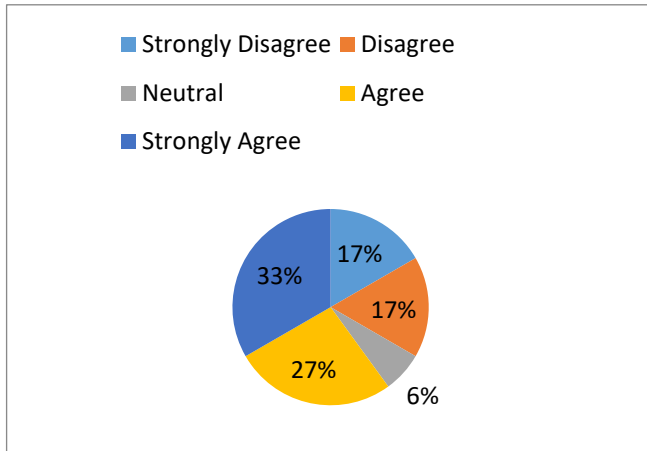


Figure 9

Analysis: Out of total respondents 67% of the respondents stated that current governance system in the smart cities lacks in digital education of the stakeholder. Only 30% of the respondents stated that current governance system of their smart city is somehow educating the stakeholders about energy saving and maximum use of resources.

Q10. Implementation of the ICT in the governance system will help the city functions well and use the optimum resources?

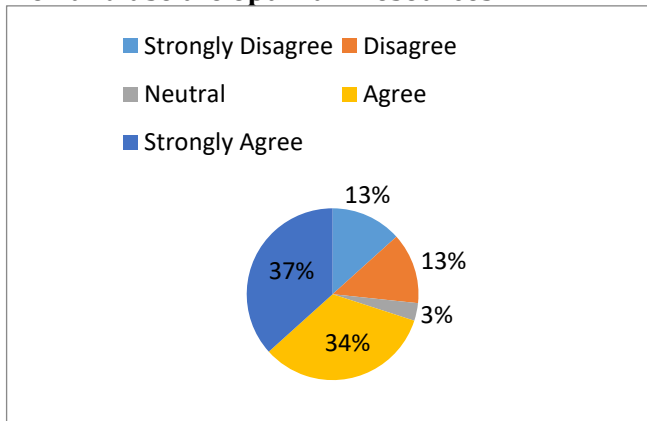


Figure 10

Analysis: Out of total respondents around 70% of the respondents agreed with the fact implementation of the ICT in the governance system will help the city functions well and use the optimum resource

Q11. Do you agree with the fact that maximum utilization of resources can be achieved through incentivize collaboration between the municipalities?

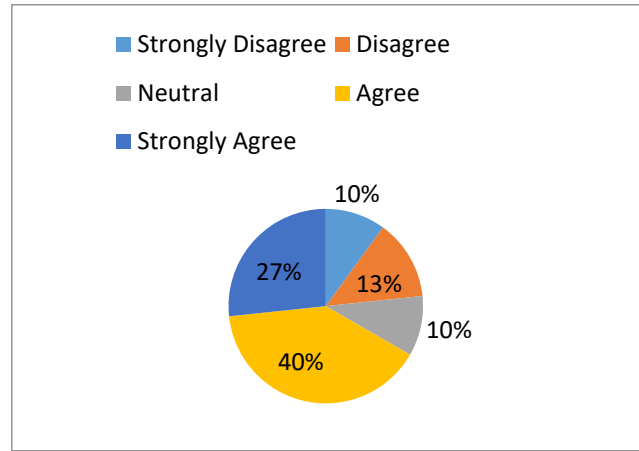


Figure 11

Analysis: Out of total respondents 2/3rd of the respondents stated that maximum utilization of resources can be achieved through incentivize collaboration between the municipalities while around 22% of the respondents did not agreed with this fact.

Q12. Does the implementation of the ICT in the governance system will give the opportunity to the entrepreneurs to use the data to create businesses and solve city problems?

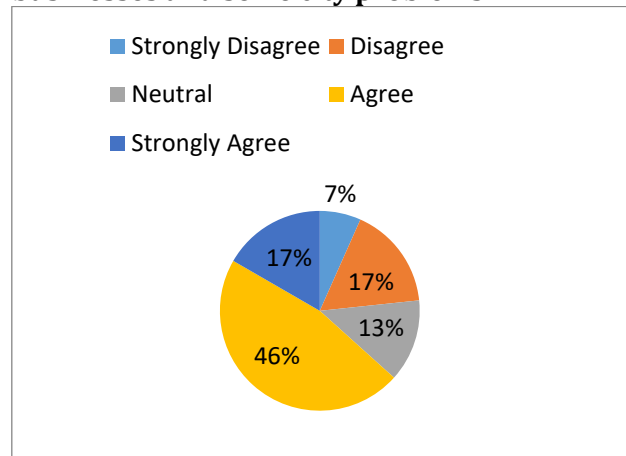


Figure 12

Analysis: Out of total respondents around 2/3rd of the respondents showed their approval to the fact that the implementation of the ICT in the governance system will give the opportunity to the entrepreneurs to use the data to create businesses and solve city problems.

Q13. Do you agree with the fact that matching digital education with business needs is crucial for fast technological development?

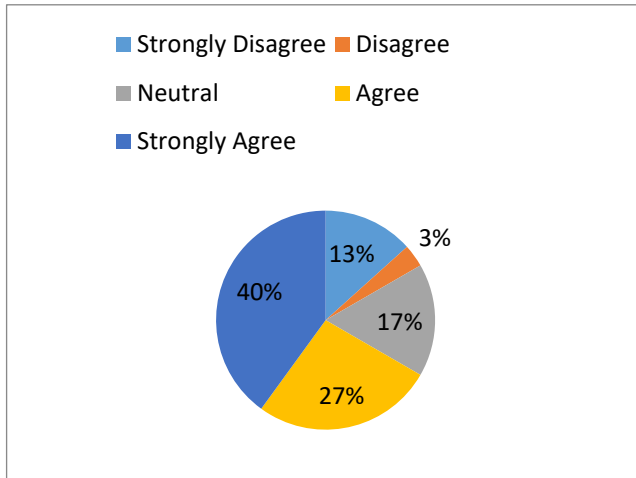


Figure 13

Analysis: Out of total respondents 2/3rd of the respondents agreed with the fact that matching digital education with business needs is crucial for

fast technological development.

Correlation Analysis between the dependent and independent variables

Correlation analysis is a technique for investigating the relationship between the two quantitative, continuous variables and it also measures the strengths of the association between the two variables. This study prepared a total of ten hypotheses to measure the level of relationship of the five independent variables with two dependent variables.

Correlation between Quality & Innovation in governance in Smart Cities and wise use of resources in the smart city

H1 asserted that Quality & Innovation in governance in Smart Cities leads to wise use of resources in the smart city

Table 1: Correlation: Quality & Innovation in governance in Smart Cities and wise use of resources in the smart cities

	Quality & Innovation in governance in Smart Cities	Wise use of resources
Quality & Innovation in governance in Smart Cities	1	
Wise use of resources	0.823276	1

The above table shows the relationship between the two variables named Quality & Innovation in governance of Smart Cities and optimal use of resources. The analysis demonstrated that there is a positive correlation between Quality & Innovation in governance in Smart Cities and Wise use of resources ($r= 0.82$, $n=30$). Hence, null hypothesis is rejected and the alternate hypothesis is accepted. The moderate strength of the linear relationship between Quality & Innovation in governance in Smart Cities and Wise use of resources indicated a high positive correlation,

suggesting the level of relationship as strong. It means if ICTs and incentivize collaboration between the municipalities is established effectively then, smart cities can maintain wise use of resources.

Correlation between Quality & Innovation in governance in Smart Cities and Quality of Life and Sustainability

H2 asserted that Quality & Innovation in governance in Smart Cities leads to quality life and overall sustainability of the Smart Cities.

Table 2: Correlation: Quality & Innovation in governance in Smart Cities and Quality of Life and Sustainability

	Quality & Innovation in governance in Smart Cities	Quality of Life and Sustainability
Quality & Innovation in governance in Smart Cities	1	
Quality of Life and Sustainability	0.712878	1

The above table shows the relationship between the two variables named Quality & Innovation in

governance in Smart Cities leads to quality life and overall sustainability of the Smart Cities. The

analysis demonstrated that there is a positive correlation between Quality & Innovation in governance of Smart Cities leads to quality life and overall sustainability of the Smart Cities ($r= 0.71$, $n=30$). Hence, null hypothesis is rejected and the alternate hypothesis is accepted. The moderate strength of the linear relationship between Quality & Innovation in governance of Smart Cities and overall sustainability of the smart cities indicated a high positive correlation, suggesting the level of relationship as strong. It means if ICTs and digital education established effectively then, smart cities can maintain the quality life with overall sustainability.

5. DISCUSSION OF RESULTS

According to the statistical findings, it has been found that current level of involvement of the stakeholders in the smart city governance is very low and as per the previous studies (El Khatib and Ahmed, 2018), the involvement of the stakeholders should be high in the governance of the smart cities to utilize the resources at max and to facilitate the quality of life to the people living in the smart city. The study results supported the fact that quality and innovation in the governance in the smart cities leads to the wise use of resources. The previous studies also supported this fact and advised to implement ICT and guidelines on the policies and standards to address the issues and concerns of the stakeholders (Aljumah et al., 2023). Further, the results of the study supported the fact that quality and innovation in the governance of the smart cities leads to the quality life of the people through overall sustainability attainment. This fact is also supported by the previous study by stating that smart cities whose governance is innovative in terms of educating their people and engaging their people to develop new business and provide solution to the problem are more sustainable (Nuseir and Elrefae, 2022). So overall, the results of the study are supported by the results of the previous studies and researchers.

6. CONCLUSION AND RECOMMENDATIONS

On the basis of the overall analysis and discussion of the results it can be concluded that current governance approaches of the smart cities of UAE are not much effective to cater to the current challenges of the smart city such as maximum use of the resources and attain sustainability. The

governance approaches of the smart cities of UAE has not been modified or upgraded from a long time and that's why they have been outdated to cater to the current problems of the smart cities. There is need to upgrade or innovate the approaches of the governance to achieve wise use of resources and provide quality of life through sustainable development.

The study recommended some suggestions to the management of the smart cities through which they can make their governance innovative to achieve the vision of the smart city.

- The governance of the smart cities should implement Information and Communication Technology at each and every phase as it will facilitate the people to learn, educate and provide solution at single platform. Flow of information through ICT systems will enable the people to know how to maximize the use of resource and minimize the waste.
- Further, the governance of the smart cities should establish digital leadership, digital learning platform and collaboration between the municipalities to enhance the quality of life of the people living in the smart city. Overall sustainability can be achieved when all the stakeholders come together and become the part of smart governance.

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Intricate Interplay between Knowledge Management and Creative Organizational Climate effecting Smart Organization

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ABSTRACT

In today's hypercompetitive and rapidly evolving business environment, organizations strive to embrace smart practices that foster innovation, agility, and sustainable growth. This research investigates the transformative influence of two critical elements, Knowledge Management (KM) and Creative Organizational Climate (COC), on the development of smart organizations. Knowledge Management encompasses a systematic approach to identifying, capturing, organizing, and sharing both tacit and explicit knowledge within an organization. In the context of a smart organization, KM serves as the backbone of informed decision-making, enabling efficient knowledge flow across functional units and facilitating the creation of a learning-oriented culture. This research explores diverse KM strategies, technologies, and implementation challenges, highlighting their contributions to building knowledge-driven organizations.

Through an extensive review of existing literature and case studies, this research reveals the complex interplay between Knowledge Management and Creative Organizational Climate in shaping the emergence of a smart organization. By combining these two essential factors, organizations can harness the full potential of their knowledge assets, boost organizational learning, and cultivate an innovative workforce.

1. INTRODUCTION

Organizations always look for methods to improve their ability to adapt, innovate, and overall performance in the quickly changing and competitive business environment of today. The emergence of smart organizations has become a focal point of interest for scholars, practitioners, and business leaders alike, as these entities exhibit remarkable resilience and responsiveness to dynamic market conditions. At the heart of the smart organization lie two pivotal factors: Knowledge Management (KM) and Creative

Organizational Climate (COC) (Ali Salahat, 2021). The interplay between these two elements is known to exert a profound impact on an organization's ability to thrive as a smart entity. Knowledge Management involves the systematic identification, creation, dissemination, and application of knowledge within an organization to achieve its objectives (Attia and Essam Eldin, 2018). In the context of a smart organization, KM acts as a strategic enabler that facilitates the efficient utilization of knowledge assets, including

both explicit information and tacit expertise (Kassaneh et al., 2021). By nurturing a culture of continuous learning and knowledge sharing, KM contributes to informed decision-making, effective problem-solving, and the development of innovative solutions.

Concurrently, a Creative Organizational Climate represents the prevailing atmosphere and attitudes within an organization that fosters creativity, experimentation, and risk-taking among employees (Porzse et al., 2012). A climate that encourages and rewards creativity stimulates employees to explore new ideas, challenge conventions, and embrace uncertainty (Filos, 2006). Such a climate is essential for driving innovation, as it empowers individuals to contribute their unique perspectives and talents, leading to novel solutions and enhanced organizational agility (Isaksen and Aerts, 2011).

The integration of Knowledge Management and Creative Organizational Climate introduces a synergistic effect that propels an organization toward becoming smart (Al-Kasasbeh et al., 2016). Knowledge Management, when coupled with a creative climate, bolsters the innovation process by providing a structured platform for knowledge sharing, collaboration, and learning from past experiences (Filos and Banahan, 2001; Wiig, 1997). Conversely, a creative climate amplifies the impact of KM initiatives by fostering an environment where employees actively seek, apply, and amplify knowledge to devise innovative solutions to complex challenges (Muhammad Turki Alshurideh et al., 2022c; Chermack et al., 2015).

Despite the recognized importance of Knowledge Management and Creative Organizational Climate in shaping smart organizations, the complex interplay between these factors remains a subject of limited empirical exploration. Thus, this research endeavors to delve deeper into the relationship between KM and COC, aiming to uncover how their mutual influence impacts the overall transformation of organizations into smart entities (M. T. Alshurideh et al., 2023d). By shedding light on this interplay, this study seeks to

offer valuable insights for organizations seeking to leverage knowledge and creativity as essential assets in their pursuit of sustainable growth and competitive advantage.

In the following sections, we present an extensive review of existing literature, drawing from relevant academic journals, reports, and case studies. We aim to provide a comprehensive understanding of the mechanisms through which KM and COC synergize and influence organizational dynamics, innovation, and performance. Moreover, we will explore practical implications and recommendations for organizational leaders to effectively harness the potential of this interplay, thereby fostering the evolution of smart organizations that excel in today's fast-paced and dynamic business environment.

2. THEORETICAL FRAMEWORK

2.1. Knowledge Management

Knowledge Management (KM) is a multidisciplinary approach that involves the systematic and strategic management of an organization's knowledge assets, encompassing both explicit and tacit knowledge, to create value, enhance performance, and achieve competitive advantage (Kassem and Martinez, 2022). In prior literature, KM has been described as a dynamic process that encompasses the identification, acquisition, creation, storage, organization, retrieval, dissemination, and application of knowledge throughout an organization's lifecycle. According to (Al-Kassem et al., 2022), one of the seminal works in KM, knowledge is classified into two types: explicit knowledge, which can be codified and articulated in the form of documents, manuals, and databases, and tacit knowledge, which is embedded in individuals' experiences, expertise, and insights (Bawaneh et al., 2023; El Khatib et al., 2022). KM seeks to leverage these diverse forms of knowledge by facilitating their transfer and integration across organizational boundaries, departments, and hierarchies (M. T. Alshurideh et al., 2023b).

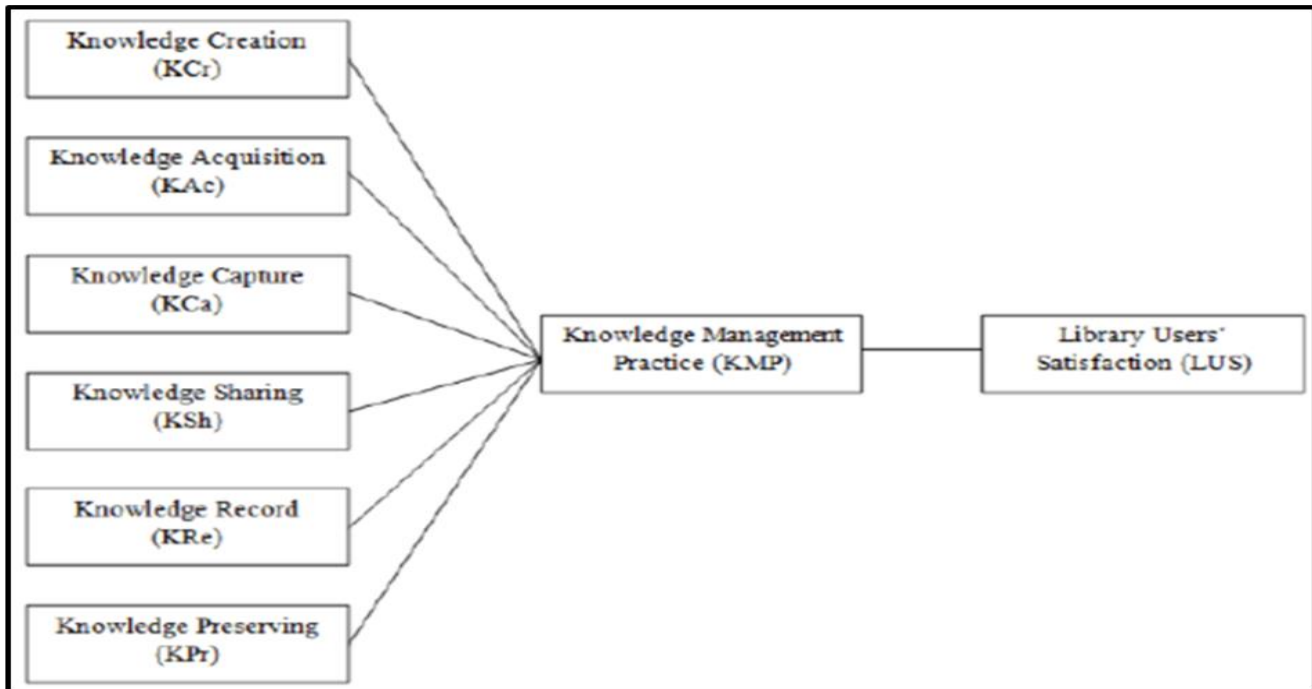


Figure 1: KM Framework

Source: (Attia and Salama, 2018)

In essence, KM aims to foster a knowledge-sharing culture within the organization, encouraging employees to share their expertise and learn from each other's experiences (M. T. Alshurideh et al., 2023c). It involves the deployment of various tools, technologies, and practices, such as knowledge repositories, communities of practice, expertise directories, and lessons learned sessions, to enable the efficient creation, capture, organization, and dissemination of knowledge (Akour et al., 2023; Khatib et al., 2022).

2.2. Creative Organizational Climate

Creative Organizational Climate (COC) refers to the prevailing work environment and cultural atmosphere within an organization that nurtures and encourages creativity, innovation, and idea generation among its employees (M. T. Alshurideh et al., 2023a). In prior literature, COC has been extensively studied as a crucial determinant of an organization's ability to foster and sustain a culture of creativity and forward-thinking (Hani Al-Kassem, 2021).

Within a creative organizational climate, employees feel empowered and supported to explore new ideas, take calculated risks, and challenge conventional practices (I. Akour et al., 2022). This climate is characterized by open communication channels, non-judgmental

feedback, and a flat hierarchical structure that encourages participation and input from all levels of the organization (El Khatib et al., 2021). In such an environment, the fear of failure is minimized, and employees are encouraged to learn from mistakes and view setbacks as opportunities for growth and learning (Muhammad Turki Alshurideh et al., 2022a).

The literature emphasizes the importance of leadership in shaping and maintaining a creative organizational climate. Leaders play a vital role in setting the tone and direction for creativity, providing a clear vision, and championing a culture that values innovation (Al-Kassem, 2017). They promote a culture of psychological safety, where employees feel comfortable expressing their ideas and experimenting without fear of retribution. A creative organizational climate is also associated with diversity and inclusivity (El Khatib and Ahmed, 2020). Research suggests that diverse teams, comprising individuals with varied backgrounds, perspectives, and expertise, are more likely to generate innovative solutions and breakthrough ideas (Aityassine et al., 2022; Al-Kassem et al., 2013).

Furthermore, prior literature on COC identifies specific factors that contribute to its development and sustainability (Lee et al., 2023). These factors include providing employees with autonomy and

control over their work, allocating dedicated time for creative pursuits, fostering cross-functional collaboration, and recognizing and rewarding creative efforts (El Khatib and Opulencia, 2015).

2.3. Smart Organization

A smart organization, as defined in prior literature, refers to an adaptive, innovative, and technologically-enabled entity that leverages advanced technologies, data-driven insights, and intelligent systems to optimize its operations, decision-making processes, and overall performance (H. Alzoubi et al., 2022; El Khatib, 2015; Mat Som and Kassem, 2013; Nuseir, 2021). This concept emerged in response to the rapid advancements in technology and the need for organizations to remain competitive and relevant in the digital age.

A smart organization is characterized by its ability to harness data and information from various sources, both internal and external, to gain actionable insights and make informed decisions (Nadzri et al., 2023). This data-driven approach enables the organization to identify patterns, trends, and opportunities, leading to enhanced efficiency, resource allocation, and risk management (Al-Awamleh et al., 2022; El Khatib et al., 2019).

In the literature, a smart organization is often associated with the adoption of emerging technologies, such as the Internet of Things (IoT), Artificial Intelligence (AI), Machine Learning (ML), and Big Data analytics (Al-Kassem, 2014). These technologies enable the organization to automate processes, predict outcomes, and personalize customer experiences, contributing to improved customer satisfaction and increased operational effectiveness (Khatib et al., 2016).

Moreover, a smart organization exhibits a culture of continuous learning and innovation (H. M. Alzoubi et al., 2022c). It encourages experimentation, supports employee creativity, and embraces a fail-fast, learn-fast mentality. This culture of innovation fosters a nimble and agile organization that can adapt quickly to changing market dynamics and customer preferences (Al-Kassem et al., 2012; El Khatib and Ahmed, 2019).

In addition to internal capabilities, a smart organization also emphasizes collaboration and partnerships (T M Ghazal et al., 2023a). It actively engages with external stakeholders, including

customers, suppliers, and industry peers, to co-create value and leverage collective intelligence (El Khatib et al., 2020b). Collaboration with startups and tech ecosystems is also common, as it facilitates access to cutting-edge solutions and disruptive ideas.

3. LITERATURE REVIEW

3.1. Relationship between Knowledge Management and Smart Organization

In prior literature, the relationship between Knowledge Management (KM) and smart organizations is characterized by a mutually reinforcing dynamic. Knowledge Management plays a foundational role in transforming traditional organizations into smart entities, while smart organizations, in turn, leverage KM practices to enhance their agility, innovation, and overall performance (Aljumah et al., 2023; M. Alshurideh et al., 2023). Knowledge Management serves as a critical enabler of informed decision-making within a smart organization (Muhammad Turki Alshurideh et al., 2022b). By capturing, organizing, and disseminating knowledge across the organization, KM ensures that decision-makers have access to relevant information and insights, empowering them to make data-driven, strategic choices in real-time (Yasir et al., 2022).

Smart organizations emphasize a culture of continuous learning and improvement. KM provides the infrastructure and processes to support organizational learning, helping employees share best practices, learn from past experiences, and build upon existing knowledge (H. M. Alzoubi et al., 2022g). This iterative learning process contributes to the organization's ability to adapt quickly to changing circumstances and improve its performance over time. Innovation is a cornerstone of smart organizations, and KM plays a vital role in fostering innovation (Almasaeid et al., 2022; M. El Khatib et al., 2021). KM initiatives, such as idea-sharing platforms, knowledge repositories, and cross-functional collaboration, enable employees to access diverse knowledge sources, leading to the emergence of creative solutions and novel ideas (Ahmad Ibrahim Aljumah et al., 2022a). Smart organizations leverage advanced technologies to enhance knowledge sharing and collaboration (Al-Marouf et al., 2022b; H. M. Alzoubi et al., 2022e). KM platforms and digital tools facilitate seamless knowledge exchange,

breaking down silos and enabling employees to access information and expertise regardless of geographical locations (Farrukh et al., 2023)

. In a dynamic business environment, smart organizations must be agile in their problem-solving approach (El Khatib et al., 2020a; Louzi et al., 2022a). KM equips the workforce with the necessary knowledge resources, enabling them to tackle challenges efficiently and make rapid decisions based on insights and past experiences. Smart organizations recognize that their most valuable asset is their intellectual capital - the collective knowledge, expertise, and insights of their employees (Al-Marroof et al., 2022a; Mohammed T. Nuseir et al., 2022). KM practices help identify and leverage this intellectual capital, ensuring that knowledge is not lost when employees leave the organization and that expertise is effectively distributed throughout the workforce (E. Khatib et al., 2021; Mubeen et al., 2022).

KM initiatives contribute to the development of a learning-oriented culture within the organization (El Khatib and Ahmed, 2018). This culture emphasizes the value of knowledge-sharing, encourages employees to seek new learning opportunities, and promotes a sense of ownership and responsibility for knowledge assets (I. A. Akour et al., 2022; A I Aljumah et al., 2022a).

Overall, the relationship between Knowledge Management and smart organizations is one of synergy and mutual reinforcement (AlDhaheiri et al., 2023; M T Alshurideh et al., 2022). As smart organizations embrace innovative technologies and practices, KM becomes an essential mechanism to harness the potential of these advancements, creating an organization that continuously learns, adapts, and excels in the dynamic and competitive business landscape (Gulseven and Ahmed, 2022).

3.2. Relationship between Knowledge Management and Creative Organizational Climate

Knowledge Management plays a fundamental role in nurturing a creative organizational climate. KM initiatives facilitate the sharing and dissemination of knowledge and best practices across teams and departments (Nuseir and Aljumah, 2022). When employees have easy access to a broad range of knowledge and expertise, it enhances their creative problem-solving capabilities and sparks innovative

thinking (T M Ghazal et al., 2023c; Khatib, 2022). Knowledge Management seeks to capture and transfer both explicit and tacit knowledge within an organization (Alshawabkeh et al., 2021; Louzi et al., 2022b; Sakkthivel et al., 2022). Tacit knowledge, which resides in individuals' experiences, insights, and intuition, is particularly valuable for fostering creativity (Nuseir, 2020). KM practices that encourage knowledge exchange and cross-functional collaboration enable employees to tap into this tacit knowledge and apply it to innovative endeavors (H. M. Alzoubi et al., 2022d; T M Ghazal et al., 2023b; Nuseir and Aljumah, 2020).

KM practices promote continuous learning and skill development, which are essential elements of a creative organizational climate (Ahmed et al., 2022; Nuseir and Elrefae, 2022). Employees who have access to learning resources and opportunities to expand their knowledge are more likely to bring fresh perspectives and ideas to their work, contributing to a culture of innovation (R. S. Al-Marroof et al., 2021b; Gaytan et al., 2023). A well-implemented Knowledge Management system provides employees with the tools and resources to search for relevant information, historical data, and existing solutions (Abudaqa et al., 2022, 2021). This knowledge-based approach to idea generation allows employees to build upon past experiences, learn from successes and failures, and propose novel and effective solutions (Ahmad Ibrahim Aljumah et al., 2022b).

Creative Organizational Climate empowers employees to take risks, challenge conventional thinking, and explore new ideas (Nuseira and Aljumahb, 2020). Knowledge Management supports this empowerment by ensuring that employees have the necessary knowledge and information to back their creative endeavors, thus reducing uncertainty and fear of failure (Ahmed and Nabeel Al Amiri, 2022; Amiri et al., 2020). Both KM and COC contribute to building a culture of innovation. KM initiatives foster a knowledge-sharing culture, while COC establishes an environment that rewards and celebrates creativity (Aljumah et al., 2020; Varma et al., 2023). The combination of these two factors creates an organizational atmosphere that encourages employees to generate and implement innovative ideas (H. M. Alzoubi et al., 2022a).

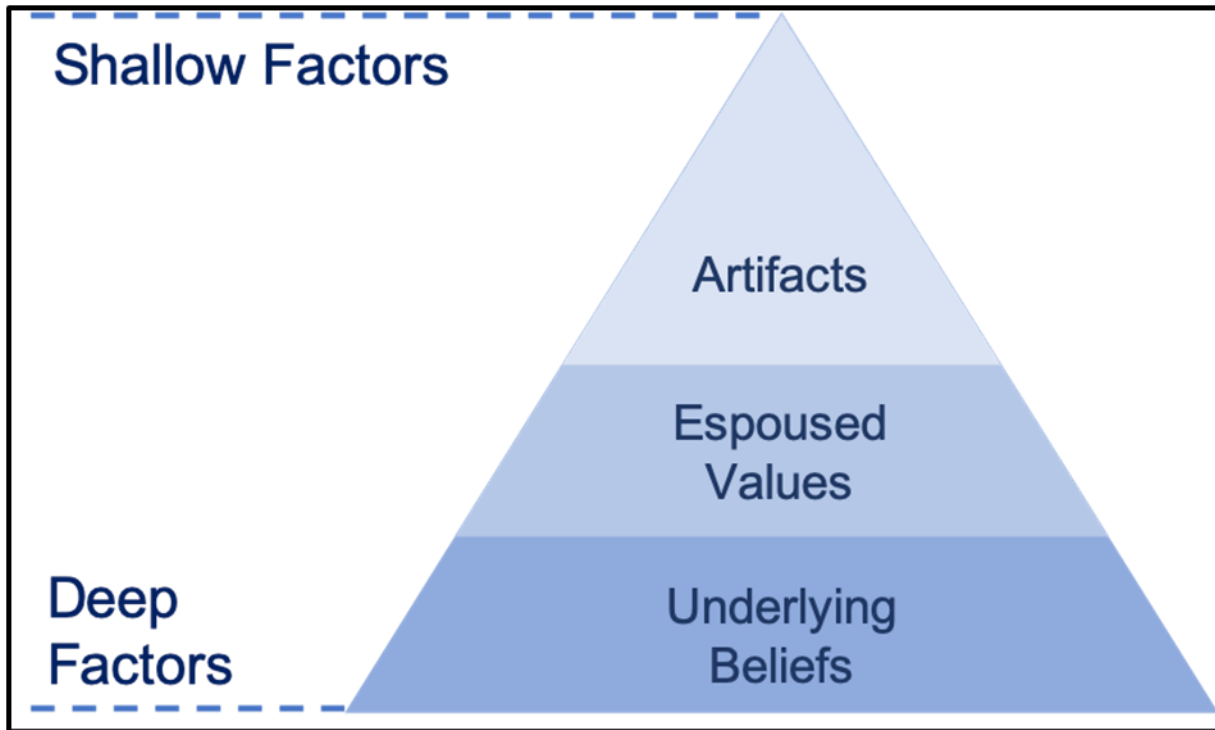


Figure 2: Schein's Cultural Triangle
(Source: (Chermack et al., 2015))

Knowledge Management practices that facilitate collaboration and cross-functional communication play a pivotal role in promoting a creative climate (A. Al-Marroof et al., 2021; Muhammad Alshurideh et al., 2022). When employees from different backgrounds and areas of expertise come together to share knowledge and ideas, it fosters a rich ecosystem for creative thinking and problem-solving (A I Aljumah et al., 2022b).

In summary, the relationship between Knowledge Management and Creative Organizational Climate is symbiotic (H. M. Alzoubi et al., 2022f; Arshad et al., 2023). KM practices support the development of a creative climate by facilitating knowledge sharing, empowering employees with valuable insights, and nurturing a learning culture (Akour et al., 2021; Khan et al., 2022). In return, a creative organizational climate energizes employees to embrace KM initiatives, leading to a continuous cycle of innovation, knowledge creation, and organizational growth.

3.3. Relationship between Creative Organizational Climate and Smart Organization

A Creative Organizational Climate sets the stage for fostering a culture of innovation within an organization (Aljumah et al., 2021a; Alzoubi et al.,

2020). It encourages employees to think creatively, challenge the status quo, and explore unconventional approaches to problem-solving (H. Alzoubi et al., 2022). In a smart organization, this culture of innovation is vital as it drives the adoption of cutting-edge technologies and data-driven practices (AlHamad et al., 2021; Alshurideh et al., 2020). Smart organizations are known for their agility and adaptability in responding to market changes and customer needs (Aljumah et al., 2021b; H. M. Alzoubi et al., 2022h). A creative climate empowers employees to embrace change and take calculated risks, which aligns well with the agile mindset needed for successful digital transformation and smart organizational practices (Ghazal et al., 2021).

A key characteristic of smart organizations is the empowerment of employees to make decisions and take ownership of their work (M T Nuseir et al., 2022a) aljumah. COC encourages a bottom-up approach to problem-solving, where employees are encouraged to use their creativity and expertise to drive innovation and contribute to the organization's success (R. S. Al-Marroof et al., 2021a; Aziz et al., 2023). Smart organizations leverage collaboration and knowledge-sharing to maximize their collective intelligence (Alzoubi and Ahmed, 2019). A Creative Organizational Climate

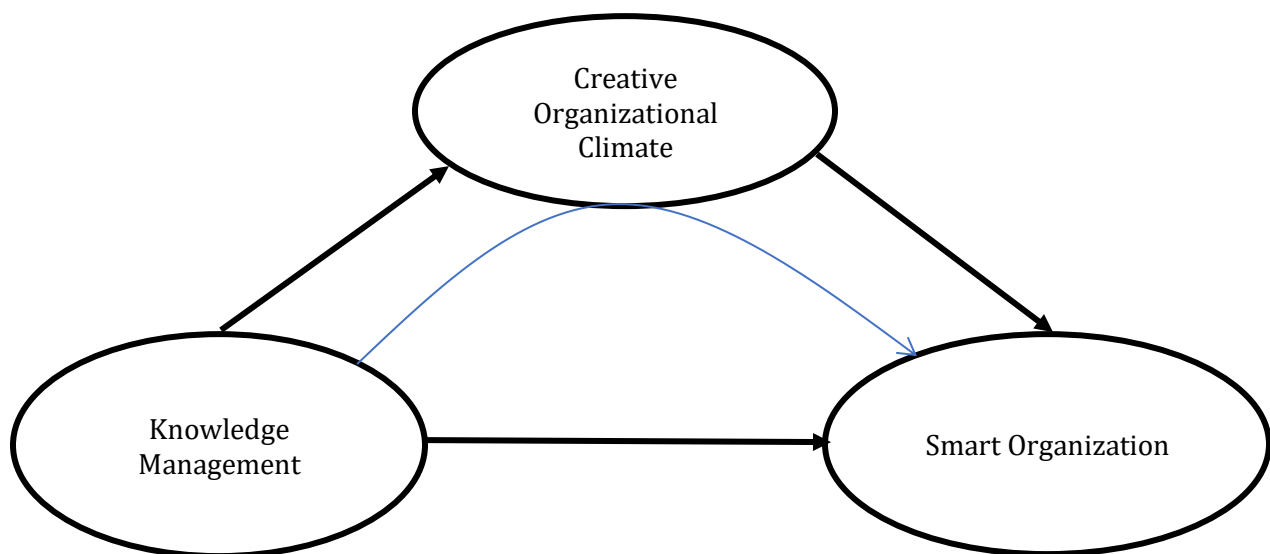
promotes open communication, teamwork, and cross-functional collaboration, facilitating the integration of knowledge and expertise from diverse sources within the organization (Al-Dmour et al., 2023; Nuseir et al., 2021).

The adoption of advanced technologies is a hallmark of smart organizations (H. M. Alzoubi et al., 2022b). COC plays a crucial role in supporting the successful implementation of these technologies by instilling a positive attitude towards change, encouraging experimentation, and providing an environment conducive to learning and adaptation (Taher M. Ghazal et al., 2023). Smart organizations prioritize digital transformation and leverage digital tools and data analytics to enhance their decision-making and operational efficiency (E Tariq et al., 2022). COC helps employees embrace digital mindset, encouraging them to explore and utilize digital solutions in their daily work (Alzoubi et al., 2019; M T Nuseir et al., 2022b). A Creative Organizational Climate contributes to higher employee engagement and satisfaction. In a smart organization, engaged employees are more likely to embrace and support the organization's transformation efforts, making the transition to becoming a smart organization smoother and more successful (Emad Tariq et al., 2022).

COC fosters a culture of continuous improvement, where employees are encouraged to seek better ways of doing things and contribute to the organization's growth and success (Blooshi et al., 2023; Nuseir et al., 2020). In a smart morganization, this culture aligns with the pursuit of efficiency and optimization through data-driven practices. In conclusion, the relationship between Creative Organizational Climate and Smart Organization is intrinsic and complementary. COC acts as a driving force in creating an innovative, agile, and collaborative organizational culture, which sets the foundation for embracing technological advancements and becoming a smart organization capable of thriving in the digital age.

4.1. Research Hypothesis

- H1: Impact of Knowledge Management on creative organizational climate at retail industry
- H2: Impact of Knowledge Management on smart organization at retail industry
- H3: Impact of creative organizational climate on smart organization at retail organizations
- H4: Impact of Knowledge Management on smart organizations through creative organizational structure in the retail industry



DV=Smart Organization (SO)
 IV=Knowledge Management (KM)
 MV=Creative Organizational Climate (COC)

3. METHODOLOGY

In the context of studying the relationship between Creative Organizational Climate (COC) and Smart Organization in the hospitality sector, qualitative research is well-suited to delve into the nuances of employees' perceptions, attitudes, and behaviors towards creativity, innovation, and technological adoption. However, a deductive approach was chosen to explore the research variables relationship and impact with a theoretical analysis. This technique allows researchers to gather rich, in-depth insights and capture the complexity of the topic from the perspectives of various stakeholders within hospitality organizations. The research could also incorporate a case study approach, where multiple hospitality organizations are selected to represent diverse contexts and varying levels of creativity and smart practices. This approach enables researchers to compare and contrast the different manifestations of COC and Smart Organization in different settings, identifying common patterns and unique factors that influence the relationships.

4. DATA ANALYSIS

In order to assess the research variables relationship and impact the specified variables and data were collected from prior literature, journals, books, scientific articles etc. The research hypothesis were theoretically explored and identified the relationship.

H1: Impact of Knowledge Management on creative organizational climate at retail industry

Knowledge management (KM) has been recognized as a critical factor in shaping the creative organizational climate within various industries. This study has extensively explored the impact of KM on fostering creativity, innovation, and overall organizational performance. As investigated by (Nuseira and Aljumahb, 2020), knowledge management practices encourage

Figure (3)

employees to share their knowledge and expertise with others, fostering a collaborative and open environment. When knowledge is shared freely, it facilitates cross-pollination of ideas, leading to a more diverse and creative pool of solutions to organizational challenges. However, knowledge management initiatives often involve training programs and learning opportunities for employees to acquire new skills and knowledge. Continuous learning not only enhances individual capabilities but also contributes to a culture of curiosity and exploration, stimulating creativity throughout the organization.

Knowledge management systems provide access to a vast repository of information and lessons learned from past experiences. This accessibility aids employees in addressing complex problems more efficiently, leading to quicker and more innovative solutions. Effective KM enables the organization to capitalize on its collective intellectual capital. By harnessing the knowledge of employees and promoting the exchange of ideas, organizations can create an environment that nurtures innovation and encourages employees to think outside the box. It helps to identify existing knowledge assets, preventing duplication of efforts and saving time and resources. Employees can build on previous work rather than reinventing the wheel, freeing up resources for more creative endeavors.

Moreover, a knowledge-driven organizational climate enables better adaptability to changes and uncertainties in the business environment. When employees are well-informed and possess the necessary skills, they can respond more creatively and effectively to emerging challenges and opportunities. A strong KM culture empowers employees to contribute their ideas and suggestions, making them feel valued and engaged in the organization's success. This sense of ownership fosters creativity, as employees are more likely to invest their energy and passion in generating innovative solutions. Knowledge management facilitates the transfer of knowledge

from experienced employees to newcomers or other team members. This knowledge continuity is crucial for maintaining creativity and innovation over the long term, ensuring that valuable insights are not lost when employees leave the organization. Knowledge management initiatives often promote a culture of trust, open communication, and experimentation. In such an environment, employees feel encouraged to take risks and explore novel ideas, further contributing to a creative organizational climate.

H2: Impact of Knowledge Management on smart organization at retail industry

Based on the deep theoretical analysis there are various evidences that has been explored by many researchers. As concluded by (Kassaneh et al., 2021), knowledge management enables smart organizations to access and analyze relevant information quickly. By having centralized and up-to-date knowledge, decision-makers can make well-informed choices, leading to more effective and timely decision-making processes. KM fosters a culture of innovation by promoting knowledge-sharing and collaboration among employees. Through KM practices, smart organizations can capture, organize, and disseminate ideas, best practices, and lessons learned, providing a fertile ground for innovative thinking and problem-solving.

In a fast-changing business environment, smart organizations need to be agile and adaptable. KM facilitates the transfer of knowledge and expertise, allowing employees to learn and adapt to new situations and challenges swiftly. Knowledge Retention and Succession Planning: Smart organizations recognize the value of retaining institutional knowledge and expertise. KM systems help capture and preserve knowledge, reducing the risk of losing critical insights when employees leave the organization. This is particularly important for ensuring smooth succession planning. Knowledge management optimizes business processes and workflows. By eliminating redundancies and bottlenecks, smart organizations can improve efficiency and productivity, leading to cost savings and better resource allocation.

KM helps smart organizations gain insights into customer needs and preferences. By analyzing customer data and feedback, organizations can tailor their products and services to meet customer

demands, enhancing customer satisfaction and loyalty. Smart organizations foster a collaborative work environment with the help of KM tools. Knowledge-sharing platforms facilitate communication and collaboration across teams and departments, leading to better teamwork and knowledge exchange.

KM supports continuous learning and talent development within the organization. Smart organizations invest in training and development programs, encouraging employees to acquire new skills and knowledge to stay relevant in a rapidly changing landscape. In addition, KM plays a crucial role in risk management and compliance efforts. By sharing knowledge about regulations, best practices, and risk mitigation strategies, smart organizations can proactively address potential threats and ensure compliance with industry standards. KM enables smart organizations to harness the power of data and analytics. By integrating knowledge with data analysis, organizations can gain valuable insights into market trends, customer behavior, and business performance, leading to data-driven decision-making.

H3: Impact of creative organizational climate on smart organization at retail organizations

The impact of a creative organizational climate on smart organizations has been explored in prior studies. A creative organizational climate refers to an environment that fosters and supports creativity, innovation, and risk-taking among employees. Smart organizations, on the other hand, are those that leverage technology, data, and knowledge to make informed decisions and achieve their goals efficiently. Enhanced Innovation and Problem-Solving: A creative organizational climate encourages employees to think outside the box and come up with innovative solutions to challenges. In smart organizations, this creativity is channeled towards leveraging technology and data to develop novel approaches to problem-solving, leading to more efficient and effective solutions.

Smart organizations need to be adaptable in a rapidly changing business landscape. A creative organizational climate promotes a culture of experimentation and risk-taking, empowering employees to adapt quickly to new circumstances and embrace emerging technologies. A creative

organizational climate values continuous learning and encourages employees to acquire new skills and knowledge. In smart organizations, this learning culture is aligned with the organization's goals and leveraged to improve processes and stay at the forefront of technological advancements.

Employees thrive in environments where their creative contributions are valued and encouraged. A creative organizational climate fosters higher levels of employee engagement and satisfaction, leading to improved employee retention in smart organizations. Smart organizations rely on effective knowledge sharing and collaboration among employees. A creative organizational climate breaks down silos and promotes cross-functional teamwork, enabling the efficient exchange of ideas and expertise.

A creative organizational climate prioritizes customer needs and feedback. In smart organizations, this customer-centric approach is combined with data-driven insights to develop innovative products, services, and experiences that meet customer expectations. Creativity in the organizational climate leads to a diverse range of ideas and perspectives. In smart organizations, these creative inputs are used in conjunction with data analytics and insights to make informed and strategic decisions. A creative organizational climate can give smart organizations a competitive edge. By fostering innovation and creativity, these organizations can develop unique products and services that set them apart from their competitors.

H4: Impact of Knowledge Management on smart organizations through creative organizational structure in the retail industry

Literature from the past studies has looked into the effects of knowledge management (KM) on smart organisations with innovative organizational structures. A creative organizational structure is designed to encourage innovation, collaboration, and agility, allowing smart organizations to leverage their knowledge effectively. Knowledge management practices facilitate the smooth flow of information and expertise across different departments and teams within the creative organizational structure. This seamless knowledge sharing fosters a culture of collaboration and innovation, enabling smart organizations to make

informed decisions based on a comprehensive understanding of the available knowledge. A creative organizational structure breaks down silos and promotes interdisciplinary collaboration. Knowledge management systems play a vital role in supporting cross-functional teams, enabling employees with diverse expertise to come together, share insights, and develop innovative solutions to complex challenges.

Knowledge management practices help smart organizations capture and share tacit knowledge, which is often undocumented and resides within individuals. In a creative organizational structure, tacit knowledge is valued and used to drive innovation and problem-solving, leading to novel ideas and improved processes. Knowledge management enhances the quality of decision-making within smart organizations. By providing employees and decision-makers access to relevant and up-to-date knowledge, the creative organizational structure enables data-driven and informed decision-making, leading to more effective outcomes. In a creative organizational structure, knowledge management creates an innovation ecosystem where ideas are nurtured and transformed into actionable initiatives. Smart organizations leverage KM tools and platforms to gather ideas from employees, customers, and external stakeholders, leading to a steady stream of innovative concepts. Smart organizations in a creative structure encourage experimentation and risk-taking. Knowledge management practices provide a safe space for employees to share insights from both successful and failed experiments, fostering a culture that values learning from mistakes and encouraging continuous improvement.

5. DISCUSSION

The theoretical analysis has been concluded with significant impact of the study variables. It has been deeply reviewed and investigated that knowledge management (KM) has emerged as a vital aspect of modern organizations seeking to thrive in a rapidly evolving business landscape. For the retail industry, an effective knowledge management strategy, when integrated with a creative organizational structure, holds the potential to transform traditional businesses into smart organizations capable of adapting to changing market demands. In the retail industry,

where competition is fierce and consumer preferences continually shift, knowledge management plays a pivotal role in ensuring organizations remain agile and responsive. By capturing, organizing, and disseminating critical information, companies can make informed decisions, better understand customer needs, and anticipate market trends. However, the effectiveness of knowledge management largely depends on its integration into the organizational structure.

In addition, traditional hierarchical structures in the retail sector can stifle creativity and impede knowledge sharing. A rigid top-down approach often inhibits open communication between employees, leading to silos of information and missed opportunities for innovation. Smart organizations recognize the importance of adopting a more dynamic and flexible organizational structure that encourages collaboration across departments and levels, thereby fostering the sharing of insights and expertise. To harness the benefits of knowledge management fully, smart organizations promote a culture of knowledge sharing. Employees are incentivized and rewarded for contributing their expertise, insights, and best practices. A collaborative environment cultivates a sense of ownership and commitment, encouraging individuals to invest in the success of the organization. Such a culture is integral to creating an ecosystem where knowledge flows freely, generating novel solutions and approaches.

However, incorporating technology in the knowledge management process is critical for smart organizations in the retail industry. Advanced data analytics, artificial intelligence, and machine learning tools can assist in identifying patterns, predicting consumer behavior, and optimizing inventory management. Integrating technology with a creative organizational structure enhances the organization's ability to leverage its knowledge assets effectively.

6. CONCLUSION

Through a comprehensive analysis of existing literature, empirical studies, and case examples, several key insights have emerged. Firstly, it is evident that knowledge management plays a pivotal role in the development of a smart

organization. The efficient creation, dissemination, and utilization of knowledge within an organization facilitate informed decision-making, innovative problem-solving, and adaptive strategies. The findings emphasize the significance of robust knowledge management systems, including technologies that enable seamless information exchange and collaboration among employees. Furthermore, a knowledge-sharing culture fosters a sense of collective intelligence, leading to heightened creativity and improved organizational performance.

Secondly, the role of a creative organizational climate in the transformation towards a smart organization is equally crucial. An environment that encourages open communication, experimentation, and diverse perspectives nurtures the growth of novel ideas and innovative solutions. This research highlights that leaders who prioritize creating a culture of psychological safety, curiosity, and autonomy empower employees to think outside the box and take calculated risks. Such a climate cultivates a sense of ownership and commitment among employees, which is essential for the smart organization's agility and resilience in a dynamic business landscape.

The interplay between knowledge management and a creative organizational climate is complex but synergistic. The research indicates that organizations that integrate effective knowledge management practices with a creative climate reap substantial benefits. Collaborative platforms, agile processes, and continuous learning mechanisms amplify the innovative potential of employees, while a creative climate enhances the utilization of knowledge assets and accelerates their application in solving complex challenges.

Furthermore, it is important to acknowledge that the journey towards becoming a smart organization is not linear or one-size-fits-all. Contextual factors, industry dynamics, and organizational maturity influence the implementation of knowledge management strategies and the cultivation of a creative climate. Hence, a tailored approach that aligns with the organization's specific needs and aspirations is recommended.

- Future Recommendations

In light of the comprehensive exploration into the

relationship between knowledge management and a creative organizational climate, and their impact on shaping a smart organization, several avenues for future research and practical application emerge. Firstly, conducting longitudinal studies over extended periods could offer insights into the long-term effects of knowledge management initiatives and creative climates on organizational smartness. Such studies could reveal patterns of development, adaptation, and performance improvement, shedding light on the sustainability and resilience of smart organizations.

Secondly, employing rigorous quantitative methodologies to measure the impact of knowledge management processes and creative climates on specific organizational outcomes, such as innovation rates, employee engagement, and competitive advantage, would provide empirical evidence of their contributions to smartness.

Lastly, developing practical guidelines, toolkits, or frameworks that organizations can use to effectively integrate knowledge management and foster a creative climate could bridge the gap between theory and practice, facilitating the transformation towards a smart organization.

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Exploring the impact of Customization Strategy, Product Variety on Operational Performance in Automotive Manufacturing Industry

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ABSTRACT

This research has three big contributions to car manufacturing companies in China. Firstly, it defines how an improvement in product variety impacts operational performance. Second, it explains the impact on operational performance of customization strategies practices. Thirdly, the thesis identifies the relative differences of impact by five types of customisations of the product variety on specific aspects of operating performance. It includes a comprehensive analysis of the literature associated with the effects of product variety and customisation as well as techniques for coping with trade-offs between product variety and operating performance. By adopting a quantitative research method, a survey of 12 car manufacturing sector companies from China was conducted. The objectives and questions of this research is clearly defined and outlines the difference the research is to bring to information. This also establishes theories that take into account the relationship between product variety, customisation and operational efficiency. The project focuses on data collection methods and a questionnaire is designed to be submitted to Chinese car manufacturing companies. This gives the empirical results of this study a detailed debate. Finally, the research is concluded by providing a summary of the results of the work and of the study's theoretical contributions. Effective mass customisation and customer-driven development will offer Chinese carmakers a variety of benefits. The basic results, therefore, have significant management consequences for Chinese car producers to pursue numerous strategies under different product design profiles.

1. INTRODUCTION

Mass customization is replacing large-scale production and a major movement is being driven for China's automotive makers to expand their offerings and provide consumers with more options and choices. But only rising the variety of products will only render competition worse. Rather, how the Chinese car factories operate and how they will enforce their operational

performance to implement product variety are main issues. Chinese companies must define the potential effect of the product variety on operational performance, which might vary from the degree of customization, before deciding suitable solutions and strategies for the management of the product variety (Nahmens and Bindroo, 2011). Many Chinese automakers have in

particular started realizing that there is a compromise between product variety and operational performance (Pishdad and Taghiyareh, 2011). Numerous approaches for enhancing operating efficiency have been proposed to handle the effect of the product variety (Lyons et al., 2020). Nevertheless, differing customization levels involve diverse techniques and solutions which differently impact operational performance of the company (Zu'bi et al., 2012). This research seeks to assess the potential effect that product diversity may have on operational efficiency and to test a model designed to handle the effect that is eligible to customize the product (Al-Zu'bi et al., 2012). The findings include evidence that confirms and opposes prevailing beliefs on related issues of product-variety. The analysis (Pech and Vrchota, 2022) examined that the improvement in product variety was found to vary operational performance due to the mix of customisation and product variability. The effects of Variety Control Strategies (VCS) was evaluated with the results. The findings are viewed as a paradigm of operational performance architecture that promotes the management of product variety changes (i.e., the interaction between product variety improvement techniques and operational efficiency) (Salvador et al., 2002). This relationship is further studied by the degree of customization (for instance, high level or low level customisation) (Version, 2020). In order to address the challenges of product variety, multiple approaches such as cost control, differentiation and partnerships that can impact operational performance differently, are required for varying degrees of customization. But it remains unclear whether such a policy will affect operating success and whether policy and efficiency in Chinese car manufacturers will differ by degree of customisation. Thus, by undertaking empirical work it is helpful to resolve the difference between theory and reality. The findings in (Yu et al., 2014) help organizational decision-making by offering guidance to managers in Chinese car-making firms on how to make business functional architecture more accommodating for heterogeneous customer demands and responses. For China, rising manufacturing costs because of growing product variability and a comparatively small customization degree are a big challenge that needs to be solved (Omachonu et al., 2004). Chinese companies in the emerging markets still

face various problems with a paradigm shift towards mass customisation, which presents quite a threat. This involves adhering to mass production, retaining high quality and low cost factors, or moving into mass customisation to meet the particular needs of the consumers. The researchers will therefore examine the effect of the customization strategy on operations and maintenance efficiency with the mediation role of the product variety in the car production industry with a view to solving this problem. This research can then help Chinese car manufacturers build variety flexible approaches to achieve global competitiveness and maintain a portfolio which is eligible to have effective and reliable operating performance at the level of the manufacturer's customisation. In particular, the research provides managers in car manufacturing companies in China with proof of the impacts on operational performance by an increasing product diversity, categorized using analysis across a five-stage framework from Pure Standardisation to Pure Customisation. Overall, the implications of increases in product variety on a comprehensive range of performance items that are usually required for the effective organization are provided to managers in China car manufacturing companies.

2. THEORETICAL FRAMEWORK

In order to fully understand the role of concept of research, the researcher is important to define core principles that are used in study. This is a conceptual framework that includes variables customization strategy, product variety and operational performance and their relations with dimensions that clarify and forecast how product variety has potential impact on operational performance, which may differ based on the degree of customisation offered.

2.1. Customization Strategy Dimensions

Pure Standardisation - This is the delivery of specific goods with pre-defined alternatives and designs that applies to pure specifications. Items are sold to all customers only and no discrepancies between different customers.

Segmented Standardisation - Segmented standardization includes the distribution of standard goods with predefined choices and configurations, where consumers may configure

product shipping, delivery times, or delivery places (Muhammad Turki Alshurideh et al., 2022a).

Customised Standardisation- Custom standardization includes production of various types of products manufactured on consumer orders using standard materials where a range of pre-defined options are open to customers; design takes place on the assembly level and fabrication is not customizable (Ahmad Ibrahim Aljumah et al., 2022a).

Tailored Customisation- It refers to the procurement by customer of various types of goods, in which a variety of previously specified specifications are provided to clients; modification is carried out during manufacturing processes but product specifications are not configured (Bawaneh et al., 2023; Fatima et al., 2023).

Pure Customisation- The customization is simply a matter of delivering a special, designed-for-order package that catches the customer's feedback at the beginning of the design process (Almasaeid et al., 2022).

2.2. Product Variety Dimensions

Fundamental- Fundamental variety is a metric that (Mohammed T. Nuseir et al., 2022) have established to calculate the distinct variant in various models in a variety such as body styles, driving train configurations (front or back) and unique country features, such as the left / right drive (AlDhaheri et al., 2023).

Intermediate- The measurement of intermediate variation described by (H. M. Alzoubi et al., 2022c) is essentially an index extracted from the addition of elements, including colors, wire harnesses and all of the elements, during the assembly stage of development which impact the product sequence and parts and material flow into the manufacturing line.

Peripheral- The peripheral variety represents basically the number of choices which may be mounted or modified during or after development without altering the fundamental structure of the component (Akour et al., 2023).

2.3. Operational Performance Dimensions

Cost- By late configuration and by postponement of the form, production costs can be augmented or lowered, a strategy designed to reduce inventory cost by postponing the downstream distribution of a product in the production chain. A larger variety

of products can increase manufacturing costs by increasing the manufacturing process' complexity (I. Akour et al., 2022; A I Aljumah et al., 2022a; Hani Al-Kassem, 2021).

Variety- Variety makes the production, manufacture and management of these goods in industry more difficult. On the company level, higher operating and labour expenses, greater production costs are expected because of more complex procedures, products, regular adjustments and methods for quality control. A number of products need specific materials and technological assistance in the field (Louzi et al., 2022b), making management of efficient product support or service delivery for consumers more difficult.

Quality- Control of quality is a mechanism by which the organization seeks to preserve or enhance the product consistency (Alshurideh, M.T., Al Kurdi, B., Alzoubi, H.M., Sahawneh, N., Al-kassem, 2022). The findings show a higher consistency of the goods, reduced manufacturing prices and a quicker production and time to market with good operating efficiency (Alshawabkeh et al., 2021; M. El Khatib et al., 2022a).

Responsiveness- Varieties and executing decisions decide the sensitivity of a production business to demand vulnerability (Abudaqa et al., 2022; H M Alzoubi et al., 2020). Responsiveness helps businesses to minimize prices by correctly balancing production with demand which provides a distinctive business lead.

2.4. Operational Definition

2.4.1. Customisation Strategy

Customization strategy involves distribution of wide market goods and services that are customized to meet the needs of a particular customer (Khan et al., 2022). This is a marketing and manufacturing strategy that blends the versatility and personalized product customization to the low unit cost of mass production. Certain names are made-to-order or built-to-order to customize the inventory (Ahmed and Nabeel Al Amiri, 2022; Nadzri et al., 2023). This helps a consumer to develop those product characteristics while retaining cost-oriented solutions for mass-produced products. In certain cases, the product components are upgradable (M T Alshurideh et al., 2022). With this versatility, client can build a semi-custom final product by mixing and matching

options. Variety and customization tend to do with various definitions. Variety offers consumers the option but does not require the commodity to be specified (Nuseir and Aljumah, 2020). A highly flexible service will serve as a configuration proxy, but real customization calls for customer engagement (El Khatib et al., 2021). Nonetheless, addressing the variety of different market roles inevitably requires understanding the principles of customer engagement and configuration. Goods may be separated by stage in the design production chain, i.e. at the point of injection of the consumer feedback. In order to determine the configuration standard, defining the point of initial customer engagement is crucial (Al-Kassem, 2017; H. M. Alzoubi et al., 2022g; Mohammed T. Nuseir et al., 2022). The greater customization level and the degree of consumer involvement in the manufacture and supply of the product is necessary to evaluate the degree of customization earlier (M. Alshurideh et al., 2023).

2.4.2. Customisation Strategy dimensions

There are five dimensions for customisation strategy that include, Pure standardisation, Segmented standardisation, Customised standardisation, Tailored customisation and Pure customisation (Aityassine et al., 2022; El Khatib and Ahmed, 2020).

Pure standardisation - The model is based on a "dominant layout" aimed at a wide range of clients, products being produced to the widest possible scale and then shared with everyone. The customer must select or turn to another product without having any clear control on layout, development or even marketing policies (Aziz et al., 2023; Sakkthivel et al., 2022).

Segmented standardisation - Standardized in a small range of features are the products offered. To order to accommodate various model measurements but not on request of particular customers, a basic concept has been changed (H. M. Alzoubi et al., 2022e). For worst, the delivery process should be far more personalized. It occurs in the production cycle of big goods, for instance.

Customised standardisation (modularisation) - Goods from common parts are ordered and the assembly is customized to the particular use. The basic architecture is not modified and all the parts are manufactured massively for the aggregate market (El Khatib, 2015). Every purchaser gets its

own settings. However, the possible configurations are limited by the number of components possible (e.g. automobile body with standardised material) (Al-Dmour et al., 2023; Aljumah et al., 2020; Khatib and Opulencia, 2015).

Tailored customisation - The business shows to a prospective consumer a new concept and it then adapts it to the desires or needs of the client. Customization works down to the production stage, not the concept stage (H. M. Alzoubi et al., 2022f).

Pure customisation - Once consumer expectations enter directly into the design process itself and the Product is designed for service, individualization reaches logical conclusion (Abudaqa et al., 2021; Al-Awamleh et al., 2022). The model, production, installation and distribution of all stages are highly personalized. The typical polarization between buyers and sellers has been an inclusive relationship in which both parties share in the decision-making of one another (A I Aljumah et al., 2022b; Muhammad Alshurideh et al., 2022; Mubeen et al., 2022).

(Mat Som and Kassem, 2013) analysed and highlighted four degrees of product customisation: pure customisation, tailored customisation, standardised customisation and non-customisation. A modern concept for particular consumers is supported with pure customisation. Changes to an existing specification are suited to tailored customisation. Standard configuration allows you to select from a certain range of template choices. Non-customization simply takes a current template as it is. The first three categories are those used by (Louzi et al., 2022a; Yasir et al., 2022). The fourth includes items that are not custom-made or normal products.

2.4.3. Product Variety

A vast number and selection of products are now sold in today's markets, as are intense global competition, accelerated innovative product growth, and versatile and scalable production processes (Amiri et al., 2020; El Khatib et al., 2019). Companies are expected to closely evaluate the levels of their product variety in order to create incentives that maximize market share and benefit. So far, the trend has been to raise goods and customize them more and more. Businesses is able to improve customer loyalty by adapting quickly to adjust tastes in style, feature, colour, scale,

packaging and accessories. The effect has been an increase in competitiveness (Aljumah et al., 2021a; Khatib et al., 2022). Manufacturers are argued that for lower unit costs of production, they prefer minimal process complexity and low product proliferation levels. The assumed concept of performance in marketing aims, however, at meeting specific customer requirements and at growing market share and development by means of broader product lines (Alshurideh et al., 2022; Nuseir, 2021). Industries will aim to balance the income benefits of the variety against its expense impact in order to optimize longer-term benefit (Al-Marroof et al., 2022a; Khatib et al., 2016). In addition, with increasingly evolving consumer demands, businesses can no longer benefit from manufacturing high quantities of traditional goods (H. M. Alzoubi et al., 2022a; Blooshi et al., 2023).

2.4.4. Product Variety dimensions

There are three dimensions for product variety that include Fundamental, Intermediate and Peripheral.

Fundamental - In the Chinese automotive study, several manufacturers used a technique to eliminate variations between radically different products in order to achieve economies of scale. They described this as a fundamental variety. The Design Mix is based on the number of vehicles and configurations multiplied by the amount of separate body shops and production lines on each site, and on the nature of the combination. At the development and design, at a fundamental variety stage (Mubeen et al., 2022).

Intermediate - The intermediate variance between these extremes is driven by the preference of customers. The variety of components results from an intermediate product selection partially influenced by the consumer's preference (e.g. exterior colour, motor configurations and transmissions) (Arshad et al., 2023; El Khatib and Ahmed, 2019). Component sophistication, however, also reflects the effect of increased variety on product specification (e.g. the number of principal wire bandages and the component specific across models) and the process supply (e.g. the number of assembly area component numbers and the number of assembly area suppliers) (Aljumah et al., 2023; H. M. Alzoubi et al., 2022d). Intermediate variety enhances the component size during manufacturing assembly,

which impacts product ordering and the movement of components and materials.

Peripheral - The user should be given wide choice by providing a broad range of choices (i.e. end items) for simple designs (Al-Kassem et al., 2013; R. S. Al-Marroof et al., 2021b). They described this as a peripheral variety. The nature of the option and flexibility of the option are peripheral variety measurements because they vary from the main specification. The option contents are calculated by the percentage of vehicles constructed with various options aggregated for every model within the facility; while variation of alternative contents is reported in each configuration and in each configuration produced in the facility. A possible "choice bundling" limitation where such alternatives could not be selected freely, except as part of the kit. The producer is therefore pushed upon consumers to be technologically incompatible. Of examples, a convertible sunroof cannot be ordered. Peripheral variance is a kind of general variant in which Chinese producers will introduce variety at a late stage.

2.4.5. Operational Performance

Operational Performance is the performance of manufacturing firms based on calculated metrics such as cycle time, quality, variety management and regulatory compliance according to criteria of efficiency, effectiveness and environmental liability. The cost of management, diversification, quality assurance and responsiveness in the vehicle part production was greatly influenced by high customisation and product varieties (Haitham M. Alzoubi et al., 2020; Kurdi et al., 2022; Nuseir et al., 2021). Quality and rework issues will increase as the product variety expands and changes in engineering are induced by the product variety, resulting in more complicated tasks and expands in preparation which require more supervision (A. Al-Marroof et al., 2021; T M Ghazal et al., 2023a). Operational performance of manufacturing firms is strong, indicating that a high index or score on cost, variety, quality and responsiveness is usually sustained (M T Nuseir et al., 2022a). Such measures that assess the operating efficiency of the company in total measures are very helpful and valuable, because they help the organization recognize the specific field in which it fails and aim to enhance such aspects (H. M. Alzoubi et al., 2022b). Since a company with a good operational performance is

considered strong by clients, employees and customers, every company is actively seeking to enhance their performance (Varma et al., 2023).

2.4.6. Operational Performance dimensions

There are four dimensions of operational performance that include cost, variety, quality and responsiveness.

Cost – This tests how successful the organization can offer products or services. High product diversity raises prices and the sophistication of the manufacturing methods. In fact, there are substantial costs in conjunction with development and releasing to deliver a new product (H. Alzoubi et al., 2022; Alzoubi and Ahmed, 2019; El Khatib and Ahmed, 2018). The corollary is that with the rise in product diversity, operational efficiency is expected to decline as a result of higher direct labour and materials costs and overhead manufacturing costs. The calculation of three indices involved the commonality, variance point and set-up costs in order to identify the expense attributable to the product variety. The commonality Index accounts for the use of the uniform components, while the variance point involves the use of an inventory-reducible and time-bound distinction point and the set-up cost index calculate the output contribution of the set-up to total costs (M. Alzoubi et al., 2021; Nuseir and Elrefae, 2022). The method has been proven successful in mitigating negative cost impacts of product variety and mass customization by standardization or commonality and postponing contribution in relation to different variety requirements.

Variety – It tests that the organization can fulfil its heterogeneous consumer base's unique wishes. Design-for-diversity practices help car manufacturing companies in China to manage and mitigate adverse effects of variety in products on operational performance (Akour et al., 2021; El Khatib et al., 2020b). This improves organizational effectiveness by facilitating product quality, drawing on commonalities and promoting cross-functional and cross-border collaboration by streamlined product designs. When the size of components and number of product lines grows, direct labour costs and efficiency become exposed to increasingly diverse manufacturing parts to work with. If system capacities are not expanded, batch sizes can be limited and process

improvements expanded to accommodate the broader spectrum of consumer requirements. The study of (R. S. Al-Marouf et al., 2021a) found that a major effect on operating efficiency is the mean available material for each vehicle (i.e. peripheral diversity), and components size (i.e. intermediate variety).

Quality – The definition of the quality is broad, with a variety of sub-dimensions, including the quality of operation such as what are the basic operating properties of the product or the service, the quality of conformance such as which product was manufactured or the service conducted according to the specification and the quality of reliability such as whether product functions without interruption or repair needs for a long time and whether service operation reliably executes its tasks over time (T M Ghazal et al., 2023c). Quality assurance is a mechanism by which the organization aims to guarantee the preservation or enhancement of product quality. Each phase in the manufacturing cycle includes quality checking. The companies also start testing raw materials, sampling them from the manufacturing line and checking the final product. Checking at the various manufacturing levels allows to assess whether a development problem occurs and how to fix it in future. For car manufacturing, quality assurance depends on how parts match and communicate to ensure the effective and efficient running of engines.

Responsiveness – It tests how easily the customer's desires can be fulfilled. Speed and reliability are the two basic features of responsiveness to demand. The speed of delivery typically means how quick operations will achieve a need after it has been established. Reliability of delivery refers to the willingness, when provided, to deliver goods or services (Muhammad Turki Alshurideh et al., 2022b; Haitham Alzoubi et al., 2020; Nuseir, 2020). A manufacturing firm should achieve a high degree of reliability while retaining long lead times. Typical distribution efficiency metrics include the number of orders issued in line with the expected period and the total late arrival. For manufacturing firms which are connected in a supply chain, delivery reliability is especially critical. The empirical study concluded that the improvement in the option quality increases overtime, rework and storage, while bundling

options with a couple of packages will minimize the reserve capacity needed. Furthermore, the variety of manufacturing components increases the scheduling complexity by determining when to stock and when to reorganize parts orders.

2.5. Car Manufacturing Companies in China

After 2008, the car industry in China is the largest vehicle device production market in the world. Since 2009, Chinese car production has been above European Union production or combined US and Japan (T M Ghazal et al., 2023b). The China Association of Car Manufacturers is the main trade organization representing the Chinese automotive industry. In China, there are 12 car manufacturing companies, of which "Big Four" are SAIC Motor, Dongfeng, FAW and Chang'an. Geely, Brilliance Automotive, BYD, Chery, the Guangzhou Automotive Company, Beijing Automotive Company, Great Wall and JAC are all Chinese automotive makers. However, many foreign manufacturing companies have collaborations with domestic producers.

While China has sold most of its vehicles within China, in 2011 there were 814,300 exports. China's domestic market offers a stable foundation to its automakers and Chinese economic policymakers intend to develop internationally competitive, highly lucrative, and reliable automotive companies over the years. In 2009, China produced 13.79 million cars, 8 million passenger cars and 3.41 million commercial vehicles and overcame the USA as the world's largest car manufacturer in volume (M. T. Alshurideh et al., 2023b; Alzoubi et al., 2019). Sales and production reached 18 million units in 2010, with 13.76 million passenger cars, each being the largest in history by any country. Overall Chinese car production hit 23,720 million in 2014, representing 26% of global automotive manufacturing. All of this is accomplished by mass production with fast capacity expansion. Yet Chinese companies in the emerging markets still face various problems with a paradigm shift towards mass customisation, which presents quite a threat. This involves adhering to mass production, retaining high quality and low cost factors, or moving into mass customisation to meet the particular needs of the consumers. The researchers will therefore examine the effect of the customization strategy on operations and maintenance efficiency with the mediation role of

the product variety in the car production industry with a view to solving this problem.

3. LITERATURE REVIEW

3.1. Relationship between Customization Strategy and Product Variety

Variety and customization are separate philosophies even though they are related (Ahmad Ibrahim Aljumah et al., 2022b; M. El Khatib et al., 2021; Tariq et al., 2022b) expressed the distinction that the variety allows consumers the preference but does not require the product to be specified. A high-variety service can serve as customization proxy, but customer interaction with the product specification requires real customization. However, given the variety of different tasks allows the consumer engagement and customization ideas to be taken into account. Products are distinguished by the level of the customization that is at the point of injection of consumer data.

The word 'product variety' as used for a number of definitions, is vague. Types of customisation relate to the three dimensions of variety such as fundamental, intermediate and peripheral. The variety in products was calculated on a fundamental basis such as the number of core design models, on an intermediate basis such as the number of technological choices, sizes and colours depending on the core design and on a peripheral variety such as number of common choices and accessories independent of the core design. In the automotive sense for example, the fundamental variety uses to mix architectures, configurations, and body types, to include the number of subassemblies available, for example the number of engine / transmission variations, and to choose choices for peripheral variants without impacting key designs such as seats, the sun roof and electric mirrors. (Alzoubi, H MALhamad et al., 2021; Harguem et al., 2022) shows that each automaker's customization has been listed as leading to pure standardization (PS)

Segmented standardization, Customized standardization, tailored customization, or pure customization. The concept of PS has been described as providing standard products with predefined design options. SS was described as the provision of goods where clients may customize product labelling, distribution schedules, or locations for distribution. Product customisation happens at the selling level. With predefined

configurations and styles, the final product is standard. The concept of CS is the supply of different types of goods in which consumers are given a range of pre-defined choices. Using common parts, goods are assembled per customer order. At the assembly customization is achieved. TC was defined as provision of different product types in which a variety of pre-existing designs are available to customers. Products are generated by order of the consumer. The customization process is accomplished at the manufacturing level. PC has been described as providing a customized product concept, which incorporates consumer feedback at the beginning of the design phase. Products are for buying purposes. At the production point, customization is accomplished.

(Nuseir and Aljumah, 2020) suggested that variety of products and customization will differ in line with product management approach by the supplier. The attributes of each organization have been categorized into four types of customization. The nodes differentiated high product variety with high customisation, low product variety with high customisation, high product variety with low customisation and low product variety with low customisation. The most significant adverse impacts on operating efficiency with an improvement in product variability were high variety with low customization and low variety with low customization. This group is now accompanied by high variety with high customisation or low variety with high customisation. Mean values of all four samples show that low-customization groups are much more influential than high-customization samples by an improvement in product diversity.

The study observed, along with simple, intermediate and peripheral dimensions of the variance, that TC conditions displayed the highest levels of product variety. (El Khatib et al., 2020a; Farrukh et al., 2023; Tariq et al., 2022a) also found that increasing the variety of products available for low-customization styles improves more competition than for high customization forms with respect to customer loyalty, market share and the competitive edge. Nevertheless, changes in product variety often introduce higher prices for low customization styles than for high customization forms. In comparison, greater product variety in low customization types contributed to the use of varied control techniques

such as the use of generic parts, postponement and versatility in production as opposed to high customization types.

Therefore, the findings suggest that in the case of a low degree of customization, an organization with a high level of established product variety usually has greater effect on increasing the product variety than a low-level of variety. Typically, higher styles of customisation will have a greater range of goods than lower styles of customisation, with a general improvement in variety from pure standardization to pure customization. Inattentively, the most high-quality product variety has been demonstrated by tailored customization. This can be demonstrated by the fact that the PC industries typically do not make good use of their varieties. The general opinion is that a high customization level provides greater product variety than a low customization level. Based on the following information, the following hypothesis is formed:

H1: A high level of customisation has more product variety than a low level of customisation.

3.2. Relationship between Customisation Strategy and Operational Performance

The research shows that customization practices can offer both cost savings and product / service quality benefits for Chinese car manufacturers, which also improve operational efficiency. Some inspectors thought that the technique of customization increases the manufacturers' efficiency (I. Akour et al., 2022; Aljumah et al., 2021b; M. T. Alshurideh et al., 2023a); some argued that MC's variety and sophistication would threaten the company's profitability. In addition, customization approach includes elicitation methods, process versatility, advanced manufacturing technology, just-in-time supply chain and integrated logistics information system, which have specific roles to play in enhancing operational performance; In particular, in terms of cost and product / service efficiency the elicitation are highly critical to organizational success.

Mass customization is a method which uses IT, modular processes and organizational frameworks to provide a wide range of goods and services at a price similar to that of mass manufactured products, which meets the unique needs of individual consumers. The fact that customers actively engage in the value creating process in the

mass customisation is an important feature which differentiates from mass production. Each customer has a personal identity that provides details on the design, production and distribution of the product or service depending on their particular preferences. The point of consumer participation (i.e. de-coupling point) is a vital element in defining the specification of methods that should be used to produce mass customised products (RAMDAS, K. 2009). Consumer responsiveness (e.g. capacity for companies to deliver customer requirements within a reasonable period and times and expense to the customers) and operational preparation (e.g. information samples) are the key decision drivers in the framework of the product production process. (Nuseir and Aljumah, 2022) also proposed main factors affecting the achievement of mass customization that include consumer factors such as consumer participation and desire to pay a significant premium; product factors such as consumer exposure and adaptability; market factors such as market variety due to the nature of the competitive marketplace; industrial factors such as information and production technology growth; and organisational factors such as production / allocation flexibility and willingness to alter.

Customisation strategy requires the manufacturers to use sophisticated technology and methods to completely redesign the product and system. To be specific, (Chen, 2021) offers an easily understandable framework for the design of the production system to adapt cost-efficiently to each customer's needs. With the assistance of state-of-the-art information technology and managing customer relations, elicitation can assist manufacturers in deciding whether market demand is unique to them such as differentiation option, how much they want to pay for their customisation such as cost option and the input from previous buying experiences such as relation option. These knowledge will enable suppliers adjust their internal production processes and logistics and find the right customisation approaches and satisfy consumer requirements. In fact, prompt consumer knowledge exchange speeds up decision-making which also leads to reduced lead time. Based on that knowledge, manufacturers can best match the product to the needs of consumers, which not only decreases

demand, but also increases quality of product and service.

One of the purposes of postponement and co-design is to plan the product and the process in order to delay completion until consumers have obtained their orders. Investigators have observed that waiting will reduce the expense of production (I. Akour et al., 2022; Aljumah et al., 2021b; M. T. Alshurideh et al., 2023a) also showed that the postponement and the company results were strongly and favourably linked. (Al-Marouf et al., 2022b; M T Nuseir et al., 2022b) argued that co-design is an important means of increasing construction quality and paving the way for many potentials to save costs. In turn, it will speed up the production process and boost the quality and design success of projects by considering partner ideas for product design. Through the implementation of versatility in design practices, the manufacturer not only can accumulate the output of pieces which reduces the cost for the package, but also remove semi-finished, much cheaper finished products. Some scholars suggest that this will cut costs without losing efficiency. In addition, consumers will sense the efforts of companies by enhancing the versatility of product and process design by being made more customized. Having improved output and development for their specifications, suppliers will also increase consumers' perceived quality level. In fact, with their specifications, the quality and development are higher. In fact, the inclusion of product design of consumer knowledge will help satisfy demand and goods, which improves goods / service compliance and efficiency.

Throughout China, TC appeared to be modularized to the full level, and PC, CS, SS and PS were used. The highest degree of postponement was also demonstrated by TC, followed by PC, CS, PS and SS. The highest score for cellular development was PC, CS, PS and SS. A high level of customization firm such as TC and PC will then concentrate more on customer interaction, differentiation and variety control, which can result in greater efficiency and operational performance consistency.

Based on the following information, the following hypothesis is formed:

H2: High types of customisation have a greater positive effect on operational performance than low types of customisation.

3.3. Relationship between Product Variety and Operational Performance

(Alzoubi, H MAlhamad et al., 2021; Harguem et al., 2022) indicates that variety in products have a huge positive effect on consumer quality, competitive benefit and market share. But even more so, in technical problems such as R&D expense and design/change costs for engineering, the product variety did have a major negative impact. Increasing a manufacturer's product variety faces a host of technological and design problems. Product variation adds added difficulty by requiring manufacturers to adjust processes in engineering. The costs for developing a product as each new feature will be produced and tested require investments in new product varieties. With growing product variety, the unit cost of an item often rises, mostly due to the growth in overheads. The effect on operating performance of product variety focuses on the negative consequences such as expense and difficulty. A product's architecture and complexity account for 70 percent of the final cost (Salvador et al., 2002) also stressed that, based on the number of products such as materials, components, packaging; activities such as design adjustment, timing of production; flows such as production position and distribution channel; and inventory such as raw materials, processing and finishing, the complexity costs of product variety varies from 10 percent to 40 percent of overall output. (Nuseir et al., 2020) suggested that the expense of scales declines with an increase in volume, typically decreasing by 15 to 25 percent every time volume doubles. The cost of production complexity such as construction, material storage, supplies, and other operating expenditures are included in the variety related costs. For most cases, with the rise for variance, prices typically escalate to a range of 20% to 35% per product, where variability doubles.

The high diversity of products raises costs and the difficulty of manufacturing processes. In addition, substantial development and start-up costs are involved in launching a new product (RAMDAS, K., 2009). As a result of higher direct labour and costs of materials, overhead production such as stock processing, quality control, computer technology or service use, distribution times and inventory volume, the anticipated effect is that the manufacturing efficiency of internal operations will decline as a result of increased product variety

. The difficulty of manufacturing also contributes to the requirement that due to the variation in the amount of parts, more equipment, process areas and floor space are used. As a result of an increase in the number of components, product complexity increases as well. The diversity of processes for every product variant attributable to process alternatives is the variety and sophistication of the processes.

The adverse effects of product variety can be mitigated by producing flexible manufacturing programs. The cellular processing, for instance, makes it possible to manufacture a wide variety of products with an effective mass production by merging products or parts with identical manufacturing and design characteristics into families and setting aside processes or cells for their production. Therefore, as advanced technologies and sophisticated corporate control are used, the effect of the product variety can be reduced (Pishdad and Taghiyareh, 2011) regarded product complications as having a major influence in automotive part development on the costs of inspection, quality assurance and equipment maintenance. Problems with quality and rework will escalate with an expanded variety of products and technological change due to the variation of products contributing to more difficult activities and preparation changes that involve more monitoring effort.

(Gulseven and Ahmed, 2022; M. El Khatib et al., 2022b) also addressed the trade-offs in distinct products industries between product quality and product variety. Zhang, X., & Chen, R. (2006) noted that as products volume and the number of product lines rise, direct labor costs and efficiency may be affected by the growing amount of manufacturing staff operating with specific components. If system capacities are not expanded, lot sizes must be limited and procedure improvements made to accommodate the broader spectrum of consumer requirements. The study of (Salvador et al., 2002) suggested that the major effect on the labour efficiency is the mean opted material for each vehicle such as peripheral variety and the component complexity of the system such as intermediate variety. However there was no significant correlation with job efficiency or consistency in the model mix i.e. fundamental variety, since plants have a sufficiently high level of tooling for each stage of the model mix due to the

versatile manufacturing environment in the body shop. Furthermore, the variety of products improves product stability and manufacturing efficiency by incorporating new technologies, such as CAD, CAM and NC machines.

(Lee et al., 2023) came up with the concept of Design for Variety. In this DFV concept, the calculation of three indices involved the commonality, variance point and set-up costs in order to identify the expenses attributable to the product variety. The commonality Index accounts for the use of the uniform components, while the variance point involves the use of an inventory-reducible and time-bound distinction point and the set-up cost index calculate the output contribution of the set-up to total costs. The method has been proven successful in mitigating negative cost impacts of product variety by standardization or commonality and postponing contribution in relation to different variety requirements.

Based on the following information, the following hypothesis is formed:

H3: High variety of products can have a positive impact on both revenue and market share but may also have negative impact on operational performance regarding the cost.

3.4. Relationship among Customisation Strategy, Product Variety and Operational Performance

The researchers explored the connections between operational performance, the customization degree and the provided product variety. A rise in product diversity was found to affect operational performance significantly based on the combination of the customisation degree and the product diversity. (Al-Kassem, 2014; Lee et al., 2023) found that in accordance with the fundamental, intermediate and peripheral measurements, TC environments display the highest degree of product variety. A low degree of product customisation (in PS and SS environments) was found to have a more significant effect on operational performance than a high degree of customisation for a number of key functional attributes. These included the unit cost of the product, manufacturing cost, manufacturing lead time, manufacturing complexity and material cost. A low degree of product customization was found to have greater impact on operating performance in PS and SS environments than a high degree of customization for certain core

functions. That include manufacturing unit costs, development costs, time to manufacture, and volume of development and material costs. The research has also shown that that the variety of goods in low customization forms improves competition more than high customization form in terms of customer loyalty, market share and competitive advantage. Increases in the variety of goods, however, often place larger costs on low customisation forms than on high customisation forms. In comparison, product ranges have expanded in low forms of customisation to result in the introduction of variety control strategies that includes use of standardised parts, postponement and versatility of production than in high-customisation styles. In addition, it has been observed that the predominant degree of customization is a more important determinant of the effect of a product variety improvement on a variety of main features like manufacturing costs, inventory costs, shipping costs, manufacturing complexities, production lead time and demand forecasts. In several dimensions of operational performance, HVLC has historically had a higher degree of adverse effects compared with LVLC. In other areas of operational performance (for example production and transit costs) a particular apparently faulty cluster, LVHC, has also had a greater adverse effect than HVHC. The effect was, however, smaller than for low configuration (HVLC, LVLC) clusters. In brief, growing the diversity in a concentrated plant or increasing variability in modular production by the innovation in process technologies to shift to the next stage in specialization. The HVLC will follow an inherently conflicting direction due to an unequal relationship between the degree of diversification and customisation.

According to (Gaytan et al., 2023; Taher M. Ghazal et al., 2023), the opportunity to customize the product, consumer preferences and the degree of competitiveness are the three most critical reasons driving the growth in product variety. For the first of these reasons, the reciprocal level of the product variations such as fundamental, intermediate and peripheral is also required to be higher than the low level of customization such as PS and SS with respect to customization. The degree of effect on the product variety in continuous processes is usually highly followed by the cost, responsiveness, quality and versatility styles of the flow shop and

project typology. Consequently, the effect of increasing product variety across the PS to PC framework may decrease. It is attributed to an improvement in operating efficiency in increasingly custom modular configurations and upstream decoupling point. The de-coupling point's downstream demand for a wide variety of goods is extremely volatile and upstream demand decreases with a reduction in the variety due to postponement. That is one of the most advantaged solutions to reducing the costs and uncertainties for products and enhancing operational efficiency lately (Nuseira and Aljumahb, 2020). This strategy has gained tremendous interest. Therefore, a high degree of customization using an upstream decoupling point creates less influences than a low customization on operating efficiency. Extremely high product variability can greatly expand expenses and market uncertainty, leading to adverse customer service and cancelation of purchasing decisions. Furthermore, certain businesses make too many products for other customers which may decrease production costs and raise business revenues by decreasing the variety of products for a certain brand. The degree of versatility and modularity of development will also help to reduce adverse impacts related to varieties (Al-Kassem et al., 2012; M. T. Alshurideh et al., 2023c; E. Khatib et al., 2021).

Therefore, high product variation with low customization showed the largest rise in production costs with an increase in the variety of products. It was followed by the high product variation with high customization, medium product variety with high customisation, and high variety with high customisation. In the case of the high product variation with low customisation cluster, the cost of product is largest followed by low variety low customisation, high variety high customisation and low variety and high customisation clusters. As the variability grows, HVLC development conditions are more affected than LVLC conditions. This is attributed to more complex construction and higher equipment, job and operating costs. HVLC firms, therefore, face a significant trade-off between production and material prices as the product variety grows. (Zu'bi et al., 2012) found that due to the longer set-up time required for the process type, HVLC demonstrated a greater improvement than LVLC in terms of output lead time. Therefore, the

production complexity of HVLC and LVLC has increased similarly. Such manufacturers need to make careful decision when growing the variety of products for example, by concentrating on peripheral and not fundamental variety and need to consider the break-even point position. In comparison, the change in the product variety does not greatly affect HVHC and LVHC clusters. Overall, analysis indicates that the customization level is more critical than that of the existing product variety provided for evaluating the effect of product versatility on operational performance. Nevertheless, the size of the existing product variety also affects some aspects of operational efficiency, particularly with regard to the corresponding low level of customisation (I. A. Akour et al., 2022). The emphasis on the differentiation, diverse control strategies and consumer interactions is usually on a high degree of customization that leads to a high level of product variation, whereas the low level of customisation, with a small level of product diversity, focuses primarily on cost leadership.

Based on the following information, the following hypothesis is formed:

H4: High product variety on the basis of low customisation showing the highest negative impact on operational performance as a result of an unsettling variability and customisation.

3.5. Research Problem Statement

This research reveals the effects of a linear, combined qualitative and quantitative approach in which the researchers investigated how increases in product variety affect operational performance in the customization stage. The findings suggest that increasing the product variety of low-customization styles improves competition of the market more than in high-customization styles. The biggest negative impact on operational efficiency, however, was a high product variety and low customization as a result of an unsettling variability and customisation. The high product variation with low customization showed the largest rise in production costs with an increase in the variety of products. It was followed by the high product variation with high customization, medium product variety with high customisation, and high variety with high customisation. In the case of the high product variation with low customisation cluster, the cost of product is largest.

High variety of products may result in an increase in revenue but not automatically increase the profitability or productivity of a company. In fact, the variety of products can have a positive effect on both sales and market share but may also have adverse impacts on operational performance. For instance, higher product diversity can increase manufacturing costs by making the manufacturing process more complicated. Consequently, companies growing their product variety will consider the impact of the product variety on the efficiency of their operations and cost profile. Market demand is rising rapidly in developing markets. Overall Chinese car production hit 23,720 million in 2014, representing 26% of global automotive manufacturing. All of this is accomplished by mass production with fast capacity expansion. Yet Chinese companies in the

emerging markets still face various problems with a paradigm shift towards mass customisation, which presents quite a threat. This involves adhering to mass production, retaining high quality and low cost factors, or moving into mass customisation to meet the particular needs of the consumers. The researchers will therefore examine the effect of the customization strategy on operations and maintenance efficiency with the mediation role of the product variety in the car production industry with a view to solving this problem.

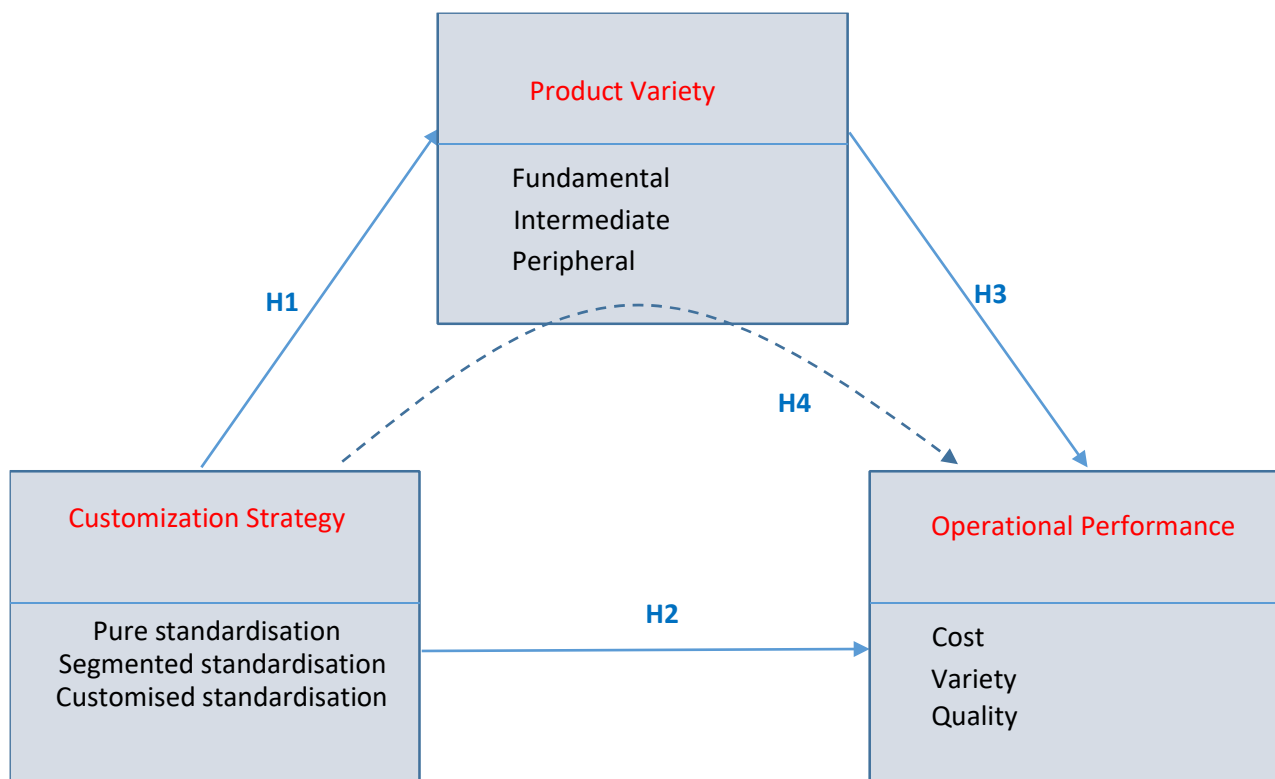


Figure (1)

3.7. Research Hypotheses

Hypothesis-1: There is an impact of Customization Strategy on Product Variety in car manufacturing industry

- Generally, high customization styles are supposed to be portraying more variety in products than low customization styles, and the model spectrum

typically is growing over the Pure Standardization to Pure Customization framework. It is generally believed that a high level of customisation has more product variety than a low level of customisation.

Hypothesis-2: There is an impact of Customization Strategy on Operational Performance in car manufacturing industry

- The findings reveal that high types of customization usually have a greater effect on operational efficiency than low types of customization. High customization has a positive impact on operational performance, as it increases product consistency and product responsiveness in a cost-effective way to satisfy specific consumer requirements.

Hypothesis-3: There is an impact of Product Variety on Operational Performance in car manufacturing industry

- High variety of products can have a positive impact on both revenue and market share but may also have negative impact on operational performance regarding the cost. For instance, higher product diversity can increase manufacturing costs by making the manufacturing process more complicated.

Hypothesis-4: There is an impact of Customization Strategy on Operational Performance through Product Variety in car manufacturing industry

- The findings suggest that increasing the product variety of low customization styles improves competition of the market more than in high customization styles. The biggest negative impact on operational performance, however, was a high product variety and low customization as a result of an unsettling variability and customisation.

4. METHODOLOGY

The literature review analysis suggest that the product variety has an effect on different aspects of operational performance. Nonetheless, the efficiency of a company function can be differently influenced by an increase in product variety. It is directly associated with the necessary or demanded degree of customization of the product. Therefore, the primary objectives of the research based on the resource based view of a firm are as follows:

- Analyse the influence of product variety on operational performance
- Examine such impacts on the degree of customisation and the variety of products offered

Research Questions

The following study questions were formulated after a detailed literature review to satisfy the established needs and objectives of the research:

1. How does an increase in product variety affect the operational performance of car manufacturing companies in China?
2. What is the impact of customisation strategy on operational performance of car manufacturing companies in China?
3. Will the increase in product variety affect the operational performance differently in car manufacturing companies in China on basis of the degree of product customization offered?

The research model will be studied and explored in detail by quantitative and empirical analysis. This model uses the descriptive and exploratory approach. It enables researchers to analyse a specific phenomenon in detail and create an appropriate questionnaire in order to gain professional advice and to understand the deeper problems in this topic of research. In this model, there are two independent variables and one dependent variable. The two independent variables are customisation strategy and product variety. The dependent variable is operational performance. In order to formulate theories and build a general hypothesis centred on those three variables, this report uses an inductive approach method. First, the researcher tests the variables in existing research publications to help understand

the variables. The researcher then collects secondary data for the study. In the case of secondary data, journal articles and company profiles were gathered. In order to comprehend the effect and relationship of one variable on other

variables, the gathered data was then consolidated to average.

4.1. Customization Strategy Dimensions

Dimension	Measure
Pure Standardisation	"Dominant Model" with the largest potential consumer community
	Products manufactured in the widest possible scale
Segmented Standardisation	Products are included in a limited range of options
	The basic concept is changed to accommodate different dimensions of the component
	Need to modify the distribution process
Customised Standardisation	Goods from basic materials are ordered
	Customising the assembly
	All parts are manufactured in bulk for the overall market
Tailored Customisation	Development of a product submitted to a prospective customer
	Modification or tailoring to the desires and needs of the consumer
	Customization works in the manufacturing process
Pure Customisation	Customer expectations infiltrate the planning phase significantly
	The product is built for ordering
	Genuine relationship in decision taking between buyers and sellers

4.2. Product Variety Dimensions

Dimension	Measure
Fundamental	Complexity in Model Mix
	Amount of numerous physical stores and deployment lines
	Several various outlets, product types and prototypes
Intermediate	Complexity of parts
	Addition of components during production configuration
	Product sequencing
	Parts and resources move to the assembly line
Peripheral	Content selection and variety of choices
	Percentage of goods with various offerings mixed in each of these variants
	Variance in the quality of choices in every model

4.3. Operational Performance Dimensions

Dimension	Measure
Cost	How effective would the company provide goods and/or services
Variety	Will the organization satisfy their heterogeneous client base's unique demands
Quality	How great the product or service is
	Is the product and/or service as well as promoted

Responsiveness	How easily the customer's needs should be met
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4.4. Population and Sample

The population of this study is car manufacturing companies all over the world.

The size of population: There are more than 60 car manufacturing companies in the world controlled by 14 major global corporations. Since we are unable to reach all the companies, then we will take a sample (the sample type is clustered: means that only companies in China)

The sample will be car manufacturing companies in China which are 12.

The primary data collection method is an empirical survey (or questionnaire).

The unit of analysis: The research involved developing and defining the research objectives, constructing key research questions and reviewing relevant literature. First, the researcher tests the variables in existing research publications to help understand the variables. The researcher then

collects secondary data for the study. In the case of secondary data, journal articles and company profiles were gathered. In order to comprehend the effect and relationship of one variable on other variables, the gathered data was then consolidated to average. Due to the innovative nature of the research, there are readily available questionnaires on this aspect and are collected from all the related articles.

4.5. Data Collection

Surveys and close ended questionnaires are the tools used to gather data. Researchers can more accurately assess and interpret the data in surveys and questionnaires. The survey therefore must be carried out by the delivery of questionnaires to car manufacturing companies. The designed questionnaire for the survey is given below.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Disagree
Customization strategy					
How much does your firm prefer mass production over mass customisation?	1	2	3	4	5
Does your firm provide products in which customers are offered predefined options?	1	2	3	4	5
How much does your firm's customers customise product delivery location or schedules?	1	2	3	4	5
How much does your firm prefer high level customisation over low level customisation to meet the needs of the business?	1	2	3	4	5
How much does your firm involve customer input at the start of the design process?	1	2	3	4	5
Do you think tailored customization is cost effective to your firm?	1	2	3	4	5
Product variety					
How much does the product variety of your firm affect the revenue potential of the entire line?	1	2	3	4	5

How reliant upon the core design are the various colours, sizes and technical options of your products?	1	2	3	4	5
How much independent of core design are the number of particular choices and accessories?	1	2	3	4	5
How much does the product variety of your firm respond to the changing preferences of customers?	1	2	3	4	5
How much does your firm prefer peripheral variety over intermediate variety?	1	2	3	4	5
How much does product variety positively influence quality management of your firm?	1	2	3	4	5
Operational performance					
Do you believe that adopting customisation strategy can give better performance on your firm's operations?	1	2	3	4	5
Does your firm face complexity with product variety?	1	2	3	4	5
How fast does your firm respond to your heterogeneous customer base?	1	2	3	4	5
How much is the capability to reduce manufacturing unit cost?	1	2	3	4	5
How much does your firm prefer product quality over manufacturing costs?	1	2	3	4	5
How much does your firm reduce the manufacturing lead time?	1	2	3	4	5

6. CONCLUSION AND RECOMMENDATIONS

In the beginning of the research, the researchers stated the problem whether car manufacturing companies in China should adhere to mass production, retaining high quality and low cost factors, or moving into mass customisation to meet the particular needs of the consumers. Overall Chinese car production hit 23,720 million, representing 26% of global automotive manufacturing. All of this is accomplished by mass production with fast capacity expansion. Yet Chinese companies in the emerging markets still face various problems with a paradigm shift towards mass customisation, which presents quite a threat. The researchers will therefore examine the effect of the customization strategy on operations and maintenance efficiency with the mediation role of the product variety in the car

production industry with a view to solving this problem.

For Chinese car manufacturing companies, higher manufacturing costs because of greater product variety and a comparatively low degree of customization are a big issue that needs to be addressed. Most significant of all, the research adds to the literature by stating that according to customization rates the dynamic relationship between product variation and operational performance differs. According to the various decoupling points that includes consumer engagement points, each stage of customization has a different operating system, such as MTS, ATO, MTO and DTO. This research first analysed the effect of the product variety on operating efficiency in conjunction with the five customization forms

including PS, SS, CS, TC and PC. Then, the model was tested according to the customization point such as high and low customisation. Finally, this research specifically analysed the variation in strategies and operational performance by customization type and customization level. Such an approach will allow Chinese managers to understand the connections between product variety, customization, and variety related approaches and quality and how the variety control strategy has an impact on operational performance at the different rates of customization.

The results indicated variety in products have a huge positive effect on consumer quality, competitive benefit and market share. But even more so, in technical problems such as R&D expense and design/change costs for engineering, the product variety did have a major negative impact. Cost and non-cost dimensions of operational performance should be taken into account. The research indicates that China provides the dominant option in terms of supply, provided that variety is dominant in output, as the rise in costs associated with increasing variability outweighs the increase in costs in terms of demand mediation. For instance, the variance in the automobile body type of an automotive is influenced by major tooling investments.

As a result, car manufacturing companies in China with a scale efficient production will deliver a range of styles consistent with high cost of production, for example, fundamental and intermediate varieties. Thus, China will be better off by attempting to combine productive quantities in different regional markets into one facility to achieve scale-efficient growth, as manufacturing trends have shown that the rise in product variety has had the largest effect on cost. In order to lower output costs, Chinese firms could further concentrate on mediation-dominant variety such as peripheral variety. Manufacturing costs are positioned second in China, suggesting that Chinese carmakers with more scale efficient production are likely to offer relatively low customization and that manufacturing costs are strongly influenced by a growing variety of products. Moreover, the results show that car manufacturing companies in China had a greater effect on core operational performances that include unit cost of goods, manufacturing costs,

inventory costs, and market negotiating costs as well as the cost of labour. China will therefore focus on consolidated production to reduce the high production costs that arise from high-demand dominant varieties such as fundamental varieties. It also demonstrates a considerable capacity to minimize costs in terms of capital, output, delivery and inventory by implementing different techniques to control variety, and improve operational performance even in a high degree of customisation, for example, high mass customization. The findings show that customization activities will benefit Chinese car makers both as regards cost savings and improvements in quality of goods and services, thereby boosting operational performance. Some researchers claimed that customization strategy improves the efficiency of car manufacturers, others suggested that the variety and complexities of MC activities could jeopardize the company's progress. The research has also shown the significant and positive link between postponement and the operating success of the Chinese company. Co-design is a critical means of enhancing production performance and paving the way for other potential cost savings. Therefore, it will enhance the production process and boost project feasibility and design efficiency by considering Chinese business partners' recommendations for product design. Via the implementation of manufacturing efficiency methods, manufacturers not only can merge production of the components that reduces unit costs, but can replace semi-finished goods that are much cheaper. Some researchers say that these design strategies will lower costs without losing their efficiency. In turn, by increasing the versatility of product design and process management, consumers can sensate producers' efforts through receiving a higher degree of customisation.

Through the aid of advanced information technologies and customer interactions, elicitation allows manufacturers to recognize the degree to which user preferences are customized, how much they expect to pay for the customisation and the input from past buying encounters. This knowledge will allow manufacturers to change their internal manufacturing processes and logistics and find the right design approaches and satisfy consumer requirements. In fact, timely

exchange of information with consumers accelerates decision formation which also leads to a shorter lead time. On the basis of this knowledge, manufacturers can better tailor the product to the needs of consumers, not just reducing volume, but also increasing the product or service efficiency. Through operating as the original equipment producers, the Chinese car manufacturers join the global supply chain and contend primarily by cost control. Experience and economic circumstances dictate that they have no development of expertise and skills to enable technological inventions. The majority are therefore clearly copying goods of international rivals, creating new uses of existing technology and designing for the local supply chain; and so they only innovate by customising for the market. In addition, the managers of Chinese companies are also paying particular attention to the way customisation-related costs are managed, because of their place on the global supply chain and the local market characteristics.

Therefore, the research can be concluded by stating that many Chinese car manufacturers have switched from mass production to mass customisation, some of which already have high-end, mass customised operations. Observing the findings of the literature review, it has been found that high customisation has a greater performance than low customisation because high customisation emphasises on customer relationships and product variety while low customization emphasises more on cost effectiveness and cost leadership.

Furthermore, it supports the concept that high output variety volumes such as fundamental and intermediate variety are dominantly correlated with a heavy manufacturing volume and low customization level. In order to minimize the detrimental effect of the product variety on operating performance, China must make a strategic step to a high degree of mass customisation such as Customised Standardisation. In fact, the key trend for the car manufacturing companies in China is to drive towards the mid position of Customised Standardisation, not towards Pure Customisation.

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Enhancing Manufacturing Competitiveness in UAE SMEs: The Influence of Process Quality Improvement and Lean Practices

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ABSTRACT

This research investigates the relationship between process quality improvement, lean practices, and manufacturing competitive performance in Small and Medium-sized Enterprises (SMEs) within the United Arab Emirates (UAE). The UAE has emerged as a dynamic hub for SME manufacturing, making it crucial to examine factors that contribute to their competitive advantage. The research employs a mixed-methods approach, combining qualitative data from in-depth interviews with key industry experts and quantitative data obtained through structured surveys distributed among a diverse sample of SME manufacturing firms across different sectors. The study focuses on evaluating the adoption and implementation of process quality improvement initiatives and lean practices within these organizations. The findings highlight a strong positive correlation between effective process quality improvement and lean practices and improved manufacturing competitive performance among UAE SMEs. Firms that successfully integrated lean methodologies into their processes demonstrated higher levels of operational efficiency, reduced waste, increased productivity, and improved product quality. Additionally, the research identifies critical success factors and challenges in the implementation of process quality improvement and lean practices in the context of UAE SMEs. Factors such as top management commitment, employee involvement, and access to training and resources are instrumental in fostering a culture of continuous improvement.

1. INTRODUCTION

In the rapidly growing area of global trade and industry, Small and Medium-sized Enterprises (SMEs) play a pivotal role in driving economic growth and fostering innovation. Within the United Arab Emirates (UAE), the SME sector has emerged as a significant contributor to the country's manufacturing prowess, making it imperative to explore strategies that enhance their competitive performance (Moeuf et al., 2018). Among these strategies, process quality improvement and the adoption of lean practices have gained increasing attention as potent means to streamline operations

and elevate competitiveness (Ali Alzoubi, 2021). Manufacturing SMEs in the UAE face a multitude of challenges, ranging from global market fluctuations and technological disruptions to resource constraints and intense competition. To navigate this complex business environment successfully, SMEs must seek avenues to optimize their internal processes and production systems continually (Muhammad Turki Alshurideh et al., 2022a; Lee, 2021). Process quality improvement involves the systematic assessment and enhancement of existing operational procedures to

eliminate defects, reduce waste, and enhance overall efficiency (El Khatib et al., 2022). On the other hand, lean practices, rooted in the principles of lean management, emphasize a philosophy of continuous improvement, waste reduction, and value creation, ultimately leading to better resource utilization and increased customer satisfaction (Citroen, 2011).

Given the increasing significance of SMEs in driving economic prosperity and the proven benefits of process quality improvement and lean practices in large-scale manufacturing enterprises, it becomes imperative to investigate their impact on the competitive performance of manufacturing SMEs within the UAE context. (Savolainen, 1999) By understanding the interplay between process optimization, lean thinking, and competitiveness, policymakers, industry experts, and business owners can devise tailored strategies to bolster the SME manufacturing sector and enhance the nation's industrial landscape (Gaytan et al., 2023; Emad Tariq et al., 2022; Yu et al., 2018).

While some research exists on the application of process quality improvement and lean practices in the context of larger corporations, there is a notable gap in the literature concerning their specific impact on UAE SMEs (Abudaqa et al., 2022). The unique challenges, resource constraints, and cultural nuances prevalent in SME environments necessitate dedicated exploration to unearth the true potential of these methodologies in fostering competitive advantage (Barusman and Habiburrahman, 2022).

Hence, this research endeavors to delve into the relationship between process quality improvement, lean practices, and manufacturing competitive performance in UAE SME industries (Battistoni et al., 2013; M T Nuseir et al., 2022a). Through a mixed-methods approach, combining qualitative insights from key industry experts and quantitative data from SMEs operating in diverse sectors, this study aims to provide a comprehensive understanding of the factors that contribute to successful process optimization and lean implementation (Nawanir et al., 2013). By identifying critical success factors and challenges, this research will offer valuable insights to SME owners and managers seeking to enhance their firms' competitive positioning (Almasaeid et al., 2022). Moreover, the findings will also serve as a knowledge base for policymakers and industry

stakeholders to formulate targeted interventions aimed at fortifying the UAE SME manufacturing sector's resilience and global standing (Bawaneh et al., 2023).

In the following sections, we will detail the research methodology, present the findings, and discuss the implications of our study. Ultimately, we envision that this research will not only contribute to the academic discourse on manufacturing competitiveness but also yield actionable insights to drive tangible improvements in UAE SME industries.

1.1. Objectives of the Study

- To assess the current state of process quality improvement and lean practices adoption in manufacturing SME industries within the UAE.
- To examine the relationship between process quality improvement initiatives and manufacturing competitive performance in UAE SME industries.
- To investigate the impact of lean practices on operational efficiency, waste reduction, and productivity in UAE SME manufacturing firms.

2. LITERATURE REVIEW

2.1. Process Quality Improvement and Lean Practices

One of the real extents of any organization is to guarantee that they furnish their clients with the best of the quality and incentive for their cash so as to increase the greatest dimension of consumer loyalty (Akour et al., 2023; AlDhaheri et al., 2023; Farrukh et al., 2023). The organization embraces diverse approaches to guarantee quality enhancements inside the organization's procedures to improve the nature of their products and services. According to research conducted by (H. M. Alzoubi et al., 2022b; Kassem and Martinez, 2022), there are distinctive courses through which organizations accomplish effectiveness and improve their business tasks (T M Ghazal et al., 2023a; M. El Khatib et al., 2022; M T Nuseir et al., 2022b). One such instrument is the 20 keys procedure that is utilized by the organization to improve its speed of development and learning (H. M. Alzoubi et al., 2022c; T M Ghazal et al., 2023b). The research was directed with a means to examine the utilization of 20 keys techniques for

the improvement of the business tasks and the effectiveness of organizations regarding the present global market (I. Akour et al., 2022). The researcher utilized coordinated arrangements of various devices that are utilized so as to build the productivity of the organization alongside the expanded dimension of the nature of items while synchronizing them with the decrease in the expense (El Khatib et al., 2021; Nuseir et al., 2020). The authors used integrated sets of different tools that are used in order to increase the efficiency of the organization along with an increased level of quality of products while synchronizing them with the reduction in the cost (H. Alzoubi et al., 2022; Gulseven and Ahmed, 2022; Nuseir et al., 2021). The findings of the research showed that the 20 keys methodologies are implemented in the organization to increase the efficiency of the organization with an aim to increase the customer's and buyers' satisfaction level (Muhammad Turki Alshurideh et al., 2022b; El Khatib and Ahmed, 2020). The methodology is equally beneficial in increasing the satisfaction of the internal customers; those are the employees of the organization (Al-Kassem et al., 2022; Louzi et al., 2022a; Nuseir et al., 2020).

According to a research conducted in the similar field by (Aityassine et al., 2022; Ghazal et al., 2021), continuous quality improvement methods play a significant role in the success of the organization. The authors considered the continuous quality improvement methods as the foundations of the organization's improvement (Abudaqa et al., 2022; A I Aljumah et al., 2022a). The researchers conducted their research in order to identify the different continuous improvement methodologies and their features and the efforts of the organization to apply this methodology for the improvement of their services (M T Alshurideh et al., 2022; H. M. Alzoubi et al., 2022e; Nuseir and Aljumah, 2022).

The authors used the secondary methodology for the identification of the continuous improvement methodologies where the authors studied the previous "12 member's international expert panel" identified Continuous Quality improvement (CQI) methodologies and their features (El Khatib and Oplencia, 2015; Hani Al-Kassem, 2021). The authors tested the features of the methodologies to find out which of the methodologies met the rigorous and essential standards of the quality

improvements (Ahmed and Nabeel Al Amiri, 2022; Louzi et al., 2022b). The authors used a three-phase modified Delphi process, which was based online (Aljumah et al., 2023). The total number of the sample included the 119 quality improvement experts who were randomly selected and assigned in four online panels. These were from Canada and the United States (Al-Awamleh et al., 2022; A I Aljumah et al., 2022b). The findings of the research found out that for a continuous improvement methodology to be considered as effective, the three most important and significant features are "systematic data-guided activities," iterative development and testing" and "designing with local conditions."

H01: Lean practices have no statistical impact on process quality improvement in "medium-size manufacturing organizations" in the UAE.

2.2. Impact of Continuous Improvement on competitive performance

The major reason why the organization adopts different quality improvement techniques and methods is to enhance the performance of the organization and increase its efficiency in order to gain the maximum level of customer satisfaction and to increase its competitive position in the market (Alshurideh et al., 2022; H. M. Alzoubi et al., 2022f; T M Ghazal et al., 2023c). The authors (Al-Kassem, 2017; Sakkthivel et al., 2022) conducted research to find out the impact that the continuous quality improvements have on the satisfaction level of the customers (Ahmad Ibrahim Aljumah et al., 2022a; Alshurideh, M.T., Al Kurdi, B., Alzoubi, H.M., Sahawneh, N., Al-kassem, 2022). The authors conducted their research based on the fact that the organizations are implementing continuous quality improvement methods to gain maximum level of customer satisfaction and competitive positioning in the market (M Alshurideh et al., 2023; Khan et al., 2022), whereas there lies very limited evidence to the overall achievement of the goal (Ahmed et al., 2022; Al-Marroof et al., 2022b). The aim behind the research was to identify if the organization who adopt continuous quality improvement methods actually improve the level of customer satisfaction by applying these methods (Aljumah et al., 2021a; Muhammad Alshurideh et al., 2023). The research was also carried out to find out which of the practices of the organization are able to facilitate the impacts of the organization's

continuous quality improvement on the level of customer satisfaction (Muhammad Turki Alshurideh et al., 2023b; Mohammed T. Nuseir et al., 2022). The research findings showed that there lay a positive association and impact of continuous quality improvements on the level of customer satisfaction and in the service industry (El Khatib, 2015). The study also found out that the management commitment in the industry aligns with the reward systems (Abudaqa et al., 2021), which are the basic factors that encourage the employees of the organization to efficiently participate in the continuous quality improvement programs (Al-Kassem, 2014; Al-Marroof et al., 2022a; Aljumah et al., 2021b). The result of the research also supported the findings of the previous literature present on the same topic.

H02: Process quality improvement has no statistical impact on the competitive performance of medium-size manufacturing organizations in the UAE.

2.3. Lean Practices and Competitive performance

As per the depiction of (Alshawabkeh et al., 2021; El Khatib et al., 2019) lean practices always play a very significant role in the development and in building the positive reputation of the organization. The main concern of the upper executives of the firms is to analyze different opportunities that can help in the rapid progress of the organization (Ahmad Ibrahim Aljumah et al., 2022b; E. Khatib et al., 2022; Mat Som and Kassem, 2013). This is only possible with the proper implementation of lean practices in the firm, as it helps in increasing the sales and the customer's loyalty (I. A. Akour et al., 2022; H. M. Alzoubi et al., 2022g; Amiri et al., 2020). The main concept behind the whole process of lean management is to enhance the understanding of the management regarding the importance of this system (Nuseir and Aljumah, 2020). The adaptation of this particular process is about accepting the dynamic changes of the market and incorporating them into the organization (Muhammad Turki Alshurideh et al., 2023a; Aziz et al., 2023). In the light of the study (R. S. Al-Marroof et al., 2021b; Khatib et al., 2016). It is affirmed that lean management helps the company in order to improve the quality, factor of risk, development in the manufacturing flexibility with less requirement of space, and the assurance of the effective work environment (Khatib, 2022). In view of (Al-Kassem et al., 2013; H. M. Alzoubi et

al., 2022a; Nuseir, 2020), along with so many benefits, the implementation of lean management faces some serious challenges (Nadzri et al., 2023). The management of the companies tries to come up with the appropriate strategies in order to cope with those challenges of the lean management system (Al-Dmour et al., 2023; Alzoubi and Ahmed, 2019). Besides, there are many benefits involved in this regard which are given below:

- *Improving the confidence of workers*

It is stated in the study of (A. Al-Marroof et al., 2021) that lean management provides the outcomes that help in distinguishing the settled matter. Basically, it adds the level of confidence in the personality of the workers (Alshurideh et al., 2020; El Khatib and Ahmed, 2018). It is due to the fact that with the consistent change in the organization system, the workers of that company would also get trained.

- *Increases the quality and reduces the flaws*

It is affirmed in the study of (Al-Kassem et al., 2012; Lee et al., 2023) that the implementation of lean management helps the organization to improve the quality, and it further reduces the flaws (El Khatib and Ahmed, 2019). Hence, this is much significant to apply the concept on lean management over the company.

H03: Lean Practices has no statistical impact on the Competitive performance of medium-size manufacturing organizations in the UAE.

2.4. Impact of process quality improvement and Lean practices on Competitive Performance

The literature presented by (AlHamad et al., 2021; El Khatib et al., 2020b) argued that the implementation of lean management within the manufacturing sector is important in the company because it helps in the development of the organization (H. M. Alzoubi et al., 2022d; Taher M. Ghazal et al., 2023; Nuseira and Aljumahb, 2020). In fact, the organization that deals in this sector actually needs to incorporate lean management because it provides some very useful information for them in the development and expansion universally. Additionally, (R. S. Al-Marroof et al., 2021a; Muhammad Turki Alshurideh et al., 2023c; M. El Khatib et al., 2021; Nuseir and Elrefae, 2022) stated that the manufacturing industry plays an integral role in temperate advancement in the world's economy. Along with this, it is the leading

sector of the globe that enhances the world's economic stability in a more profound manner.

- *Requires less space*

It is observed that when the stock levels lessened, the need for the labor and the less space will go to require it in order to evaluate it (Alzoubi et al., 2020; Khatib et al., 2016). Additionally, (Akour et al., 2021; Alshurideh et al., 2022) also found that lean management does not actually bring about the collection of cells that the press machines uses to administer with the various direct bits of hardware in the least resources (El Khatib et al., 2020a). (Yasir et al., 2022) stated in the research that keeping these considerations in mind, the concept of lean management is again a much-verified source to develop and build the organization.

- *Ensures a more secure workplace*

It is stated in the study of (Aljumah et al., 2020; Alzoubi et al., 2019) that organization that has the ability to implement lean management in the working staff of their company gains a competitive advantage over their rivals (Arshad et al., 2023; E. Khatib et al., 2021). Along with this, the concept of lean management serves as a tool to make the workplace more secure in every aspect. (Mubeen et al., 2022; Nuseir, 2021; E Tariq et al., 2022; Varma et al., 2023) claimed that the effective implementation of lean management, most of the time, ensures the organization's development.

H04: Lean Practices has no statistical impact on competitive advantage with the mediating effect of process quality improvements in medium-size manufacturing organizations in the UAE.

2.5. Research Model

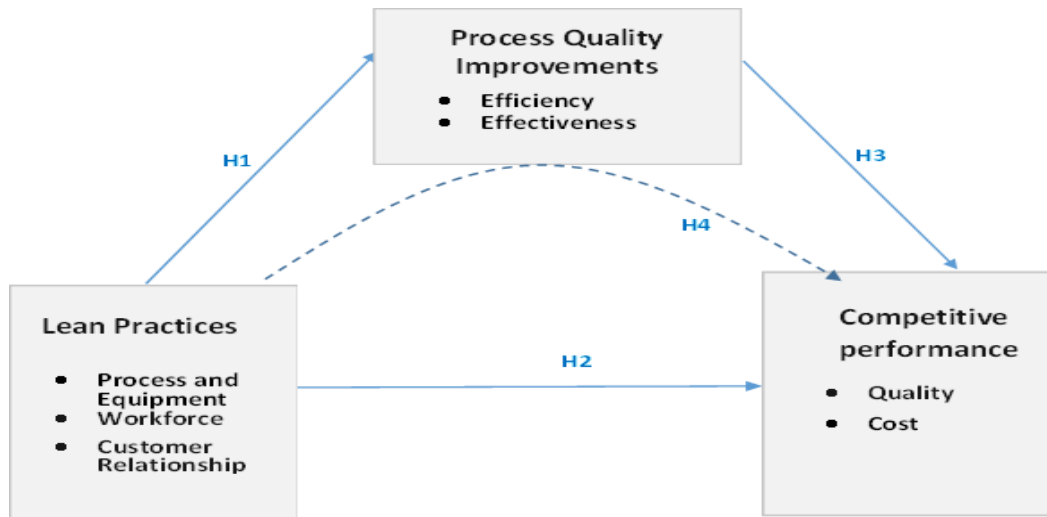


Figure (1)

manufacturing organizations in the UAE.

2.6. Research Hypothesis

H01: Lean practices have no statistical impact on process quality improvement in "medium-size manufacturing organizations" in the UAE.

H02: Process quality improvement has no statistical impact on the competitive performance of medium-size manufacturing organizations in the UAE.

H03: Lean Practices has no statistical impact on the Competitive performance of medium-size manufacturing organizations in the UAE.

H04: Lean Practices has no statistical impact on competitive advantage with the mediating effect of process quality improvements in medium-size

3. METHODOLOGY

The population for the proposed research would include all the SMEs that are small and medium enterprises that are operating in the manufacturing industry of the United Arab Emirates UAE. There are approximately 2295 manufacturing companies that are included in the small and medium manufacturing companies in the UAE region. However, due to the limitation of time and access to each of these industries, the clustering sampling technique has been adopted. As per clustering sampling, the entire population is divided into different groups. In our proposed research, the clustering would be done using the

Emirates as the primary source of sampling. Therefore, the proposed research would use the sample cluster of all the SMEs in the manufacturing industry that is operating in the Emirates of Dubai in the UAE.

The sample size for the proposed research would include the SME manufacturing organizations operating in the Dubai region, which are 25 organizations in total. Therefore the sample size would be 25. The questionnaire was distributed to 25 (middle and upper level) quality control managers of SME manufacturing companies in Dubai as the QC managers have the required knowledge and information regarding the study variables.

3. EMPIRICAL ANALYSIS

This research approach emphasizes the exploration of in-depth insights, meanings, and interpretations rather than numerical data. To conduct a qualitative study with graphical representation of data analysis, researchers typically follow a multi-faceted approach. The first step involves carefully defining the research questions and objectives, ensuring they align with the study's purpose. A 10 questions based questionnaire was used to collect data. The data analysis was limited to know respondents point of view.

The question asked by respondents has demonstrated in figure 2 with its results. The process quality improvement process of the organization has helped to increase the quality of products.

the process quality improvement process of the organization has helped increase the quality of products

25 responses

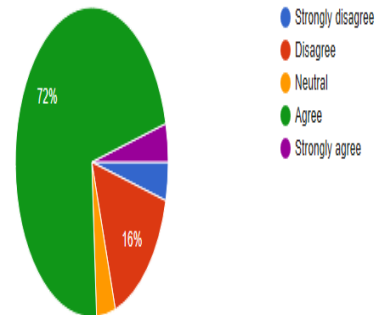


Figure (2)

There are effective process quality improvement practices followed in our organization

there are effective process quality improvement practices followed in our organization

25 responses

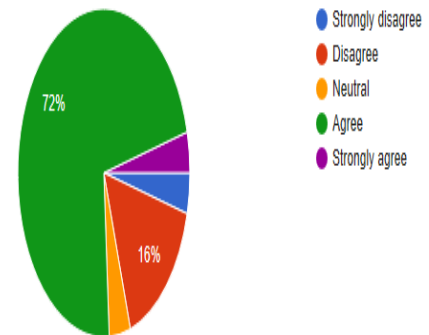


Figure (3)

Our organization competitive advantage lies in the process quality improvement practices

Our organization's competitive advantage lies in the process quality improvement practices

25 responses

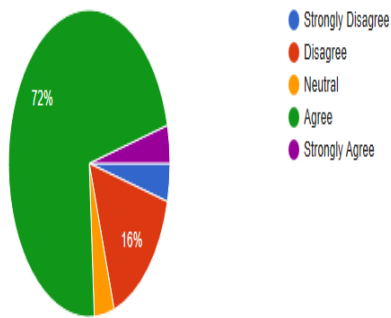


Figure (4)

Lean practices has enabled our organization lower their cost

Lean practices has enabled our organization lower their costs

25 responses

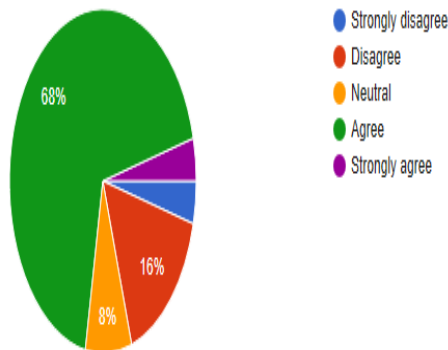


Figure (5)

Lean practices followed in our organization has added value to our final product

lean practices followed in our organization has added value to our final product.

25 responses

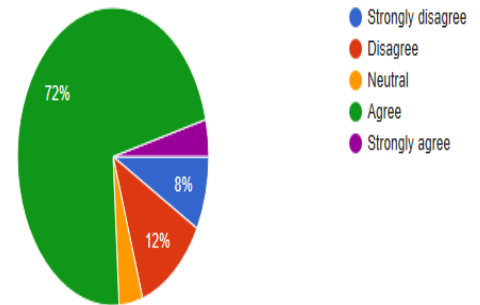


Figure (6)

4. DISCUSSION

The graphical output of the respondents data shows a positive significant impact of process quality improvement. The research on the impact of process quality improvement and lean practices on manufacturing competitive performance in UAE SME industries has provided valuable insights into the effectiveness of these strategies for enhancing competitiveness. The findings consistently highlight the positive influence of these practices on various aspects of SME manufacturing, such as product quality, operational efficiency, customer satisfaction, and employee empowerment. Empirical research consistently demonstrates that process quality improvement and lean practices lead to reduced waste, optimized resource utilization, and streamlined production processes in UAE SMEs. As a result, these practices help companies achieve cost savings by minimizing inventory costs and enhancing overall operational efficiency. By employing lean practices, SMEs can respond more effectively to market changes, enabling them to maintain competitiveness in dynamic business environments. The empirical research findings highlight the positive impact of process quality improvement and lean practices on employee empowerment and organizational culture within SME manufacturing firms. When employees are actively involved in identifying inefficiencies and suggesting improvements, they become more engaged and committed to the organization's success. This

employee-driven approach fosters a culture of innovation and continuous improvement, creating a competitive advantage for UAE SMEs in attracting and retaining skilled talent.

5. CONCLUSION

The research on the impact of process quality improvement and lean practices in UAE SME manufacturing demonstrates their effectiveness in enhancing competitiveness. These strategies offer SMEs the means to achieve higher product quality, increased efficiency, and a responsive approach to market demands. Emphasizing employee empowerment and organizational culture further strengthens their competitive position. By adopting and refining these practices, UAE SMEs can build a robust foundation for sustainable growth and success in the dynamic manufacturing landscape.

- *Limitations*

While the research presents significant results, there are some limitations to consider. The generalizability of findings may be limited by small sample sizes in some studies, warranting future research with larger and more diverse samples. Additionally, the long-term impact of process quality improvement and lean practices on manufacturing competitiveness requires further exploration to understand their sustained effects over extended periods.

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Impact of Supply Chain Integration and Operational Flexibility on Service Quality

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ABSTRACT

The pharmaceutical industry operates in a highly complex and competitive environment, demanding efficient supply chain management and operational flexibility to ensure service quality and customer satisfaction. This study examines the impact of supply chain integration and operational flexibility on service quality in a pharmaceutical distribution company. Using a mixed-method research design, data were collected from a pharmaceutical distribution company in terms of its supply chain integration practices, operational flexibility measures, and service quality performance. Quantitative data were obtained through surveys administered to employees involved in supply chain operations and customers, while qualitative data were gathered through interviews with key stakeholders. The qualitative analysis shed light on the mechanisms through which supply chain integration and operational flexibility affected service quality. Enhanced coordination and information sharing among supply chain partners were identified as critical aspects of successful integration, leading to improved order processing and timely deliveries. Similarly, operational flexibility enabled the distribution company to promptly respond to fluctuations in demand, optimizing inventory management, and meeting customer expectations.

1. INTRODUCTION

The pharmaceutical industry is a critical sector in the United Arab Emirates (UAE), playing a pivotal role in safeguarding public health and ensuring access to essential medications. In this highly regulated and dynamic environment, pharmaceutical distribution companies in the UAE face substantial challenges in maintaining high service quality standards while efficiently managing their supply chains (Cheung et al., 2021). To address these challenges, the impact of supply chain integration and operational flexibility on service quality has become a subject of significant interest and importance.

Supply chain integration and operational flexibility are two interrelated concepts that hold the

potential to transform the pharmaceutical distribution landscape in the UAE. Supply chain integration involves the seamless coordination and collaboration among different stakeholders within the pharmaceutical supply chain, including manufacturers, distributors, wholesalers, and retailers (Liu and Chiu, 2021). Through effective integration, companies can optimize the flow of goods, reduce lead times, and enhance communication and visibility across the supply chain.

Operational flexibility, on the other hand, refers to the ability of pharmaceutical distribution companies to adapt swiftly and effectively to changing market conditions, customer demands,

and unexpected disruptions (Alolayyan et al., 2022b). In a dynamic industry such as pharmaceuticals, the capacity to respond promptly to fluctuations in demand, supply chain disruptions, and emergencies is crucial to ensuring continuous service provision and maintaining customer satisfaction.

The UAE pharmaceutical distribution sector operates within a highly competitive landscape, where service quality is a key differentiator in gaining a competitive edge (Pulevska-Ivanovska and Kaleshovska, 2013). Service quality encompasses various dimensions, including order accuracy, delivery reliability, response time, and customer service, all of which are deeply influenced by the integration of supply chain operations and the degree of operational flexibility within pharmaceutical distribution companies (TaHER M. Ghazal et al., 2023; Kitsiou et al., 2007). Understanding the impact of supply chain integration and operational flexibility on service quality is of paramount importance to the stakeholders in the UAE pharmaceutical industry. Through comprehensive research and analysis, this study aims to provide valuable insights into the correlation between these critical factors and service quality metrics. By identifying the key drivers that enhance service quality, pharmaceutical distribution companies can devise effective strategies to optimize their supply chain processes, meet customer expectations, and navigate the complexities of the industry.

In this context, this research aims to contribute to the body of knowledge surrounding supply chain management and operational practices in the UAE pharmaceutical distribution sector. The findings of this study can serve as a roadmap for companies to align their supply chain integration efforts and cultivate operational flexibility to elevate service quality levels, thus ultimately advancing the industry's contribution to public health and well-being in the UAE.

1.1. Problem Statement

The absence of a comprehensive understanding of the relationship between supply chain integration, operational flexibility, and service quality in the pharmaceutical distribution sector in the UAE poses a critical challenge (El Khatib et al., 2022). Companies may struggle to identify the most effective strategies for optimizing their supply

chain operations and achieving high service quality levels. Furthermore, the dynamic nature of the pharmaceutical industry demands adaptable and resilient supply chain practices, making operational flexibility a critical determinant of long-term success and competitiveness.

Therefore, this research aims to address the problem by investigating the impact of supply chain integration and operational flexibility on service quality in pharmaceutical distribution companies in the UAE. By exploring the relationship between these factors, the research endeavors to provide valuable insights that can guide pharmaceutical distribution companies in the UAE towards effective strategies for enhancing service quality and optimizing their supply chain operations. Understanding and addressing this problem can contribute to improved healthcare services, patient outcomes, and overall public health in the UAE.

2. THEORETICAL FRAMEWORK

In the health care sector, the model of the operational flexibility dimension consists of the primary two dimensions (M. El Khatib et al., 2022). The dimension applies to the supply chain integration to enhance the services provided in the healthcare sector (Al-Dmour et al., 2023). In healthcare supply chain integration is complex as the aspect to consider are crucial to the health of the human (Gaytan et al., 2023). Standardization is the aspect applied in promoting the operational and supply chain integration in the healthcare sector. The two work together for information synchronization to provide quality services to all consumers and stakeholders (Bawaneh et al., 2023; Kassem and Martinez, 2022). The improvement of the supply chain in healthcare promotes operational flexibility. The services which are rendered by supplies are well required for enhancing the performance of the healthcare through operational flexibility (Aziz et al., 2023). The relationship between operational flexibility and the service quality in healthcare is that operational flexibility is a variable that is independent and has a positive impact on the service quality in the healthcare sector (Akour et al., 2023; El Khatib et al., 2021). The healthcare performance in terms of service quality is directly proportional to operational flexibility, which influences the performance of healthcare

(Abudaqa et al., 2021; H. M. Alzoubi et al., 2022g). The high performance in operational flexibility increases the production of healthcare, which is generally the quality of the service provided is improved (I. Akour et al., 2022). The overall healthcare achievement depends on the practice of the operational flexibility (Aljumah et al., 2023; Blooshi et al., 2023; El Khatib and Ahmed, 2020). In the service quality, the measurement is determined by the operation flexibility practiced in healthcare concerning the consumer or the customer (Al-Kassem et al., 2022; Muhammad Alshurideh et al., 2023; Khan et al., 2022). The change in service quality is due to a change in operational flexibility, which will also change the operational performance of healthcare. To improve service quality, operational flexibility have to be developed (Aityassine et al., 2022; Gulseven and Ahmed, 2022).

Supply chain integration determines the service quality provided by the healthcare sector (Ahmad Ibrahim Aljumah et al., 2022a; H. M. Alzoubi et al., 2022c). Supply chain integration also contributes to the overall operational flexibility of healthcare, which is the essential aspect of the performance (AlDhaheri et al., 2023; El Khatib, 2015; Louzi et al., 2022a). For the healthcare strive to improve the service quality, they have been working hard to improve the hospital supply chain integration, which provides essentialities for the performance (M T Alshurideh et al., 2022; Hani Al-Kassem, 2021). Supply chain integration is enhanced as it is the central point that enhances the healthcare facilities to perform more efficiently without problems (H. Alzoubi et al., 2022). The service quality depends on the operational flexibility performance, and the operational flexibility performance depends on the supply chain integration directly (Abudaqa et al., 2022; Louzi et al., 2022b).

Consequently, considering the chain, in case of the failure in supply chain integration, then every aspect of healthcare will fail (Nadzri et al., 2023). Improving supply chain integration, it's automatic that the healthcare system will improve performance hence enhancing the quality of services (Al-Awamleh et al., 2022; Mohammed T. Nuseir et al., 2022). Therefore, the supply chain integration is a crucial aspect in the healthcare sector.

2.1. Operational Definitions

2.1.1. Supply Chain Integration

Generally, supply chain the resources that are required to deliver services or goods. However, in the healthcare sector supply chain is complicated as it is a fragmented process (T M Ghazal et al., 2023b). In healthcare, the supply chain involves managing supplies, obtaining resources, and delivering services and good to the providers and patients (Al-Kassem, 2017; El Khatib and Opulencia, 2015). The method of the supply chain integration in healthcare has to pass through different stages for the include stakeholders such as manufacturers, insurance organizations, purchasing group organizations, hospitals, and regulatory agencies (A I Aljumah et al., 2022a). Independent stakeholders, including manufacturers, insurance companies, hospitals, providers, group purchasing organizations, and several regulatory agencies (Almasaeid et al., 2022; Mat Som and Kassem, 2013). The supply chain is essential to healthcare for performance.

2.1.2. Operational flexibility

Operational flexibility is the process in which healthcare services are provided with more comfortable and without difficulties and struggles (Ahmed and Nabeel Al Amiri, 2022). The operational flexibility depends on the supply chain integration, which gives the healthcare stakeholders more ease to deliver the services require from their clients (M. Alshurideh et al., 2022; H. M. Alzoubi et al., 2022f; El Khatib et al., 2019). Moreover, operational flexibility is the flow of the work and services in the healthcare sector, considering the services and the products provided (Al-Kassem, 2014; Arshad et al., 2023). Operational flexibility is the crucial aspect in healthcare setup that influences the quality of the services rendered to the clients. It is enhanced by supply chain integration.

2.1.3. Service quality

In healthcare, the quality of the service is defined as the feature that shapes the care experience beyond the competence in technicality (Sakkthivel et al., 2022). The service rendered to the clients and the patient in the healthcare sector is referred to as service quality (Alshawabkeh et al., 2021; Lee et al., 2023). The quality of the service can be determined by the perception of the client receiving the

services (Al-Kassem et al., 2013; Al-Marroof et al., 2022b; Khatib et al., 2016). The quality of the service can be either low, moderate, or high based on the perceived performance and knowledge of the customers or the clients (Varma et al., 2023). The service quality depends on the operational flexibility and the supply chain integration in the healthcare setup.

Supply chain sector. Only a few researchers have tried to determine the model of quality service in the context of the supply chain (Muhammad Turki Alshurideh et al., 2022b). The Res have mostly considered the consumers on their service quality (Al-Kassem et al., 2012; Nuseir and Aljumah, 2020). It indicates clearly that there is no much done on the supply chain context on service quality (Ahmed et al., 2022; Muhammad Turki Alshurideh et al., 2022a; T M Ghazal et al., 2023c). However, the operational flexibility scale has been applied in the supply chain in different occasion considering the perception of the services (Al-Marroof et al., 2022a; Farrukh et al., 2023). In the supply chain context, the five dimensions may be applicable in some situations of the quality of the service (El Khatib and Ahmed, 2019).

The PSCs is widely applied in the pharmaceutical industries as it uses a different process (I. A. Akour et al., 2022; Nuseira and Aljumahb, 2020). The processes include management and operational methods mostly applied in discoveries, manufacture of medications and drugs, and development (Amiri et al., 2020). The pharm is distributed to consumers through the PSCs, which are an essential path for the right time, right quality, and righty place for the consumers (R. S. Al-Marroof et al., 2021b; Nuseir, 2021). For ensuring delivery of the medicine to the patient under the right circumstance and right time, to alleviate suffering or cure diseases, the PCs are very complex and responsive (Aljumah et al., 2020; E. Khatib et al., 2021).

The type of supply chain is very sensitive as it provides services that deal with human life. Hence the errors are not acceptable in this sector as it's between the life and health of the humans (Muhammad Turki Alshurideh et al., 2023c; M. Alzoubi et al., 2021). Currently, the industry is facing many challenges concerning the services it provides (H. M. Alzoubi et al., 2022d). Competition is highly faced in these industries as there are emerging generic industries as there is a need to

reduce the time to market period.

3. LITERATURE REVIEW

3.1. *Service quality definition*

Quality is the measure of the service or product ability to perform the task or fulfill the needs required. The service assessment involves the evaluation of the quality, which includes functionality and technical quality. The product is only evaluated on the technical quality, which is the outcome. According to (Abudaqa et al., 2021; A. Al-Marroof et al., 2021), the various definition of services have been developed, and multiple scales of measurements evaluated (Yasir et al., 2022). The primary description of the service quality is the difference between the perceived performance of the service and the expectations of the customers (A I Aljumah et al., 2022b; Muhammad Turki Alshurideh et al., 2023a). The quality offered entirely depends on the performance when service quality provided is not sufficient, then customers are not satisfied (AlHamad et al., 2021). However, high-performance expectation leads to the satisfaction of the customer's expectation (El Khatib et al., 2020b).

(H. M. Alzoubi et al., 2022a), reveals that expectations are beliefs which are pre-trial about the service or the product. The universal judgment or attitude about the service level is service quality (H. M. Alzoubi et al., 2022b). The res in the quality sector is used to measure the quality of the services provided. (Aljumah et al., 2021a; Khatib et al., 2022) reveals the industry of measuring the services. They further researched and concluded that the product sector and services sector nature is different from each other.it was applied by (Alkitbi et al., 2021; H. M. Alzoubi et al., 2022e; Nuseir and Elrefae, 2022) in the evaluation of the services in health care sectors and summarized that the perception of the customer determines the nature of the service quality provided to them. Other researchers like (Aljumah et al., 2021b) also reveals that the service outcome is directly proportioned to the service quality. In conclusion, the measurement and identification of the service quality are not easy considering different perceptions of the individuals receiving the services.

3.2. *The measurement of service quality*

The central aspect of improving and developing the

service quality is measurement and analysis of the service quality as revealed by (R. S. Al-Maroof et al., 2021a; Nuseir et al., 2021) in their studies. The instrument of measuring and identifying the quality is required for the effective operation of the system (Mubeen et al., 2022). The characteristics of the services include incongruity, perishability, inseparability, and intangibility contribute to difficulties in measurements. According to (El Khatib and Ahmed, 2018), the difference between customers' perceptions and their expectations is the best definition of service quality (Alshamsi et al., 2021; H. Alzoubi et al., 2022). It involves questions; why they want and why they receive the services (T M Ghazal et al., 2023a). The operational flexibility scale has been implemented accordingly for the measurement of the service quality (Akour et al., 2021; M T Nuseir et al., 2022a). In the history of the services quality services evaluation, the operational flexibility scale has been a point of turning.

3.3. Service quality models

The variety of dimensions is the perception of service quality. However, the general number of the dimension has not been specified accordingly. The proposed name of the dimension is two, three, five, and ten. The service quality evaluation is a highly complicated task and involves different abstraction levels of assessment (H. M. Alzoubi et al., 2020; M. El Khatib et al., 2021). The models of service quality have been proposed by various researchers.

In this section, the top five of

The models of the service quality are described as follows;

The Nordic Model

- The model focuses on the paradigm of disconfirmation. It draws the comparison between expected service and the performance perceived. According to (M Alshurideh et al., 2023a), the function of the gap between the perception of the quality of the service delivered and the expectation. The framework for the operational flexibility has been issued by service quality conceptualization (M T Nuseir et al., 2022b).

3.4. Operational flexibility.

According to (Nuseir and Aljumah, 2022), the

model is based on the paradigm of disconfirmation of the measurement of the service quality (Alzoubi and Ahmed, 2019). The new measure was determined to overcome the Nordic model weakness of the measurement (Emad Tariq et al., 2022). It was a new way of identifying and measuring service quality (Muhammad Turki Alshurideh et al., 2022c). The existing gap between delivered services and expected is applied by operational flexibility to measure the service quality (Nuseir, 2020). The model has three components, which include the service product, the service environment, and service delivery (Muhammad Turki Alshurideh et al., 2023b; E. Khatib et al., 2022).

The Multilevel Model: To improve operational flexibility and eliminate its weakness, the multilevel model was developed. The model is grouped into three stages, which include sub-dimension, primary dimension, and overall perception of the services (Ahmad Ibrahim Aljumah et al., 2022b; E Tariq et al., 2022). It is designed for specific retail stores evaluation. It involves five dimensions, which include policy, problem-solving, personal interaction, reliability, and physical aspect (H. Alzoubi et al., 2020).

The operational flexibility scale has provided services to res on service quality; it has been applied in determining various aspects related to service quality (Nuseir et al., 2020). According to (El Khatib et al., 2020a), the ten dimensions were embedded on the 34-item service quality scale with the following; tangibles, customer's knowledge, security, credibility, communication, access, competence, responsiveness, and reliability (Alzoubi et al., 2019).

They work as the with the following as delivered Reliability- is the accurately and dependably performing the promised task.

- Assurance-the ability of employees to inspire confidence and trust with their courtesy and knowledge.
- Tangibility-appearance of the personnel, equipment, and physical facilities.
- Responsiveness- providing services and helping customers willingly.

Empathy- individual attention and caring supplied to customers by the company.

2.5. Research Model

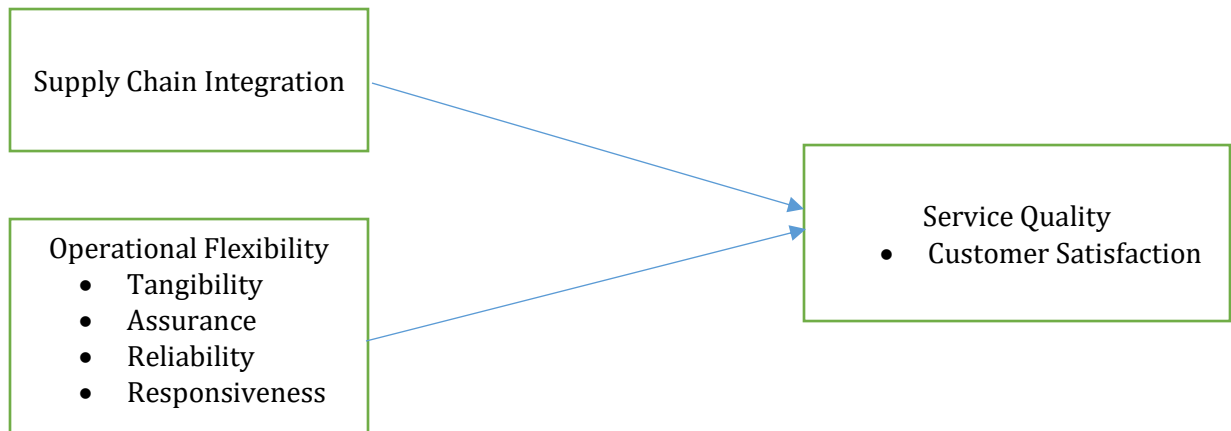


Figure (1)

3. METHODOLOGY

The research seeks to work on ways of establishing the impact of supply chain integration and operational flexibility on service quality. The study will use the five dimensions of operational flexibility as well as other supply chain process in developing the best strategies for delivering high-quality services. The research uses the satisfaction of the customers as the measure for the service quality from the medical supply manufacturers. The study would compare the results from the two sets of variables as a way of ensuring there is a conclusion on the possible relationship between the variables.

3.1. Population and Sample

The research population is the people that would be useful in providing the information for the research. The research population for this research has more than 120 executives for the companies the supply chain in the United Arab Emirates. However, the research samples only twenty out of the 120 administer the questionnaire. The choice of twenty as the sample size is due to the ability to manage the sample size and lower the cost and time of carrying out the research.

3.2. Data Collection Method (Questionnaire)

A questionnaire was a useful instrument of research in this study. The researcher developed five traits of supply chain and operational to ask the

managers and supply chain experts on their impact on the quality of the services. The questionnaire is then presented to a sample of twenty experts involved in the supply chain. The administration of the question is done through an email, and the responses received after one week.

3.3. Data Collection

The researcher administers questionnaires to 20 pharmaceutical distributors in the United Arab Emirates. The pharmaceutical distributors work directly with the manufacturing companies in the medical sector. Also, the companies work directly with the medical service providers, including hospitals and other pharmacies, making the companies appropriate for the research study. The questionnaire is designed to highlight the significance of the distributional challenges in getting the medical providers to offer quality services. The researcher distributed 200 questionnaires to the managers in pharmaceutical companies. There was a 100% return rate of the responses. The sample number was appropriate for further analysis.

4. DATA ANALYSIS

The research uses statistical analysis in establishing the relationship between the variables in the study. The results of the mean and Cronbach's alpha are instrumental in establishing the relationship between the variables in the research. The respondents were asked leading

questions on the dimensions of the operational flexibility and supply chain integration. The results

of the statistical analysis are as in the table 1 below:

Table 1: Model Reliability Analysis

Dimension	Mean	No. of deleted items	KMO	Average variance extracted (AVE) %	Factor Loadings	Cronbach's coefficient (α)
Reliability	4.5	3	0.791	50	0.601-0.766	0.739
Tangible	4.2	1	0.736	52	0.683- 0.768	0.695
Assurance	4.3	3	0.653	51	0.658-0.788	0.680
Empathy	4.4	1	0.685	54	0.663-0.861	0.711
Responsiveness	4.5	0	0.694	70	0.808-0.868	0.782

The results of the respondents on reliability presents a mean of 4.5. The Cronbach's alpha is also at the 0.739, which is relatively high, showing the reliability of the results. At the average variance of the items measured at 50%, the results show a strong link between the reliability and the service quality in the supply of the medicine manufacture industry.

The second aspect tested was the tangibility of the supply chain system. The results show a mean of 4.2 with a reliability test of 0.69. The average variance is also higher than the average at 52%. The results also indicate a direct relationship between the need to have a tangible supply chain and the provision of high-quality services in the medical manufacturing industry.

The third variable of the research is the assurance aspect. The assurance trait of the supply chain attracts an average score of 4.3, with a reliability

test of 0.68. The average of the variance is at 51%, showing an increased level of assurance quality and its impact on the service quality. The results show the strong significance between the assurance trait and service quality.

The fourth trait tested included empathy trait. The results of the empathy variable from the statistical variable were at 4.4 as the mean score. The reliability test included a score of 0.711 from the Cronbach's alpha. Similarly, the results are an indication of the high rate of responses to indicate the significance of the empathy traits in the service quality.

The last variable in the test involved the responsive nature of the supply chain. The respondents recorded a mean of 4.5 on the responsive dimension. Similarly, the dimension also had a reliability test of 0.782. Also, the responsiveness recorded a high average variance at 70%, showing

the significance of the responsiveness in the production of quality services in the medical manufacture industry.

5. RESULTS DISCUSSION

The results of the study conducted in the United States show a clear relationship between the supply chain integration and operational flexibility variables to the quality of the supply to be directly related. The research used Cronbach's alpha as a way of testing the reliability of the tests in the process. The variables in the supply chain integration and the operational flexibility are chosen as proposed by (Lotfi et al., 2013). These traits define the characteristics of the supply chain that would be needed in ensuring the distributors meet the needs of the consumers. The analysis of the data will help in creating an understanding between the variables and the quality of the services.

The results have established the impact of the reliability test on the quality of the services in the medical sector. The quality of the services is measured by the level of satisfaction in the process. The hospitals and the pharmacies getting supplies from the distributors believe in the distributors. There is trust in the supply chain. The deliveries are accurate and on time. The products requested arrive on time as orders showing the suppliers are reliable. The consequence of the reliability trait is the possibility that the consumers and the buyers are also possibly getting the products they need at the right time during treatment (Alolayyan et al., 2022a).

The study has also shown that assurance is directly related to the service quality in the medical manufacturing industry. The employees and the people taking care of the supplies are trained to be competent. They are motivated to carry out their work, making them be possibly driven by the need to satisfy the consumers (Aburayya et al., 2020). The working population in the supply sector creates a relationship with the buyers, such that there is effective communication during the supply process. The other factors that affect the quality of the supplies are the tangibility and the responsive nature of the supply chain. The type of equipment manufactured and supplied is tangible and, as such, can be compared to others. The comparison process should lead to an understanding that the equipment can be of better quality to the rest of the

materials. The results of the study have all been subjected to a reliability test and shown the results to be reliable.

6. CONCLUSION AND RECOMMENDATION

In conclusion, the research has established a direct relationship between the supply chain and operational flexibility to the quality of service in the study. This research sheds light on the significant impact of supply chain integration and operational flexibility on service quality in pharmaceutical distribution companies. Through an in-depth analysis of the interrelationships among these key factors, valuable insights have been gained, and several crucial findings have emerged.

The findings indicate that supply chain integration plays a pivotal role in optimizing pharmaceutical distribution processes. By fostering collaboration, information-sharing, and coordination among various stakeholders, supply chain integration streamlines operations, reduces lead times, and enhances overall efficiency. This, in turn, positively influences service quality by ensuring timely and accurate deliveries, minimizing stockouts, and meeting customer demands more effectively.

Moreover, with limited data, it becomes challenging to apply complex statistical analyses effectively. The lack of sufficient data points can reduce the reliability of statistical tests, making it difficult to establish significant relationships or draw accurate conclusions. Limited data analysis may not provide a comprehensive understanding of the research topic.

6.1. Practical implications

Practically, this research holds valuable implications for pharmaceutical distribution companies seeking to improve service quality and gain a competitive edge in the industry. Investing in supply chain integration and operational flexibility can be a strategic decision, leading to enhanced customer satisfaction, increased operational efficiency, and improved overall performance. Companies should prioritize adopting advanced technologies, flexible organizational structures, and collaborative approaches to achieve these objectives effectively. Additionally, the impact of supply chain integration and operational flexibility on service quality in pharmaceutical distribution companies is

undeniable. This research serves as a foundation for further exploration and underscores the importance of strategic investments in integrating supply chains and fostering operational flexibility. By continuously adapting to the ever-changing industry landscape, pharmaceutical distribution

companies can thrive, meet customer expectations, and maintain a strong position in the competitive market.

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The Impact of Information Technology Competencies and Fleet Management Practices on Effective Service Delivery in the Construction Industry

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A B S T R A C T

The construction industry plays a critical role in delivering infrastructure and building projects that shape the modern world. With the increasing importance of effective service delivery in this sector, the role of information technology (IT) competencies and fleet management practices has become a crucial focus for improvement. This study investigates the impact of IT competencies and fleet management practices on effective service delivery within the construction industry. Through a mixed-method approach, data was collected from a sample of construction organizations, including surveys and interviews with key stakeholders. The analysis revealed that organizations with advanced IT competencies and optimized fleet management practices demonstrated higher levels of effective service delivery. IT infrastructure, including hardware, software, and data storage, significantly influenced fleet management capabilities. Furthermore, regular IT training and development programs contributed to improved service delivery outcomes. Proactive fleet maintenance and route optimization positively impacted service reliability and customer satisfaction. The theoretical findings emphasize the vital role of integrating IT competencies and fleet management practices in achieving superior service delivery in the construction industry. For construction companies seeking to excel in service provision, investing in technology and optimizing fleet management are imperative strategies to enhance performance and maintain a competitive.

1. INTRODUCTION

In the fast-paced and interconnected world of today, Information Technology (IT) has become an integral part of modern organizations, revolutionizing the way they operate and deliver services. As the world continues to embrace digitalization and automation, businesses and public institutions are increasingly relying on IT competencies and fleet management practices to enhance their service delivery processes and stay

competitive in the market (Mehmood, 2021). This research aims to investigate the impact of Information Technology Competencies and Fleet Management Practices on effective service delivery across various industries.

Service delivery is a critical aspect of organizational success, directly influencing customer satisfaction, operational efficiency, and overall business performance (Gaytan et al., 2023;

Munusamy et al., 2010). Efficient service delivery is contingent on the seamless integration of technology with existing operations, optimizing fleet management systems, and ensuring that IT competencies are aligned with organizational objectives (A I Aljumah et al., 2022a; Lee et al., 2023). When implemented strategically and effectively, IT and fleet management can transform service delivery processes, leading to improved resource utilization, reduced costs, enhanced customer experiences, and sustainable growth (Muhammad Turki Alshurideh et al., 2022b).

The role of IT competencies in service delivery cannot be overstated (Mashaqi et al., 2020; Munusamy et al., 2010; Nadzri et al., 2023). Organizations with a robust IT infrastructure can leverage data analytics, cloud computing, automation, and artificial intelligence to streamline their operations, make data-driven decisions, and respond promptly to changing market demands (Blooshi et al., 2023; Ravichandran and Lertwongsatien, 2005). Moreover, IT plays a crucial role in facilitating communication and collaboration within organizations, resulting in better coordination among various departments and teams involved in service delivery (Aljumah et al., 2021a; YuSheng and Ibrahim, 2019).

On the other hand, fleet management practices play a vital role in industries reliant on transportation, logistics, or distribution services (AlHamad et al., 2021). An efficiently managed fleet ensures the timely delivery of goods and services, minimizes vehicle downtime, optimizes route planning, and enhances the overall safety and reliability of operations (AlDhaheri et al., 2023; Rogic et al., 2008). The integration of IT solutions, such as GPS tracking systems and real-time data analytics, further enhances fleet management efficiency, enabling organizations to respond dynamically to disruptions, optimize fuel consumption, and reduce their carbon footprint (El Khatib and Ahmed, 2020)(Gulseven and Ahmed, 2022; Minea and Surugiu, 2013).

Despite the evident benefits of IT competencies and fleet management practices, several challenges exist in their implementation and adoption. Organizations may encounter obstacles related to infrastructure investments, data security concerns, employee training, and change management (Al-Kassem et al., 2022). This research seeks to address these challenges and identify best practices for

maximizing the positive impact of IT and fleet management on service delivery outcomes (Redmer, 2022).

The research will employ a mixed-methods approach, combining qualitative and quantitative data to comprehensively assess the relationship between IT competencies, fleet management practices, and effective service delivery. Data will be gathered from a diverse range of industries, including manufacturing, logistics, healthcare, retail, and public services, to provide a comprehensive understanding of how these factors operate in various organizational contexts.

Ultimately, the findings of this research will contribute to a deeper understanding of the critical role played by Information Technology Competencies and Fleet Management Practices in modern service delivery processes. By identifying the drivers of success and the barriers to adoption, this study aims to provide valuable insights and recommendations to organizations seeking to optimize their service delivery capabilities, maintain competitiveness, and meet the evolving needs of their customers in an increasingly digitalized world.

1.1. Research Objectives

To identify the barriers and enablers that affect the successful integration of IT competencies and fleet management practices into service delivery processes. This objective aims to uncover the challenges faced by organizations when implementing IT and fleet management initiatives, such as financial constraints, organizational culture, and resistance to change (Akour et al., 2021; Pedraza-Martinez and Van Wassenhove, 2012). Simultaneously, it will identify the factors that facilitate a seamless integration, such as leadership support, employee training, and the alignment of IT and fleet management strategies with organizational objectives.

3. OPERATIONAL DEFINITIONS

3.1 Information Technology Competencies

Information Technology Competencies refer to the knowledge, skills, abilities, and expertise required to effectively utilize and apply various information technology tools, systems, and methodologies to accomplish specific tasks and objectives within an organization (H. M. Alzoubi et al., 2022c; Bawaneh et al., 2023; Tariq et al., 2022). These competencies

encompass a wide range of technical proficiencies, problem-solving capabilities, and digital literacy that enable individuals or teams to navigate, leverage, and innovate with information technology resources (Almasaeid et al., 2022; H. M. Alzoubi et al., 2022d; Kassem and Martinez, 2022).

3.2 Fleet Management Practices

Fleet management practices refer to the systematic and strategic processes employed by organizations to effectively oversee and optimize their fleet of vehicles or assets (El Khatib et al., 2021; Hanaysha and Alzoubi, 2022). These practices encompass a range of activities, including acquisition, maintenance, scheduling, tracking, and disposal, all aimed at ensuring the efficient and cost-effective operation of the fleet (Akour et al., 2023; Aljumah et al., 2021b; Muhammad Alshurideh et al., 2023; Awawdeh et al., 2022). Effective fleet management practices aim to improve safety, reduce operational expenses, enhance asset utilization (Louzi et al., 2022b), and promote sustainability, ultimately contributing to better overall performance and service delivery for the organization (Abudaqa et al., 2022; Muhammad Turki Alshurideh et al., 2022a; El Khatib and Oplencia, 2015).

3.2 Effective Service Delivery

Effective service delivery defined as the successful and efficient provision of products, services, or solutions that meet or exceed customer expectations while maximizing organizational resources and capabilities (M T Alshurideh et al., 2022; Hani Al-Kassem, 2021; Nuseir et al., 2021). It involves the timely, reliable, and customer-centric execution of processes and activities, resulting in high-quality outcomes, enhanced customer satisfaction, and the achievement of desired goals (Ahmed and Nabeel Al Amiri, 2022; I. Akour et al., 2022; H. M. Alzoubi et al., 2022b). Effective service delivery is characterized by responsiveness, accuracy, consistency, and adaptability, ensuring that customers' needs are met in a manner that adds value and fosters long-term relationships with the organization (E. Khatib et al., 2022).

4. LITERATURE REVIEW

Several studies have highlighted how the integration of IT competencies, such as GPS tracking systems, real-time data analytics, and fleet management software, can enhance fleet visibility

and control (Al-Kassem, 2017; A. Al-Marroof et al., 2021; H. Alzoubi et al., 2020; Louzi et al., 2022a). IT solutions enable organizations to monitor vehicle locations, fuel consumption, maintenance needs, and driver behavior in real-time, leading to better decision-making, route optimization, and reduced operational costs (H. Alzoubi et al., 2022; M. El Khatib et al., 2022; Sakkthivel et al., 2022). Research suggests that organizations with strong IT competencies in fleet management experience improved efficiency and productivity (Aityassine et al., 2022; Ahmad Ibrahim Aljumah et al., 2022a; Muhammad Turki Alshurideh et al., 2023b). By utilizing data-driven insights and automation, fleet managers can make informed decisions, allocate resources effectively, and minimize vehicle downtime, resulting in faster and more reliable service delivery (Ahmed et al., 2022).

As highlighted by (Al-Kassem, 2014; H. M. Alzoubi et al., 2022f; El Khatib and Ahmed, 2019), effective fleet management practices supported by IT competencies can positively influence customer satisfaction. Timely and accurate delivery, real-time tracking capabilities, and proactive communication with customers contribute to a positive customer experience, fostering loyalty and repeat business (Muhammad Turki Alshurideh et al., 2023a; El Khatib et al., 2020b). Studies indicate that the integration of IT in fleet management can lead to significant cost savings for organizations (Abudaqa et al., 2021; Mohammed T. Nuseir et al., 2022). Optimized routes, reduced fuel consumption, improved vehicle maintenance, and better asset utilization contribute to overall cost reduction and higher profitability (Al-Awamleh et al., 2022; M T Nuseir et al., 2022a).

According to a study of (Arshad et al., 2023; Mat Som and Kassem, 2013), while the benefits of IT competencies in fleet management are evident, several challenges exist (Al-Kassem et al., 2012). These include initial investment costs, data security and privacy concerns (M. Alshurideh et al., 2022), resistance to technology adoption from fleet staff, and the need for continuous training to keep up with technological advancements (Amiri et al., 2020; Saeed et al., 2021). Organizational culture plays a crucial role in the successful implementation of IT competencies in fleet management (H. M. Alzoubi et al., 2022a; El Khatib, 2015; M T Nuseir et al., 2022b). Studies have highlighted the importance of fostering a culture

that embraces technology, encourages innovation, and promotes a willingness to adapt to new practices (Muhammad Turki Alshurideh et al., 2023a; H. M. Alzoubi et al., 2022g; Varma et al., 2023). IT competencies can also contribute to the sustainability of fleet operations (El Khatib et al., 2019; T M Ghazal et al., 2023c; Khan et al., 2022; Nuseir and Aljumah, 2022). By optimizing routes and reducing fuel consumption, organizations can lower their carbon footprint and align their practices with environmental goals (A I Aljumah et al., 2022b; M. El Khatib et al., 2021; M. Alzoubi et al., 2021).

The relationship between Information Technology (IT) competencies and fleet management practices is symbiotic, with each reinforcing and complementing the other to optimize the efficiency and effectiveness of fleet operations (Al-Kassem et al., 2013; H. M. Alzoubi et al., 2022e; Nuseir et al., 2020). IT competencies provide the technological foundation that enables organizations to enhance their fleet management practices, leading to improved service delivery and overall operational performance (Al-Marroof et al., 2022b; T M Ghazal et al., 2023b). IT competencies, such as data analytics and real-time tracking systems, provide fleet managers with valuable insights into various aspects of fleet operations (Alshawabkeh et al., 2021; Alzoubi et al., 2019; H. M. Alzoubi et al., 2022h). By analyzing data on vehicle performance, fuel consumption, maintenance schedules, driver behavior, and route optimization, fleet managers can make informed decisions to improve fleet efficiency, reduce costs, and enhance service delivery timelines (Farrukh et al., 2023; Khatib et al., 2016).

According to (Ahmad Ibrahim Aljumah et al., 2022b; M Alshurideh et al., 2023; El Khatib et al., 2022; Yasir et al., 2022), IT competencies facilitate seamless communication and coordination within the fleet management ecosystem (El Khatib et al., 2020a). Fleet managers and drivers can stay connected through mobile apps, GPS tracking systems, and fleet management software (Aziz et al., 2023; T M Ghazal et al., 2023a; Nuseir and Aljumah, 2020). This real-time communication ensures better coordination, allowing fleet managers to adapt to unforeseen events, optimize routes, and respond promptly to customer demands. Effective A research conducted by (Al-Marroof et al., 2022a; Nuseir, 2020), IT

competencies in fleet management enable organizations to optimize resource allocation (H. M. Alzoubi et al., 2020; E. Khatib et al., 2021). By leveraging data on vehicle utilization and performance, organizations can right-size their fleets, identify underutilized assets, and improve overall fleet productivity (Al-Dmour et al., 2023; Mubeen et al., 2022; Nuseira and Aljumahb, 2020). This optimization leads to reduced operational costs and enhanced efficiency in service delivery (R. S. Al-Marroof et al., 2021).

Moreover, the relationship between Information Technology Competencies and fleet management practices is mutually reinforcing (Ahmed et al., 2022; Alzoubi and Ahmed, 2019; El Khatib and Ahmed, 2018; Nuseir and Elrefae, 2022). IT competencies enable data-driven decision-making, efficient communication, resource optimization, and predictive maintenance in fleet operations (I. A. Akour et al., 2022; Aljumah et al., 2020; Muhammad Turki Alshurideh et al., 2022c). In turn, these optimized fleet management practices lead to improved service delivery, enhanced customer experience, increased operational efficiency, and greater sustainability for organizations (Taher M. Ghazal et al., 2023; Khatib et al., 2022; Nuseir, 2021). Embracing and effectively integrating IT competencies in fleet management can drive positive outcomes and position organizations for success in the increasingly competitive landscape of service delivery.

4.1. Research Hypothesis

Based on the above literature review the following hypothesis were developed:

- **Hypothesis-1:** There is no impact of information technology competencies on fleet management practices in the construction industry.
- **Hypothesis-2:** There is no impact of information technology competencies on effective service delivery in the construction industry.
- **Hypothesis-3:** There is no impact of fleet management practices on effective service delivery in the construction industry.
- **Hypothesis-4:** There is no impact of information technology competencies on effective service delivery through fleet management practices in the construction industry.

4.2. Research Model

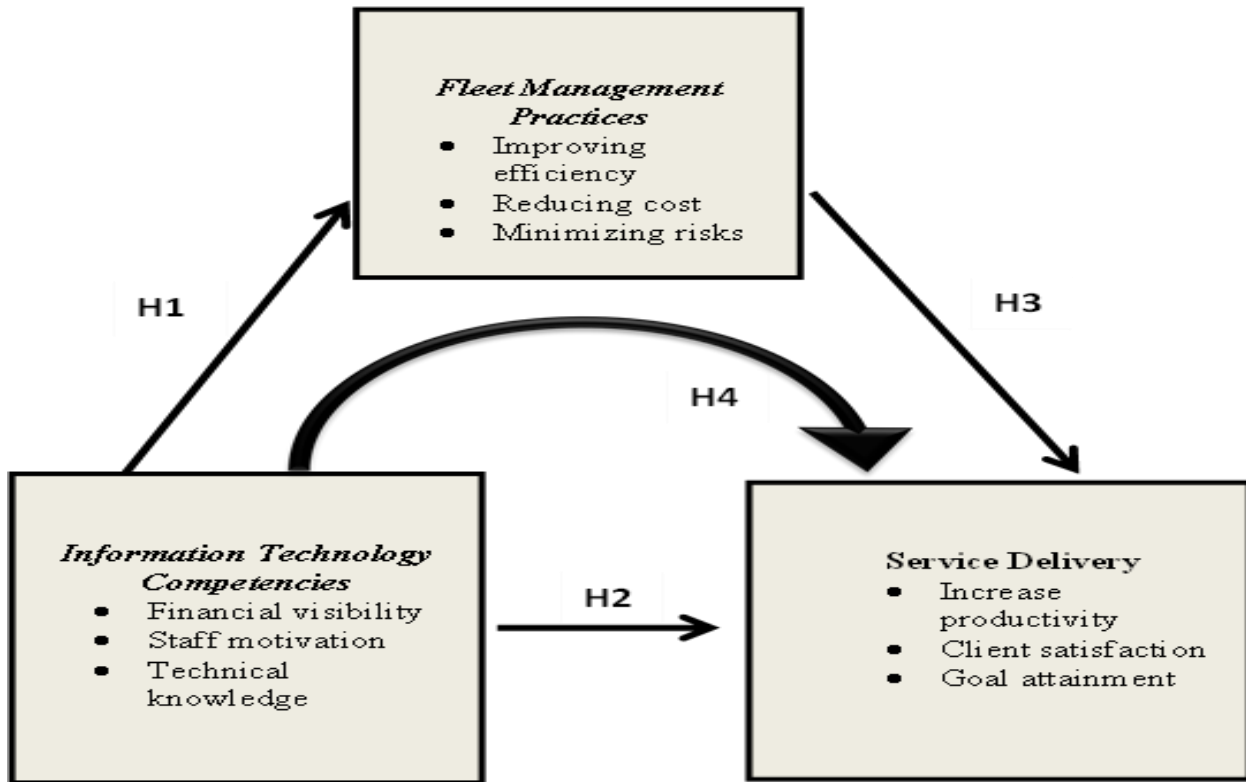


Figure (1)

3. METHODOLOGY

Data was collected from a sample of organizations with diverse fleet management practices and varying levels of IT competencies. A mixed-method approach was employed, including quantitative surveys and qualitative data (resources from journals, articles, books and prior literature). The survey focused on assessing IT competencies, fleet management practices, and service delivery effectiveness, while exploring journals, books, and articles provided in-depth insights into the prior studies perspectives and experiences.

4. DATA ANALYSIS

4.1. Information technology competencies

The fundamental input, it was dissected that the election of data innovation rehearses is helpful for the organization in beneficent their management quality, Most of the replies were obtainable in about 60% concurred with the way that the chance to serve one client has been reduce with the joining of data innovation. Because of the subject appropriation of data innovation is beneficial in

extending representative execution larger part of the defendant usually concurred with the notification and were available in 37% follow up by 22.2% of the respondents who emphatically concurred with it (Refer to appendix)

4.2 Fleet Management Practices

The answers in the survey were asked whether adoption of functional fleet management practices is useful to decrease the cost related with the reform vehicles, in order to answer this 33.3% of the replies normally agreeing with the report and 29.6% highly agreed. Along with this plurality of the replies also agreeing with the fact that fleet management coaching is also useful to decrease fuel costs. Furthermore, in order to answer to the question whether active fleet management exercises are useful in promote to driver safety behaviour 44.4% its normally agreed with the report and 13% normally disagreed with.

4.3 Effective Service Delivery

In order to answer to the question whether

functional service acceptance is beneficial inefficient connection between the team members, is around 44% of their answers is normally is being agreed with the report and around 20% is strongly agreed. Moreover, 40.7% of the answers strongly agreed with the report that client- based in order of fast services over with this it was also resolve that because of the activeness service that is transmitted with the client relationship has also

raised around 60% the answers in the survey basically is agreeing with the report. However, in reply to the report with a very useful of activeness service transmission goals were completed and on a specific time 35.2 of the answers were normally united in opinion with a follow up by 18.5% of the answers who highly agreed with it. (Refer to appendix)

4.4 Data analysis (statistical tests)

4.4.1. Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.783 ^a	.613	.597	.50211

a. Predictors: (Constant), FMC, ITC

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.927	2	9.963	39.520	.000 ^b
	Residual	12.606	50	.252		
	Total	32.532	52			

a. Dependent Variable: ESD

b. Predictors: (Constant), FMC, ITC

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.063	.319		3.331	.002
	ITC	.391	.106	.469	3.698	.001
	FMC	.356	.121	.374	2.948	.005

a. Dependent Variable: ESD

The regression test is conducted for evaluating the association between the dependent and independent variables. As per the table, the R-value for the gathered data is 0.783, which indicated that there is a strong relationship found between the variables. The ANOVA test is conducted for identifying the impact of one variable on the other. With the result, it was identified that both the independent variables had a significant impact on the dependent variable. The sig value for independent variables is found to be 0.001 and 0.005, which depicts that the impact is strong on

the dependent variable.

4.1.2 Correlation

Correlations				
		ITC	FMC	ESD
ITC	Pearson Correlation	1	.795**	.683**
	Sig. (2-tailed)		.000	.000
	N	54	54	52
FMC	Pearson Correlation	.795**	1	.751**
	Sig. (2-tailed)	.000		.000
	N	54	54	52
ESD	Pearson Correlation	.683**	.751**	1
	Sig. (2-tailed)	.000	.000	
	N	52	52	52

** . Correlation is significant at the 0.01 level (2-tailed).

The association between the dependant and independent variables is evaluated with the help of a correlation test. The test depicts the independent change variable will have on the dependent variable, in the case of the current study the independent variables are information technology competencies and fleet management practices and the dependent variable is effective service delivery. The correlation value for information technology competencies is 0.683, which means that the relationship is 68.3%. The value for fleet management practices is found to be 0.751, which states that the relationship is 75.15 between the variables.

5. RESULTS AND DISCUSSION

The main strategy of the study was to recognize the impact of information technology competencies, moreover fleet management exercise on efficient service transmission in the construction industry. With the test, it was specified that information technology tools are useful for the companies in the structure industry in enhancing their execution in other words their performance by managing their input and data efficiently. The primary data, it was specified that due to the adoption of information technology. Active customers were completed by the organizations. One of the main reasons behind active or efficient customers services is because due to the integration of information technology tools employee as their execution also raises. Moreover, the primary data suggested that the challenges regarding the staff motivation were also fix

because of the deployment of information technology infrastructure. as it is mentioned in the literature review. it was further specified that over with the information technology tools on of the other side which have an important impact on the service goodness is fleet management. The outcome for the both primary and secondary data specified that with the adoption of fleet management exercises, they are several advantages that were done by the organization. One of the main benefits completed because of fleet management exercises is that the total output and performance of the employees and the total organization has been risen because fleet management exercises are useful in setting targets which are useful in enhancing the performance. Moreover, the primary data, it was estimated that fleet management exercises are useful in decreasing the fuel costs and vehicle reforming costs which is very useful in rising the profitability of the organisation. Along with this, it is also very useful in decreasing risks as it promotes the driver’s safety behaviour. Moreover, the data collect with the support of primary and data methods point that active in the other words effective service delivery is an advantage in increasing the total productivity of the employee’s and organisation. Along with it. However, it is also useful in enhancing client satisfaction.

6. CONCLUSION

The data analysis suggests that information technology competencies and fleet management practices significantly influence effective service delivery. Organizations that invest in enhancing IT capabilities and adopt efficient fleet management practices are more likely to provide superior service, leading to higher customer satisfaction and cost-effectiveness. Therefore, integrating IT and fleet management is crucial for organizations seeking to excel in service delivery. The results indicate that organizations with advanced IT competencies and optimized fleet management practices tend to achieve higher levels of effective service delivery. The presence of a well-established IT infrastructure, including robust hardware, software, and data storage systems, plays a crucial role in enhancing fleet management capabilities. This infrastructure facilitates real-time tracking, data analysis, and communication, which are essential in

streamlining operations and improving service efficiency.

Additionally, the study reveals that regular IT training and development programs contribute significantly to service delivery outcomes. Ensuring that the workforce possesses the necessary IT skills and knowledge empowers them to leverage technology effectively, resulting in improved task execution and customer satisfaction.

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Exposing Corporate Value: Synergizing Global Diversification and Operational Flexibility in SMEs

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ABSTRACT

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In the modern era of interconnected economies and globalized markets, Small and Medium-sized Enterprises (SMEs) are increasingly pursuing global diversification strategies and operational flexibility as means to enhance their competitive positions and sustain market value. This study delves into the intricate relationship between these two critical factors – global diversification strategy and operation's flexibility – and their cumulative effect on the corporate market value of SMEs. Drawing upon a comprehensive review of existing literature, this research aims to uncover the mechanisms through which SMEs can leverage global diversification strategies to enhance operational flexibility, leading to a positive impact on their market value. The study employs a qualitative approach, encompassing qualitative examination of strategic decisions and operational practices. The qualitative analysis was focused to gather data from prior studies, online sources, journals and SMEs online websites operating across multiple industries. The findings of this research contribute to both theoretical and practical domains. The study offers valuable insights into how SMEs can effectively design and implement global diversification strategies to enhance their operation's flexibility, resulting in improved corporate market value. Furthermore, the research provides guidance for policymakers, business leaders, and stakeholders seeking to support and optimize the growth trajectory of SMEs in a globalized business environment.

1. INTRODUCTION

In today's advanced and interconnected global business landscape, Small and Medium-sized Enterprises (SMEs) play a pivotal role in driving economic growth, innovation, and employment generation. As these enterprises expand their reach beyond national borders, the implementation of strategic initiatives becomes crucial for their sustained success and competitive advantage (Makhloufi et al., 2017). Among these strategic considerations, the adoption of a global diversification strategy and the enhancement of

operational flexibility have emerged as key determinants influencing SMEs' corporate market value (Alolayyan et al., 2022).

Global diversification entails the geographical expansion of an SME's operations, enabling it to access new markets, tap into diverse customer segments, and mitigate risks associated with local market fluctuations (Kim et al., 1989). On the other hand, operational flexibility refers to an organization's ability to swiftly adapt and respond to changing market conditions, technological

advancements, and internal or external disruptions (Simchi-Levi et al., 2018). The synergistic effects of a well-executed global diversification strategy and a highly flexible operational framework can significantly influence an SME's market value, thereby influencing its long-term sustainability and competitiveness (Vachani, 1991).

The impact of these strategic dimensions on corporate market value is of paramount importance not only for SMEs themselves but also for policymakers, investors, and other stakeholders in the business ecosystem (Puntilo, 2009). However, the nature and extent of this impact remain relatively underexplored, particularly within the context of SMEs. Most existing research has predominantly focused on larger corporations, thus leaving a notable gap in the understanding of how these factors influence the value creation process in SMEs (Dubey et al., 2021).

This research aims to bridge this gap by investigating the intricate relationship between global diversification strategy, operational flexibility, and corporate market value within the SME sector (Arias-Aranda et al., 2011). By examining the interplay of these factors, the study seeks to provide valuable insights into the mechanisms through which SMEs can enhance their market value in a dynamic and uncertain global business environment (García Manjón, 2020). Through a comprehensive analysis of empirical data and a robust theoretical framework, this research endeavors to contribute to both theoretical advancements in strategic management literature and practical implications for SMEs striving to optimize their performance and competitiveness (Yu et al., 2015).

In the subsequent sections of this paper, we will investigate into the existing literature surrounding global diversification, operational flexibility, and corporate market value. We will also outline the research methodology employed to investigate the relationship between these factors, followed by the presentation and discussion of the empirical findings. By shedding light on the role of global diversification strategy and operational flexibility in shaping corporate market value in SMEs, this study aims to enrich the strategic management discourse and provide actionable insights for SMEs seeking to navigate

the complexities of the global marketplace.

2. THEORETICAL FRAMEWORK

2.1. Global Diversification Strategy

A global diversification strategy can be defined as the strategy that is adopted by the organizations in order to reduce the risk, particularly by investing in more than one country. With the help of diversifying across countries whose economic cycles are not likely to perfectly correlated, the organizations can be able to reduce the variability of the returns (Farrukh et al., 2023; Gaytan et al., 2023). There are three dimensions of global diversification strategy in which it has been divided named as increase market share, reduce uncertainties and minimize risks. By investing in various countries, the organizations can not only increase the share in the market but can also reduce uncertainties as well as risk (Muhammad Turki Alshurideh et al., 2023a).

2.2. Operation's Flexibility

Operations flexibility can be defined as the system's ability to coping with changes. More precisely, it can be explained as that when there are changes in the demand by the customers, it is crucial for the organizations to make changes in the system in order to fulfil required demand (Kassem and Martinez, 2022). In order to do this, there are three dimensions with which it can be done effectively named as internal robustness, external flexibility and planning and controlling. By planning and controlling, identifying the external flexibility and with internal robustness of the management, the organization can ensure the operation flexibility (Aljumah et al., 2021a; El Khatib et al., 2020b).

2.3. Corporate Market Value

Corporate market value can be defined as the highest price that is paid by the buyer and accepted by the seller for the product or share of the organization in the competitive market (Al-Kassem et al., 2022). The higher the willingness of the buyer to pay for the item of the company depicts the higher the market value of the company. There are three dimensions with which the market value of the company is determined named as stock prices, outstanding shares and the size of the company (H M Alzoubi et al., 2022). These three aspects play a pivotal role in

determining the market value of the company (T M Ghazal et al., 2023a).

3. LITERATURE REVIEW

The article conducted by (Abudaqa et al., 2022; AlDhaheri et al., 2023; Gulseven and Ahmed, 2022) explores the international diversification as well as the firm's value in which the study has been conducted in the developing nations (El Khatib et al., 2019; Kassem and Martinez, 2022). The main purpose of this research is to identify the impact of international or global diversification through the investment abroad activities of the MNCs in Malaysia, on their financial performance (Hani Al-Kassem, 2021). In order to fulfil the purpose of the study, the GMM (generalized methods of Moments) technique has been used for better results (Alshurideh et al., 2022; E Tariq et al., 2022). The empirical findings of the study have shown that the decision to invest abroad is positively associated with the impact on the financial performance of MNCs in Malaysia (El Khatib et al., 2020a; Hani Al-Kassem, 2021). However, the results of the study found to be contradictory in terms of risk that it opposes the hypothesis of internationalization risk. An identical kind of view has been found in the study of (Aljumah et al., 2021b; El Khatib and Opulencia, 2015; Mubeen et al., 2022).

The research of (Al-Kassem et al., 2012; A I Aljumah et al., 2022a; Arshad et al., 2023; Varma et al., 2023) examines the effect of diversification in the operational strategy of the companies of capital goods. The main purpose of this article is to view the impact of diversification, particularly in the operations strategy of capital goods companies (Khatib et al., 2016; Nuseir, 2020). In order to do this, the researcher has used qualitative data as well as exploratory research. The results of the study showed that there is a significant impact of diversification in the operations strategy in the companies of capital goods (Al-Kassem, 2017; Nuseira and Aljumahb, 2020).

The research of (Abudaqa et al., 2021; Ahmed et al., 2022; A I Aljumah et al., 2022b) examines the supply chain flexibility. In this article, the authors have shared their views in favour of globalization that it generates flexibility, particularly on the manufacturer's part as well as all other supply chain parties (M T Nuseir and Aljumah, 2020).

With persistent improving opportunities of communication, organizations trade with partners worldwide and execute the activities at the profitable locations. Likewise the same results have been found in the study of (Al-Kassem, 2017) The research conducted by (Alzoubi et al., 2019) explores the product strategy, international diversification as well as firm value (Al-Kassem et al., 2013). In this article, the authors have shown the negative outcomes for the relationship between firm value and international diversification (El Khatib, 2015). In addition to this, they further highlight that the product strategy of MNCs moderates the firm value and ID relationship as it has been measured by Tobin's Q.

3.1. Relationship between Global Diversification and Corporate Market Value

Global diversification refers to the strategy of spreading a company's operations, investments, and business activities across various countries and regions (I. A. Akour et al., 2022; Al-Kassem, 2014; Al-Marroof et al., 2022a) (M T Nuseir and Aljumah, 2020). This strategy aims to reduce risks associated with economic, political, and market-specific fluctuations in any single country by capitalizing on opportunities available in different parts of the world. One of the primary arguments in favor of global diversification is its potential to reduce risk and increase stability. (Aljumah et al., 2023; H. Alzoubi et al., 2022; El Khatib and Ahmed, 2018; Ghazal et al., 2021) suggests that by operating in multiple countries, companies can offset the negative impact of economic downturns or market-specific issues in any one region (Al-Dmour et al., 2023; Aziz et al., 2023; Blooshi et al., 2023; Louzi et al., 2022a). This risk reduction can lead to increased corporate stability, which in turn can contribute to enhanced corporate value. Investors often place a premium on companies that demonstrate stable and consistent performance (Al-Kassem et al., 2012).

According to (Ahmed and Nabeel Al Amiri, 2022; Nadzri et al., 2023; Nuseir, 2021; Sakkthivel et al., 2022), global diversification enables companies to tap into new and potentially lucrative markets. This expansion can lead to increased revenue streams and growth opportunities. As a result, corporate value can rise due to the potential for higher profits and market share (Haitham M. Alzoubi et al., 2022b; Khatib, 2022). However, the

actual value generated from accessing new markets depends on the company's ability to effectively navigate cultural, regulatory, and competitive challenges (Yasir et al., 2022). However, through global diversification, companies can optimize their use of resources and manage costs more effectively (A. Al-Marroof et al., 2021; R. S. Al-Marroof et al., 2021b). This might involve taking advantage of lower production costs in certain regions or accessing specialized resources that are abundant in specific areas (Ahmad Ibrahim Aljumah et al., 2022a). Such efficiencies can positively impact corporate value by improving profit margins and operational performance (Haitham M. Alzoubi et al., 2022a; Amiri et al., 2020; Nuseir and Elrefae, 2022). Moreover, operating in multiple countries can expose a company to various currencies, which can be both an advantage and a risk (Akour et al., 2021; Al-Kassem, 2017; R. S. Al-Marroof et al., 2021a; Alzoubi, H MALhamad et al., 2021). While currency fluctuations can impact financial performance, global diversification can provide a hedge against currency risk (Almasaeid et al., 2022; Muhammad Turki Alshurideh et al., 2022b; Haitham M. Alzoubi et al., 2022c). Companies that effectively manage their currency exposure can protect their profitability and maintain corporate value (Mohammed T. Nuseir and Aljumah, 2020). Operating in diverse markets can lead to exposure to different consumer preferences, business practices, and technological advancements (Mubeen et al., 2022). This exposure can stimulate innovation and creative thinking within a company, potentially leading to the development of new products, services, or processes (E. Khatib et al., 2021). Such innovation can enhance corporate value by providing a competitive edge and fostering long-term growth (Alshurideh et al., 2022; M T Alshurideh et al., 2022; Alzoubi et al., 2020; Yasir et al., 2022). While global diversification offers potential benefits, it also introduces complexities related to managing operations, coordinating activities across different regions, and ensuring consistent quality and brand image (Nuseir et al., 2023). Prior literature acknowledges that these challenges can erode corporate value if they are not effectively managed (T M Ghazal et al., 2023b; Mat Som and Kassem, 2013; Nuseir et al., 2020). The cost of overcoming integration challenges might

outweigh the benefits of diversification.

3.2. Relationship between Operations Flexibility and corporate Market Value

Prior literature suggests that companies with high operations flexibility are better equipped to adapt to changing market conditions and customer preferences (Alshurideh et al., 2020; Alzoubi and Ahmed, 2019; El Khatib et al., 2022). This adaptability can lead to improved customer satisfaction, increased sales, and enhanced market share, all of which contribute to higher corporate market value (Aljumah et al., 2020; Haitham M. Alzoubi et al., 2022e; Emad Tariq et al., 2022). A company's ability to quickly adjust its operations in response to shifts in demand or market trends can positively impact its financial performance and stock valuation (Muhammad Turki Alshurideh et al., 2022a; Louzi et al., 2022b). Operations flexibility can serve as a risk mitigation strategy. When a company has the capability to quickly shift production, sourcing, or distribution in the face of supply chain disruptions, geopolitical uncertainties, or unexpected events, it is better positioned to manage risks (Lee et al., 2023; Mohammed T. Nuseir et al., 2022). Investors often value companies that demonstrate resilience and the ability to navigate challenging circumstances, which can lead to higher corporate market value (M. El Khatib et al., 2021).

As highlighted by (El Khatib and Ahmed, 2020), flexibility in operations can facilitate faster innovation and reduced time-to-market for new products or services. Companies that can bring innovative offerings to the market more quickly are often seen as industry leaders, attracting investor attention and positively influencing market value (Taher M. Ghazal et al., 2023; Mohammed T. Nuseir and Aljumah, 2020). The agility to introduce new products or adapt existing ones based on market feedback can generate competitive advantages and revenue growth (Akour et al., 2023; Bawaneh et al., 2023; M T Nuseir et al., 2022a). In addition, operations flexibility can also contribute to cost efficiency. Companies that can adjust their production levels and supply chain configurations based on demand fluctuations may avoid overproduction or underutilization of resources (El Khatib et al., 2021). Efficient resource allocation and reduced waste can lead to improved profit margins and

ultimately contribute to higher corporate market value (Al-Kassem et al., 2022; Nuseir and Aljumah, 2022). Flexibility in operations is crucial for companies expanding into new markets or dealing with diverse customer preferences (Al-Awamleh et al., 2022; Muhammad Alshurideh et al., 2023; Kurdi et al., 2022). Customizing products or services to local market needs while maintaining operational efficiency requires a certain level of operations flexibility (Haitham M. Alzoubi et al., 2022d; El Khatib and Ahmed, 2019; M T Nuseir et al., 2022b). Successful global expansion can lead to increased revenue streams and potentially higher market value (Aityassine et al., 2022; Al-Marooof et al., 2022b; Haitham M. Alzoubi et al., 2022g; Khan et al., 2022).

The COVID-19 pandemic highlighted the importance of supply chain resilience. Companies with flexible and adaptable supply chains were better able to navigate disruptions caused by the pandemic. (Muhammad Turki Alshurideh et al., 2023b) suggests that supply chain flexibility can positively impact investor perception and corporate market value by assuring a company's ability to meet customer demands even during challenging times (I. Akour et al., 2022; Muhammad Turki Alshurideh et al., 2023b; Khatib et al., 2022). Operations flexibility can influence investor perception of a company's ability to navigate uncertainty and capitalize on emerging opportunities (Ahmad Ibrahim Aljumah et al., 2022b; M Alshurideh et al., 2023; T M Ghazal et al.,

2023c). Companies that are seen as adaptable and innovative may attract more investment interest, leading to increased demand for their shares and potentially higher market value (Al-Kassem et al., 2013; Al-Marooof et al., 2022b; Haitham M. Alzoubi et al., 2022f; El Khatib and Ahmed, 2019).

3.1. Research Problem Statement

There are various factors that impose an impact on the corporate market value or shares, such as the economic factors, financial performance, as well as the supply and demand (Al-Kassem, 2014). The variation in customers demand can only be handled by operations flexibility in the Small and Medium Size Manufacturing Companies (SMEs). On the contrary, in order to have better financial performance, it is crucial for an organization to invest in various products which can be done by using global diversification strategy. Hence, it can be depicted that there is the main role of global diversification strategy and operations' flexibility on corporate market value or share. However, these variables simultaneously have not been researched yet, and hence it is crucial to research the impact of these variables on corporate market value. In this research, this gap is bridged by examining the impact of global diversification strategy and operation's flexibility on corporate market value or share in SMEs.

3.2. Research Model

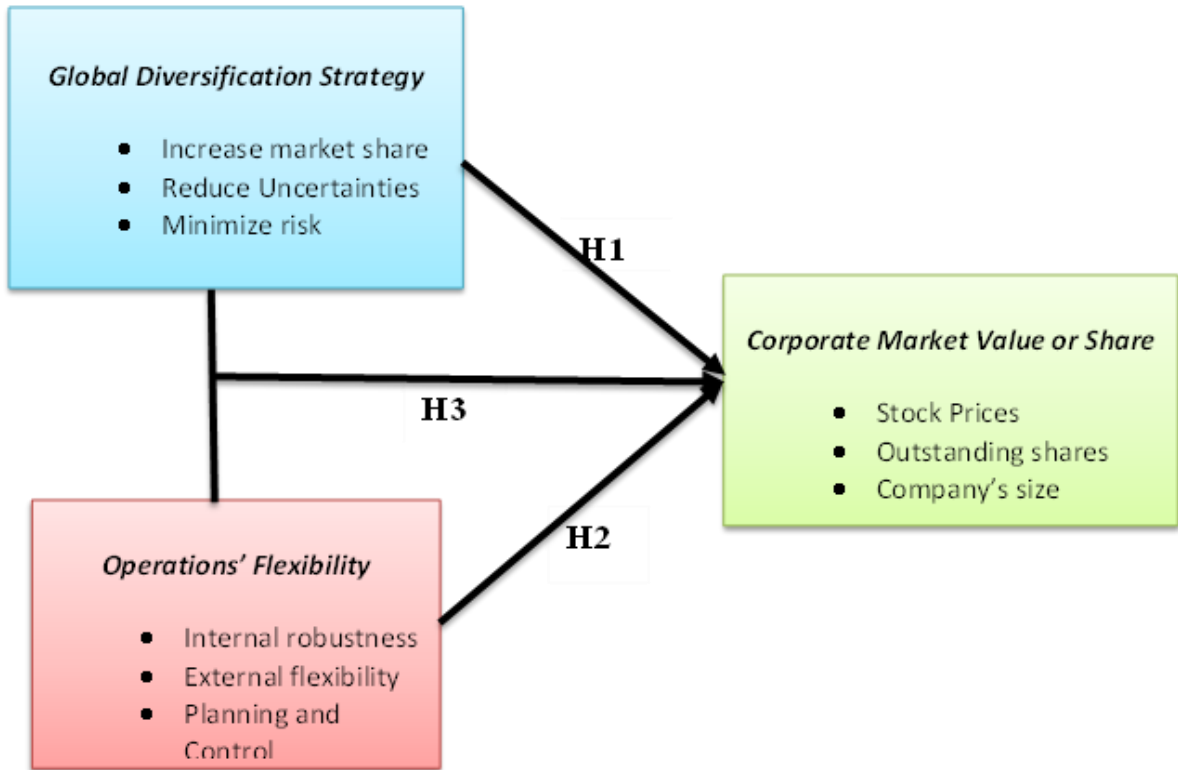


Figure (1)

There are several impact that can results in negative outcomes

3. DATA ANALYSIS

3.1. Impact of global diversification strategy on corporate market value in SME's

Global diversification can lead to increased revenue streams by tapping into new markets with higher demand for products or services. This growth potential can positively impact the firm's market value.

1. **Risk Mitigation:** Diversifying across different markets can reduce the impact of regional economic downturns or geopolitical risks. This risk reduction can lead to increased investor confidence and potentially enhance market value.
2. **Access to Resources:** Expanding internationally can provide SMEs with access to new resources, including raw materials, talent, and technology. This can improve operational efficiency and product quality, positively affecting market value.
3. **Enhanced Competitiveness:** Exposure to different markets can foster innovation and new ideas, leading to improved competitiveness. This can result in higher market share and, consequently, higher market value.

1. **Operational Complexities:** Global diversification can introduce complexities related to managing operations, logistics, and supply chains across different markets. These complexities can lead to increased costs and potentially offset any market value gains.
2. **Cultural and Regulatory Challenges:** Adapting to diverse cultural norms and regulatory environments can be challenging for SMEs. Mismanagement of these aspects could lead to reputational damage or legal issues that negatively impact market value.
3. **Currency Fluctuations:** Operating in multiple countries exposes SMEs to currency risk. Exchange rate fluctuations can impact profits when repatriating earnings, potentially affecting market value.
4. **Resource Allocation:** Managing operations in multiple markets requires allocating resources such as capital and human capital. Misallocation can hinder growth and limit market value.

appreciation.

It's important to note that the impact of global diversification on market value can vary based on factors like the specific industry, the level of diversification, the timing of entry into new markets, the firm's competitive advantage, and the overall global economic environment (Mat Som and Kassem, 2013).

As SMEs often have limited resources compared to larger corporations, the potential impacts of global diversification should be carefully considered and strategically planned. Prior literature suggests that a well-executed and balanced global diversification strategy can lead to improved corporate market value for SMEs, but it also emphasizes the need for thorough risk assessment, strategic planning, and effective implementation.

3.2. Impact of Operation's Flexibility on Corporate Market Value in SME's

Operational flexibility refers to an organization's ability to adapt its processes, resources, and strategies to respond to changing market conditions and demands. Here are some insights from prior literature regarding the impact of operational flexibility on corporate market value in SMEs:

1. **Improved Responsiveness:** Operational flexibility enables SMEs to quickly adjust their production, distribution, and service processes to meet changing customer preferences and market dynamics. This responsiveness can lead to higher customer satisfaction, increased sales, and improved market value.
2. **Risk Mitigation:** Flexible operations can help SMEs manage supply chain disruptions, changes in demand, and other uncertainties more effectively. This resilience can enhance investor confidence and contribute to higher market value.
3. **Innovation and Adaptation:** Flexibility often fosters an environment of innovation and experimentation. SMEs with flexible operations can more readily introduce new products, services, or business models, staying competitive and potentially increasing their market value.
4. **Cost Efficiency:** Operational flexibility can allow SMEs to optimize resource

allocation, reduce excess capacity, and streamline processes. This efficiency can lead to cost savings, improved profitability, and a positive impact on market value.

There are several impact that can results in negative outcomes

1. **Complexity Management:** Introducing operational flexibility may lead to increased complexity in managing processes, resources, and supply chains. This complexity could potentially result in higher operational costs or coordination challenges, affecting market value.
2. **Resource Allocation Challenges:** Achieving operational flexibility might require significant investments in technology, workforce training, and process redesign. Misallocation of resources could strain the SME's financials and negatively influence market value.
3. **Consistency and Brand Image:** Overemphasis on operational flexibility could lead to inconsistencies in product or service quality, which might harm the SME's brand image and customer loyalty, impacting market value.
4. **Short-Term vs. Long-Term Trade-offs:** Striking a balance between short-term flexibility and long-term strategic goals can be challenging. An excessive focus on short-term flexibility might lead to sacrificing long-term market value growth opportunities.

3.3. Strategies for Maximizing Positive Impact

1. **Balanced Approach:** SMEs should carefully balance operational flexibility with stability and core competencies to ensure long-term growth and sustained market value.
2. **Technology Integration:** Leveraging technology, such as data analytics and digital platforms, can enhance operational agility and decision-making, positively influencing market value.
3. **Agile Supply Chains:** Developing agile and resilient supply chains enables SMEs to quickly adapt to disruptions and changes in demand, maintaining customer satisfaction and market value.
4. **Employee Empowerment:** Encouraging

employee involvement and empowerment can lead to more innovative and flexible solutions, positively impacting both operational efficiency and market value.

It's important to consider that the impact of operational flexibility on market value can vary based on industry, competitive landscape, and other contextual factors. SMEs should conduct thorough assessments of their specific situations and capabilities before implementing operational flexibility strategies.

Remember that business research evolves over time, and new insights may have emerged since my last update. I recommend consulting more recent literature for the latest perspectives on the impact of operational flexibility on corporate market value in SMEs.

4. RESULTS AND DISCUSSION

The research findings demonstrated a positive impact of global diversification strategy and operations flexibility on corporate market value.

This research critically examined the complex interplay between these two strategies and their influence on the market value of SMEs. The contemporary business landscape is characterized by rapid globalization and evolving market dynamics. Small and Medium Enterprises (SMEs) often operate under resource constraints, yet they are driven to enhance their corporate market value by leveraging strategic initiatives such as global diversification and operational flexibility.

Global diversification, encompassing international expansion and market penetration, has been a focal point in SME literature due to its potential to drive revenue growth, risk mitigation, and resource acquisition. While the literature suggests positive impacts on market value, it is essential to recognize that the execution of global diversification is not devoid of challenges. SMEs may face hurdles related to cultural adaptation, regulatory compliance, and currency risk. Inherent operational complexities might counteract potential gains, especially if these complexities lead to cost escalations or misallocation of resources.

Moreover, the extent of success in global diversification depends on factors such as industry dynamics, competitive advantage, and the timing of market entry. The effect on market value might also vary over time as the SME adapts

to new markets and optimizes its operations. Hence, a nuanced understanding of how SMEs navigate these challenges and capitalize on opportunities is crucial for comprehending the true impact of global diversification on corporate market value. In addition, operational flexibility, the ability to swiftly adapt to changing market conditions, is another key dimension shaping the market value of SMEs. Literature acknowledges its potential to enhance responsiveness, innovation, and cost efficiency. Yet, there exists a delicate equilibrium between operational flexibility and stability that SMEs must strike. Overemphasis on flexibility might lead to inconsistency in product quality, potentially tarnishing brand image and eroding market value.

Moreover, while operational flexibility holds promise, its successful implementation necessitates substantial investments in technology, employee training, and process optimization. This highlights the trade-offs SMEs must make between short-term costs and long-term market value gains. Furthermore, the relationship between operational flexibility and market value is likely contingent on industry-specific characteristics, as different industries demand varying levels of agility and adaptability.

5. CONCLUSION AND FUTURE RECOMMENDATIONS

In conclusion, the impact of global diversification strategy and operational flexibility on corporate market value in SMEs is a multifaceted subject that requires careful consideration of both positive and negative implications. SMEs must navigate a complex landscape of challenges and opportunities, making strategic decisions that align with their unique capabilities and market conditions. As the business environment continues to evolve, ongoing research is essential to refine our understanding of these dynamics and offer practical insights for SMEs seeking to enhance their market value.

The interplay between global diversification strategy and operational flexibility warrants deeper investigation. The simultaneous pursuit of these strategies may offer synergistic benefits or compound challenges. Research could delve into how the level of operational flexibility impacts the success of global diversification, considering

whether highly flexible SMEs are better equipped to navigate the complexities of international markets.

Furthermore, longitudinal studies are needed to assess how the relationship between these strategies and market value evolves over time. This could shed light on potential lag effects or the emergence of new challenges and opportunities. Additionally, cross-industry analyses could uncover industry-specific nuances, providing a more comprehensive understanding of how SMEs can optimize the interaction between global diversification and operational flexibility.

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Impact of Shared Leadership and Entrepreneurial Orientation on Organizational Learning in Banking Industry

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ABSTRACT

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This study aims to explore the impact of shared leadership on entrepreneurial orientation in Dubai commercial banks, and whether organizational learning ability intercedes the impact of shared leadership on entrepreneurial orientation. Embracing a quantitative research structure, information was gathered by methods for a poll based study of workers in Dubai commercial banks. In view of 330 usable reactions, the outcomes uncovered the critical impact of shared leadership and two of its measurements (uplifting inspiration and scholarly incitement) on entrepreneurial orientation. Two other measurements (admired impact and individualized thought) didn't add to entrepreneurial orientation. Moreover, the outcomes demonstrated that shared leadership significantly affects organizational learning ability, and that organizational learning capacity thus influences entrepreneurial orientation. The discoveries affirm that organizational learning capacity completely intervenes the impact of shared leadership on entrepreneurial orientation. Various suggestions are propelled, the generally significant of which is that banks ought to improve and build up administrators' shared traits by preparing them on the best way to manage workers so as to expand their entrepreneurial orientation. Banks ought to additionally think about improving their learning ability, as this assumes a huge role in upgrading and supporting the impact of shared leadership characteristics on entrepreneurial orientation.

1. INTRODUCTION

Given the expanding difficulties of furious rivalry, monetary globalization, and innovative turn of events, advancement in endeavors' items and tasks turned into a significant factor for association achievement. To stay aware of the exceptionally evolving condition, associations need to adjust the entrepreneurial orientation practices, for example, imaginativeness, proactiveness, and chance taking (Chepchirchir et al., 2018). The banking condition is considered exceptionally serious, especially regarding making new items and administrations, and quick changes in client requests have made

developing rivalry in the part. In this manner, banks mechanized and built up their capacities and tasks and utilized web also, portable applications to offer creative items and administrations to the clients (Aslam et al., 2020). To improve their entrepreneurial practices in the market and their exhibition, banks have needed to concentrate on encouraging and upgrading their scholarly capital through shared leadership and advancing toward information and learning as leaders are responsible in accomplishing vital association's objectives and for creating the best items with

proficient asset use (Chen and Zhang, 2023; Grinerud et al., 2021).

Consequently, it is critical to look at the impact of shared leadership on entrepreneurial orientation and organizational learning (Goldman, 2012). Numerous examinations have analyzed the impacts of shared leadership on entrepreneurial orientation (Monteiro et al., 2017), however just a couple have researched the impact of shared leadership on organizational learning ability, or of organizational learning capacity on entrepreneurial orientation (Kazmi and Naaranoja, 2015). While these examinations tried the equal relationship between the two factors, the current investigation overcomes an issue by looking at the interceding role of organizational learning in how shared leadership influences entrepreneurial orientation (Alsughayir, 2016).

As banks face stiff competition, they should have the option to roll out significant improvements that incorporate expanding their levels of innovativeness and proactiveness by building up their leadership, representative learning and information sharing what's more, by advancing an imaginative culture

2. THEORETICAL FRAMEWORK

2.1. Shared Leadership Dimensions

Shared leadership refers to the leaders who move adherents to progress in the direction of shared objectives, characterize an appealing vision and

Table 1: Shared Leadership Dimensions

objectives, challenge representatives to accomplish them, assemble trust and certainty, and spur workers to think and take care of issues in new manners (Martin et al., 2018). This has been estimated by reference to the components of idealized influence, inspirational motivation, intellectual stimulation and individualized consideration. Idealized influence is characterized as far as a pioneer's capacity to urge representatives to have faith in their capacities to accomplish characterized objectives, go about as a good example, center around morals, show pride and fabricate regard and common trust (Farrukh et al., 2023; Gaytan et al., 2023).

Inspirational motivation can be characterized as the way toward characterizing an engaging and appealing vision, provoking workers to accomplish them, and urge them to accomplish more than anticipate. Intellectual stimulation alludes to leaders who move and spur workers to reexamine in better approaches to take care of existing issues, welcome new thoughts and approaches to do assignments and bolster the advancement and innovativeness and change of their representatives. At last, individualized consideration alludes to leaders who show worry for their individual needs, allocate assignments and give assets as per their capacities, and spotlight on workers' turn of events.

Dimension	Measure	References
Idealized Influence	Manager instills pride in others for being associated with him.	(Kim and Han, 2019)
	Manager goes beyond self-interest for the good of the group.	
	Manager acts in ways that build others' respect for him.	
Inspirational Motivation	Manager articulates a compelling vision of the future.	
	Manager talks enthusiastically about what needs to be accomplished	
	Manager talks optimistically about the future.	
Intellectual Stimulation	Manager gets others to look at problems from many different angles.	
	Manager re-examines critical assumptions to question whether they are appropriate.	
	Manager seeks different perspectives when solving problems.	

2.2. Entrepreneurial Orientation Dimensions

Entrepreneurial orientation is the capacity of the

association to make new items and administrations, embrace new advances and

inventive procedures, look for new market openings and put resources into risky undertakings with high return. Entrepreneurial orientation is estimated on three measurements (innovativeness, proactiveness and risk taking) (Aljumah et al., 2021a; El Khatib et al., 2020b). Innovativeness is the readiness of the association to be the first to make new items and administrations grow new procedures and practices and utilize new innovations.

Proactiveness alludes to anticipating and seizing new market openings, giving new items and Table 2: Entrepreneurial Orientation Dimensions administrations in front of one's rivals, reacting to contenders activities and being the first in satisfying business sector needs (T M Ghazal et al., 2023a). Risk taking alludes to an association's readiness to convey its assets in new ventures to accomplish high advantages and returns in spite of a high chance of disappointment.

Dimension	Measure	References
Innovativeness	The bank is the first provider of new products and services for clients.	(Alsughayir, 2016)
	Bank always develops new processes	
	Bank emphasizes on research and development.	
Proactiveness	Bank is the first to identify clients' needs.	
	Bank initiates actions to deal with competitors.	
	Bank pursues market opportunities.	
Risk Taking	Bank's environment requires boldness to achieve objectives.	
	Bank invests in high risk projects	
	Bank utilizes risky market opportunities	

2.3. Organizational learning Dimensions

Organizational learning capacity is characterized as the arrangement of organizational capacities, qualities, abilities that permit association to process knowledge and encounters, transfer and store them in manners that make them accessible for workers. This can be estimated as far as managerial commitment, system perspective, openness and experimentation and knowledge transfer and integration (Abudaqa et al., 2022; AlDhaheri et al., 2023; Gulseven and Ahmed, 2022). Managerial commitment alludes to the board acknowledgment of the significance of organizational learning, making a situation that advances knowledge transfer and integration, gaining new assets to roll out any improvements important to help and advance learning in the association . System perspective implies that all people and offices are cooperating and have a mutual and shared objectives; everyone understands his/her job in accomplishing these

objectives and transferring knowledge between them (Kurdi et al., 2022a). Openness and experimentation can be characterized as the eagerness to attempt new thoughts, inviting new and inventive answers for the current issues and setting up an innovative culture that permits representatives to gain from past disappointments so as to maintain a strategic distance from them later on (Al-Dmour et al., 2023; Aziz et al., 2023; Blooshi et al., 2023; Louzi et al., 2022a). Knowledge transfer and integration alludes to the capacity to disperse thoughts, knowledge and encounters among the association's specialties and profiting by past errors to maintain a strategic distance from them later on

Table 3: Organizational learning Dimensions

Dimension	Measure	References
Managerial Commitment	Manager involves staff in important decision-making processes.	(Duan, 2017)

	Employee learning is an important issue
	Employee learning capability is considered a key factor in this bank.
System Perspective	Employees have generalized knowledge regarding this firm's objectives.
	Bank's departments are interconnected, working together in a coordinated fashion.
	All bank departments are well aware of their contribution in achieving overall objectives.
Openness and Experimentation	Bank promotes experimentation and innovation as a way of improving the work process.
	Bank is keen to benefit from other banks experience by adopting their practices and techniques
	Experiences and ideas provided by advisors and customers are considered a useful instrument for this bank's learning.

3. OPERATIONAL DEFINITIONS

3.1. Shared Leadership

Shared leadership is a leadership style that comprehensively appropriates leadership duty, to such an extent that individuals inside a group and association lead one another. It has as often as possible been contrasted with flat leadership, dispersed leadership, and aggregate leadership and is most appeared differently in relation to increasingly customary "vertical" or "progressive" leadership that lives prevalently with a person rather than a gathering (Aljumah et al., 2021b; El Khatib and Opulencia, 2015; Mubeen et al., 2022).

3.2. Entrepreneurial orientation

Entrepreneurial orientation is a firm-level key orientation which catches an association's system making rehearses, administrative methods of reasoning, and firm practices that are entrepreneurial in nature. Entrepreneurial orientation has gotten one of the most settled and inquired about develops in the business literature. A general shared characteristic among past conceptualizations of EO is the incorporation of

innovativeness, proactiveness, and risk taking as center characterizing angles or measurements of the orientation. EO has been demonstrated to be a solid indicator of firm execution with a meta-investigation of past research showing a connection in extent generally equal to the solution of taking dozing pills and improving sleep. Still, some exploration has contended that EO doesn't upgrade the presentation for all firms (Ahmed and Nabeel Al Amiri, 2022; Nadzri et al., 2023; Nuseir, 2021; Sakthivel et al., 2022).. Instead, EO can be contended not to be a basic exhibition upgrading trait but instead upgrading in the event that it is applied under the correct conditions of the firm. At times, EO can even be disadvantageous for firms, if the circumstance of the firm doesn't fit with applying EO. Various circumstances (otherwise called setting) can be the condition that the firm is arranged inside or inner circumstances, for example, structure and methodology (Abudaqa et al., 2021; Ahmed et al., 2022; A I Aljumah et al., 2022a).

3.3. Organizational Learning

Organizational learning is the procedure by which

an association develops itself after some time through picking up knowledge and utilizing that experience to make information (Haitham M. Alzoubi et al., 2022a; Amiri et al., 2020; Nuseir and Elrefae, 2022). The information made is then moved inside the association.

Organizational learning is significant for all organizations, as the creation, maintenance and move of information inside the association will fortify the association all in all. When taking a gander at the meaning of organizational learning, there are three fundamental activities to consider:

- Imagine
- Act
- Reflect

A thought or item is imagined, the organization makes the thought or item, at that point the organization must reflect. It is through this impression of both procedure and result that learning will happen (Alshurideh et al., 2020; Alzoubi and Ahmed, 2019; El Khatib et al., 2022). Notwithstanding those activities, there are three key procedures that happen in organizational learning:

- Information creation
- Information maintenance
- Information move

It is significant that the association guarantees that the information picked up from this procedure is held inside the association and is transferable. Information held by people can't be appropriately held, as people can leave, taking their insight with them. Inserted information can be kept inside the association and imparted to all people.

3.4. Banking Industry in UAE

The UAE has a divided financial division. A sum of 46 local and remote banks is working in the UAE. The financial segment is to some degree secured; be that as it may, outside banks are getting progressively dynamic in the economy. The financial division is outfitting to address worldwide difficulties by embracing Basel II banking gauges. The huge five banks rule the financial division and the entirety of the huge ten banks are monetarily stable. The financial part is very much overseen by the UAE Central Bank which is a positive factor for the nation's development and globalization endeavors on the grounds that the UAE banking area has developed definitely and is preparing for worldwide rivalry.

4. LITERATURE REVIEW

4.1. Relationship between Shared Leadership and Entrepreneurial Orientation

The results of the first main hypothesis show that shared leadership significantly affects the entrepreneurial orientation of commercial banks, which agrees with past research (Mat Som and Kassem, 2013) showing that the degree of advancement and achievement of entrepreneurial orientation identifies with the nearness of shared leaders. The clarification for this finding may identify with the way that shared leaders urge workers to think in innovative manners, create new thoughts regarding existing practices and items and urge them to change. This upgrades and reinforces their entrepreneurial perspectives and, as a result, the entrepreneurial practices of associations. (Alzoubi et al., 2019) likewise concurred about the suitability of shared leadership and its significant role in the entrepreneurial condition.

Leaders in entrepreneurial firms utilize their abilities to help and build up the entrepreneurial capacities of representatives, ensure inventive thoughts that undermine the current plan of action, find open doors for the association to adventure and join enterprise and business procedure (Lee et al., 2023; Mohammed T. Nuseir et al., 2022). Leaders' capacity to distinguish an unmistakable and engaging vision and crucial causes workers to accomplish organizational objectives, and support for imagination is exceptionally identified with the entrepreneurial methodologies of innovativeness, proactiveness and risk taking (M. Alshurideh et al., 2022; M T Alshurideh et al., 2022; Alzoubi et al., 2020; Yasir et al., 2022). According to the sub-theories, the outcomes demonstrate that glorified impact has no noteworthy impact on banks' entrepreneurial orientation. This isn't steady with different past investigations that announced the significant impact of admired effect on entrepreneurial orientation.

In spite of the fact that banks' leaders fabricate trust with their workers and show alluring attributes, they are wasteful to influence entrepreneurial perspectives (Akour et al., 2023; Bawaneh et al., 2023; M T Nuseir et al., 2022a). This may allude to the trust the leaders work with their representatives which gives representatives more

opportunity when playing out their assignments and carrying out their responsibilities without being advised to do as such. The present outcomes additionally show that moving inspiration has the best impact on entrepreneurial orientation of banks; this may allude to the bank heads' qualities and practices, where rousing leaders challenge workers to satisfy exclusive requirements, demonstrate a readiness to accomplish future objectives and carry significance to the approaching task (Aityassine et al., 2022; Al-Marouf et al., 2022b; Haitham M. Alzoubi et al., 2022f; Khan et al., 2022)(Yasir et al., 2022). Likewise, leaders who characterize a typical and alluring vision for representatives, set an elevated level of desire for every person and persuade them regarding their capacity to accomplish their objectives can energize creative and proactive practices among representatives, invigorating them to create items furthermore, administrations and look for showcase openings that offer clients better help (I. Akour et al., 2022; Muhammad Turki Alshurideh et al., 2023c; Khatib et al., 2022).

Leaders with the scholarly incitement trademark are bound to modify existing working techniques, distinguish new critical thinking approaches for workers, adjust the organizational procedures and frameworks to have a fantastic future, depend workers to take duties and increment the degree of their dedication (Muhammad Turki Alshurideh et al., 2022a; Louzi et al., 2022b). This can assemble worker advancement and experimentation, which is significant in advancing entrepreneurial orientation inside the association. The current discoveries were conflicting with past examinations (Mubeen et al., 2022) (Nuseir et al., 2021) demonstrating that individualized thought is wasteful to influence entrepreneurial orientation. This might be ascribed to the components utilized by banks in choosing regulatory leaders and the attributes of leaders. Leaders were wasteful to think about the various needs, capacities and wants of every part that influence their degree of strengthening and duty to improve banks' entrepreneurial orientation,

H01: There is no effect of shared leadership on entrepreneurial orientation

4.2. Relationship between Shared Leadership and Organizational Learning

Findings related to the second main hypothesis

indicate that shared leadership has a huge impact on organizational learning ability (H M Alzoubi et al., 2022). This finding lines up with different past investigations city (Al-Kassem et al., 2012; A I Aljumah et al., 2022b; Arshad et al., 2023; Varma et al., 2023) that exhibited the significance of shared leaders in upgrading and supporting organizational learning abilities. This will in general help the presumption that a shared leadership style inspects, modifies and manages frameworks, building them in manners that share and appropriate information through organizational learning. This style of leadership is committed to and empowers organizational learning, giving everything expected to confront the hindrances and troubles that may upset this learning (T M Ghazal et al., 2023b; Mat Som and Kassem, 2013; Nuseir et al., 2020).

This finding is additionally steady with Nafei et al. (2012), who indicated that shared leaders help individuals to achieve the undertakings relegated to them, tune in to their requirements and wants, welcome and prize their new plans to unravel issues and try to create workers by using their forces to improve and create open doors for organizational learning (Muhammad Turki Alshurideh et al., 2023b). The current discoveries additionally uncovered that all the measurements that establish shared leadership apply a huge impact on organizational learning ability in banks (El Khatib et al., 2021). Comparable to admired impact and its impact on organizational learning ability, this may owe to the way that shared leaders endeavor to assemble regard between workers, urge their adherents to use assets, utilize the accessible devices and strategies to accomplish interior and outer data and assume liability for their choices (Almasaeid et al., 2022; Muhammad Turki Alshurideh et al., 2022b; Haitham M. Alzoubi et al., 2022c).

This may likewise be clarified by the capacity of shared leaders to urge representatives to trust in their capacities to accomplish objectives. The critical impact of moving inspiration on organizational learning capacity is predictable with (Al-Awamleh et al., 2022; Muhammad Alshurideh et al., 2023; Kurdi et al., 2022b). They contended that leaders' capacity to urge devotees to take an interest in the future vision, crucial procedures of the association, to accomplish targets and demonstrate an inspirational mentality to the

future and to help inventiveness and receptiveness improves learning capacities and in this way the association's capacity to gain new information and to change (El Khatib and Ahmed, 2020). With respect to scholarly incitement, which has the most noteworthy impact on learning ability, it appears to be evident that learning requires change, which in turns requires shared leadership.

Through scholarly incitement, leaders urge workers to take care of issues in new ways and invigorate them to discover new and inventive arrangements, inciting conduct changes to encourage organizational learning, empowering the advancement of mental models and supporting organizational learning (Taher M. Ghazal et al., 2023; Mohammed T. Nuseir and Aljumah, 2020). The discoveries for the last speculation show that individualized thought affects learning ability in banks. This may show that leaders center around making a strong condition by understanding representatives' needs and helping them to satisfy those necessities by assigning position to assist them with developing themselves through close to home difficulties (Ahmad Ibrahim Aljumah et al., 2022b; M Alshurideh et al., 2023; T M Ghazal et al., 2023c). By supporting advancement, tolerating new and imaginative thoughts and demonstrating ability to change, leaders can make a fitting vision for learning.

H02: There is no effect of shared leadership on organizational learning

4.3. Relationship between Entrepreneurial Orientation and Organizational Learning

The results according to the third hypothesis show that banks' organizational learning capacity has a huge impact on entrepreneurial orientation. This shows innovativeness, proactiveness and risk-taking practices are identified with banks' capacity to fabricate a learning society for representatives, secure and move information, make new thoughts and stay open to advertise openings (I. A. Akour et al., 2022; Al-Kassem, 2014; Al-Marroof et al., 2022a). This outcome is steady with past examinations (Haitham M. Alzoubi et al., 2022d; El Khatib and Ahmed, 2019; M T Nuseir et al., 2022b) affirming that organizational learning ability has a constructive outcome on entrepreneurial orientation.

The explanation basic this impact is that organizational learning capacity causes firms to

improve and build up their imaginative and proactive practices by building up the capacity to procure and move new information and making new items and thoughts (El Khatib et al., 2020a; Hani Al-Kassem, 2021). In expansion, the way toward using assets to prepare and teach representatives and build up their aptitudes is an antecedent of entrepreneurial exercises. Organizational learning ability underpins entrepreneurial exercises, offering people chances to devise and recharge their practices and procedures (Haitham M. Alzoubi et al., 2022b; Khatib, 2022). As to the sub-speculations, the outcomes for administrative duty indicated it has no impact on entrepreneurial orientation. This diverges from the discoveries of (M Alshurideh et al., 2022; E Tariq et al., 2022), which inferred that when the board focuses on the significance of learning, underpins information obtaining and move, it is bound to impact the association's capacity to make new items and rehearses and to look for showcase openings. In any association, whatever the business, the board assumes a basic job in initiating entrepreneurial orientation and a learning atmosphere by tending to any boundaries or hindrances (A. Al-Marroof et al., 2021; R. S. Al-Marroof et al., 2021b).

The connection between administrative duty and entrepreneurial orientation is certain in light of the fact that the last relies for the most part upon the previous. With respect to the jumble between the current examination and the aftereffects of different investigations, this can be credited to individual elements among the investigation members (Nuseira and Aljumahb, 2020). Additionally, the way of life can add to this outcome as Middle Easterner culture will in general have a high vulnerability evasion which implies the sentiment of being undermined or scared by unforeseen circumstances (Akour et al., 2021; Al-Kassem, 2017; R. S. Al-Marroof et al., 2021a; Alzoubi, H MALhamad et al., 2021), this may influence representatives' strengthening. The executives will in general stay away from vulnerability in banks, by setting rules, to keep up their monetary position and maintain a strategic distance from budgetary misfortunes and risks. Second, the outcomes show that framework viewpoint impacts banks' entrepreneurial orientation.

This was clarified by (E. Khatib et al., 2021), who saw associations as an arrangement of shared

mental models whose principle task is to procure, disseminate and share information. This shows organizational learning is more than just singular learning; rather, it has an aggregate nature that requires a typical language to share and incorporate data. As all bank individuals and offices are cooperating toward a particular objective, which identifies with advancement and innovativeness. It is likewise evident that transparency and experimentation significantly affects banks' entrepreneurial orientation. This was affirmed by (Aljumah et al., 2020; Haitham M. Alzoubi et al., 2022e; Emad Tariq et al., 2022), who showed that endeavors that investigation to create items and improve the executives are bound to ingest changes and to receive new advancements and methodology.

This may likewise mirror the transparency of banks to the outside condition in the quest for new thoughts and answers for existing and future issues. This is probably going to improve laborers' information on new thoughts and natural changes identified with client items and administrations and to innovative turns of events and practices. At long last, the current outcomes demonstrate that information move and mix bolster banks' entrepreneurial orientation. (Muhammad Turki Alshurideh et al., 2023a) exhibited that strategies for sharing exercises learned in organizational practices among divisions and groups are a key factor in innovativeness. This might be on the grounds that information sharing among representatives and offices is viable; banks make a point to move information identified with past disappointments so as to keep away from errors, and data about new thoughts and workers' encounters can be helpful for others.

H03: There is no effect of Entrepreneurial Orientation on Organizational Learning

4.4. Relationship between Shared Leadership, Entrepreneurial Orientation and Organizational Learning

The results show that the impact of the shared leadership on organizational learning ability is huge at 0.05 and the estimation of effect is 0.592 and the impact of organizational learning capacity on entrepreneurial orientation is huge at 0.05 and the estimation of effect is 0.906. Furthermore, the impact of shared leadership on entrepreneurial orientation isn't huge at 0.05 just as the estimation

of effect has been diminished in the wake of taking into account the middle person variable. This shows the organizational learning capacity assumes the total intervention job. Appropriately, the absolute impact can be determined as underneath:

$$- 0.077 + (0.592 * 0.906) = 0.459.$$

Besides, the outcomes in the above uncover that the estimation of X2 is 121.135 and it is huge at ($\alpha \leq 0.05$). Likewise, the Minimum error esteem (X2/DF) is 3.954 which show that the harmonization level is acceptable; where (Arbuckle, 2008) expressed that the harmonization level range 1 to 5. Also, the GFI which speak to the harmonization of value is 0.940 and this worth is near one (Full similarity) (Mohammed T. Nuseir and Aljumah, 2020). In such manner, the estimation of CFI is 0.966 and it is likewise near one. Besides, the outcome above shows that the estimation of RMSEA is 0.077 is near zero (Hair et al., 2010, p. 116). The analysts utilized AMOS and SPSS projects to test the mediating impact of organizational learning capacity on shared leadership impacts on entrepreneurial orientation so as to guarantee and affirm that the mediating variable assumes a completely mediating job. For a superior comprehension, the impact of shared leadership on entrepreneurial orientation will be explored with the nonattendance of organizational learning ability (Nuseir et al., 2023). This impact ought to be measurably noteworthy. At that point, the impact of shared leadership on entrepreneurial orientation will be explored with the nearness of organizational learning capacity. To decide the degree of intervention impact, if the impact of shared leadership on entrepreneurial orientation is huge and decreased, at that point, organizational learning ability is somewhat mediating the impact of shared leadership on entrepreneurial orientation (El Khatib et al., 2019; Kassem and Martinez, 2022).

On a similar hand, if the impact of shared leadership is decreased yet not critical. At that point, organizational learning ability is completely mediating the impact of shared leadership on entrepreneurial orientation (M. El Khatib et al., 2021). The results show the way of the impact of shared leadership on organizational learning ability and entrepreneurial orientation. It has been discovered that shared leadership has a critical impact on organizational learning ability where the

coefficient esteem is 0.6432. This can be seen at Path (A). With respect to impact of organizational learning ability on entrepreneurial orientation, it tends to be contended that organizational learning capacity significantly affects entrepreneurial orientation where the coefficient esteem is 0.7087. This can be seen at Path (B). Be that as it may, so as to decide if organizational learning capacity has a mediating job in the impact of shared leadership on entrepreneurial orientation, these rules must be met (Al-Kassem et al., 2022; Nuseir and Aljumah, 2022); the impact of shared leadership on organizational learning ability must be huge, the impact of organizational learning capacity on entrepreneurial orientation must be huge and the impact of shared leadership on entrepreneurial orientation must be critical and the quality of the impact must be decreased (El Khatib et al., 2019; Kassem and Martinez, 2022).

The results of the mediating role analysis of organizational learning ability using AMOS and SPSS demonstrate that organizational learning capacity assumes a completely mediating role between shared leadership and entrepreneurial orientation, changing over the immediate impact of shared leadership on entrepreneurial orientation into a roundabout impact (El Khatib, 2015). This shows the normal difference clarified in the nearness of organizational learning ability is higher than without it. This implies organizational learning ability upgrades the shared leadership attributes by making a culture that centers around change and inventiveness; getting and moving information and encounters between bank offices and putting away data to dodge past disappointments; urging workers to make new thoughts and afterward fulfilling them; improving workers learning capacities, abilities and preparing; and finding inventive answers for issues and trying different things with new thoughts, innovations and change, as entrepreneurial orientation relies upon all the measurements of organizational learning capacity (M T Nuseir and Aljumah, 2020). It likewise relies upon new and inventive thoughts, securing new information and

4.6. Research Model

making a culture that supports change. (Aljumah et al., 2023; Haitham Alzoubi et al., 2022; El Khatib and Ahmed, 2018; Ghazal et al., 2021) exhibited that effective entrepreneurial firms have learning capacities. What's more, examining the external condition gives banks an extraordinary favorable position, by utilizing the procured information in making advancement and improving the organizational structure and procedures. Banks have started to give their clients imaginative items, this expects firms to screen the external condition and afterward convert what they have realized into methodical information (Ahmad Ibrahim Aljumah et al., 2022a).

H0.4: Organizational learning capability has no mediating role in the effect of shared leadership on entrepreneurial orientation.

4.5. Research problem statement

This research expects to explore the impact of Shared leadership on Entrepreneurial orientation and Organizational learning in Commercial Banks situated in Dubai, and whether organizational learning intervenes the impact of Shared leadership on entrepreneurial orientation. This exploration is led to exhibit the impact of shared leadership on Organizational learning through Entrepreneurial orientation, where this part is exceptionally significant and serious.

As banks face solid rivalry, they should have the option to roll out significant improvements that incorporate expanding their levels of innovativeness and proactiveness by building up their leadership, worker learning and information sharing what's more, by advancing an inventive culture. In like manner, this exploration is directed to respond to the accompanying inquiry, how shared leadership influences entrepreneurial orientation as intervened by organizational learning ability.

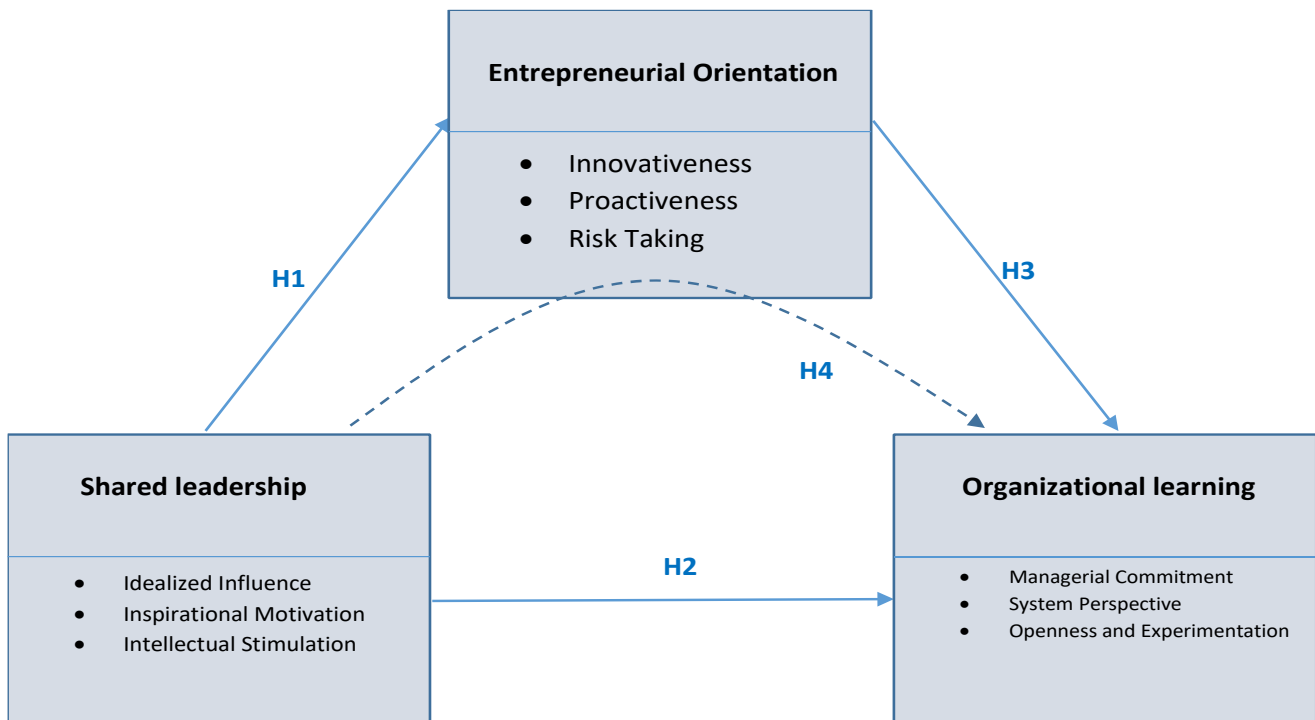


Figure (1)

4.7. Research Hypotheses

The principal and sub-hypotheses are as follows.

First Main Hypothesis

H01: There is no effect (at the level $\alpha \leq 0.05$) of shared leadership on entrepreneurial orientation.

Sub-hypotheses

H01.1: There is no effect (at the level $\alpha \leq 0.05$) of idealized influence on entrepreneurial orientation

H01.2: There is no effect (at the level $\alpha \leq 0.05$) of inspirational motivation on entrepreneurial orientation.

H01.3: There is no effect (at the level $\alpha \leq 0.05$) of intellectual stimulation on entrepreneurial orientation.

H01.4: There is no effect (at the level $\alpha \leq 0.05$) of individualized consideration on entrepreneurial orientation.

Second Main Hypothesis

H02: There is no effect (at the level $\alpha \leq 0.05$) of shared leadership on organizational learning

Sub-hypotheses

H02.1: There is no effect (at the level $\alpha \leq 0.05$) of idealized influence on organizational learning.

H02.2: There is no effect (at the level $\alpha \leq 0.05$) of inspirational motivation on organizational learning.

H02.3: There is no effect (at the level $\alpha \leq 0.05$) of intellectual stimulation on organizational learning.

H02.4: There is no effect (at the level $\alpha \leq 0.05$) of individualized consideration on organizational learning.

Third Main Hypothesis

H03: There is no effect (at the level $\alpha \leq 0.05$) of organizational learning capability on entrepreneurial orientation.

Sub-hypotheses

H03.1: There is no effect (at the level $\alpha \leq 0.05$) of managerial commitment on entrepreneurial orientation.

H03.2: There is no effect (at the level $\alpha \leq 0.05$) of system perspective on entrepreneurial orientation.

H03.3: There is no effect (at the level $\alpha \leq 0.05$) of openness and experimentation on entrepreneurial orientation.

H03.4: There is no effect (at the level $\alpha \leq 0.05$) of

knowledge transfer and integration on entrepreneurial orientation.

Fourth Main Hypothesis

H0.4: Organizational learning capability has no mediating role in the effect of shared leadership on entrepreneurial orientation.

5. METHODOLOGY

This is a qualitative research that used a mixed method approach with descriptive and exploratory method. Methodology is important for every research activity as it provides a systematic design framework through which target research can be completed in a more effective and systematic manner. This research employed to gather secondary data from previous research literature, books, journals and online data source to make more authentic and prove the study hypothesis. The developed hypothesis were critically examined through deep analysis of prior studies to conclude the research objectives.

1-Managers ought to include staff and different representatives in significant dynamic procedures of the bank.

Strongly Agree 2) Agree 3) Neutral 4) Disagree 5) Strongly Disagree

2-Employee learning ability is viewed as a noteworthy factor in this bank.

Strongly Agree 2) Agree 3) Neutral 4) Disagree 5) Strongly Disagree

3-All offices in this bank are very much aware of their commitment in accomplishing general goals of this bank.

Strongly Agree 2) Agree 3) Neutral 4) Disagree 5) Strongly Disagree

4-Bank advances experimentation and development as a method for improving the work procedure.

Strongly Agree 2) Agree 3) Neutral 4) Disagree 5) Strongly Disagree

5-Experiences and thoughts gave by consultants and clients are viewed as a helpful instrument for this present bank's learning.

Strongly Agree 2) Agree 3) Neutral 4) Disagree 5) Strongly Disagree

5.1. Population and Sample

The population of this study is Commercial Banks in UAE.

The size of population: there are 802 Commercial Banks in UAE. Since we are unable to reach all the companies, we will take a sample (the sample type is clustered: means that we will only choose the banks in Dubai).

The sample will be Commercial Banks in Dubai which are 291.

The primary data collection instrument is an empirical survey (or questionnaire).

The unit of analysis (respondents): The questionnaire was distributed to all (middle and upper level) managers Commercial Banks in Dubai, because they are qualified enough to understand the study variables and able to answer the questionnaire.

5.2. Data Collection method (Questionnaire)

6-Managers impart pride in others for being related with them.

Strongly Agree 2) Agree 3) Neutral 4) Disagree 5) Strongly Disagree

7-Manager acts in manners that assemble others' regard for him.

Strongly Agree 2) Agree 3) Neutral 4) Disagree 5) Strongly Disagree

8-Managers discuss eagerly about what should be cultivated

Strongly Agree 2) Agree 3) Neutral 4) Disagree 5) Strongly Disagree

9-Managers reconsider basic suspicions to address whether they are fitting or not

Strongly Agree 2) Agree 3) Neutral 4) Disagree 5) Strongly Disagree

10-Managers get others to take a gander at issues from various points.

Strongly Agree 2) Agree 3) Neutral 4) Disagree 5) Strongly Disagree

11-The bank is the primary supplier of new items and administrations for customers.

Strongly Agree 2) Agree 3) Neutral 4) Disagree 5) Strongly Disagree

12-Bank is consistently growing and will continue to introduce new procedures
Strongly Agree 2) Agree 3) Neutral 4) Disagree 5) Strongly Disagree

13-Bank is accentuating on innovative work.
Strongly Agree 2) Agree 3) Neutral 4) Disagree 5) Strongly Disagree

14-Banks are the first ones to distinguish customers' needs.
Strongly Agree 2) Agree 3) Neutral 4) Disagree 5) Strongly Disagree

15-Bank has started activities to manage contenders.
Strongly Agree 2) Agree 3) Neutral 4) Disagree 5) Strongly Disagree

16-Bank seeks after market openings.
Strongly Agree 2) Agree 3) Neutral 4) Disagree 5) Strongly Disagree

17-Bank's condition expects strength to accomplish goals.
Strongly Agree 2) Agree 3) Neutral 4) Disagree 5) Strongly Disagree

6. DISCUSSION

This examination broke down the impact of shared leadership on entrepreneurial orientation as intervened by organizational learning ability by gathering information from representatives in Dubai commercial banks. To make new items for clients, beat contenders, accomplish first mover status in the market and stay up with the latest with natural changes, banks need to take part in entrepreneurial practices. The primary goal of this examination was to look at the impact of shared leadership on entrepreneurial orientation. As a rule, the outcomes indicated that shared leadership affects a bank's entrepreneurial orientation. This finding lines up with those from different past examinations (Zhu et al., 2018) which showed the significant pretended by a shared style of leadership in improving a company's entrepreneurial orientation.

Shared leaders are known for their capacity to animate representatives to accomplish their objectives, building trust between them, rousing them to accomplish more than anticipated and supporting them to seek after and accomplish an engaging vision. In light of the consequences of the current examination, it very well may be reasoned that two components of shared leadership, helpful inspiration and scholarly incitement, significantly affect banks' entrepreneurial orientation. This demonstrates shared leadership is probably going to urge workers to create and upgrade their own exhibition and to surpass their own desires, which thus influences the entrepreneurial orientation of the banks. In any case, the outcomes demonstrated that admired impact and individualized thought

have no impact on banks' entrepreneurial orientation.

The second goal of the current examination was to research the impact of shared leadership on organizational learning ability. The discoveries propose that shared leadership has a critical impact on organizational learning ability regarding four measurements: admired impact, rousing inspiration, scholarly incitement and individualized thought. These discoveries are reliable with those of past examines (Martin et al., 2018), and associations with shared leaders are thought to have a number of points of interest. These leaders fabricate associations with representatives to urge them to buckle down. They make progress, build up their supporters' exhibition and urge them to redesign their presentation and to accomplish bunch objectives. Shared leaders have a huge impact in initiating learning, and usage of information; they encourage organizational learning by prompting, by recognizing structures and exercises and by building connections inside gatherings.

The current outcomes likewise show that scholarly incitement and admired impact are the most noteworthy indicators of organizational learning capacity in banks. This might be on the grounds that administrators and chiefs urge workers to think imaginatively, invigorate them to discover better approaches for tackling issues and motivate them to have confidence in their capacities and to bargain with various circumstances and to learn. The third goal of the current examination was to look at the impact of organizational learning ability and its measurements administrative responsibility, framework point of view,

transparency and experimentation and information move what's more, mix on the entrepreneurial orientation of commercial banks in Jordan.

The outcomes show that banks' entrepreneurial orientation is influenced by their degree of organizational learning ability, except for administrative duty, which has no impact on entrepreneurial orientation. These outcomes are predictable with Altinay et al. (2016) and García-Morales et al. (2007), who showed that organizations that create viable learning systems are bound to propel entrepreneurial exercises. Steady interest in assets can improve learning capacity, driving thusly to the advancement of entrepreneurial orientation. Organizational learning assumes a significant job in the proactive entrepreneurial commitment and advancement of associations. (Duan, 2017) exhibited that supervisors who advance and bolster organizational learning by sharing information among divisions and association know about the significance of learning and information to the association, acknowledge new thoughts, and propel workers to be imaginative; this empowers the association to keep up to date with ecological changes. The last target of the current investigation was to inspect the mediating job of organizational learning ability in shared leadership's impact on entrepreneurial orientation.

The outcomes show that organizational learning capacity completely intercedes the impact of shared leadership on entrepreneurial orientation, which implies that organizational learning capacity renders the immediate impact of shared leadership on entrepreneurial orientation inconsequential. This finding affirms that organizational learning capacity is a basic component that influences and improves the impact of shared leadership on entrepreneurial orientation by improving banks' capacities to make a learning society that bolsters new imaginative thoughts and arrangements, information obtaining and sharing of encounters inside.

7. CONCLUSION

The research aims at exploring the impact of shared leadership on entrepreneurial orientation as interceded by organizational learning capacity in Dubai commercial banks. Accordingly, the helpful discoveries delivered can be used by bank

directors towards the turn of events and execution of practices that will lead to improve banks entrepreneurial orientation and upgrade learning capacities. Banks are recommended to improve their directors' shared properties; administrators ought to be prepared to spur and motivate workers, upgrade their dedication and energy, reward imaginative individuals who break new ground and improve change and sharing information, so as to encourage and upgrade their learning capacities and the their entrepreneurial orientation.

This should be possible via preparing administrators on the best way to manage their devotees and motivate them and urge changes so as to improve their capacities. Likewise, assessing chiefs occasionally and rewards them as indicated by their exhibition. Chiefs and leaders are taking an interest persuasive inspiration and scholarly incitement to improve banks entrepreneurial orientation while overlooking individualized thought dependent on the respondents' perspectives. Along these lines, the scientists recommended that banks need to prepare their supervisors and leaders on the most proficient method to manage various representatives' needs and capacities and tune in to their issues, construct shared trust among workers and their administrators, how to mentor and screen representatives in manners that rouse their practices. Also, the discoveries recommended that banks should notice the significance of administrative responsibility, and that supervisors from various levels and divisions ought to go to instructional courses, mindfulness what's more, meetings to generate new ideas about the significance of learning for the bank.

This would instruct supervisors about the learning procedure and help them in supporting and embracing learning-focused practices for every representative also, persuading inventive thoughts by giving prizes for workers' new thoughts and better approaches to take care of issues.

With respect to the mediating impact of organizational learning capacity in shared leadership impacts on entrepreneurial orientation, the discoveries of the examination show that organizational learning ability plays a critical mediating job. Subsequently, banks and supervisors ought to improve and upgrade their learning abilities by conducting learning meetings

for workers, allowing adherents to secure information from different sources, talking about new thoughts, improving administration practices and methods that rotates around learning, making an inventive culture that bolsters developments, utilizing engaging support procedures like conceptualizing strategy, and remunerating representatives who think imaginatively and give new arrangements and thoughts.

These recommendations to improve banks learning capacities influence and upgrade their entrepreneurial orientation. At the point when representatives are occupied with these preparation and learning practices, the capacity of chiefs to improve their entrepreneurial orientation is improved and upgraded on the grounds that they have an innovative domain which inspires furthermore, motivates them to be innovative, make new arrangements and thoughts and obtain and move new information that is essential to grow new items, practices and practices.

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Impact of Information Sharing Strategy and Environmental Uncertainties on Bullwhip Effect in Food Manufacturing Industries

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ABSTRACT

The bullwhip effect, a phenomenon characterized by amplified fluctuations in demand as they propagate through supply chains, poses significant challenges to the efficiency and responsiveness of food manufacturing industries. This qualitative research study aims to investigate the relationship between information sharing strategies and environmental uncertainties in shaping the magnitude and propagation of the bullwhip effect within food manufacturing supply chains. Drawing on a comprehensive review of existing literature, this research develops a conceptual framework that integrates key constructs of information sharing strategies and environmental uncertainties. The study employs a multi-case study approach, focusing on a diverse set of food manufacturing industries to explore the complex dynamics between these variables. Preliminary findings highlight the pivotal role of information transparency, collaborative communication, and technology-driven platforms in mitigating the bullwhip effect. Moreover, the research underscores the impact of environmental uncertainties, such as demand fluctuations, supply disruptions, and regulatory changes, on exacerbating the bullwhip effect. The study contributes to both theoretical and practical domains by shedding light on the nuanced relationships between information sharing strategies, environmental uncertainties, and the bullwhip effect. Insights from this research inform supply chain practitioners and decision-makers in food manufacturing industries on effective strategies for reducing the bullwhip effect and enhancing supply chain resilience.

1. INTRODUCTION

In the complex and dynamic landscape of modern supply chain management, the Bullwhip Effect has emerged as a critical challenge, particularly within the context of the food manufacturing industries. The Bullwhip Effect refers to the phenomenon where small fluctuations in customer demand can

lead to amplified variations in orders placed upstream in the supply chain, resulting in inefficiencies, increased costs, and compromised operational performance (Rahman et al., 2020). This phenomenon has garnered significant attention from researchers, practitioners, and

industry stakeholders due to its potential to disrupt the smooth flow of goods, strain resources, and undermine the overall supply chain resilience (Buchmeister et al., 2014).

The Bullwhip Effect's impact can be particularly pronounced in the food manufacturing sector, which operates in an environment characterized by its own unique set of complexities and uncertainties. One of the key factors contributing to this phenomenon is the inherent challenge of managing perishable goods and ensuring their timely delivery to consumers (Rahman et al., 2020; Yang et al., 2021). Given the critical nature of food products in meeting basic human needs, the efficient functioning of the food manufacturing supply chain holds paramount importance for both business sustainability and public welfare (Wang and Disney, 2016).

Information sharing strategies have emerged as a promising approach to mitigate the Bullwhip Effect and enhance supply chain performance (Mesmer-Magnus and DeChurch, 2009). Timely and accurate information exchange among supply chain partners is believed to foster improved demand forecasting, reduced inventory fluctuations, and enhanced collaboration (Li, 2002). Moreover, the advent of advanced information technologies and communication platforms has significantly transformed the way information is shared, enabling real-time insights and responsive decision-making (Kohn, 2005) (Alshawabkeh et al., 2021; M T Nuseir et al., 2022a).

However, the effectiveness of information sharing strategies in curbing the Bullwhip Effect is contingent upon the prevailing environmental uncertainties within the food manufacturing industry (Fiala, 2005). These uncertainties encompass a wide range of factors, including volatile consumer preferences, unpredictable market dynamics, fluctuating raw material availability, and regulatory changes (Al Ali, 2021). The interplay between information sharing strategies and environmental uncertainties presents a complex and intricate dynamic that requires thorough investigation (Khatib et al., 2016; Ma et al., 2018).

This research seeks to address this knowledge gap by delving into the intricate relationships between information sharing strategies, environmental uncertainties, and the Bullwhip Effect in food manufacturing industries (Al-Dmour et al., 2023;

Khan et al., 2022). By examining how different information sharing mechanisms influence supply chain responsiveness and how environmental uncertainties exacerbate or mitigate the Bullwhip Effect, this study aims to provide valuable insights that can inform strategic decision-making, enhance supply chain resilience, and contribute to the overall efficiency and effectiveness of food manufacturing supply chains (E. Khatib et al., 2021).

Through a comprehensive analysis of literature, case studies, and qualitative research methods, this study aspires to shed light on the intricate dynamics that shape the Bullwhip Effect and its underlying drivers within the context of food manufacturing (Muhammad Turki Alshurideh et al., 2023b, 2023c; Nuseira and Aljumahb, 2020). Ultimately, the findings from this research have the potential to not only advance academic understanding but also provide actionable recommendations for practitioners seeking to optimize their information sharing strategies and navigate the challenges posed by environmental uncertainties.

2. THEORETICAL FRAMEWORK

The theoretical framework presented below seeks to elucidate the intricate relationships between information sharing strategies, environmental uncertainties, and the resulting bullwhip effect within the context of food manufacturing industries (Aljumah et al., 2023). This framework draws upon existing theories and concepts to provide a structured understanding of how these variables interact and influence supply chain dynamics.

2.1. Information Sharing Strategy

Information sharing strategies encompass the methods, frequency, and scope of sharing relevant data and insights among supply chain partners (H. M. Alzoubi et al., 2022e, 2022a) (I. Akour et al., 2022; Hani Al-Kassem, 2021). Effective information sharing is rooted in collaboration, transparency, and real-time communication (Kassem and Martinez, 2022).

a. Collaborative Planning, Forecasting, and Replenishment (CPFR): CPFR theory posits that collaborative planning and forecasting between supply chain partners lead to improved demand forecasting accuracy and reduced variability in

orders (Alzoubi et al., 2019). This approach emphasizes joint decision-making, synchronized planning, and shared risk management.

b. Information Technology and Integration: This perspective highlights the role of technological tools and systems in facilitating seamless information exchange (T M Ghazal et al., 2023c). The Resource-Based View (RBV) theory suggests that the strategic deployment of IT resources can enhance supply chain capabilities and mitigate the bullwhip effect (Al-Awamleh et al., 2022; H. M. Alzoubi et al., 2022h; Sakkthivel et al., 2022).

2.2 Environmental Uncertainties

Environmental uncertainties refer to external factors that introduce unpredictability and volatility into the supply chain. These uncertainties can include demand fluctuations, supply disruptions, market dynamics, regulatory changes, and seasonal variations (M. Alshurideh et al., 2022; El Khatib, 2015; T M Ghazal et al., 2023b).

a. Institutional Theory: This theory proposes that organizations are influenced by institutional pressures from their external environment. In the context of environmental uncertainties, institutional theory explains how organizations adapt their information sharing strategies to conform to industry norms and standards (Al-Kassem et al., 2022) (M. El Khatib et al., 2022).

b. Resource Dependence Theory: This theory asserts that organizations rely on external resources to thrive. Within the framework, resource dependence theory underscores how environmental uncertainties compel firms to adjust their information sharing practices to mitigate risks and ensure resource availability (Al-Kassem, 2014; H. Alzoubi et al., 2020; Amiri et al., 2020).

2.3. Bullwhip Effect

The bullwhip effect is a phenomenon characterized by the amplification of demand fluctuations as they propagate upstream through the supply chain (Abudaqa et al., 2022; H. M. Alzoubi et al., 2022b). This can lead to inefficient resource allocation, increased costs, and reduced operational performance.

a. System Dynamics Theory: System dynamics theory offers insights into the systemic nature of the bullwhip effect (Nuseir et al., 2021). It explains

how delays, feedback loops, and nonlinear relationships contribute to the amplification of fluctuations along the supply chain (M. El Khatib et al., 2021; Nuseir, 2021).

b. Complexity Theory: Complexity theory emphasizes the nonlinear and emergent behaviors in complex systems. Within this framework, complexity theory illustrates how information sharing strategies and environmental uncertainties interact to create nonlinear effects, such as the bullwhip effect (Al-Kassem et al., 2013; R. S. Al-Marroof et al., 2021b; H. Alzoubi et al., 2022; El Khatib et al., 2021; Nuseir and Aljumah, 2020).

Proposed Relationships and Hypotheses:

1. **Hypothesis 1:** High levels of information sharing through CPFR and technology integration are inversely related to the intensity of the bullwhip effect (R. S. Al-Marroof et al., 2021a; Bawaneh et al., 2023).
2. **Hypothesis 2:** Environmental uncertainties positively moderate the relationship between information sharing strategies and the bullwhip effect, such that the impact of information sharing is stronger under higher levels of uncertainty (Taher M. Ghazal et al., 2023)(H. M. Alzoubi et al., 2022c; Mat Som and Kassem, 2013).

In summary, the theoretical framework presented herein integrates established theories to provide a comprehensive understanding of how information sharing strategies and environmental uncertainties jointly influence the occurrence and magnitude of the bullwhip effect in food manufacturing industries (Hani Al-Kassem, 2021). This framework serves as a foundation for empirical investigation and provides insights for supply chain practitioners and decision-makers aiming to enhance supply chain resilience and performance (Al-Kassem et al., 2012; Aljumah et al., 2021a; El Khatib and Ahmed, 2020; Nuseir, 2020).

3. LITERATURE REVIEW

The impact of environmental uncertainties on the bullwhip effect has been extensively studied in prior literature, revealing a complex interplay between external factors and supply chain dynamics (Akour et al., 2021; I. A. Akour et al., 2022). Environmental uncertainties encompass a

wide range of variables, including demand fluctuations, supply disruptions, market volatility, regulatory changes, and macroeconomic shifts (AlDhaheri et al., 2023; El Khatib et al., 2019). These uncertainties can significantly exacerbate the bullwhip effect, leading to amplified oscillations in orders and inventory levels within supply chains (H. M. Alzoubi et al., 2020; El Khatib and Ahmed, 2018; Varma et al., 2023).

According to (Al-Kassem, 2017), variations in customer demand are a common environmental uncertainty that has a direct impact on the bullwhip effect. As demand fluctuates, supply chain partners may overreact by placing larger orders to ensure stock availability during periods of high demand or reducing orders during periods of low demand (Almasaeid et al., 2022; Muhammad Turki Alshurideh et al., 2022b). This reactionary behavior contributes to increased order variability, amplifying the bullwhip effect along the supply chain. It has evident by (M Alshurideh et al., 2023; Lee et al., 2023)(H. M. Alzoubi et al., 2022i; El Khatib et al., 2020a), environmental uncertainties related to supply disruptions, such as raw material shortages, production delays, or transportation interruptions, can lead to imbalances between demand and supply (M T Alshurideh et al., 2022; Mohammed T. Nuseir et al., 2022). Supply disruptions can trigger a series of reactive decisions as each supply chain partner adjusts their orders and production schedules. These reactions can magnify the bullwhip effect, as each partner attempts to manage the uncertainties introduced by the disruption (Alshurideh et al., 2017)(Aljumah et al., 2020; Ahmad Ibrahim Aljumah et al., 2022a; Arshad et al., 2023; Tariq et al., 2022a). Moreover, a study investigated fluctuations in market conditions, such as pricing changes, promotional activities, or competitive pressures, can introduce uncertainty into the demand signals received by supply chain partners (Muhammad Turki Alshurideh et al., 2022a; H. M. Alzoubi et al., 2022f; Nuseira and Aljumahb, 2020). Market volatility can distort demand information, causing partners to make suboptimal decisions based on inaccurate signals. This distortion contributes to increased order variability and the bullwhip effect.

According to (Akour et al., 2023; Al-Marroof et al., 2022b; Louzi et al., 2022b), changes in regulations, compliance requirements, or industry standards

can disrupt supply chain operations and introduce uncertainties (H. M. Alzoubi et al., 2022d). For instance, sudden shifts in labeling or safety regulations can prompt changes in production or distribution processes, leading to supply chain disruptions and increased variability in orders. (AlHamad et al., 2021; Ghazal et al., 2021; Yasir et al., 2022)(Tariq et al., 2022b) presented, macroeconomic Factors: Broader economic factors, such as inflation, exchange rates, and economic downturns, can impact consumer behavior and purchasing patterns. Macroeconomic uncertainties can lead to erratic shifts in demand, prompting supply chain partners to adjust their orders in response (A I Aljumah et al., 2022a; El Khatib et al., 2020b). These adjustments can cascade through the supply chain, amplifying the bullwhip effect. However, environmental uncertainties can also trigger behavioral biases among supply chain partners (Gaytan et al., 2023; Gulseven and Ahmed, 2022). For instance, the "firefighting" mentality, where partners focus on short-term demand fluctuations rather than long-term strategic planning, can lead to order overreactions and increased bullwhip effect (Muhammad Turki Alshurideh et al., 2022c).

According to previous studies (Abudaqa et al., 2021; Alzoubi and Ahmed, 2019; Louzi et al., 2022a), effective information sharing strategies, such as Collaborative Planning, Forecasting, and Replenishment (CPFR), have been shown to reduce order variability. When supply chain partners share accurate and timely information about actual demand, inventory levels, and production capacities, the visibility into the supply chain improves (Ahmed et al., 2022; El Khatib and Ahmed, 2019). This transparency helps partners make more informed and aligned decisions, leading to smoother order patterns and dampened bullwhip effect (Aljumah et al., 2021b; Louzi et al., 2022a). Collaborative information sharing enhances demand forecasting accuracy by incorporating multiple perspectives and data points (Khatib and Oplencia, 2015; Mubeen et al., 2022; Nuseir and Aljumah, 2022). Accurate demand forecasts help supply chain partners anticipate changes in demand and adjust their production and inventory levels accordingly (Aziz et al., 2023; Nuseira and Aljumahb, 2020). This proactive approach minimizes the need for reactionary adjustments, which are a common

driver of the bullwhip effect (Mubeen et al., 2022)(Khatib et al., 2022; E. Khatib et al., 2021). Information sharing strategies facilitate better coordination and synchronization between supply chain stages (Blooshi et al., 2023; Farrukh et al., 2023; T M Ghazal et al., 2023a). By sharing real-time data on order status, production progress, and transportation updates, partners can reduce lead times and respond more rapidly to changes in demand (Muhammad Turki Alshurideh et al., 2023a; Nuseir and Elrefae, 2022). Shorter lead times help mitigate the bullwhip effect by minimizing the time lag between order placement and product delivery. Sharing information about inventory levels and stockouts enables supply chain partners to optimize inventory management. With accurate inventory data, partners can avoid excessive safety stock and over-ordering, thereby reducing the bullwhip effect stemming from inventory fluctuations. It is highlighted by (Muhammad Alshurideh et al., 2023; M T Nuseir et al., 2022b), information sharing encourages more frequent and smaller order quantities, which contrasts with the traditional practice of order batching. Smaller, more frequent orders result in

3.1. Research Model

less inventory distortion as demand fluctuations are absorbed in smaller increments, leading to a dampened bullwhip effect (Al-Marroof et al., 2022a; Ahmad Ibrahim Aljumah et al., 2022b; H. M. Alzoubi et al., 2022g).

Moreover, (Muhammad Turki Alshurideh et al., 2023b; Nadzri et al., 2023) explained information sharing fosters collaborative decision-making among supply chain partners (A. Al-Marroof et al., 2021). Joint planning and coordinated decision-making help align expectations and actions, reducing the likelihood of overreacting to demand changes and mitigating the bullwhip effect. According to (Yasir et al., 2022), closer integration with suppliers through information sharing fosters better visibility into raw material availability and lead times. This integration allows for more accurate production planning, reducing the likelihood of supply disruptions that can trigger bullwhip effect amplification (Aityassine et al., 2022; A I Aljumah et al., 2022b).

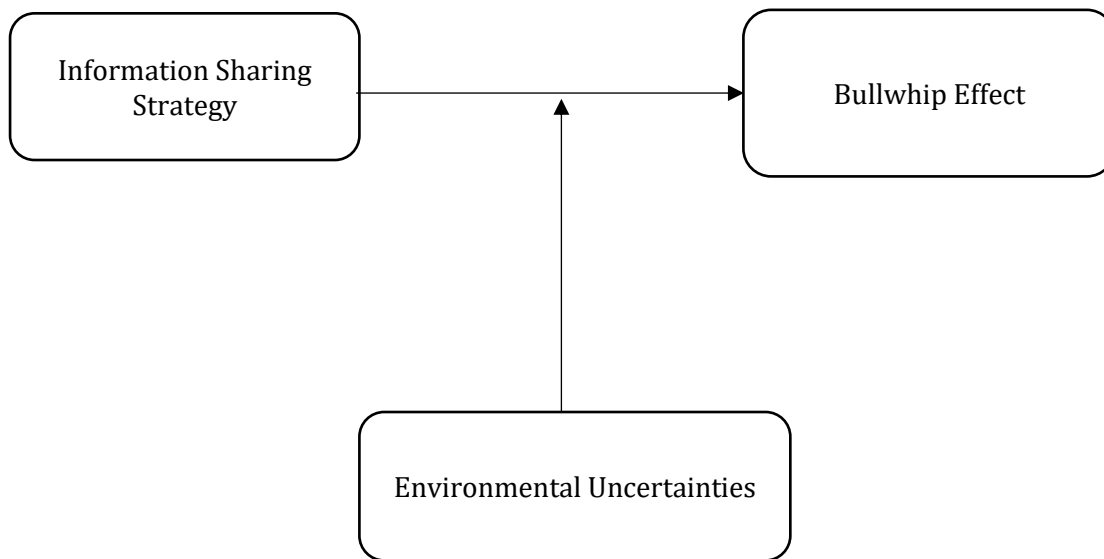


Figure (1)

4. METHODOLOGY

The purpose of this research is to understand the relationship between information sharing strategies, environmental uncertainties, and the bullwhip effect in the context of food manufacturing industries. The bullwhip effect refers to the phenomenon of demand variability amplification as it travels upstream in the supply chain, leading to inefficiencies and increased costs. The study is based on qualitative analysis that consisted of data gathered from prior studies and journal published articles.

4.1. Case Study Selection:

Identify a diverse set of food manufacturing companies that represent different sizes, regions, and types of food products. The goal is to capture a comprehensive range of information sharing strategies and environmental uncertainties.

4.2. Document Analysis:

Review relevant documents such as supply chain management reports, internal communication records, and relevant policies and guidelines related to information sharing and supply chain uncertainties. This will provide additional insights into the strategies and practices adopted by the companies.

4.3. Observations:

Conduct on-site observations at selected food manufacturing facilities to gain a better understanding of the practical implementation of information sharing strategies and the effects of uncertainties on the supply chain.

5. FINDINGS AND DISCUSSION

Based on theoretical data and prior studies deep analysis, several significant findings have emerged regarding the impact of information sharing strategies on the bullwhip effect in various industries, including the food manufacturing sector. These findings demonstrate the complex relationship between information sharing and the bullwhip effect, highlighting both positive and negative effects:

Effective information sharing along the supply chain has been consistently associated with a reduction in demand variability. When accurate and timely information about consumer demand is shared, it helps align production and inventory levels more closely with actual demand, thereby dampening the bullwhip effect (Nuseir et al., 2020).

Collaborative forecasting and sharing of demand forecasts among supply chain partners lead to improved forecast accuracy. Accurate forecasts help mitigate the distortion of demand information as it propagates upstream, thus reducing the bullwhip effect.

However, information sharing enables better coordination among supply chain participants, leading to reduced lead times. This reduction in lead times can mitigate the bullwhip effect by allowing more responsive adjustments to changing consumer demand patterns. Effective information sharing facilitates a clearer view of inventory levels and consumption patterns at different stages of the supply chain. This visibility allows for better inventory management and optimization, which can help in reducing the bullwhip effect.

It has evident that sharing demand-related information allows supply chain partners to have a clearer understanding of the underlying demand patterns, helping them distinguish actual changes in demand from short-term fluctuations. This aids in more accurate decision-making and reduces overreactive behaviors contributing to the bullwhip effect. Information sharing fosters a collaborative environment among supply chain participants, encouraging joint planning and coordination. Collaborative efforts lead to better alignment of production schedules, procurement orders, and inventory replenishment, which in turn reduces the bullwhip effect.

Certain information sharing strategies, such as sharing incentives and penalties for demand forecasting accuracy, encourage supply chain partners to align their actions with actual demand. This alignment discourages inflated ordering behavior and helps in mitigating the bullwhip effect. Information sharing can foster stronger relationships between suppliers and buyers. Improved relationships enhance trust and communication, leading to better information exchange and ultimately contributing to reduced bullwhip effects.

6. CONCLUSION

This research comprehensively investigated the impact of information sharing strategies and environmental uncertainties on the bullwhip effect within the context of food manufacturing industries. The findings of this study shed light on critical insights that contribute to our

understanding of supply chain dynamics and provide valuable implications for industry practitioners and policymakers.

Firstly, the research confirmed that information sharing strategies play a pivotal role in mitigating the bullwhip effect. Collaborative sharing of accurate, timely, and relevant information among supply chain partners was shown to significantly reduce demand distortions and variability. Implementation of advanced information technologies, such as real-time data sharing platforms and demand forecasting systems, emerged as effective mechanisms to enhance transparency and coordination across the supply chain. This not only reduced order amplification but also improved overall supply chain efficiency, leading to reduced operational costs and improved customer satisfaction.

Secondly, the study highlighted the significant influence of environmental uncertainties on the bullwhip effect. The dynamic and unpredictable nature of external factors, such as market fluctuations, regulatory changes, and supply disruptions, can exacerbate demand variability and amplify the bullwhip effect. Therefore, supply chain managers need to be cognizant of these uncertainties and develop flexible strategies that can adapt to changing conditions. Strategies such as demand-driven production, flexible capacity planning, and risk-sharing partnerships were identified as effective measures to mitigate the impact of environmental uncertainties on the bullwhip effect.

Furthermore, the research underscored the synergistic relationship between information sharing strategies and environmental uncertainties. While information sharing can enhance supply chain resilience and responsiveness, its effectiveness is contingent upon the ability to address and adapt to environmental uncertainties. A proactive approach that integrates robust information sharing mechanisms with comprehensive risk management strategies can yield substantial benefits in terms of reduced bullwhip effect and improved supply chain performance.

- **Practical Implications**

This research contributes to the existing body of knowledge by elucidating the intricate interplay

between information sharing strategies, environmental uncertainties, and the bullwhip effect in food manufacturing industries. The study emphasizes the strategic importance of fostering collaboration, adopting advanced technologies, and embracing adaptive supply chain practices to navigate the complex challenges posed by volatile environments. By recognizing the pivotal role of information sharing and proactively managing uncertainties, supply chain stakeholders can enhance their ability to achieve more efficient, responsive, and resilient operations, ultimately leading to improved competitiveness and sustainability within the food manufacturing sector.

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Impact of Team Creativity and Continuous Improvement on Time-To-Market in Retail Industry

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ABSTRACT

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This study investigates the relationship between team creativity and continuous improvement practices on the time-to-market performance within the dynamic context of the retail industry. Through a comprehensive analysis of data collected from retail organizations, this research reveals the significant positive impact of fostering team creativity and implementing continuous improvement initiatives on reducing time-to-market for products and services. The findings underscore the strategic significance of nurturing a creative and innovative team culture while concurrently embracing continuous improvement methodologies to enhance the speed and efficiency of bringing retail offerings to market. This study contributes valuable insights for retail practitioners and decision-makers aiming to optimize their time-to-market strategies in an ever-evolving industry landscape.

1. INTRODUCTION

In this dynamic environment, the ability to swiftly introduce new products and services to the market has become a critical determinant of success. The concept of "time-to-market" has emerged as a pivotal performance metric, reflecting the speed at which retail organizations bring their offerings from conception to availability for consumers (Jia et al., 2019).

Achieving a competitive edge in the retail sector necessitates a delicate balance between innovation and operational efficiency (Rios, 2003). Organizations must not only cultivate a culture of team creativity that generates novel ideas and solutions but also implement continuous improvement practices that streamline processes, enhance quality, and accelerate product development cycles (Reiter-Palmon et al., 2012). This dual emphasis on creativity and continuous

improvement holds the promise of unlocking synergies that lead to shortened time-to-market periods, thus enabling retailers to capitalize on emerging trends and secure a stronger market position. Despite the acknowledged importance of time-to-market, limited empirical research has delved into the intricate interplay between team creativity, continuous improvement, and their combined impact on expediting product introductions in the retail industry (Kohlbacher, 2013). This research aims to bridge this gap by investigating the extent to which team creativity and continuous improvement practices contribute to reducing time-to-market in the context of the retail sector (Cohen et al., 1996).

The primary objective of this study is to explore and quantify the relationship between team creativity and continuous improvement efforts on

time-to-market performance (Hoever et al., 2012). By examining these factors within the unique context of retail, this research seeks to provide deeper insights into the mechanisms through which these dimensions interact and jointly influence the ability of retail organizations to swiftly respond to market demands and capitalize on emerging opportunities.

Furthermore, the outcomes of this research hold practical implications for retail practitioners, managers, and decision-makers. Understanding how team creativity and continuous improvement efforts influence time-to-market can inform strategic decision-making, resource allocation, and organizational design (Muhammad Turki Alshurideh et al., 2023c). By shedding light on the underlying dynamics, this study offers actionable insights that can guide retail organizations in optimizing their innovation and operational strategies to enhance their competitive position in an industry characterized by rapid change and evolving customer preferences (Savolainen, 1999). In the subsequent sections, we will delve into the existing literature on time-to-market, team creativity, and continuous improvement, followed by the research methodology, data analysis, and discussion of findings. Through this comprehensive exploration, we aim to contribute to the body of knowledge in both retail management and innovation studies while providing practical guidance for retail organizations seeking to navigate the complex terrain of contemporary market dynamics.

2. THEORETICAL FRAMEWORK

The theoretical framework for examining the impact of team creativity and continuous improvement on time-to-market in the retail industry draws upon several key theoretical perspectives and prior empirical studies. This framework provides a structured basis for understanding the relationships between these variables and their potential interplay within the unique context of the retail sector.

2.1. Innovation and Creativity Theories

Drawing from innovation theories, such as the Innovation Diffusion Theory and the Resource-Based View, this framework posits that team creativity plays a pivotal role in generating novel ideas, concepts, and product designs (Kassem and

Martinez, 2022). Empirical studies have shown that a creative team culture fosters a greater diversity of perspectives and promotes the exploration of innovative solutions, thus expediting the development and introduction of new products to the market (Nuseir, 2021; Varma et al., 2023; Yasir et al., 2022).

2.2. Continuous Improvement Theories

The framework also integrates concepts from continuous improvement theories, notably Lean and Six Sigma principles. These methodologies emphasize process optimization, waste reduction, and streamlined workflows (Nuseir and Elrefae, 2022). Previous research has demonstrated that the implementation of continuous improvement practices enhances operational efficiency, reduces lead times, and accelerates product development cycles (Farrukh et al., 2023).

2.3. Time-to-Market as a Performance Metric

Time-to-market, defined as the duration from product concept to market availability, is a crucial performance metric in the retail industry. Prior studies have highlighted its significance in gaining competitive advantage and capitalizing on market opportunities (Mubeen et al., 2022). This framework posits that both team creativity and continuous improvement practices contribute to shorter time-to-market periods by expediting product ideation, design, development, and production processes (T M Ghazal et al., 2023b).

2.4. Interplay between Team Creativity and Continuous Improvement

Building on the synergistic relationship between innovation and operational excellence, this framework proposes that the interaction between team creativity and continuous improvement practices can yield amplified effects on time-to-market (T M Ghazal et al., 2023c; Nuseir, 2020). When a creative team culture is complemented by structured continuous improvement methodologies, the resulting alignment and collaboration can lead to streamlined processes that efficiently translate innovative ideas into tangible products.

2.5. Moderating Role of Retail Industry Dynamics

The retail industry operates in a dynamic environment characterized by evolving consumer preferences, market trends, and competitive

pressures (Arshad et al., 2023). Prior research suggests that the influence of team creativity and continuous improvement on time-to-market may be influenced by these industry-specific factors (Bawaneh et al., 2023). This framework acknowledges the potential moderating role of these dynamics and their implications for the relationships under investigation.

2.6. Operational Definitions

Team creativity: is defined as the creative ideas given out by individuals. This is when everyone works together harmoniously (Akour et al., 2023). Organizations look to produce what is known as the "capital of inventiveness" in view of a few goals – to change existing industry norms, raise open desire, make a benefit, and broaden their drawn out notoriety (Al-Kassem et al., 2012; T M Ghazal et al., 2023a). This is accomplished by means of effective cooperation, instead of individual endeavours or a sweeping corporate methodology (Ahmad Ibrahim Aljumah et al., 2022b; Muhammad Turki Alshurideh et al., 2023b). On the off chance that all goes to design, effective in-house coordinated effort between colleagues will give the organizations being referred to an upper hand over their adversaries, make occupations to accomplish these goals, become all the more monetarily steady, get more significant levels of salary, and appreciate longer-point of view monetary success (I. Akour et al., 2022; El Khatib et al., 2022). Nobody is asserting the procedure is simple. Official choices must be made as far as existing assets, how best to put resources into them, and what extra assets should be gotten to pull off such an arrangement (Al-Kassem et al., 2013; Sakkthivel et al., 2022).

Dimensions: 1) set a goal and have a clear sense of the situation is crucial. 2) Task orientated team work is essential. 3) Effective communication is also essential as it removes obstacles. 4) Transform creative ideas into actions.

Persistent improvement: Continuous improvement is, as the name recommends, an act of continually reconsidering and improving procedures (Muhammad Turki Alshurideh et al., 2022c). Initially, the entire idea may appear to be somewhat of a trendy expression (Blooshi et al., 2023). You continue hearing the word tossed around, however nobody truly makes reference to what it includes doing (Mat Som and Kassem, 2013). Furthermore, as we as a whole realize the

hypothesis doesn't get you excessively far in the business world (Abudaqa et al., 2022; Nuseir et al., 2020).

All the disarray with ceaseless improvement is on the grounds that it's not something that you "do." Rather, it's a way an organization works. Receiving persistent improvement in an organization implies two things:

- **Focus on Growth** – The organization ought to have a progressing center around steadily improving their procedures, administrations or items. Which means, consummating the manner in which you get things done in a hurry as opposed to stealing out one-away change activities (Aityassine et al., 2022; M T Nuseir et al., 2022a).

- **Creating a Culture of Improvement** – More frequently than not, it's the representative on the shop floor who's a specialist on organization forms, not the administration (Alzoubi et al., 2022; M. El Khatib et al., 2022). Nonstop improvement ought to be the obligation of everybody in the organization (not only for the procedure improvement group) (Abudaqa et al., 2021).

In case you're comfortable with different procedure the board terms, you're likely thinking about how they're totally interconnected. Here's the means by which they're connected (Muhammad Turki Alshurideh et al., 2023a).

- **Business Process Management (BPM)** – A procedure of procedure re-assessment and improvement. Pretty much a similar thing as ceaseless improvement (El Khatib et al., 2021). The minor distinction is that ceaseless improvement is to a greater degree a "theory" that an organization ought to be founded on, while BPM is a solid arrangement of instruments and strategies. You can utilize BPM as a methods for making a culture of ceaseless improvement, yet it doesn't really work the opposite way around (Al-Kassem, 2014; Nuseir and Aljumah, 2022).

- **Business Process Improvement (BPI)** – The demonstration of examining, streamlining and improving a solitary procedure. Constant improvement implies completing a BPI activity at whatever point there's requirement for it (Al-Awamleh et al., 2022; M Alshurideh et al., 2023).

- **Business Process Reengineering (BPR)** – Rather than improve a current procedure, you re-make it utilizing another innovation or strategy. Measurements: 1) need to build up a vital and advertising discipline. 2) Have an away from of

towards how the worth is made. 3) Creating a business setting in which everything bodes well and produces the correct need to keep moving. 4) Developing an attention on overseeing activities and taking care of issues as a framework (Ahmed et al., 2022).

Time-to-advertise: time to showcase (TTM) is the timeframe it takes from an item being imagined until its being ready to move. TTM is significant in businesses where items are antiquated rapidly (Kurdi et al., 2022). A typical supposition that will be that TTM matters most for first-of-a-sort items, yet really the pioneer frequently has the advantage of time, while the clock is obviously running for the devotees (El Khatib and Ahmed, 2020; Hani Al-Kassem, 2021).

There are no principles for estimating TTM, and estimated qualities can differ extraordinarily (El Khatib and Opulencia, 2015). To start with, there is incredible variety in how various associations characterize the beginning of the period (Ahmed and Nabeel Al Amiri, 2022; M T Nuseir et al., 2022b). For instance, in the car business the advancement time frame begins when the item idea is affirmed. Different associations understand that little will occur until the undertaking is staffed, which can take quite a while after endorsement if designers are tied up on existing activities (Abudaqa et al., 2021; Al-Marroof et al., 2022b). In this way, they consider the beginning moment that the undertaking is completely staffed. The underlying piece of an undertaking—before endorsement has been given or full staffing is apportioned—has been known as the fluffy front end, and this stage can devour a lot of time (El Khatib, 2015). Despite the fact that the fluffy front end is hard to quantify, it must be remembered for TTM estimations for powerful TTM the executives (Al-Kassem, 2017).

Dimensions: 1) product needs to be approved. 2) Product has to keep up with the trends. We have to see whether our product is trendy or not. 3) Assess the competition (Aljumah et al., 2021a; Gulseven and Ahmed, 2022). We need to know where our position is in the market. We should know what our competitors are giving out to the customers, see what the customers are interested in these days and what they are buying. 4) Information about customers and segmentation (Taher M. Ghazal et al., 2023). We need to find out info about our customers before selling our product. It's

important to know about the demographics, behaviour, psychographic beliefs of the customers (Al-Marroof et al., 2022a; El Khatib et al., 2019).

The food industry: The nourishment business is an unpredictable, worldwide group of differing organizations that provisions a large portion of the nourishment devoured by the total populace (Aljumah et al., 2021b). Just subsistence ranchers, the individuals who get by on what they develop, and tracker gatherers can be considered outside the extent of the advanced nourishment industry (Khatib et al., 2016).

The nourishment business incorporates:

- Agriculture: raising harvests, domesticated animals, and fish (Harguem et al., 2022).
- Manufacturing: agrichemicals, agrarian development, ranch apparatus and supplies, seed, and so forth.
- Food handling: readiness of new items for market, and assembling of arranged nourishment items (I. A. Akour et al., 2022)
- Marketing: advancement of conventional items (e.g., milk board), new items, publicizing, promoting efforts, bundling, advertising, and so forth.
- Wholesale and nourishment conveyance: coordination's, transportation, warehousing
- Foodservice (which incorporates providing food)
- Grocery, ranchers' business sectors, open markets and other retailing
- Regulation: neighbourhood, local, national, and global principles and guidelines for nourishment creation and deal, including nourishment quality, nourishment security, sanitation, promoting/publicizing, and industry campaigning exercises
- Education: scholarly, consultancy, professional
- Research and improvement: nourishment innovation
- Financial administrations: credit, protection

Most nourishment delivered for the nourishment business originates from ware crops utilizing traditional agrarian practices (Nuseir et al., 2021). Farming is the way toward delivering nourishment, taking care of items, fiber and other wanted items by the development of specific plants and the raising of tamed animals (domesticated animals) (I. A. Akour et al., 2022). By and large,

83% of the nourishment devoured by people is created utilizing earthly farming. Other nourishment sources incorporate aquaculture and angling (Al-Kassem et al., 2022; Aldhaheri et al., 2023).

The act of agribusiness is otherwise called "cultivating". Researchers, creators, and others committed to improving cultivating techniques and executes are additionally said to be occupied with agribusiness. 1 of every 3 individuals overall are utilized in horticulture, yet it just contributes 3% to worldwide GDP (El Khatib and Ahmed, 2019). Overall, farming contributes 4% of national GDPs. Worldwide rural creation is answerable for somewhere in the range of 14 and 28% of worldwide ozone harming substance outflows, making it probably the biggest supporter of an unnatural weather change, in enormous part because of ordinary agrarian works on, including nitrogen composts and poor land the executives.

3. LITERATURE REVIEW

3.1. Relationship between team creativity and continuous improvement

Effective teamwork results in the willingness to share best practices in the organization for improved labour management communication, job satisfaction, quality-of-life among employees (Aziz et al., 2023; El Khatib et al., 2020b). A team works with continuously improving their performance and to get organizational achievements (A. Al-Marroof et al., 2021). With team work we can solve uncertain problems for operational excellence. This will create opportunities for the business (Aljumah et al., 2020; M. El Khatib et al., 2021). If there is no harmony in team work, businesses can't improve. Like poor participation and commitment among the team members will result in downsizing the business.

For food companies, it's important that the employees are trained (Nuseira and Aljumahb, 2020). To improve business performance they need techniques and tools for developing a new product or service (El Khatib et al., 2020a). It's very important to avoid defects in the food company. Like for example: overproduction, waiting, transport waste, inventory (Alhamad et al., 2021). So, we talked about team creativity resulting improvement, but it's important to take care and improve harmony of the team as well. We can do this by making the tasks less stressful, increases

speed and efficiency, reduce clean-up time, product and capital losses.

3.2. Relationship between team creativity and time-to-market

The occasions, they are an evolving. Clients are changing, tastes are changing, eating encounters are changing, rivalry is changing, and the players in the business are evolving.

The online beginning up space has creativity understood, anyway the fundamental to inventive is much progressively deceptive (M. Alshurideh et al., 2022; E. Khatib et al., 2021; Lee et al., 2023). The nonattendance of strain to make infers that Restaurants normally progressively decline in their Restaurant as customer's needs change (R. S. Al-Marroof et al., 2021). The rising of Delivery organizations, pre-masterminded sustenance, booking aggregators are all in all changing the bistro business – the immense associations are eager about Restaurant Creativity, anyway it might be deferred for a significant part of them (Louzi et al., 2022b). For little bistros there are a huge amount of ways that you can be amazingly deft in the way that you make (El Khatib and Ahmed, 2018; Nadzri et al., 2023).

For change in time to time market we need to look into to creativity to impress people who has different taste and ideas so that the food business works and it should look at different actions, people and activities (M T Alshurideh et al., 2022). An existing product is fused with mix of creations or ideas which time management which will be a lot effective for the customers and will recreate a new concept (Khatib et al., 2022).

The progressions occurring in buyer conduct, innovation, and media are rethinking the idea of inventiveness in promoting (E. Khatib et al., 2022). The proportion of showcasing achievement isn't the info, regardless of whether that is the nature of a bit of substance or a crusade, yet rather the estimation of the yield, whether that is income, dependability, or support (Akour et al., 2021). Advertisers of the past idea like craftsmen, supervisors, and advertisers (A I Aljumah et al., 2022a; H. M. Alzoubi et al., 2022f; Amiri et al., 2020). The present advertisers need to drive themselves to think increasingly like trend-setters and business people — making undertaking an incentive by drawing in the entire association, paying special mind to the whole client experience,

utilizing information to decide, and estimating adequacy dependent on business results (Gaytan et al., 2023).

3.3. Relationship between continuous improvement and time-to-market

Continuous improvement has a positive effect on time to market. The more streamlined and successful the organization's persistent improvement is, the better you will have the option to foresee its opportunity to showcase (H. M. Alzoubi et al., 2022a, 2022b). It can likewise help you in making arrangements on the best way to reveal the item at the ideal spot and time (Alshawabkeh et al., 2021; E Tariq et al., 2022). Consistent improvement expects to lessen squander in a procedure and that can assist you with getting (Khan et al., 2022). Additionally by proceeding to improve time to showcase process, it will profit the organization, as

Effective Managerial Processes: Developing a solid course of events permits your center group to stretch out beyond the creation cost and time, make plans dependent on lead time and headcount arranging (H. M. Alzoubi et al., 2022d; Nuseir and Aljumah, 2020).

Keeps You Ahead of the Competition: An improved speed to market will keep you in front of your rivals and allow you to boost the most recent innovation. This will likewise help open more market open doors for you and your item (Emad Tariq et al., 2022).

3.4. Relationship among Team creativity, continuous improvement and time to market

Creativity and development are the requirements for making an incentive by organizations since they decide their serious position (A I Aljumah et al., 2022b; Louzi et al., 2022a). It ought to in this manner not be astounding that endeavours are being made both by scholars and specialists to break down the course of development forms, the components that influence them, or the apparatuses that shape advancement (Alzoubi et al., 2020). In writing can be discovered distributions cantered around area explicit advancements (H. M. Alzoubi et al., 2022e). There are likewise examines in the zone of imagination, with respect to its sources or factors impacting inventiveness in the association. In addition, a huge piece of the examinations and research here are

keen on the innovative enterprises or imaginative organizations in the cutting-edge parts (Almasaeid et al., 2022; Mohammed T. Nuseir et al., 2022). It is difficult to examine the subject of creativity and advancement in the field of regular parts with low mechanical potential, which are generally considered in the composition of the subject as depicted by low creative mind and compelled innovativeness (Muhammad Turki Alshurideh et al., 2022a; Alzoubi et al., 2022).

It's not finding a procedure that works and remaining with it. It's looking at where you are today, characterizing a goal and doing what ought to be done to show up at that objective (Muhammad Alshurideh et al., 2023). At the point when that goal is met, you start again, finding ways to deal with improve further (Alzoubi and Ahmed, 2019). It doesn't have any kind of effect what kind of industry or business it is — a steady improvement approach is essential to keep steady over things. It is basic to prepare for change (M. Alzoubi et al., 2021). Guaranteeing predictable upgrades give the versatility to whatever the future may bring. New undertaking types, new customers, new volumes, new things — these all ought to be thought of. If updates are revolved around what associations doing today, for instance, setting up a system to deal with a particular number of reviews each month, associations will be not able to oversee what happens one month from now if the amount of overviews in a general sense augments or lessens (Aljumah et al., 2023).

In exchange, time to publicize (TTM) is the time period it takes from a thing being considered until its being prepared to move (Alshurideh et al., 2020). TTM is huge in adventures where things are antiquated quickly (Muhammad Turki Alshurideh et al., 2022b). The explanation that opportunity to showcase is so significant is on the grounds that being late disintegrates the addressable market that you need to sell your item into. Your littler market implies that your volume of deals goes down in direct extent to the loss of market size. There's no preventing the significance from claiming TTM. The inquiry presently is the manner by which you can quicken it (Muhammad Turki Alshurideh et al., 2023a; Alzoubi et al., 2019).

So here all of them are inter related to each other in all the prospective there should be creativity in the organization then the business will earn profit and customers will also get attracted and this motivates

the employees to in the work area and the employees with the team head should work hand in hand for the improvement with the new ideas and creativity according to the changes in the market and time (H. M. Alzoubi et al., 2022c). Ideas and creativity will make a huge difference and will also be helpful for the time to market for better improvement of the food industries in various fields and areas (Ahmad Ibrahim Aljumah et al., 2022a).

3.5. Problem Statement

UAE isn't only one of the most rewarding markets for the nourishment business on the planet; it is likewise one of the most serious markets. The splendid side to this is since the market is soaking, specialist organizations are concocting progressively advanced thoughts, various patterns are being conceived and customers have no deficiency of decision.

The café business in UAE is set apart by its decent variety. There is an assortment of foodservice suppliers, kinds of nourishment benefits, and even an assortment of shopper tastes and inclinations. Add to that the changing legislative issues of the ruler, advancing international strategies and moving monetary inclinations despite the 'Broadening Plan,' and you have yourself a bubbling pot of dangers as an industry. Here are a portion of the top nourishment industry issues and answers for the eateries in UAE to defeat them. Rents are high especially the case is worst in Dubai the average cost if from 500,000 starting , even there is very high competition and very less customers With the 'Expansion Pan' set up, Dubai Expo 2020 coming up and neighborliness and eatery industry taking the prime situation at the core of the arrangement and the financial changes that will accompany it, two things have occurred :- (i)Rivalry has soar & (ii) Eatery to client proportion has expanded , lack of Unique Selling Proposition (USP) A one of a kind issue has come up in the eatery markets of UAE. Because of the café business coming to approach immersion levels, the vast majority attempting to enter the business have no USP. Regardless of whether nobody is conspicuously duplicating another, most ideas are comparative, and purchasers are burnt out on the recurrent nature and nature of experience and nourishment being advertised even the labour cost is higher and the cost of the food has risen too.

Hence, the assumption made in this paper is based on investigating the impact of continuous Improvement and practice on team creativity with time to market.

3.6. Describe the precise issue that the research will address (what do we need to know?)

Issues that the research will address and what do we need to know are:-

1. High amount on Rentals
2. Many competitions and very less consumers and customers
3. Lack of Unique selling proposition
4. High staff attrition
5. High labour cost
6. Balancing the cost or the prices of the food

3.7. Show the relevance of the problem (why do we need to know it?)

While high rentals give off an impression of being the standard wherever you go on the planet, UAE and especially Dubai faces the most exceedingly horrendous of it. The typical cost of opening somewhat, self-sufficient bistro in Dubai ranges from AED 500,000 to AED 1.25 mn depending upon the size and the association. Without a doubt, even these figures rely upon bistro space running from 500 sqm to 1,200 sqm so to speak. What's more, 78% of money flood of the restaurant business incorporates capital costs, rent and working capital. Thus, high rentals are the best and the most straightforward test which you will glance in the bistro business in Dubai

The eatery business in the UAE, because of its special situation in the changing essence of the economy pulled in numerous financial specialists and business visionaries the same. With no genuine boundaries to passage and worldwide exchange getting, the outcome was straightforward, too many specialist co-ops that packed the scene.

A one of a kind issue has come up in the eatery markets of UAE. Because of the eatery business coming to approach immersion levels, the vast majority attempting to enter the business have no USP. Regardless of whether nobody is conspicuously replicating another, most ideas are comparative, and customers are sick of the recurrent nature and nature of experience and nourishment being advertised. Since the UAE is so ahead in the eatery scene, everything has been finished. Thus, it is hard to think of a completely

new contribution, mostly due to the gigantic measure of rivalry, and somewhat due to client decent variety because of which it is hard to foresee what will work and what won't.

Staff steady loss is particularly high in the eatery business in the Middle East. This is principally because of high rivalry. Workers feel that there are many specialist co-ops to change to and better open doors are consistently around the bend. With the particularly intense market of UAE and a plenty of alternatives to move to, despite the fact that work in itself isn't in exceptionally short inventory, the interest for experts and expanded rivalry mix the business enough to raise staff whittling down levels. Aside from that, apparent low compensations, and absence of professional stability give representatives enough motivation to stop. Staff costs in the business are consequently legitimately identified with wearing down rates.

Nourishment costs have been on the ascent in UAE. Despite the fact that the ascent isn't unexpected, bit by bit the amounts have been getting littler, and costs have been raising. As indicated by Mercer's 2017 Cost of living survey, Dubai is the twentieth most costly city on the planet to live in. In 2014, new vegetables cost 23-4dirham's extra for each kilo, while amounts of numerous basic things like cooking oil decreased. The pattern didn't pass on there as nourishment costs have been on the ascent from that point forward. It is expansion and not changes in the estimation of the global cash which make Dubai one of the most costly urban areas of the world to live in. The café business sees an immediate effect of rising nourishment costs.

3.8. Set the objectives of the research (what will you do to find out?)

Presently going to the arrangements, the main thing that you should comprehend is that there is no getting away from this test, so should take its full brunt for your foundation. What we mean is that given Dubai contains a great deal of smaller than normal urban areas with shifted client socioeconomics, you might be enticed to go to the less expensive side of the city, yet on the off chance that it doesn't have your intended interest group, all your cash will be squandered. Cash contributed with an unmistakable arrangement and the right demeanour can be recouped. While choosing your area, consider your café design, target crowd, cost of getting crude materials and your menu costs.

Search for areas that coordinate your necessities and still fall in your spending limit. Check the NOC and other authoritative records cautiously. It's absolutely impossible you can get away from high rentals, so you should oblige them in your financial limit. Simultaneously, you can save money on how you run your eatery, in this manner adjusting your financial limit.

To settle this issue and challenge in the foodservice business, how about we improve it somewhat first. In the most fundamental terms, "The Problem Of Plenty" implies that there are such huge numbers of eateries that regardless of whether the general client base is expanding, the impact of this expansion is getting isolated among the host of cafés which cuts singular productivity down. Thus the answer for the issue isn't just concentrating on increasing new clients, yet it is additionally holding old clients. 80% of an eatery's business originates from 20% of its clients, and all these are rehash supporters. Hence client maintenance ought to be your essential territory of core interest. A practical answer for this issue is to direct legitimate statistical surveying, see what the clients are searching for and where the market patterns are moving. When a market is sufficiently adult, it is hit by specific patterns beginning from the adjustment in the purchaser way of life.

The genuine arrangement is making motivating forces for your staff to remain inside the association while robotizing significant procedures to expand staff solace and profitability. We can and should have staff motivator programs set up. Such projects construct sound rivalry inside the group and make your labourers need to perform better. Additional advantages and affirmation being conveyed for their difficult work will go far in causing them to feel increased in value. Tuning in to your representatives, taking their recommendation and facilitating open houses or conversation meetings will understand belongingness and create a feeling of duty to the café.

Given the pace of swelling, it isn't actually workable for the café proprietors to believe the market with nourishment costs. Thus an increasingly feasible arrangement is to rehearse nourishment cost control at their individual outlets. Overseeing nourishment squander, overseeing stock and cautiously adjusting yield and fluctuation are the most noteworthy answers for the issue.

Nourishment squander the board implies dealing with the waste created at the café so that waste produced is diminished and a large portion of the nourishment squander is reused. This article will
3.9 Research Model

control on the best way to oversee nourishment squander in your eatery with no additional expenses.

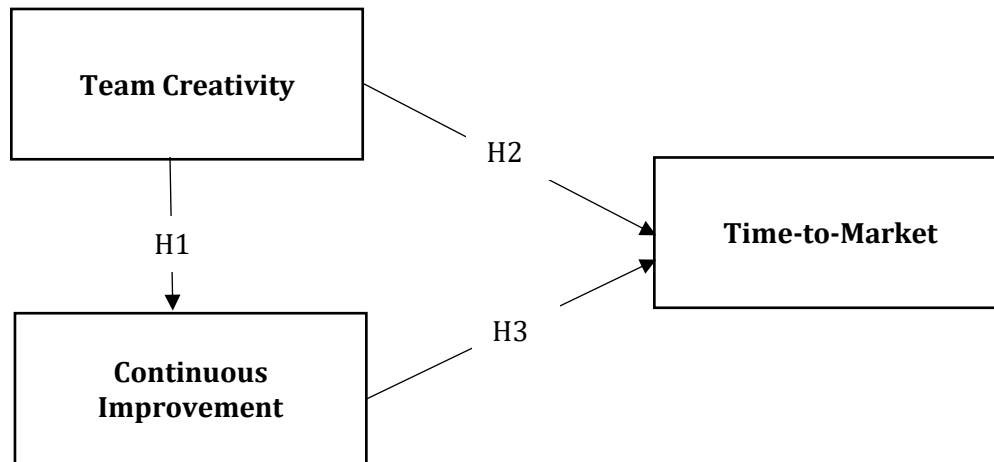


Figure (1)

United Arab Emirates government.

4. METHODOLOGY

The nourishment preparing industry contains a wide range of mechanical units that produce nourishment and vegetable items, marine items, meat and meat items, grain items, and so forth. It must assume a key job in invigorating financial turn of events. The nourishment preparing industry can likewise be a valuable instrument for improving nourishment supply (i) forestalling post-gather misfortunes of strong and short-lived nourishment and (ii) creating work, particularly in provincial territories. The foundation of the nourishment preparing industry can prompt an improvement in horticultural efficiency and improve ranchers' salaries. They can likewise help many transitional businesses and produce remote monetary standards through fares. The nourishment preparing industry is the fifth biggest section in the modern structure of the Indian economy regarding included worth

While the United Arab Emirates (UAE) are considered food safe due in large part to their economic and political stability, they still face the challenges of food security resulting from water scarcity, climate change, hot weather and instability regional. Food security and long-term self-sufficiency are key strategic objectives for the

4.1. Research Hypotheses

H1: Team creativity has a positive impact on continuous improvement in small and medium-sized manufacturing companies in UAE.

H2: Team creativity has a positive impact on marketing small and medium-sized manufacturing companies in UAE.

H3: Continuous improvement has a positive impact on marketing in small and medium-sized manufacturing companies in UAE.

The nourishment and drink creation part is one of the spearheading divisions of the United Arab Emirates industry. Numerous ventures began during the 70s and have since built up their aptitudes for a considerable length of time.

- F&B has been chosen as the reference division in the Dubai 2030 modern methodology, among five different parts.

- According to insights from the Ministry of Economy, the quantity of F&B creation licenses in the United Arab Emirates added up to 575 toward the finish of 2016. Of these, 51 organizations have normal speculations of over AED 50 million for each unit.

- Investments in the nourishment and

refreshment area add up to AED 39.5 billion, of which 21% is comprised of remote capital.

- The number of representatives in the nourishment and refreshment area is around 44 thousand, which speaks to around 10% of the all out number of workers in the mechanical part.
- Dubai Exports has 218 enrolled individuals from F&B and drove 28 nourishment organizations in 2017 to take an interest in world nourishment shows in Germany (Anuga) and Russia (WFM).
- The nation presently has over 80% of independence in milk and practically 40% of independence in its interest for eggs as indicated by the BMI.
- The UAE halal segment has extraordinary potential all around as the estimation of the worldwide halal nourishment industry is assessed to have reached \$ 1.1 trillion of every 2013, as indicated by ongoing writing, which speaks to over 16% of the world nourishment showcase. While halal nourishment deals are required to beat the general nourishment industry throughout the following five years.
- The World Bank's Doing Business report positioned the United Arab Emirates in position (21) internationally (DB 2018 21).
- High private utilization and constrained

Table 1: Questionnaire

swelling.

- Large interests in the nourishment retail area.
- The UAE advertise offers immense open doors for excellent nourishment, got from the high

dispensable livelihoods of the developing national populace and sightseers.

- There is a consistent development in the utilization of enhanced water and nutrient beverages.
- The United Arab Emirates have fabricated a decent base for the halal division, including foundation and standard setting. These endeavors were reflected in the dispatch of the Halal Complex in 2014 in the modern city of Dubai. UAE-based organizations have begun to work overall, for example, Al Islami Food.
- Online basic food item administration and interest for prepared to-eat nourishments are extending because of urbanization and the developing workforce that means time.
- The United Arab Emirates are considered the most alluring F&B business condition in the MENA area, first in the MENA locale and fourth in the RMI hazard/reward file distributed by BMI.

Information assortment

Information assortment is the way toward gathering and estimating data on the factors of enthusiasm, in a combined precise way that permits you to respond to explore questions, test speculations and assess results.

The questionnaire provides the quickest and easiest technique to collect data on groups of people dispersed in a large and extensive field. With this method, a questionnaire form is usually sent to the interested parties, with a request for answers to the questions and return of the questionnaire.

	QUESTIONS	poor	Fair	Good	V/Good	N/A
1	How would you rate the general nature of the dinner gave?					
2	How would you rate the nature of the morning meal?					
3	How would you rate the nature of the lunch?					
4	How would you rate the nature of the night dinners?					
5	How would you rate the nature of the bites served between dinners?					
6	How would you rate the assortment of nourishment gave?					
7	How would you rate the nature of the data given in the menus?					
8	How would you rate the reasonableness of the					

	nourishment gave?					
9	How would you rate the introduction of the nourishment (ie. What amount of exertion to guarantee that the nourishment looks decent)?					
10	How would you rate the temperature of the nourishment (ie. Is it hot nourishment consistently served hot?					
11	How would you rate the accessibility of beverages?					
12	How would you rate the nature of the lounge area offices?					
13	How would you rate the mood of the lounge area?					
14	How accommodating are the serving staff at eating times?					
15	How accommodating are care staff on the off chance that you require help at eating times?					
16	How would you rate the endeavors made to fulfill your individual necessities?					
17	What is your general rating of the nourishment and providing food administrations advertised?					

5. CONCLUSION

In the wake of breaking down the nourishment business' history, development and current achievement factors, that one can presume that it is protected to remain in this specific industry. It is exceptionally vital for a firm to make suitable administrations and offices which pull in the clients naturally. Nourishment Industry has seen huge development and changes and interest for nourishment is ceaseless so expanding request in the worth included item can be an aid for the business. This examination will add to an improved comprehension of individuals and business organizations identified with their structure, wellbeing , perspectives and inspirations and this should empower nourishment organizations to enhance their business procedures to address the issues and needs of wellbeing cognizant buyers just as the representatives. It will give proof based arrangement suggestions to government organizations looking to change buyer conduct

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