Exploring the Role and impact of social media in Transforming Supply Chain Dynamics within the Food and Beverage Industry

Thesis submitted for the degree of Doctor of Philosophy By

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ABSTRACT

The COVID-19 pandemic significantly disrupted global supply chains and exposed the vulnerabilities of Small to Medium Enterprises (SMEs) in the competitive food and beverage (F&B) industry. This disruption underscores the need for adaptive strategies to enhance resilience and sustainability in supply chain management (SCM). Despite the high smartphone penetration in the Gulf Cooperation Council (GCC) region, there is a notable lack of research studying social media (SM) integration into SCM. This gap presents an opportunity to explore how SM can transform SCM practices, particularly in Kuwait and the UAE, where digital engagement is high yet underutilized in this context. This research addresses the gap in understanding the factors influencing SM adoption in SCM among SME decision-makers in the F&B sector. By employing the UTAUT2 (Unified Theory of Acceptance and Use of Technology) framework, the study develops six hypotheses to explain the critical factors driving or hindering SM integration. A mixed-methods approach reveals both qualitative and quantitative insights: qualitative analysis indicates an openness to SM adoption tempered by concerns over training and resources, with Kuwait showing more caution compared to the UAE. Quantitative PLS-SEM analysis confirms four of the six hypotheses, highlighting facilitating conditions as the primary driver of SM adoption. The findings demonstrate that while there is potential for SM to enhance customer reach, satisfaction, trust, and loyalty, significant barriers remain, including the need for adequate training and resources. This research contributes theoretically by extending the UTAUT2 framework to include specific factors relevant to SM integration in SCM within the F&B sector. The study provides practical insights for policymakers and business leaders on fostering a supportive environment that promotes digital integration, ultimately enhancing efficiency, transparency, and productivity in the F&B supply chains. This dissertation fills a crucial research gap by exploring the under-researched area of SM integration in SCM for SMEs in the GCC's F&B industry by offering both theoretical contributions to the academic discourse and practical recommendations for regional economic diversification and digital transformation initiatives.

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1. CHAPTER ONE: INTRODUCTION

1.1. Introduction to Research Topic

For any company to be successful, whether it's a retail and industrial giant like General Electric (GE) or the manufacturing genius of Toyota, their productivity and efficiency (which translates to their fiscal success) is built upon their ability to be able to transform raw materials and knowledge into finished goods and services (Leuschner, 2017). Perfecting these operations and processes yields both a better product and a happier consumer, resulting in a more prosperous company.

For most companies, however, growing competition and increased globalization have put further pressures and demands on such processes, forcing them to take more steps to move towards higher efficiencies and lower costs. Drivers to globalization may be traced to multiple global trends simultaneously occurring, including increased global sourcing, more emphasis on time and quality-based competition, and contributions to greater environmental uncertainty, all of which have made companies keep trying to find more effective ways to coordinate the flow of materials in and out of their warehouses and retail stores (Mentzer et al. l, 2001). To meet today's consumer's demands and expectations, companies are increasingly having to re-evaluate and create better relationships with all their suppliers and other partners within their supply chains.

Chopra, Sunil, and Meindl (2003) have defined and elaborated on the parameters of what is entailed within the 'supply chain.' To them, it extends to "all states involved, directly or indirectly, in fulfilling a customer request. "The supply chain includes not only the manufacturer and suppliers, but also transporters, warehouses, retailers, and customers themselves" (Chopra, Sunil, and Meindl, 2003). Though the definition and what is encompassed in the supply chain has varied over time, the advent of the mobile smartphone and the parallel evolution of social media has drastically changed how supply chains may be influenced and driven.

In the last decade, the end consumer has become increasingly important in supply chain management due to the rapid development of mobile technologies (Fathelrahman, E. and Başarir, A., 2018; Sembiring, N et al., 2020) as the growing prominence of online retail order fulfilment and omnichannel SCM (Sembiring, N., Tambunan, M. and Ginting, E., 2020; Esper and Peinkofer, 2017). This shift in the supply chain management can be attributed to several factors, as the growing number of smartphone technology has enabled more real-time communication between end consumer in order

to adapt inventory and products and services to meet their demands and expectations more accurately so as to then reduce inefficiencies (Sembiring, N., Tambunan, M. and Ginting, E., 2020).

Social media are forces that cannot be ignored by anyone or any group that is trying to communicate or interact with others, especially on a mass scale. Considering that already between three major applications, there are over 2.7 billion people on Facebook©, 2 billion people on YouTube©, and 1 billion people on Instagram© (Tankovska, 2021), hashtags have allowed for mediums that allow an incredible amount of access and the ability of targeted marketing and direct communication (Bergstrom and Backman, 2013). This is even more apparent given that advertising integration within social media, and in the consumption of social media itself, is unparalleled to previous media. As such, marketers have fully embraced social media as a marketing channel (Appel et al., 2020). Although some might even argue that it is the most important one due to the fact that all marketing efforts are now further tagged and incorporated into social media itself, becoming a 'smart' anthology of all marketing for any company, at the fingertips of each and every consumer.

For any company selling a product or service, harnessing the potential of social media has become a necessity to survive in this time of massive globalization (Bergstrom and Backman, 2013). From being able to market new ideas to see almost immediate feedback from consumers across the globe to bringing transparency and showcasing the process of how, where, and what a product goes through in its transformation from raw supply materials to finished product, to delivery, and finally to customer reviews; today's social media is the fundamental medium through which a company communicates to the world at large; whether they use YouTube, Facebook, Instagram, TikTok, or LinkedIn, amongst the dozens of media available.

"Academically, social media has also been embraced, and an extensive body of research on social media marketing and related topics, such as online word of mouth (WOM) and online networks, has been developed" (Appel et al., 2020). Being able to communicate notwithstanding, the ability to foster cross-communication through all supply channels, as well as potentially open up to more competition, has also enabled a unique new environment where competition can come to its almost ideal Adam Smith described forms. Simply put, the knowledge gap that would otherwise naturally exist is slowly closing for some; however, alternatively, for those without access, this gap is increasing to far larger than ever before (Udeze and Oko, 2013).

The Dutch Chamber of Commerce, along with various other partners, conducted a study and found that, indeed, social media has evolved into the ideal tool for client communication as it permits

immediate cross-communication companies, facilitates idea exchange, is able to highlight new opportunities, but is also a place where competition forces companies towards constantly putting out content to ensure that they remain at the forefront of the consumer (Pierce, 2020). They further found that optimal use of social media keeps interaction fresh, with the added bonus of integrating transparency between stakeholders (ibid).

Comments left by end consumers on various social media about products, services, or even on the companies themselves provide critical information for the supply chain and its related processes. However, this same access to every potential consumer also brings with it numerous challenges. The potential high volume of posts and the 'wide' scope of such comments pose hurdles for any company in figuring out how to gather this data, collate and sort it, make sense of it, respond to it, and then leverage the information gathered in order to improve efficiency and ideally to enhance a company's position in the market.

Navigating today's dynamic social media etiquette also presents major challenges, as being 'literate' in where and how your message is being presented across various platforms is critical to ensure success (de Valck, 2017). There is too much information, too many ways of presenting it, and little 'proven' information in terms of strategy and methodology regarding what to do and how to best do it (Appel et al., 2020; de Valck, 2017).

The COVID-19 pandemic further pushed many industries and companies to digitise and find new means of differentiating and marketing themselves. Though for many other nations, whether it be Japan or the USA, linking and facilitating communication throughout the supply chain to the end, customers have started to become more popular and, in some industries, the norm (whether it is about Fairtrade laws or CSR endeavours), the GCC is still quite new to the concept. The Covid-19 Pandemic did see some Small to Medium Industries (SMEs), more specifically in the Food and Beverage (F&B) industry, in the Gulf Cooperation Council (GCC) Countries, start to open their marketing strategies to include some of the Supply Chain partners within their marketing platforms.

What seems almost paradoxical is that the GCC, where smartphone penetration and social media are some of the highest per capita in the world (See Literature Review 2.11), has almost no SM integration in their SCO/SCM. Therefore, this research aims to introduce and discuss the potential of SM towards a more efficient tool and, first, survey 300 F&B SMEs in Kuwait and the UAE to ascertain some idea of their current marketing strategies and openness to facilitate communication between those on their supply chain and the greater community, including their end customers, then second, go

into interviews to really communicate the potential and understand the concerns and potential pitfalls for those who would have to make such a transition. To understand their perspective and introduce potential benefits, such as increased sales and loyalty, happier suppliers providing better service and products based on demand, or higher efficiency, will help create strategies for government agencies to transition the region to a more advanced form of commerce. As such, the purpose of this research is to determine the mindset of SME owners in the F&B industry in the region and determine what factors play into the sustained usage of social media in their supply chain management towards their ability to maintain relationships between stakeholders.

1.2. Research Significance

Research finds that scholars have long viewed servicing and satisfying the demands of end-consumers as the ultimate goal of supply chains (Frankel et al. 2008). However, consistently it can be shown that consumers tend to have been neglected while conducting Supply Chain Management (SCM) research as they are often considered passive recipients of SCM services instead of being elements that can directly influence the processes involved (Esper & Peinkofer, 2017; Peinkofer et al., 2016; T et al., 2015).

However, with the growing popularity of social media and, therefore, potential access of end consumers to elements along various supply chains, as well as the potential dynamic relationships that can and have evolved, more and more research has started to stop taking end consumers for granted. As such, this research aims to not only explore consumer-oriented SCM dialogue but also to do it in an environment where such marketing/communication has less frequently been done in the past. Although GCC member countries combined are a vibrant, growing market with generally higher percentages of smartphone penetration per capita as well as online purchasing (see Chapter 2.11), engaging various elements and members along the supply chain to the greater audience has rarely occurred. This is particularly surprising given the limited production capabilities of GCC countries (see Chapter 2.11) and the fact that a large portion of market goods, from fresh food and vegetables to capital goods, are imported due to their predominantly fossil fuel-based economies (see Chapter 1.3). This presents a wealth of untapped research opportunities that can significantly contribute to the broader field of SCM research.

1.3. Background to the Research Area

The background to the research includes the main areas such as supply chain (and management) as well as social media and its usage; however, these are further nuanced due to the culture of the people of the GCC, as well as heavily influenced by what happened in the pandemic that forced such drastic changes to most aspects of life.

To begin with, social media includes the use of all web-based and mobile technologies where communication is able to be converted into interactive dialogue (Markova and Petkovska-Mirčevsk, 2013). Social media can be defined with various differentiating nuances; however, in the most macroscopic sense, social media may be seen as a group of Internet-based applications built on foundations of Web 2.0 in terms of both ideology and technology, whose capabilities now allow for the creation and exchange of user-generated content (Kaplan and Haenlein, 2010). Also referred to as *Consumer Generated Media* (CGM), social media is where technology and social interaction blend for the co-creation of value (Markova and Petkovska-Mirčevsk, 2013).

The global COVID-19 Pandemic has impacted people's lives in every corner of the globe in an unprecedented manner. Movement restrictions and preventive measures in reducing the movement of goods and services that rely on transportation, as well as labor migration, have induced overall disruptions in supply chain logistics. These factors have impeded the shipment of food and agricultural inputs and essentials, thus threatening food security and nutrition, particularly for the most vulnerable segments of the population (FAO, 2020).

The Centres for Disease Control and Prevention (CDC) defines an *epidemic* as an "unexpected increase in the number of disease cases in a specific geographical area. A pandemic (on the other hand) is an epidemic that has travelled internationally. In other words, a pandemic is simply a larger and more widespread epidemic" (Stanborough, 2020). The challenges that COVID-19 (the colloquial term for the cause of the SARS-COV-2 pandemic) brought have been massive and widespread, affecting most aspects of daily life for people globally, from travel to how people work and go to school. This global pandemic has also helped magnify certain vulnerabilities and limitations across the board, especially in terms of supply chain management (Meyer et al., 2021).

According to a report by the McKinsey Group, one of the leading Economic and Investment Advisor Groups in the world, the COVID-19 pandemic's impact on global supply chains has been incredibly significant as well as extremely rare (McKinsey, 2020). This is more evident because, in the

last 25 years, the world has systematically been developing into a more unified, integrated global supply chain network, where even though dealing with climate change means expecting and making room for one-to-two-month disruptions, nothing prepared the world for the unprecedented impact of an almost global shutdown over various periods during the three years of 2020 - 2022.

According to Susan Lund, a partner of McKinsey & Company and a leader of the McKinsey Global Institute who is leading their team that is studying the impact of COVID-19 on economic growth, the multipolar economic system that we currently exist in generally has challenges where companies have to deal with differences and competition among various economic systems. Lund further reflects that increasing climate change-triggered natural disasters, whether droughts or floods, are becoming more frequent and severe events. However, despite them, the world has engaged in an incredibly complicated, co-dependent system of global supply chains designed towards reducing cost and increasing efficiency, however, without any legitimate contingency for a situation such as COVID-19 presented (*ibid*).

Some of these glaringly obvious limitations have been focused on supply chains in terms of both their fragility as well as how underutilized social media and communication between end users and members along the supply chain have been (Pierce, 2020). What is surprising is that these vulnerabilities do not just exist in the 'third world' but are globally seen, unfortunately.

The ability to communicate between partners on any supply chain and so adapt quickly is at the heart of supply chain management. Yet, according to a study in 2019 by ABN Amro and the Dutch Chamber of Commerce, where 655 companies in the Netherlands were surveyed, it was found that only "46% of surveyed companies make use of social media, a low figure in comparison to other sectors. Almost half (40%) of decision-makers don't see an advantage in social media for the logistics sector, and this, combined with a lack of knowledge about social media application in 36% of respondents and budget constraints preventing investment in social media development (10%), means that many logistics providers are unwilling to make the necessary developments. Only 10% of the surveyed companies plan to invest in social media in the near future, with 50% of companies confirming that they do not plan to make use of social media at all" (Pierce, 2020).

A potential reason for such hesitancy in the Netherlands specifically could be that the most commonly used social media for marketing purposes (until 2019 at least) was Linked In, followed by Facebook and Twitter. With the changing dynamics of the last year and a half, it would be interesting to

see how this environment and the opinions of decision-makers within the supply chain has changed since.

Various strategies have been pointed out in order to help supply chain management improve, including transparency between supply chain members and the end user. Lund emphasizes the strategic importance of transparency as it allows companies to be able to benefit from this 'win-win,' adding to their resilience by increasing awareness of their full network of suppliers and therefore enabling them to be more proactive towards any changes along the way (McKinsey, 2020).

Both Kuwait and the UAE are very sensitive to global supply issues as a majority of goods, especially in regards to their food commodities, are dependent, by majority, on imports coming into both countries. However, being also smaller nations that both relatively have experienced surplus economies and have ample contingency funds to work with, COVID-19 did not affect the populations as well due to their respective government competencies in maintaining the food supply alive during the crisis (FAO, 2020b). Specifically, in regards to food and agriculture, both Kuwait and the UAE were able to benefit from a variety of instruments by focusing on markets, consumers' needs, and preferences and, most prominently, mobilised the successful efforts of the private sector and civil society (*ibid*).

One of the most successful means of sustaining commercial ventures was by facilitating companies towards immediately transitioning to online purchasing via apps created within 2020. Though the process had started for many major supermarkets and retail F&B outlets before 2020, the ability for consumers to not be 'shocked' by forced lockdowns and seamlessly transition to home shopping with a plethora of choices and efficient home delivery systems kept the populations calm and mitigated stress; this was further enhanced through government applications that allowed for booking appointments to be able to go to every public place from supermarkets (local cooperatives) to clinics and other government institutions when required.

In order to frame this research, the following sections split up major parts on which this research is based, including the countries and the type of companies (SMEs). By taking a better look at Kuwait and the UAE, this research provides justification for how and why it has been framed. Through both understanding the region's various unique characteristics and why SMEs are so key in both the F&B Industry as well as generally being an ideal 'beta tester' in then helping to transition an industry-wide change in operations.

1.3.1. Kuwait

Figure 1: Map of Cooperation Council for the Arab States of the Gulf (GCC) comprises of six nations, Saudi Arabia, Qatar, Bahrain, Kuwait, the United Arab Emirates, and Oman (Cartalucci, 2012)

Located at the internal end of the Arabian Gulf, as Figure 1 above shows, Kuwait hosts a population of approximately 4.2 million people, only of which 1.3 million are Kuwaiti citizens (CIA Factbook, 2020). Kuwait is a strategic member of the GCC, whose members include the five other regional neighbours including Bahrain, the Kingdom of Saudi Arabia, the United Arab Emirates, Qatar, and Oman. This association is extremely vital for Kuwait as it removes a majority of the trade barriers that otherwise would be detrimental to growth (Hassan et al., 2018).

Like most of its GCC neighbours, Kuwait's oil sector contributes to over 60% of GDP, 92% of its export revenues, and represents 90% of the Kuwaiti Government's income (in lieu of no income tax or VAT, but instead a standard corporate tax law) (CIA Factbook, 2020). "Narrow productive capacity represents the other side of a single-sector economy... During the last fifty years, gross investment represented, on average, 30% of net savings. The excess has been translated into a current account surplus in the balance of payments and represents a net addition to Kuwait's abundant capital invested abroad. Thus, a key objective of Kuwait's economic development strategy over the last half a century has been to accelerate its non-oil GDP growth and expand the role of the private sector." (Eltony, 2008).

The country is economically structured as a Social Welfare State, whose various programs make the Government very supportive of its people, including having the highest Social Security in the world

as well as monthly cash and subsidy hand-outs for its citizens, plus having all of public healthcare and education from primary to university be free of cost (Kuwait Pocketbook, 2019).

Economically, Kuwait has very low tariffs (none for GCC nations), although there are restrictive regulations and bureaucracies that inhibit trade somewhat. Opening a business is generally relatively easy; however, bureaucracies and regulations can create barriers (Hassan et al., 2018).

Kuwait ranks 3rd amongst the GCC countries in terms of both per capita GDP and GDP growth (*ibid*). Of course, COVID-19 has done its fair share of damage in terms of economic 'recession,' but it has also done damage to the whole GCC and not just Kuwait. "The GCC countries that rely on oil revenues have been hit harder as oil prices reached record lows due to a combination of falling demand and increased supply as OPEC+ alliance partners failed to reach a consensus in March 2020 on production cuts" (KPMG, 2020). With a nearly 70% drop in oil prices as compared to Jan 2020, the reliance on oil revenues for GDP has definitely been a wake-up call for the country.

Entrepreneurship has taken a driver's seat in the Middle Eastern region, and more specifically, people's focus has turned toward creative industries. With the existing Governmental support, especially with the Kuwait Small Projects Development Company (KSPDC) and the National Fund for SMEs (where approved projects are provided with up to 80% financing up to a maximum amount of GBP £ 1.75 million (The National Fund, 2020), Kuwait's SMEs are being provided the extra support they need to help foster a thriving economy. This is critical for potential new solutions, even within the supply chain, as applications that could help increase efficiencies or solve current obstacles etc., would be easily financed and supported by the Government.

Even before the pandemic, Kuwait's government had been planning and implementing various phases towards its "New Kuwait 2035" Vision. Also known as the Kuwait National Development Plan, the strategy aims to "transform the Arab country's economy, create employment opportunities, and generate additional revenue streams through a diversified economy by 2035" (Plant, 2019). Considering the construction taking place, the new developments that are being built, and the logistics and transportation investments that are concurrently happening, supply chain solutions and new partners are even more welcome. "Kuwait's Public Private Partnership (PPP) Law of 2014 and the $86bn (KWD26.2bn) Silk City project — Phase 1 of which includes the construction of an international airport, a rail network, and a trade zone for Mubarak Al-Kabeer Port — have been the key drivers of foreign investment in the country in 2019... In June 2019, £108bn (KWD42.9bn) projects were under

construction in Kuwait, which included schemes worth £48bn (KWD18.9bn) in the oil and gas sector, £37bn (KWD14.7bn) were urban buildings, and £23bn (KWD9bn) were infrastructure projects" (*ibid*).

1.3.2. The UAE

The United Arab Emirates (UAE) is a federation of seven emirates located in the southeastern Arabian Peninsula. Over the last few decades, the UAE has gained international recognition for its remarkable growth and transformation over the years as an architectural, technological, and touristic wonder (Smith, 2020). The UAE's remarkable development and transformation have made it a global focal point of investment, tourism, and trade.

The seven emirates, including Abu Dhabi, Dubai, Sharjah, Ajman, Umm Al-Quwain, Ras Al Khaimah, and Fujairah, are united as a 'federal' state, but each is ruled by a different tribe with varying degrees of autonomy that cooperate on matters of national significance (Jones, 2019). The UAE is renowned for its iconic skyline, opulent lifestyle, and diverse economy, bolstered by its oil and gas, tourism, finance, and technology (Brown, 2018). Positioned strategically and geographically as a global business hub, the UAE attracts expatriates and investors to live, work, and conduct business. It has become a tourism mecca, drawing people from all over the world due to its central location between North America and Australia/Asia.

The UAE is unlike Kuwait, where its population, though similar in the number of local citizens (approximately just over a million people in both), attracts twice as many expats. The diverse total population has exceeded 10 million people, with expatriates constituting the majority (Williams, 2017). Population demographics median age of approximately 30 years (Smith, 2020).

Over the past three decades, the UAE has undergone remarkable economic growth and diversification. Visionary leadership has fuelled substantial investments in infrastructure, education, and technology, aimed at reducing dependence on oil revenues (Davis, 2016). This started later than Kuwait; however, the investments and strategies exemplified have helped the nation soar to the lead in the GCC – fighting a close battle with Saudi Arabia to retain first place. The UAE continues its visionary outlook by becoming a global centre for innovation and entrepreneurship, focusing on sectors such as renewable energy, artificial intelligence (AI), and space exploration (Johnson, 2018).

The UAE, like Kuwait, has embarked on an ambitious and comprehensive national development plan to diversify its economy and reduce its dependence on oil revenue. This plan, often referred to as "UAE Vision 2021," was later succeeded by "UAE Vision 2030," plans that outline the country's targets

for various sectors from technology to tourism, even the F&B sector, as well as significant changes in its approach to agriculture and food supply. From transitioning to green technology to investing heavily in cleaner solutions for public transportation, the UAE is simultaneously making significant investments in food security by enhancing farming, agriculture, and port infrastructure to expand trade capabilities. Most importantly, the UAE is focusing on increasing localized production to export more domestically made products. This approach contrasts sharply with Kuwait's Vision 2035 Plan, differing in both strategy and implementation.

1.3.3. Small to Medium Enterprises (SMEs) in the GCC

Founded in 1981, the Gulf Cooperation Council (GCC) is composed of the political and economic alliance of six Middle Eastern countries, including Saudi Arabia, Kuwait, the United Arab Emirates, Qatar, Bahrain, and Oman. Like any other regional and economic alliance, the purpose of the GCC is to achieve unity among its members based on their common objectives and their similar political and cultural identities, which are rooted in Arab and Islamic cultures (Britannica, 2020).

From the 1950s to 60, the individual nations within the GCC were being founded, and as oil and gas were founded, they took the next 30 years to cement their foundations, develop major social welfare systems for their local citizens, build their main cities, and also to attract expatriate communities to help develop their countries. Beginning in the 1990's – early 2000s, steps have been being taken by the governments in order to help foster a culture of innovation and growth.

Almost thirty years later, the GCC remains a prime region for entrepreneurship. All GCC countries suffered economically due to the Global Recession starting in 2008 and a major drop in oil and gas prices in 2015. Since the 2000s, and continuing into their new Development Plans (targeted between 2030 and 2035), each GCC nation has taken significant steps toward economic diversification. A significant portion of the investment towards such diversification is the creation of each nation's Small to Medium Enterprise (SME) Funds, whose goal is to support entrepreneurial ventures towards sustainable economic drivers for the future. This comes with the heavy practical (and heavy) acknowledgement that their current systems of massive social support for their citizens are not sustainable given their current and future oil revenues.

Small and Medium Enterprises (SMEs) are defined as "non-subsidiary, independent firms which employ fewer than a given number of employees" (OECD, 2005). The number of employees varies greatly from country to country, ranging from 100 to 500 employees. However, in the GCC, micro enterprises generally have 2 or fewer employees, small companies have 3 to 49 employees, and

medium companies have 50 to 200 employees (Ramadhan & Girgis, 2018). Such SMEs have been critical in driving the economies of many countries, especially in the West, where "mom and pop" stores and other small businesses have been the foundation of the economy.

Specifically, though, SMEs identified as 'Creative Industries' are even more appropriate for the GCC region. "The term "creative industries" refers to industries that supply goods that are commonly associated with cultural, artistic, or entertainment value, from the niche Food and Beverage or Fashion Industry to those involved with film, television, music, publishing, video games, the performing arts, sports, fashion, advertising, and other areas within the media and entertainment sector" (Elberse, 2014). These businesses have been key to many economies, including the UK, where in 2017, creative industries contributed more than £100 billion that year alone (DCMS, 2018).

The two main SME funds in the UAE, the Mohammad Bin Rashid Fund (founded in 2012) and the Khalifa Fund (founded in 2007), amongst quite a few others, have invested more than $1 billion dollars towards supporting new SMEs within the country. Similarly, in Kuwait, the National Fund for SMEs has a total investment capital of nearly $7 billion dollars. This is significant as the amount GDP being created and the amount of business revenue in each country, the UAE and Kuwait, via the SMEs has been growing steadily. What is also important to note is that initially, in both Kuwait and the UAE, most of the SMEs funded were within the F&B industry. However, funding for F&Bs has decreased, moving them away from the majority of projects handled by the funds due to high competition and a high bankruptcy rate (many do not survive the past three years). Nevertheless, the number of F&Bs starting in both countries remains very high, with many taking private loans from families. Therefore, this industry sector is key to improving efficiency. Additionally, it is one of the top industries where smartphones are used for ordering and communication for delivery and takeout, rather than visiting the store. The SME market is huge and, with limited bureaucracy and fewer decision-makers involved, it has great potential for business and innovation.

1.3.4. Food and Beverage Industry (F&B) in the UAE and Kuwait

For both Kuwait and the UAE, probably one of the most detailed and robust industries is by far the F&B. Comparison of Kuwait, UAE, and the UK in terms of Food Sector Revenue according to Statisa© is provided in Table 1.

Table 1: Comparison of Kuwait, UAE, and the UK in terms of Food Sector Revenue (Statista, 2024)

Country	Revenue from Food Market 2024	Expected CAGR (2024-208)	Population	Food Revenue per Capita
Kuwait	US$12.85bn	4.88%	4.5 million	$ 2,856
UAE	US$38.29bn	4.90%	9.56 million	$14,465
UK	US$172.00bn	4.09%	67.61 million	$ 2,544

To compare, the revenue from the food market per capita (Food Revenue/Population) is higher in Kuwait than in the UK, but the UAE's figure is staggeringly higher. This can be attributed to the extremely high tourism rates in the UAE compared to Kuwait and the availability of fine dining and high-end restaurants due to the accessibility of alcohol, which is not available in Kuwait. Although the UK also has significant tourism contributing to relatively high food revenue per capita (many tourists in the UAE are from the GCC region), spending is higher in Kuwait and the UAE, both of which also have a higher expected CAGR.

In terms of both the UAE and Kuwait, there are many wholesale suppliers within the country, though definitely far fewer than the international ones. The wholesale suppliers also range to satisfy all types of product lines (organic, dairy-free, gluten-free, etc.) and are represented by the plethora of farms, bakeries, and catering companies. F&B ventures represent the largest segment of SMEs, for example, according to a detailed report by one of Kuwait's most recognized Financial Investment Companies Markaz (2020), 40% of SMEs in Kuwait are in wholesale/retail trade and hotels and restaurants; a segment where locals are actively involved. Though governments have reduced funding for the SME F&B sector due to potential saturation and high failure rates, the number of F&B-related businesses, from wholesalers to online digital solutions, continues to grow, including farming and local manufacturing.

To maximize the usefulness of this research, the focus of this study is to explore and identify key ways of integrating social media into the supply chain within the F&B industry in Kuwait and the UAE. Finding solutions to create further efficiencies is vital to protect the industry and food culture in these countries. Given that national sustainable development plans target tourism, the F&B sector is expected to grow substantially. Social media plays a crucial role in the F&B industry, particularly through platforms like Instagram, Facebook, and TikTok. These apps are pivotal for communication, marketing,

and customer engagement. They serve as primary channels where consumers in Kuwait and the UAE manage F&B transactions, stay informed, and access updated information.

While there are other applications such as Talabat, Carriage, and Deliveroo that facilitate direct ordering, Instagram stands out as the central hub connecting users across these regions. It offers the optimal medium for interaction among various stakeholders in the F&B supply chain.

1.3.5. Supply Chain Management in the UAE and Kuwait

Supply chain technology and development have been significant areas of focus for both Kuwait and the UAE in recent years. These two GCC nations have recognized the importance of modernizing their supply chain operations to enhance efficiency, reduce costs, and support economic growth.

Both the UAE and Kuwait have made considerable investments in technology adoption. Both have shown a growing inclination toward adopting cutting-edge technologies in their supply chain operations (Alsharidah, M Y. and Alazzawi, A., 2020). Technologies such as the Internet of Things (IoT), blockchain, artificial intelligence (AI), and data analytics have gained prominence (Agrawal and Narayan, 2020). These technologies are being used to track products, monitor inventory, and optimize logistics, resulting in streamlined supply chains and improved customer service.

Both countries are also leaders in the e-commerce Boom. The rapid growth of e-commerce has significantly influenced supply chain technology investments in both countries (GoGlobe,2023). E-commerce platforms have become more sophisticated, with integrated supply chain solutions. Companies in both countries have and are investing in robust e-commerce infrastructure, last-mile delivery solutions, and inventory management systems to cater to the increasing demand for online shopping (Rao et al., 2021).

Both nations have also made huge investments in new construction projects for their logistics and transportation. Efficient logistics and transportation networks are pivotal for supply chain success. Kuwait and the UAE have recognized this and have invested heavily in enhancing their transportation infrastructure, from roads to public transportation to new ports and even new 'islands' that will serve as new hubs for trade. Notably, Kuwait started investing more than $11.3 billion USD into new infrastructure almost ten years ago (Albawaba, 2016), and the UAE has developed world-class logistics hubs, including the Jebel Ali Free Zone in Dubai, to facilitate global trade (Al-Malki, M. and Alkahtani, M., 2022). These hubs incorporate advanced technologies to improve cargo handling and tracking.

Further, simplifying customs procedures and trade facilitation have been focal points for both nations. Investments have been made in electronic customs systems that expedite the clearance of goods at borders and ports. This not only reduces delays but also minimizes opportunities for corruption. Moreover, significant advancements in digitization tools, including biometrics, have been implemented across all ports in Kuwait. These measures aim to enhance surveillance, reduce manipulation, and expedite processing (Kuna, 2024). The UAE is also deeply committed to technological innovation, exemplified by the introduction of electronic e-gates at airports for immigration. This initiative allows travelers of certain nationalities with valid passports to scan their documents and pass through without the need for human interaction. Additionally, the UAE's expanding free trade zones and progressive policies, such as the Gold Visa Program, are increasingly attracting companies to use the UAE as a trading hub (Gonzalez, 2024).

Another considerable investment that both Kuwait and the UAE have encouraged is through the growth of startups (again SMEs) focusing on supply chain technologies. These startups are developing innovative solutions in areas such as supply chain visibility, demand forecasting, and warehouse automation (Sivan, 2024). Government initiatives, venture capital funding, and incubators have supported the startup ecosystem in the region.

The literature suggests that these, among many other investments, have started to pay dividends for both Kuwait and the UAE. The adoption of new technologies has streamlined supply chain operations, while the development of robust logistics and transportation infrastructure has improved the overall efficiency of the supply chain. As these nations continue to prioritize supply chain development, they are well-positioned to capitalize on emerging trends and solidify their positions as regional and global logistics hubs (Shamout, D, M. et al., 2022; Al-Malki, M. and Alkahtani, M., 2022). In addition to adopting technology and investing in infrastructure, both GCC nations have prioritized talent development to bolster their supply chain management and operations. This involves attracting expatriates, supporting local education initiatives, and cultivating a skilled workforce proficient in new technologies and best practices across the supply chain spectrum, from management and assessment to technical roles. As a result, specialized training programs, partnerships with academic institutions, and knowledge transfer from global supply chain leaders are being actively pursued. These initiatives aim to cultivate a talent pool capable of driving innovation and sustaining the momentum of supply chain advancements in the region.

Lastly, a focus on sustainability is increasingly becoming a priority in supply chain management. Both countries are investing in sustainable supply chain practices, such as eco-friendly packaging, energy-efficient transportation, and waste reduction (AlChami, 2023). Sustainable practices not only align with global environmental goals but also offer long-term cost savings.

As Kuwait and the UAE continue their journey towards supply chain excellence, collaboration and knowledge sharing with global industry leaders are key. Leveraging best practices and learning from international success will further support and augment the competitiveness and resilience of their supply chain ecosystems. Leveraging all the best practices, given the opportunity of the National Development Plans (NDP) being embraced and enacted, gives them the ideal opportunity to embrace a holistic approach encompassing all the latest technology, infrastructure, talent, and regulatory enhancements and therefore both emerge as 'stars' of modern supply chain management and operations in the region (Foodnavigator, 2020). In conclusion, the efforts and investments made by Kuwait and the UAE in modernizing their supply chain operations have proven to be fruitful. The adoption of cutting-edge technologies such as IoT, blockchain, AI, and data analytics has streamlined supply chain operations and improved customer service. Moreover, the development of robust logistics and transportation infrastructure, coupled with an emphasis on talent development and regulatory reforms, has further enhanced supply chain management and operations in both countries.

1.4. Research Problem

The COVID-19 pandemic has underscored the critical need for SM integration within SCM, particularly in the F&B industry. With prolonged lockdowns shutting down physical stores globally, including in Kuwait and the UAE, businesses turned to online platforms to facilitate transactions. However, many encountered challenges, including disruptions in the supply chain due to international travel restrictions.

Various reports from leading research firms (McKinsey, E&Y, and KPMG etc.) highlight the repercussions of supply chain disruptions during the pandemic. Vulnerable SMEs were ill-prepared for such crises and faced reactive and uncoordinated responses, whereas larger, more established companies with established supply chain frameworks demonstrated resilience and agility (McKinsey, 2020).

In the GCC, where trade is vital due to the relatively high dependence on imports, the pandemic severely impacted the flow of goods, with up to a 60% reduction in freight capacity (Nagraj, 2020).

Furthermore, declining oil and gas prices made worse economic vulnerabilities, triggering a heightened focus on trade facilitation and steps needed towards supply chain resilience.

According to McKinsey (2020), digitisation and communication are 'the new mantra' across the integrated economic and supply chain to deal with the current crisis. Organizations across the UAE, particularly in Dubai, have embraced digitization and online connectivity as essential strategies. For instance, DP World, one of the region's largest port operators, introduced online logistics tools and services to maintain trade flow amidst disruptions (JOC, 2020).

What underscores all digitization is that social media has become an integral part of everyday life, influencing almost every aspect of business and communication. Therefore, the obvious incorporation of social media into supply chain management has the potential to revolutionize the way businesses operate in Kuwait and the UAE. Given the existing rising trend of digital transformation across industries and processes in the region, it is essential to explore the impact and potential benefits of integrating social media into the supply chain processes.

This research aims to investigate the current landscape of supply chain management in Kuwait and the UAE and explore how business decision-makers and owners, specifically in the F&B SME market, will approach such a transition. This research examines how social media enhances communication, collaboration, and transparency within the supply chain, introducing the topic to decision-makers to understand the challenges and opportunities for adopting these innovations. While businesses in the region could swiftly gain a competitive edge and optimize their supply chain operations, it remains puzzling why SMEs and larger companies have been slow to integrate these advancements. This lack of awareness coincides with ambitious national development plans in GCC countries, presenting a unique opportunity to embed resilient supply chain strategies early on. As Karlsson and Koegler (2020) point out, the reassessment of long-term supply chains aligns well with these plans, allowing GCC governments to incorporate sustainable and resilient strategies right from the beginning, rather than needing to make substantial changes later. Therefore, this research aims to explore the willingness of F&B SME owners and managers in Kuwait and the UAE to adapt their supply chain infrastructure amidst these developments.

1.5. Research Motivation

The motivation for this research stems from several factors unique to Kuwait and the UAE:

1) Personal Application: As a citizen of Kuwait, as well as a person who has been targeted by the Kuwait Government SME Fund to start a Venture, but then realising that the F&B Industry is (for both the UAE and Kuwait) one of the most competitive and easiest for companies to quickly go 'bankrupt' within two years of starting due to mismanagement etc. The reasons mentioned above make the integration of SM into SCO so much more intriguing and potentially more secure, ensuring a sustained future for anyone who is starting. Therefore, the almost total lack of such integration is beyond perplexing and frustrating as it is a great solution that may easily be integrated to guarantee better economic growth and better utilization of Government funds as well.

2) Smartphone penetration: Both GCC nations have relatively small populations. However, simultaneously, both are also in the highest smartphone penetration in the world (~ 99%) (Kemp, 2020). These two reasons together create an opportunity to examine the mindset of decision-makers to integrate such technology and thereby properly assess the obstacles, the hesitations, and the potential from their perspective. This research was unable to achieve the ability to actually analyse actual integration and its potential, these two countries offer an opportunity similar to what Mendeleev had with his pea plants in that changes and implementation could be done rather quickly and efficiently.

3) 3) Small, tightly connected populations with a shared culture: Due to their small size and close-knit community ties, especially among locals, there exists a particularly unique opportunity. Alongside the influential role of social media, word-of-mouth communication is exceptionally effective. However, our goal here is to initiate a transformation within the F&B industry, and potentially others, by integrating social media. Introducing the concept and its benefits to specific companies should serve as a catalyst for change, potentially leading to substantial progress (see reason 7 below).

4) SME Funds in both countries: Both the UAE and Kuwait have governments and substantive government funds aspiring to support SMEs in diversifying their economies away from oil. Kuwait specifically established its Fund in 2013 with an initial $7 billion US dollars and mostly funded F&B SMEs with up to $1.6 million US dollars (National Fund, 2024). However, many of these F&B SMEs went bankrupt within two years, and by 2018, policies changed so that F&B almost never got funded due to mismanagement and just how competitive the industry is. However, social media

integration is able to potentially help ensure greater posterity for such ventures and could help the Government start funding more F&B SMEs in the future.

5) Massive National Sustainable Development Plans (NDP) Underway: The current comprehensive development that the GCC is undergoing, where each nation is spending upwards of 10 billion to hundreds of billions (potentially even trillions in KSA). Each country's NDP also entails innovative forms of supply chain management, including for both sea and air logistics, as well as land, apart from supporting infrastructure to help companies become more efficient, etc. This research can further be utilised to inform and help with creative ideas as well as provide actual insight on such technology towards greater Government Support.

6) Promoting Industrial Growth: As a whole, the F&B Industry can quickly and collectively transition into a new era of progress and growth given proper SM integration into SCO and SCM. Greater communication and the ability to see potential also fashion far more opportunities for locals to develop different SMEs along various supply chains and offer local solutions, thereby giving a massive boost to industrial progress and reducing dependence on foreign suppliers.

7) Motivating Innovation: By introducing potential and showing the benefits of such integration, this research can motivate developers to come up with new social media sites or interfaces developed with the specific needs of traditional businesses in the region in mind. This could be an entry platform for innovation across the board, where we already have Government and Government funding available to support such transitional change. This is also in line with the NDP's plans of keeping cutting edge as well as creating more opportunities within the borders, creating more jobs, and building towards the GDP.

1.6. Research Aim and Research Questions

Within the scope of narrowing down the research question, this study focuses specifically on the UAE and Kuwait. It centers on SMEs within the F&B industry and examines the perspectives of decision-makers regarding the integration of social media into their supply chains. This research remains aligned with the identified gaps in Chapter 2.9 of the framework.

The aim of this research is to investigate the mindset of business owners and managers towards the integration of social media in their supply chain operations in the F&B industry in Kuwait and the UAE. The reason behind this is to catalyze phenomena where this research introduces a new type of operational, communicative, and marketing management that hopefully shall benefit the company and

quickly evolve the operational efficiency and management in the GCC. The objectives of the research are as follows:

- **Objective 1:** To explore the factors that influence the adoption and usage of social media in the supply chain.
- **Objective 2:** To identify the challenges and opportunities associated with the integration of social media in supply chain operations.
- **Objective 3:** To propose recommendations and strategies for effectively leveraging social media in the food and beverage supply chain.

These objectives are linked to the conceptual framework, which combines the Unified Theory of Acceptance and Use of Technology2 (UTAUT2) and the Technology-Organization-Environment (TOE) framework. By examining the factors that influence social media adoption and usage, the study aims to provide valuable insights into enhancing supply chain operations in the food and beverage industry.

Chapter 5 and 6 of this research will present the results and analysis of the aforementioned study, focusing on the impact of social media integration within the supply chains of SMEs in the F&B industry in the UAE and Kuwait. Chapter 7 will offer final insights, conclusions drawn from the methodologies employed, and future recommendations based on the findings.

1.6.1. Research Questions (Developed in Chapter 3 Conceptual Framework)

The following are the different Research Questions upon which the Research Hypothesis developed in the Conceptual Framework (Chapter 3) have evolved from:

> **Question 1:** What are the key factors that influence the adoption and usage of social media in the food and beverage supply chain?

This includes:

- Gauging the current levels of social media integration within SCO/SCM in the GCC SME F&B market

  Ahmad, Z, S., Bakar, A, R, A. and Ahmad, N.(2018) and Alhaimer, R. (2021)

- Understanding the mindset of decision-makers within the Kuwait and UAE SME F&B industry towards adopting this new technology
  - Similar inquiries into decision-makers attitudes towards technology adoption have been conducted by Adjei (2019) and Alhaimer R. (2021), offering relevant frameworks for analysis

- Understanding which constructs, such as country (Kuwait vs UAE), SME company size, and company focus (supplier vs retailer), are crucial in influencing behavioral intention and usage behavior is a primary objective of this research.
    - Research by Ahmad et al. (2019), Bakar et al. (2019) and Bakri (2017) have all explored similar contextual variables in the context of technology adoption, providing valuable theoretical frameworks for this investigation.

  Question 2: What are the challenges and opportunities associated with integrating social media into supply chain operations in Kuwait and the UAE? (with references from the works of Alhaimer (2021) and Alsharidah et al.(2020)

- From the feedback of both the initial survey as well as the secondary interview, determining what remains challenging and where social media can really create a difference

1.6.2. Theoretical Background

Previous studies have acknowledged the potential benefits of social media in supply chain management, but there are still gaps in the literature (Chapter 2.12). More specifically, there is a total lack of existing research on the specific factors influencing social media adoption by SMEs in the food and beverage industry in Kuwait and the UAE. This study aims to fill these gaps by exploring the relationship between social media usage and supply chain performance and by identifying the challenges and opportunities unique to the regional context by using a case study of both the UAE and Kuwait and focusing on the SME food and beverage industry.

1.7. Justification

Despite both the UAE and Kuwait boasting some of the highest smartphone adoption rates globally (Flurry Analytics, 2023), the integration of social media within their supply chains remains minimal at best (Alhaimer, 2021). This situation is largely attributed to a lack of exposure rather than inherent limitations. Therefore, given the widespread smartphone penetration, both countries present ideal conditions to study the attitudes of SME owners towards adopting such technologies. Subsequently, this research aims to explore the associated challenges and opportunities that emerge from this context.

The UAE and Kuwait are further considered ideal settings for this research due to several relevant regulatory, reform, and policy developments.

1) Both countries have experienced significant growth in their F&B industries, with increasing investments and a focus on diversification (KNDP, 2023) (UAE 2031 Vision)

2) The regulatory environments in these countries have undergone reforms to facilitate business operations and attract foreign investments.

3) Additionally, the introduction of Vision 2035 in Kuwait and various economic initiatives in the UAE, such as Dubai Food Security Strategy, emphasize the importance of innovation and technology adoption in the food and beverage sector.

By conducting the study in the UAE and Kuwait, this research aims to provide valuable insights into the specific context of these countries and their evolving supply chain dynamics. The findings will contribute to the existing body of knowledge and aid policymakers, industry practitioners, and researchers in understanding the role of social media in the food and beverage supply chain within this unique regional context (Alhaimer, 2021; Bakar, 2019).

The research methodology involves a mixed-methodology approach, combining quantitative and qualitative data analysis techniques. The study will adopt an adapted UTAUT2 model overlapped with the TOE framework to explore the factors influencing social media adoption and usage in the supply chain. The sample size consists of 50 respondents from each country, distributed across various players in the food and beverage supply chain. Partial Least Squares Structural Equation Modelling (PLS-SEM) will be employed to analyse the collected data and explore the complex relationships between variables.

Further, the qualitative aspect of the data will integrate both thematic analysis and reflexivity on behalf of the researcher so as to facilitate efficient qualitative analysis and to mitigate opportunities for the researcher to subconsciously bias, thereby retaining a focus on what the respondents said, instead of interpreting and adding influence from the researchers' point of view, thereby achieving a more valid study. This does not mean that conclusions were then not made by making connections between the codified qualitative data, however. By integrating reflexivity and proper coding, the connections made are then more inherently valid by presenting their justification and the decision-making that went into making them instead of trying to ‘force’ generalized connections into the data analysis chapter of this study.

1.8. Thesis Outline

This document has been divided into separate chapters, including:

Chapter 1 – The Introduction, which serves as both a preface and a guide to the remaining discussion and study.

Chapter 2 – The Literature Review and Framework in this study serve to provide the reader with comprehensive definitions, theories, and relevant texts associated with the research focus. It aims to enhance understanding by presenting a background of existing knowledge related to the impact of social media on supply chain management. Furthermore, the Literature Review and Framework will outline the conceptual framework that underpins this study and the data collected. It will contextualize the research within the broader field of studies already conducted on how social media influences supply chain models. This section is critical for establishing a foundation of theoretical understanding and positioning the current work within the existing body of research.

Chapter 3 – The Conceptual Framework chapter in this study will establish the theoretical lens through which analysis and data collection will be conducted. It aims to provide context by presenting theories that validate the chosen approach. These theories will serve as the basis for justifying the selected data collection methods and methodologies, which will be detailed in the subsequent chapter. The conceptual framework is crucial for outlining the theoretical underpinnings of the research and demonstrating how these theories inform the study's approach to investigating the impact of social media integration within the supply chain of SMEs in the UAE and Kuwait. It will guide the interpretation of findings and ensure a structured approach to gathering empirical evidence that aligns with established theoretical perspectives.

Chapter 4 – Methodology: Given the Framework that is outlined in Chapter 3, this Chapter shall then provide a more macro-level look at what data collection and methodologies are out there and then narrow down what shall occur in this study as well as the justification for such adopted research strategies. In order to do this, the Methodology also evaluates all methods of research conducted as well as the various collection methods that have been undertaken in order to help validate this Study's results.

Chapter 5 – Data and Results: This chapter will present and summarize all the data received from the various methods of collection in charts.

Chapter 6 – Discussion and Analysis: This chapter is broken up into various sections in order to individually examine and answer all the sub-questions to this research. Further, a comprehensive analysis is made where the main research question is answered.

Chapter 7 – Conclusion: The Conclusion chapter summarizes and concludes all the results and analyses obtained throughout the research. It will encompass the contributions this study makes to the scientific, academic, and business communities. This includes highlighting key findings, insights

gained, and implications for practice and policy within the realm of social media integration in supply chains of SMEs in the UAE and Kuwait. Moreover, the Conclusion chapter will address the limitations of the research encountered during the study. These limitations may include constraints in data collection, sample size, or the scope of the study. Acknowledging these limitations is essential for providing a balanced perspective on the research findings and conclusions drawn. Furthermore, the chapter will provide recommendations for future research endeavors in this field. These recommendations will aim to address any unanswered questions, explore new avenues of inquiry, and suggest ways to build upon the current study's findings. By outlining future research directions, the Conclusion chapter aims to encourage continuous advancement and development in understanding the role of social media in optimizing supply chain management for SMEs in the UAE and Kuwait.

Appendices, which include a comprehensive and inclusive list of all References (using Harvard referencing) and sectioned Appendices

1.9. Chapter Conclusion

As the Covid-19 pandemic continues, further international disruptions for global supply chains are anticipated. With the current climate change risks, such pandemics are expected to be more common as more and more ancient ice melts. The Director of Harvard University's Chan C-CHANGE for the School of Public Health has stated that "we need to take climate action to prevent the next pandemic. For example, preventing deforestation—a root cause of climate change—can help stem biodiversity loss and slow animal migrations, which can increase the risk of infectious disease spread. The recent Ebola epidemic in West Africa probably occurred in part because bats, which carried the disease, had been forced to move into new habitats because the forests they used to live in had been cut down to grow palm oil trees" (Bernstein, 2020).

In order to create systems that are more adaptable and able to sustain 'shocks,' solutions for the global supply chains are vital at this time. With more interdependence between nations than ever before, there are millions of people who are potentially going to be left highly vulnerable unless these systems are updated. Furthermore, beyond the sudden need due to COVID-19 (or any other potential epidemic), research has clearly shown that being more transparent within the supply chain and providing access and reach to all those involved in various transactions accounts for higher engagement for all those involved, higher satisfaction, and in many cases lower costs.

With more and more small businesses being created globally, and with globalization and the internet expanding horizons such that a business's market is no longer what is geographically 'close' to them anymore, creating online solutions is only natural. This is then compounded with the rising ethical requirements of today's consumer, from growing concerns towards people's ecological footprint to changing diets and consumer needs that are more vegan or animal cruelty-free, to those who want to only invest in items that are within the 'fair trade' parameters, every day there are more and more consumers who are taking the initiative to take a 'deep dive' into how and what they buy. In light of global trends towards sustainability, waste reduction, and cruelty-free practices, it is imperative to actively engage customers and all stakeholders within the supply chain. Ignoring or downplaying this necessity would undermine efforts to minimize the true environmental costs associated with production and consumption.

Kuwait and the UAE present a unique opportunity to observe the impact of social media engagement within the supply chain, potentially serving as a global example. The food and beverage (F&B) industry, in particular, offers a compelling case study due to its diverse range of suppliers, encompassing everything from organic and specialty foods to lighting, décor, and specialized equipment such as industrial rollers and wood-burning pizza ovens. This industry integrates a complex network of suppliers across a global supply chain. Moreover, the GCC's central geographic location enhances this dynamic, facilitating the daily importation of food and supplies from around the world. This logistical framework is prominently displayed in supermarkets across the region, which serve as quintessential examples of global supply chain operations.

With the GCC's average high discretionary income, Kuwait and the UAE having some of the highest in the world (see Chapter 2), and the fact that the population has such a high penetration and dependency on smartphones, this also provides an intriguing model to see where and how engagement of customers is the highest. There are ample opportunities to see the impact of social media in terms of how best to facilitate transactions and how best to achieve high customer satisfaction.

2. CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

This Chapter is broken up into the following segments:

A) Supply Chain Management (SCM), where definitions of SCM are provided, and context is given to the importance of supply chain management and supply chain operations (SCO) in terms of the efficiency and sustainability of a company. Providing some history of how SCM and SCO work, it can be seen how in the last 40 years, more and more companies have realised that to compete fully in today's marketplace requires engaging their suppliers and now even integrating two-way communication between suppliers and end consumers of any major retailer service provider. Further Supply Chain Risk Management, as well as approaches to maximize efficiency, specifically for SMEs as well as companies in the Food and Business Industry are explored, and how they can value add are also included.

B) The evolution of the Internet, progressing from its initial 1.0 format to today's dynamic 3.0 and emerging 4.0 formats, has greatly enhanced cross-communication and enabled user-generated content. Social media, a significant product of this evolution, plays a crucial role in connecting consumers with entities across the supply chain. This connection is pivotal for enhancing consumer engagement and operational efficiency, such as real-time tracking of deliveries. Platforms like Instagram and Facebook exemplify social media, distinct from messaging apps like WhatsApp, which also contribute to online marketplaces. Understanding these distinctions is essential for contextualizing this research, which focuses on how both businesses and end consumers engage with companies and their supply chains through these channels. The impact of such communication on consumer behavior and consumption patterns underscores the importance of these platforms in modern business strategies.

C) Delving deep into social media and supply chain solutions, examples of integration, and adapted technologies focusing on marketing, communication, and transparency. This segment also shows issues that such integration has faced and then outlines why this is so integral to efficient SCM especially considering what happened during the pandemic.

D) The final sections deal with SCM in both Kuwait and the UAE, as well as investigate their populations and social media usage and the future of social media integration and social commerce.

There is also a section about the F&B industries in both countries and how the industry utilizes social media

2.2. Supply Chain Management

Simply put, Supply Chain Management (SCM) is the management of the flow of goods and services, including all processes, which transform a company's raw materials into final products that are ready for the consumer. Thus, a focus on supply chain management (SCM) is critical for any company to thrive in this evolving, dynamic world. In essence, the aim of SCM is to develop and integrate processes so as to enable any firm to achieve the maximum possible return within the shortest period of time (Ballou, 2004).

2.2.1. Definitions of Supply Chain Management

The definition of SCM has, over time, evolved in scope and in significance. Even today, there is some debate as to which definition properly encompasses SCM and all of its roles, however, in efforts to comply with as many as possible, a few have been submitted below.

According to Ganeshan and Harrison (1995) a supply chain is a network of facilities and distribution operations that encompass the processes from raw material to delivery of finished product thereby encompassing all functions dealing with procurement of materials, transformation of these materials into intermediate and finished products, to the distribution of these finished products to end customers (Ganeshan and Harrison, 1995). This is then generalized later by Lambert et al. (1998), who take a more macro approach, saying that the supply chain is in fact the alignment of firms that bring products or services to market

The 2000s saw trends towards a more integrated and detailed approach where Chen and Paulraj (2004) felt that supply chains included not just the network of materials and services, but also all information and processing links that deal with supply, transformation and demand.

According to the Council of Supply Chain Management Professionals, supply chain management encompasses everything involved (planning, executing, management) in the spheres of sourcing, procurement, conversion, and all logistics management activities (CSCMP, 2018). However, more importantly what is emphasized in this very macro approach is the coordination and collaboration amongst channel partners, be they suppliers, intermediaries, third party service providers, or even the end customers (Kettering, 2019). In short, SCM synchronizes between supply and demand management within and across companies and customers, including the following:

1) Forecasting demand for materials or products
2) Creating supply plans to ensure the availability of raw materials
3) Evaluating suppliers and determining the effectiveness of multiple supplier strategies
4) Evaluating risks to supply chains and suppliers as well as troubleshooting issues in the chain
5) Analysing inventories to determine how to increase inventory turns, reduce waste or optimize customer service
6) Managing activities related to purchasing, inventory control, and warehousing
7) Coordination of supply chain with other functional areas, such as sales, marketing, finance, production or quality assurance
8) Manage supply chain staff (ibid)

2.2.2. History of Supply Chain Management

Though the ideas that lay the foundation of SCM started formulating in the 1950's, the phrase 'Supply Chain Management' was first introduced formally in the late 1980s by R.K. Oliver and M.D. Weber, both logistics consultants (Felea & Albăstroiu, 2013). However, it really came into 'business speak' by the 1990s. Previously, it was referred to more generally through 'logistics' or operations management. "Theorists' interest and practitioners' concern regarding supply chain management have steadily increased since the 1980s when firms found that they can no longer compete effectively isolated from their suppliers or other entities in the supply chain and saw the benefits of collaborative relationships within and beyond their own organization" (ibid). In the last 20 years, however, research into SCM has increased significantly in various application domains as the impact of technology has notably made the significance of SCM extremely vital to all firms, regardless of industry.

2.2.3. Sustainable Supply Chain Management

Sustainable Supply Chain Management (SSCM) refers to the "creation of synchronized supply chains through voluntary incorporation with the main inter-systems of firms in order to encourage efficient and effective management among the resources, information and capital flows associated with the acquisition, manufacture and distribution of products or services; ultimately, it aims to fulfil stakeholder requirements and attain firm benefits, competitiveness and resilience over the short and long terms" (Hassan et al., 2017). Sustainable Supply Chain Management (SSCM) is vital for any organization as "the adoption of innovation within the firm's value chain is important to SSCM

performance ... (thus it requires) the need to enhance cooperation along supply chain networks to achieve a sustainable development goal" (Tseng et al., 2019).

2.2.4. Supply Chain Operations

Supply chain operations are a critical component of modern business management, encompassing the planning, execution, control, and monitoring of all activities involved in the flow of goods and services from the initial production stage to the final consumer (Christopher, 2016). Efficient supply chain operations are essential for organizations to remain competitive in today's global marketplace.

Supply chain operations can be defined as the management of the entire process that transforms raw materials into final products and delivers them to end-users through Supply Chain Management. It involves the coordination of various activities, including procurement, production, transportation, warehousing, and distribution, with the goal of delivering the right products to the right place at the right time (Christopher, 2016).

A few key areas of emphasis in SCO are that:

1) It focuses on a Customer-Centric approach (Simchi-Levi et al., 2019): Within SCO specifically, customer satisfaction is paramount. Supply chains must be designed to meet and exceed customer expectations in terms of product quality, availability, and delivery speed.

2) Efficiency and cost reduction are paramount (Chopra & Meindl, 2016): Efficiency is a core principle of SCO. Reducing operational costs while maintaining quality and service levels is a continuous goal. Different tools or methodologies, such as Lean and Six Sigma are often applied to eliminate waste and optimize processes.

3) Visibility and transparency are key towards higher efficiencies (Ramanathan, 2017): Achieving end-to-end visibility is essential for real-time information on inventory, demand, and supply to make informed decisions and respond rapidly to changes.

4) Collaboration and integration throughout the chain are vital (Li et al., 2019): Collaboration with suppliers, manufacturers, distributors, and logistics partners is crucial as integrated supply chains enable seamless information sharing and coordinated efforts.

5) Risk Management is also key (Tang, 2016): Supply chain operations must consider and mitigate risks, including disruptions due to natural disasters, geopolitical factors, or unexpected demand fluctuations.

6) Efficiency and Performance include a multitude of aspects and involve optimizing factors, including:

    a) Inventory Management (Pagh & Cooper, 2019): The approach towards balancing inventory levels to meet demand without overstocking or understocking is essential for cost control.

    b) Transportation (Ballou, 2020): Efficient transportation systems minimize lead times and costs; therefore, routing, mode selection, and carrier management are key considerations.

    c) Warehousing efficiency and management are vital (Mangan et al., 2016): In order to achieve other goals, effective warehousing works towards higher efficiencies and includes layout optimization, automation, and inventory tracking to reduce handling and storage costs.

    d) Demand Forecasting is integral (Chase et al., 2018): Accurate demand forecasts help in aligning production and inventory levels with customer requirements, reducing efficiencies and overall waste.

    e) Technology Integration facilitates all of the above (Mentzer et al., 2019): Leveraging technology such as RFID, IoT, and advanced analytics improves supply chain visibility, decision-making, and reducing overall inefficiencies.

2.2.5. Differences between SCM and SCO

Supply chain management (SCM) and supply chain operations (SCO) are closely related concepts, but they encompass different aspects of the supply chain. In summary, supply chain management is a strategic and holistic approach that encompasses the entire supply chain, focusing on long-term goals, relationships, and risk mitigation. At the same time, supply chain operations deal with the day-to-day activities and processes required to execute the supply chain strategy efficiently and meet immediate operational objectives. The nuances that differentiate the two can be found in Table 2 below:

Table 2: Comparison of Supply Chain Management (SCM) vs Supply Chain Operations (SCO)

Supply Chain Management	Supply Chain Operations
1) Strategic Focus (Lambert & Cooper, 2000): SCM takes a broader and strategic view of the entire supply chain, emphasizing the alignment of supply chain activities with organizational goals and objectives. 2) End-to-End Integration (Mentzer et al., 2001): SCM involves integrating all supply chain functions, including procurement, production, distribution, and logistics, to optimize the flow of goods and information. 3) Relationship Management (Cohen & Roussel, 2005): It emphasizes relationship management with suppliers, customers, and partners to foster collaboration and enhance supply chain performance 4) Risk Management (Tang, 2006): SCM addresses supply chain risks, including disruptions and uncertainties, and develops strategies to mitigate these risks. 5) Technology Adoption (Chopra & Meindl, 2016): The use of advanced technologies, such as supply chain software and analytics, plays a significant role in SCM for decision-making and optimization.	1) Tactical and Operational Focus (Narasimhan & Das, 2001): SCO focuses on the day-to-day execution of supply chain activities, including order processing, inventory management, production scheduling, and transportation. 2) Efficiency and Cost Control (Chase et al., 2018): It is primarily concerned with optimizing operational processes to reduce costs, enhance efficiency, and improve service levels. 3) Execution and Coordination (Pagh & Cooper, 2019): SCO involves the coordination of various operational tasks to ensure the timely delivery of products or services to customers. 4) Real-Time Decision-Making (Chopra & Meindl, 2016): SCO relies on real-time data and information to make operational decisions, such as order prioritization and route planning. 5) Performance Metrics (Fawcett et al., 2019): It uses key performance indicators (KPIs) to measure and monitor operational performance, such as on-time delivery, inventory turnover, and fill rates.

2.2.6. Issues towards Supply Chain Management, During and Post Covid-19 Pandemic

The COVID-19 pandemic affected many aspects of life globally but especially disrupted global supply chains, leading to several challenges for supply chain management (SCM). Some of the major issues faced during and post-COVID-19 include:

1) Overall supply chain disruptions (Pereira et al., 2021; Ivanov & Dolgui, 2020): Naturally, international lockdowns, travel restrictions, and factory closures disrupted supply chains, leading to delays and shortages. This then was compounded as global shipping was thrown into major disarray as docked ships took longer to unload, and many were left unattended due to lack of paperwork (due to COVID–19 restrictions), causing other ships to not be able to come to shore, etc.

2) Demand Volatility (Musella, 2023; Ivanov, 2020): Rapid shifts in consumer demand patterns strained supply chains, making it difficult to forecast and plan production. This was especially true during the pandemic itself when items such as toilet paper were almost missing on shelves, and still today, issues with the supply of items have led to massive shortages felt throughout countries, such as eggs and even items like sriracha where for months shelves in supermarkets have been empty in the US and prices have risen astronomically. This has continued to be a prolonged issue, even with the ongoing microchip shortage that has negatively impacted the automotive, consumer electronics, and healthcare industries (Musella, 2023).

3) Inventory Management (Musella, 2023; Tang, 2020): Many companies faced difficulties managing excess inventory due to demand fluctuations, which then led to waste, and eventually now have played apart (albeit minor) in the higher cost of living crises being felt across the world.

4) Transportation Constraints (Musella, 2023; Pereira et al., 2021; Ivanov & Dolgui, 2020): Reduced capacity and increased costs in transportation networks hindered logistics (and played into more problems as mentioned in point 1 above).

5) Resilience Gaps (Musella, 2023; Ponomarov & Holcomb, 2020): The pandemic exposed vulnerabilities in supply chains, highlighting the need for greater resilience and also highlighting areas where IT may be used to bring about more efficiencies.

2.2.7. Solutions to the Post Pandemic Supply Chain Issues, Including Ongoing Initiatives

Due to the gravity of the situation and how strongly far and wide supply chain issues actually impact consumers globally, various solutions were enacted to fix the above problems. These solutions continue as ongoing initiatives in order to achieve higher efficiencies and, therefore, lower overall costs, reduce waste, and work towards economic gain from individual companies to national levels of GDP for a country.

1) Digitalization (Musella, 2023; Ye, 2022; Ivanov et al., 2021): The necessary adoption of digital technologies, ranging from IoT to AI towards real-time visibility and demand forecasting, among other benefits.

2) Diversification (Musella, 2023; Ivanov & Dolgui, 2020; Shih, 2020): Where companies are diversifying suppliers and sourcing strategies to reduce dependency on a single source. This is even more important considering climate change or political situations such as Russia's invasion of Ukraine and the subsequent shock to the global wheat supply.

3) Resilience Planning (Musella, 2023; Dubey et al., 2020): Supply chain resilience strategies, include risk assessments and contingency plans, and call for collaboration amongst more stakeholders.

4) Investing in local solutions towards Local Sourcing (Musella, 2023; Sarkis et al., 2020): A move towards local sourcing and production decreases exposure to global disruptions, as well as towards reducing overall costs in the current cost of living crises.

5) E-commerce Expansion: Increased focus on e-commerce and direct-to-consumer channels for agility and responsiveness (Musella, 2023; Verma et al., 2020).

2.2.7.1. Applicability of SCM Disruption Solutions in Kuwait and the UAE

The GCC has been fortunate that all six countries, including Kuwait and the UAE, are investing and implementing change at an unprecedented scale and rate due to each nation implementing their National Development Plans, which are focused on sustainability and integrate the UN's Millenium Development Goals (UNMDGs).

Digitalization: Both Kuwait and the UAE have been investing in digitalization and smart technologies. The UAE's "UAE Strategy for the Fourth Industrial Revolution" and Kuwait's National Development Plan emphasize digital transformation (Government of UAE, 2021; State of Kuwait, 2021).

- Diversification: The UAE has been diversifying its economy away from oil dependency and enhancing its manufacturing and logistics sectors (Government of UAE, 2021). Kuwait has a similar objective outlined in its development plan (State of Kuwait, 2021).
- Resilience Planning: Both countries are focusing on enhancing supply chain resilience. The UAE's National Food Security Strategy aims to ensure a continuous and stable food supply (Government of UAE, 2021). Kuwait is working on bolstering its supply chain resilience through various initiatives (State of Kuwait, 2021).

- Local Sourcing: There is a growing emphasis on local production and sourcing in Kuwait and the UAE, especially in the food and beverage sectors (Food Security Center - Abu Dhabi, 2021; Kuwait News Agency, 2021).
- E-commerce Expansion: Both countries have seen significant growth in e-commerce. The UAE's "eCommerce Strategy" aims to promote digital commerce (Government of UAE, 2021). Kuwait's e-commerce sector is also thriving (Kuwait News Agency, 2021).

In conclusion, the challenges faced by supply chain management during and post-COVID-19 have led to various solutions and initiatives aimed at building more resilient and agile supply chains. Kuwait and the UAE are actively working on implementing these solutions, aligning with their national development plans and strategies.

2.3. Supply Chain Risk Management

Supply chain risk management (SCRM) is essential for modern business operations, focusing on identifying, assessing, and mitigating risks that can potentially disrupt the flow of goods and services along the supply chain (Christopher & Peck, 2012). In recent years, SCRM has gained significant attention due to increasing globalization, complexity, and interdependencies within supply chains.

2.3.1. Importance of Supply Chain Risk Management

Supply chains are susceptible to various risks, including natural disasters, supplier disruptions, demand fluctuations, and geopolitical uncertainties. Effective SCRM helps organizations anticipate and mitigate these risks, thereby ensuring the continuity of operations, customer satisfaction, and competitive advantage (Christopher & Peck, 2012).

2.3.2. Risk Management Approaches

There are a number of steps in the processes in order to mitigate risks within Risk Management, which are listed below.

2.3.2.1. Risk Identification

First, risk identification involves the systematic identification and assessment of potential risks along the supply chain. Various methods proposed for risk identification include risk registers, value stream mapping, and failure mode and effects analysis (FMEA) (Moura et al., 2019). Furthermore, advanced technologies like big data analytics and AI enhance risk identification capabilities through the

ability to analyse vast amounts of data, identify patterns and create early warning signals (Golmohammadi et al., 2018).

2.3.2.2. Risk Assessment

The next step is to evaluate the potential impact and likelihood of identified risks using both quantitative and qualitative techniques. Quantitative approaches range from probabilistic modelling and simulation to utilizing statistical methods to quantify risk probabilities and impacts (Zsidisin & Wagner, 2010). On the other hand, qualitative methods range from expert judgment to risk matrices and risk categorization (Golmohammadi et al., 2018).

2.3.2.3. Risk Mitigation

The next step is to develop risk mitigation strategies aimed at reducing the impact and probability of identified risks. Approaches that may be used include redundancy, flexibility, collaboration, and contingency planning.

Redundancy involves maintaining excess capacity or inventory to mitigate disruptions (Manuj & Mentzer, 2008). Flexibility is the ability to quickly adapt to changing conditions by means of diversifying suppliers, production facilities, or changing transportation routes (Chopra & Sodhi, 2014). Collaboration focuses on developing close partnerships with suppliers, customers, and other stakeholders to share information, coordinate activities, and jointly manage risks (Cao et al., 2015). Contingency planning is where action plans are strategized to respond effectively to disruptive events in order to ensure quick recovery and minimize the impact on SCM (Ghadge et al., 2019).

2.3.2.4. Risk Monitoring and Control

Lastly, this is an iterative process and requires continuous monitoring to control risks, i.e., be proactive. Real-time data collection, visibility, and monitoring systems enable early detection of risk signals, further facilitating timely decision-making (Blackhurst et al., 2011). KPIs and dashboards may be used to track risk metrics, monitor supplier performance, and measure the effectiveness of risk mitigation strategies (Moura et al., 2019).

2.3.3. Emerging Trends in SCRM

Besides risk management, below is a list of some emerging trends being integrated into SCRM to help improve productivity, efficiency, and transparency.

2.3.3.1. Resilience (Musella, 2023; Ponomarov & Holcomb, 2009)

The concept of resilience is critical in SCRM, as it focuses on the ability to bear and weather, as well as recover from disruptions. Resilient supply chains are those that are characterized by flexibility, redundancy, adaptability, and collaboration, enabling quick response and recovery from disruptions.

2.3.3.2. Supply Chain Visibility and Transparency (Musella, 2023; Ivanov, 2018)

As digital technologies and the Internet of Things (IoT) are advancing, they have further enabled supply chain visibility and transparency. Whether this takes the form of real-time tracking, traceability, or even communication to facilitate risk identification, assessment, and mitigation, technologies, including RFID, sensors, and blockchain, afford organizations real-time visibility into the movement of goods, as well as help identify bottlenecks or future potential disruptions thereby enhancing resilience.

2.3.4. Supplier Relationship Management (SRM)

SCRM is also heavily affected by supplier relationship management (SRM). SRM is focused on founding strong relationships with suppliers, starting from communication to building mutual trust and towards effective collaboration. These can then help mitigate risks associated with supplier disruptions, quality issues, or ethical concerns (Zsidisin et al., 2018). Other SRM practices include supplier development programs, dual sourcing, and supplier performance measurement, which are also able to supply chain resilience further and increase risk mitigation capabilities (Prajogo & Olhager, 2012).

2.3.5. Sustainable SCRM

Similar to other facets of industry, sustainability is also increasingly being integrated into SCRM practices. It is recognized that there is a critical need to assess and manage risks related to environmental, social, and governance (ESG) factors. Sustainability practices in SCRM are then able to mitigate vulnerabilities, improve the reputations of companies, and further align with societal expectations (Chopra et al., 2019). Sustainability practices include life cycle assessment, carbon footprint analysis, and sustainable supplier selection frameworks that aid in sustainable SCRM decision-making (Pagell & Shevchenko, 2014).

2.3.6. Small and Medium Enterprises (SMEs) Employing SCRM Effectively

In recent years, the importance of supply chain risk management (SCRM) has become increasingly recognized, not only by large corporations but also by SMEs operating in the F&B industry. SMEs play a significant role in the global economy, and their ability to effectively manage supply chain

risks can greatly impact their success and sustainability. For SMEs to effectively use SCRM, they need to be proactive and take a comprehensive approach to supply chain management. From identifying and assessing potential risks to developing risk mitigation strategies and implementing robust risk management practices. Key strategies and practices that they may employ include:

1) Risk Identification and Assessment (Christopher, 2016): First, they should conduct a thorough analysis of their supply chain to identify potential risks, including both internal and external factors that pose risks to their operations. This includes supplier reliability, market volatility, natural disasters, and regulatory changes. Risk assessment tools should also be integrated, including risk matrices and scenario planning, in order to prioritize and evaluate risks based on their potential impact and likelihood of occurrence.

2) Supplier Relationship Management (Wagner & Bode, 2018): Establishing strong relationships with suppliers is critical to effectively manage risks. Close collaboration results in better visibility and communication, which allows SMEs to be proactive and identify risks and thus address them early. Further, clear communication channels foster trust and allow for contingency plans to be made.

3) Diversification and Redundancy (Giunipero et al., 2015): Further, consideration of diversifying supplier base and alternative sourcing should always be part of contingency plans. These approaches may mitigate the impact of disruptions if faced, especially with climate change and political instability. For those who are able, maintaining buffer stocks and redundant capacity can also provide flexibility and resilience.

4) Technology Adoption (Musella, 2023): Utilizing technology solutions can enhance SCRM capabilities for SMEs. Cloud-based supply chain platforms, data analytics, and real-time monitoring systems can provide valuable insights into supply chain performance and enable early detection of potential risks. Technologies like track-and-trace systems and RFID (Radio Frequency Identification) can enhance traceability and visibility, enabling prompt response to disruptions.

5) Collaboration and Information Sharing (Musella, 2023): Collaboration among SMEs within the industry or across supply chains can help share knowledge, resources, and best practices related to SCRM. Participating in industry associations, forming strategic partnerships, and

engaging in collaborative initiatives can strengthen the collective ability to manage risks effectively.

By employing discussed strategies and practices, SMEs may effectively navigate the complexities involved with the supply chain and increase their overall resilience and competitiveness. However, SMEs, in turn, also face unique challenges, such as limited resources and expertise, which can significantly impact their SCRM capabilities. It is important to address these challenges through targeted support, training, and collaboration to enhance further their ability to employ SCRM effectively.

2.3.7. How Food and Beverage (F&B) SMEs Can Utilize SCRM

In the F&B industry, SCRM plays a crucial role in overall efficiency and productivity, including ensuring the safety and quality of products, meeting customer demands, and maintaining business continuity. A few specifics that F&B SMEs should focus on include:

1) Supplier Qualification and Monitoring (Canetta et al., 2017): F&B companies should implement robust supplier qualification processes to ensure all their network suppliers are able to meet strict quality and safety standards, including thorough assessments of suppliers' capabilities, certifications, and adherence to regulatory requirements. Regular monitoring and audits of suppliers are also able to help identify potential risks and ensure compliance.

2) Traceability and Transparency (Zhang et al., 2020; Molina et al., 2018): Traceability systems throughout the supply chain allow for F&B SMEs to quickly track and identify the source of any potential issues or contamination, allowing for timely recalls. Solutions such as blockchain and RFID can enhance traceability through real-time visibility and accurate product information

3) Demand Forecasting and Inventory Management (Zhang et al., 2020): Accurate demand forecasting and effective inventory management are critical for F&B SMEs to minimize supply chain risks. Leveraging historical data, market trends, and advanced analytics techniques, SMEs are then able to optimize inventory levels, reduce waste, and be proactive to fluctuations in demand, mitigating the risks, including stockouts, excess inventory, and obsolescence.

4) Contingency Planning and Business Continuity (Zhang et al., 2020; Lai et al., 2019):

   F&B SMEs must have comprehensive contingency plans to be proactive towards potential disruptions in the supply chain. From alternative suppliers, establishing backup production facilities, and implementing robust logistics and distribution strategies.

5) Regulatory Compliance (Lai et al., 2019; Wu et al., 2018): Compliance also remains a key part to mitigating risks. SMEs must stay up-to-date with changing regulations and be dedicated to the continuous training and education of employees. They should also enforce stringent quality control processes, and failure to comply has severe consequences, as not complying can be detrimental to reputation and affect the SMEs' role in various supply chains.

6) Collaboration and Partnerships (Zhang et al., 2020; Yu et al., 2019): Collaboration between SMEs and industry associations, as well as regulatory bodies, may address common risks and develop industry-wide best practices. As with any other industry, sharing knowledge, expertise, and resources enhances overall resilience and increases the risk management capabilities of the industry as a whole.

By employing these strategies, F&B SMEs can effectively utilize SCRM to protect their brand reputation, ensure product safety, and maintain customer trust. It is critical for SMEs to monitor and evaluate their SCRM practices and be flexible in adapting to better, more proactive practices.

2.3.8. Different Technologies SMEs (including F&B) May Utilize to Gain Competitive Advantage

F&B SMEs can leverage various technologies to gain a competitive advantage. Especially considering the rapidly evolving sphere in which they function, the following are some of the key technologies that SMEs can adopt to enhance their operational efficiency, customer experience, and overall competitiveness. A sample of such technologies include blockchain, AI, and IoT.

2.3.8.1. IoT and Sensor Technologies (Zhu et al., 2020; Ransbotham et al., 2018)

IoT and sensor technologies provide SMEs with real-time visibility and control over their supply chain operations. They also enable SMEs to connect and communicate with various devices and systems within their supply chain. By deploying IoT devices and sensors, SMEs can monitor temperature, humidity, and other environmental conditions throughout the supply chain, ensuring product freshness, quality, and safety. They can further collect real-time data on inventory levels, temperature monitoring, equipment performance, and logistics tracking. IoT data can also be used to optimize logistics, improve delivery routes, and minimize wastage, optimize production, improve inventory management, and enhance supply chain visibility, leading to cost savings and improved operational efficiency. Furthermore, IoT-enabled smart shelves and RFID tags can enhance inventory management and facilitate automatic replenishment.

2.3.8.2. Cloud Computing (Cagliano et al., 2019; Chen et al., 2019)

Cloud computing offers SMEs flexible and scalable IT infrastructure without the need for significant upfront investment. SMEs can leverage cloud-based platforms for data storage, software applications, and collaboration tools. This enables easier access to data, promotes seamless information sharing across the supply chain, and enhances collaboration with suppliers and customers. Moreover, cloud-based analytics and predictive modelling can provide SMEs with valuable insights for decision-making and risk management.

2.3.8.3. Artificial Intelligence (AI) & Machine Learning (ML) (Tirkolaee, 2021; Liang et al., 2020; Cagliano et al., 2019)

AI and machine learning technologies enable SMEs to leverage vast amounts of data for intelligent decision-making and process automation, including automating repetitive tasks and improving forecasting accuracy. For instance, AI-powered demand forecasting algorithms can analyse historical sales data, market trends, and external factors to predict future demand accurately. ML algorithms can also optimize production scheduling, logistics routes, and inventory management based on real-time data, leading to improved efficiency and cost savings. Additionally, AI-powered chatbots and virtual assistants can enhance customer service and engagement. This enables SMEs to optimize inventory levels, production planning, and supply chain logistics. AI can also enhance product quality control by analysing sensor data, images, and real-time feedback to detect anomalies and ensure compliance with quality standards (Gupta et al., 2020).

2.3.8.4. Blockchain (Asadi, 2023; Liang et al., 2020; Chen et al., 2019; Iansiti & Lakhani, 2017):

Blockchain technology offers SMEs opportunities to enhance transparency, traceability, and trust within their supply chains. By implementing blockchain-based systems, SMEs can securely record and track transactions, certifications, and product information from suppliers to end customers. More specifically, SMEs can securely record and track the movement of goods, ingredients, and certifications throughout the supply chain. This not only enhances transparency for consumers but also enables enhanced traceability, reduces the risk of fraud, and ensures the authenticity and quality of products, preventing issues such as counterfeit products, food fraud, and supply chain disruptions. Blockchain can and facilitate trust-based collaborations with suppliers and partners, leading to streamlined processes and reduced administrative costs by reducing paperwork.

2.3.8.5. Robotic Process Automation (RPA) and other Automation (Flechsig, 2022; Hodgson & Bertoncelj, 2020; Sharma et al., 2018)

SMEs can leverage robotics and automation technologies to streamline production processes, improve efficiency, and reduce costs. Robotic process automation (RPA) can automate repetitive tasks, such as packaging, labelling, and inventory management, allowing employees to focus on more value-added activities. SMEs can utilize RPA to further automate other repetitive manual tasks, such as data entry, order processing, and inventory reconciliation. RPA technology enables the deployment of software robots that can mimic human actions and interact with different systems.

Collaborative robots (cobots) can work alongside human workers, enhancing productivity and flexibility in operations. By automating these tasks, SMEs can improve accuracy, reduce processing time, and free up employees to focus on more value-added activities. Specifically for the F&B Industry, Automation technologies can also enhance food safety by minimizing human errors and contamination risks. This enhances operational efficiency and allows SMEs to handle increased transaction volumes effectively.

2.3.8.6. Data Analytics, Predictive Modelling and Business Intelligence (Cagliano et al., 2019; Cortimiglia et al., 2019; Janssen et al., 2017)

SMEs can leverage data analytics and business intelligence tools to extract valuable insights from their data, even scaling very large volumes of data. By analysing sales data, customer behaviour, customer preferences, purchasing patters, social media sentiments and market trends, SMEs can identify opportunities for growth, optimize pricing strategies, and personalize customer experiences. This includes more personalized and targeted marketing campaigns, opportunities to optimize pricing strategies, and enhanced customer engagement. Data analytics can also identify patterns and anomalies that may indicate supply chain risks or inefficiencies, including disruptions, allowing SMEs to take proactive measures. Additionally, data analytics can support continuous improvement initiatives by identifying areas for operational optimization and cost reduction

2.3.8.7. Summary

By exploiting and adopting the above-mentioned technologies, SMEs can gain a competitive edge by streamlining their operations and improving decision-making. F&B SMEs can especially benefit from operational excellence and enhanced product quality, thereby delivering superior customer experiences. However, it is important for SMEs to carefully consider their specific needs, available resources, their own and surrounding capabilities, and implementation challenges when adopting these technologies, ensuring they align with their strategic goals and are scalable for future growth.

Collaboration with technology providers, investment in employee training, and continuous evaluation of technology performance are critical for successful implementation and long-term competitive advantage.

2.3.9. Summary for Supply Chain Risk Management

Supply chain risk management is an imperative discipline in today's complex and interconnected business environment. By effectively identifying, assessing, and mitigating risks, organizations can enhance their resilience, minimize disruptions, and maintain operational performance. This section has highlighted key approaches to SCRM, including risk identification, assessment, mitigation, and monitoring. It has also discussed emerging trends such as resilience, supply chain visibility, supplier relationship management, and sustainable SCRM. As organizations face an increasingly volatile and uncertain global landscape, SCRM will continue to evolve, requiring proactive strategies and innovative solutions to manage risks and ensure supply chain continuity.

Further, by adopting various technologies, including Blockchain, IoT, AI, Data Analytics, etc., and integrating them into their operations, F&B SMEs can overcome challenges, improve efficiency, and gain a competitive advantage in the market. However, it is important for SMEs to carefully consider their specific needs, available resources, and potential barriers to implementation. Collaborating with technology providers, investing in employee training, and continuously evaluating the performance and impact of these technologies will be crucial for SMEs to maximize the benefits and drive sustainable growth

2.4. The Interweb: Web 3.0 and 4.0

The iterations of the Internet have now moved beyond Web 2.0, to now the Web 3.0 and 4.0. Currently, we are experiencing the transition (or harmony) between both Web 3.0 and Web 4.0. The Web 3.0 or Semantic Web, has been in existence since 2010, and is the internet that "intends to organize how content is searched and viewed by the user. The goal is to customize and optimize the online search, based on the history, interests and wishes of users. The Web 2.0 is also called the ‘intelligent Web’ as its functionalities extend beyond the traditional search services" (Almedia, 2017).

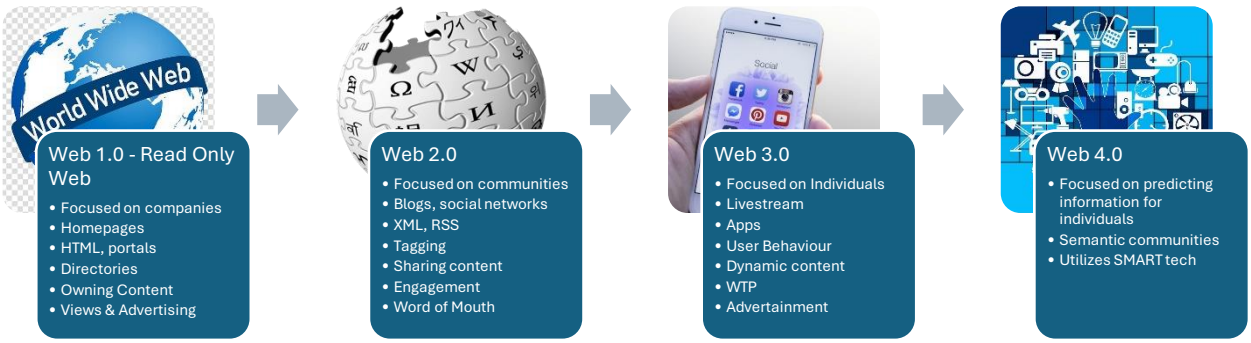

Figure 2: Evolution of the Internet (de Valck, 2017)

As can be seen in Figure 2, the focus of the Web has changed over the course of time, from a more one directional 'monologue' of the more traditional form where companies would just put out data for consumers to receive, to the Web 2.0, where the focus then came on to the sense of community building and sharing, in many cases, free ideas and content. To Web 3.0, where a focus is now on individual content creation that has been enabled through the mobile social media revolution, and to the future, where a synergy between individual and community sharing is now being explored.

Being in the early phases of what Web 4.0 is, we find an assortment of definitions; however, there is some consensus that finds the foundation of it to be the concept of Internet of Things (ibid). Polanska (2014) predicts that Web 4.0 will be based on a universal web personality of each user and information flow will be highly personalized. It will become more integrated with social media itself.

2.4.1. Web 3.0

The Web 3.0, aka Semantic Web, has seen a complete revolution due to the portability of smart-phone and smart device technology. Sometimes referred to as the "the portable Web", the Web 3.0 has differentiated from previous versions, as can be seen from Figure 2 above, in that the focus came onto individuals and was powered due to the smartphone revolution. With increasing number of smart-phone users every day, the variety, number, and adoption of phone apps have been exponential. "When consumers use an app, they consume a marketer-generated, predetermined experience, which is much more controlled compared to surfing the jungle of the World Wide Web. Companies have become increasingly better at tracking online consumer behaviour. This data is used to inform top-down marketing mix decisions" (de Valck, 2017).

Another phenomena that has simultaneously occurred is the ability of algorithms to identify, sort, and determine what content each individual user should see, based on their search history, hence the name 'semantic web'. "With Web 3.0., along with the keywords, it also identifies the context in which the words are presented through the relationships between them and thus provides accurate data results. It also identifies the synonyms associated with this and displays the data related to its synonyms" (Menon et al., 2009). With such dynamic information, there has been a return to 'commerce logic' where now there is plenty of 'freemium' content; a pricing model through which a basic product or service is provided free of charge, but then additional features or services are provided once a basic one time, monthly, or annual subscription has been paid. However, the success of such a model relies on having such premium options being accessible with just a few dollars. Now, the main objective for any business is to target the consumer's willingness to pay by offering various options that are just a click away.

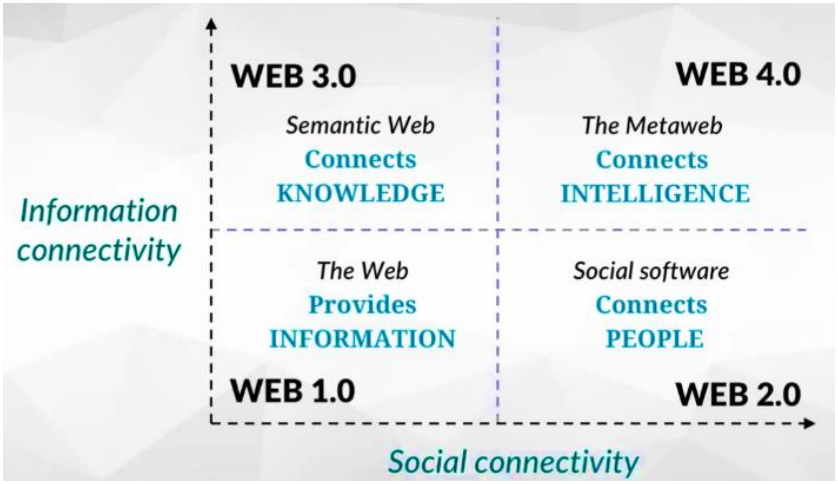

Figure 3: Mapping of the progression and evolution of the internet in its different stages by Nova Spivack (Pattinson and Low, 2011)

Whereas the Web 1.0 focused on just providing information, and Web 2.0 moved towards connecting communities, it is clear that the semantic web, Web 3.0, has moved towards higher connectivity of each consumer with their needs; see Figure 3. Further, companies have realized the potential of social media and how drastically consumer behaviour has changed because of it. As such, marketers now depend and practice 'advertainment' which heavily feeds from immersive game or online video experiences. However, here, the brand or product plays the main character.

2.4.2. Web 4.0

Starting just recently, we are seeing a move towards the new phase of the internet, Web 4.0. Web 4.0 sees the "Web becoming one giant Operating System capable of creating and distributing human intelligence…This (Metaweb) sees the Web evolve(ing) into one giant human brain with strong parallels to synaptic and semantic capabilities of a biological human brain, but expressed in a massive global system. This collective intelligence shall bring semantic synchronization between machines and humans that will redefine communication, collaboration, and innovation" (Pattinson and Low, 2011). Though no one is certain how exactly such predictability and optimization will eventually play out in reality, one thing is for certain, as can be seen in Figure 3 above: Web 4.0 will definitely be high in both social connectivity and information connectivity.

Other predictions about this new era of the internet foresee advances in peer-to-peer technology that will now prioritize user identity over profits. In light of 'fake media' and the ability of so much data that is controlled by huge businesses to be bought and sold, there is now a call for a movement towards an internet environment that is "decentralised, peer-to-peer nature (that shall) provide a hard technological cap to the possible accumulation of power and data in the hands of monopolists. This movement isn't just about blockchains. It is about architecting a web that protects individual property and privacy through a range of p2p technologies" (Steiner, 2018).

With the groundwork that groups like Bitcoin© have created, every person has access to tools to create digital systems, from banking to legal, which can also be safeguarded. This innovation has totally changed equality within the internet and systems as a whole, as previously, these systems were controlled by the few. What is interesting to consider is that the very essence of why and what the internet was supposed to be, a network of direct p2p, is now slowly coming to fruition. This is extremely important as it could change the way the internet is monitored and controlled. Though this brings with it its own challenges, what it also does is give the individual consumer a potential power that before was truly not even considered possible.

2.5. Social media

Social media has been described as a "group of internet-based applications that build on the ideological and technological foundations of Web 2.0, and it allows the creation and exchange of user-generated content," (Andreas et al., 2010). It has further than been described to also include all online word-of-mouth (WOM) content, including blogs, wikis, podcasts, and forums; all areas for online

discussions (Mangold and Faulds, 2009). Solomon has taken a more holistic approach and defined it as “the online means of communication, conveyance, collaboration, and cultivation among interconnected and interdependent networks of people, communities, and organizations enhanced by technological capabilities and mobility” (Solomon, 2014).

For social networking, however, what needs to be realized is that it isn’t just focused on being social; the power of social media is incredible due to its ability to facilitate discourse between consumers. "Social media allows everyone to create, curate, connect and distribute content. The result is a new era of participatory culture (in business operations). Monologues are replaced by dialogues between consumers and companies. Social media allows consumers to "talk back", to ask questions, compliment or complain about their consumption experiences" (de Valck, 2017).

One of the most empowering facets of Web 3.0, specifically through social media, is user-generated content. Such content refers to “various forms of content that are publicly available and created by end-users. What is important for a platform to qualify as a form of social media is that content is exchanged publicly” (ibid). Social media is the medium for the exchange of such content, rather than channels that contain only professionally made material, like television. Most social media include a mix of both user-generated as well as professionally created content; this is due to the fact that certain social media are extremely powerful in reaching a large audience. However, though many social media are similar in functionality and presentation, certain platforms are known for characteristic qualities, i.e., Instagram showcasing pictures and hashtags or Tik Tok just being focused on short videos. Eventually, though, others will then be quickly created in order to mimic the success of a certain platform and take market share or existing social media will then have additional features to make them more desirable.

Just as people belonging to different cultures have different traditions, social media platforms each have their own ‘culture’ and etiquette, and therefore each one targets different niche markets. Knowing which platforms to communicate on for any company is vital, as well as understanding the culture of each platform and how to adapt each message towards that specific environment. Providing content that doesn’t match the target audience or the culture of a platform could be disastrous in this day and age of viral phenomena. Hence, a ‘one size fits all’ approach is almost disastrous for any marketing team, as each platform needs to be addressed individually.

What is incredible about social media, in general, though, is how quickly each platform itself evolves and how it absorbs the latest trends or abilities of other media. The dynamic situation,

therefore,, requires every company to assign staff to monitor, analyse, and adapt their message to each platform, rather than assume that such a task is of minimal importance.

One other key aspect to communicating and marketing through social media, is that not all regions of the world use social media in the same way. China has different requirements due to censorship and governmental control, the Middle East loves Instagram and Facebook, whereas South Asia is heavily into Tik Tok. Each region has different media that is popular for different reasons, and as well, has different media that attract a different market, or even age group. Therefore, for Multi-National Companies (MNC's), this is another facet that needs to be taken into consideration when creating a marketing strategy, especially if it integrates different parts of the product value chain that they could span different regions of the world.

What Corporations and Governments around the world understand now is that "the proper use of social media data can potentially bring benefits to many real -world operations. This directly leads to the emergence of social media analytics (SMA)" (Choi et al., 2020). SMA refers to the use of analytical capabilities to analyse social media content so as to achieve a specific goal (Holsapple et al., 2014). SMA is critical for proper operations management along the supply chain, from quality management to forecasting demand, to improving engagement of customers, to enhancing marketing programs, to reducing wastes, facilitative information sharing, and finally to achieving higher levels of customer satisfaction (Choi et al., 2020). Lastly, another key aspect is identifying how consumers interact on each platform and then deciding, per product, per brand, how said company wants to engage its various stakeholders via that platform.

2.5.1. Horizontal Revolution

It is with the rise of social media and, therefore, access to real-time information, that the marketplace has become more balanced among both companies and consumers, a phenomenon also referred to as the horizontal revolution. Creating a new marketing paradigm, the "Internet revolution has given voice to consumers, who can now easily express themselves and participate in public discourse" (de Valck, 2017). "This (new found equality) is through achieving successful communication within its internal and external stakeholders to maximize their knowledge and improving the relationships. Most companies in the developing world are exploring Social media as a new venture and an emergent field in business" (Kargwell, 2016). This new found equality was even celebrated by Time Magazine© back in 2006 when it chose 'you', or everyone who uses social media, as the "Person of the Year". 2006 saw an

explosion in interconnectivity between people due to population platforms of the time including Flickr©, Youtube©, and Facebook©.

This phenomenon has transitioned the market from businesses holding the 'monopoly on voice' that they used to through mass media. The 'top down' marketing that existed from the 50's is gone, and now everyone is able to "create, curate, connect and distribute content…. (Creating a) new era of participatory culture where monologues are replaced by dialogues between consumers and companies." (de Valck, 2017). Various forms of social media allow for communication that enable consumers to question, compliment, complain, or promote goods as they see fit, and often immediately to content being dropped. The expectations have changed the way consumers shop, and they require real-time conversations and almost immediate responses to anything they post. A 'multilogue' of conversation is now in effect from the previous one-dimensional 'monologue' where consumers can not only anticipate conversations with the companies, but with consumers around the world, as well as those involved in the supply chain of those very products, and potentially competitors as well. "The participatory, multilogue and real-time media environment offers plenty of opportunity to challenge, adapt, extend, boost and alter the once so carefully crafted and controlled brand images and marketing messages. Thus, marketers have less control" (ibid). These challenges are now at the forefront of causing adaptive behaviour from companies, as well as more accountability for their actions, and everything from how and where they resource their products, to how they market it and, even more importantly, how they deal with post-consumer concerns.

2.5.2. Social media vs. Messaging Apps

A growing part of the online debate is the nuances of how social media is defined. "*Social media platforms are built (and used) for broadcasting, messaging apps are built (and used) for communication"* (Sam, 2018). The distinction is important because as we progress and develop more rules of social media and online decorum for companies in relation to how they process and deliver content, the difference between what is considered social media vs. a messaging application becomes inherently important towards privacy laws.

As such, even though there is some overlap, social media generally includes the likes of Facebook, Twitter, Instagram and other such social platforms which are all able to allow companies or individuals to broadcast messages to a wide audience of friends, family, peers and colleagues; however, WhatsApp, WeChat, and Messenger are all messaging apps which are used to communicate between two individuals or groups of people (de Valck, 2017).

In terms of marketing, social media should be the channels used by companies and businesses to advertise and market their products, whilst messaging apps should not be utilized unless they are being used to communicate directly by the consumers themselves. By trying to market through messaging apps to a database of people who are not currently clients of a company can be considered an overstep by many. "To those who've grown up with both social media and messaging apps, the distinction is clear and this overstep is egregious, but the more people confuse the two, the more prevalent this activity will become. Marketers need to learn that social media (broadcasting) is purpose-built for advertising, but messaging apps should stay off limits" (Sam, 2018).

Hence, in this study, there will be a clear distinction between messaging apps and social media (Instagram, Facebook, Twitter, LinkedIn), with clear operational goals and strategies for social media specifically, however, it will also include how social messaging apps may also be utilized to help with their social media marketing.

2.5.3. Facebook ©

Founded in 2004 as an idea for social networking among Harvard College Students, Facebook today is the reigning social media networking service based on global reach and total active users. Founded by Mark Zuckerberg and some other Harvard colleagues, the service soon expanded to other universities across the US before finally (and legally) opening up to global users aged 13 or over (Statista, 2020).

According to Statista, 2020, there are over 2.6 billion monthly active users on Facebook, with more than 1.7 billion users who are using it daily. It has a membership of approximately 61% of the world's internet users, and currently, more than 80 million small businesses have their own FB page.

In terms of users in 2020, 65% of FB users are under the age of 35, though the original users who started using FB are now in the late 30's to early 40's, as it started to take an international hold back in 2005. In terms of usage, 96% of active users access FB through their phones.

As to advertising, just as the Covid-19 pandemic of 2020 started to see international lockdowns take place starting March of 2020, FB had, by the end of March of 2020, already generated over $ 17 billion USD in advertisement revenue. In the US alone, 86% of US marketers utilize FB as one of their social media channels for customer engagement (Statista, 2020). Currently, FB is the leading social media and messaging company as it has acquired, or developed, and thus owns some of the leading social media applications including Facebook itself, WhatsApp, Instagram and Messenger. FB reported

that in Q3 of 2020, over 3.14 billion people were using *at least* one of their products (*ibid*). More current information on Facebook can be seen in Figure 4.

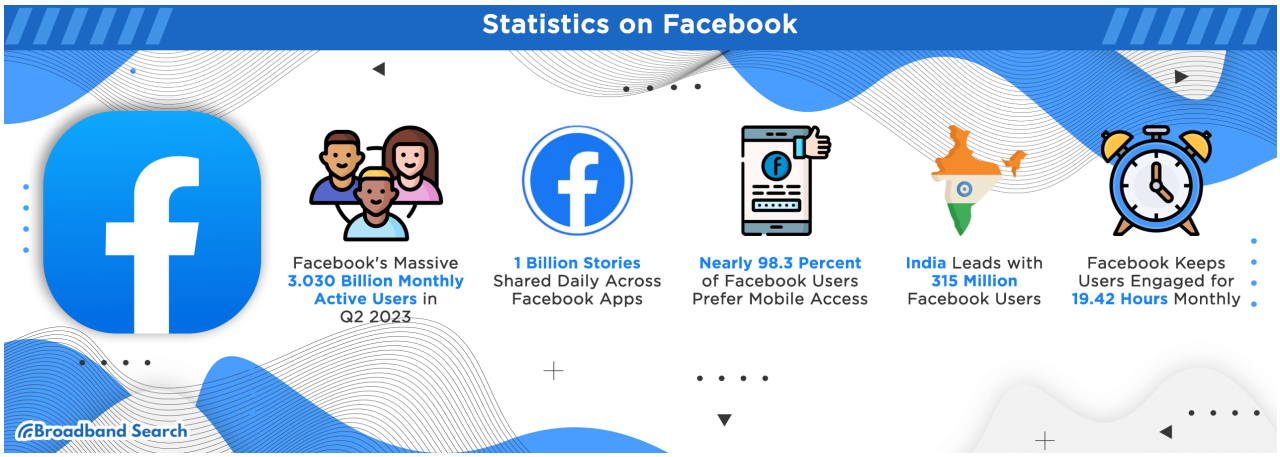

Figure 4: Facebook at a glance (Broadbandsearch.com, 2024)

2.5.4. Instagram ©

With nearly 1.4 billion users globally, Instagram is within the top ten most popular social media applications in the world (Statista, 2024). The media, primarily a social photo-sharing application, is especially popular in the United States, India, and Brazil, with over 130 million users, 100 million and 91 million users, respectively (Statista, 2020). Distribution of Instagram users worldwide as of April 2024 by age group is depicted in Figure 5. Instagram was first launched in 2010 by creators Kevin Systrom and Mike Krieger (Fuchs, 2017). Instagram showed itself to become a worldwide success when, within a

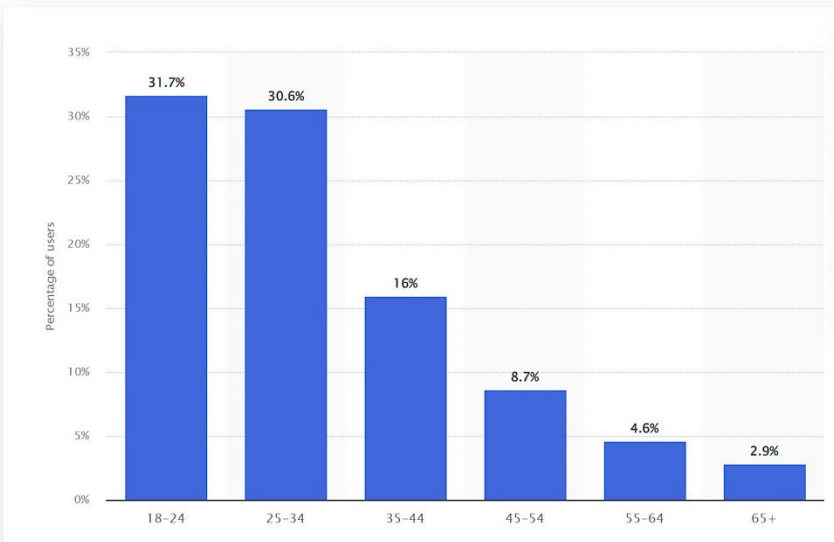

Figure 5: Distribution of Instagram users worldwide as of April 2024, by age group (Statista, 2024)

week of its launch, it became the top photography application being downloaded globally, and within two months of its' release, it had over 1 million users (*ibid*).

As a photo and video-sharing social networking site, Instagram offers "users every opportunity for self-presentation, which studies have shown further is able to increase viewers' social comparison" (Yang et al., 2018). The functionalities of the application enable users to follow, view, like, and comment on people/accounts they do and do not know personally, including influencers and celebrities. A key functionality is the use of hashtags, which "can further drive social comparison, given that all photos with the hashtag are searchable, making it more accessible to a larger amount of people" (Lup et al., 2015).

According to Statista (2024), "One of the most popular features of Instagram is Stories. Users can post photos and videos to their Stories stream and the content is live for others to view for 24 hours before it disappears" In January 2019, the company reported that there were 500 million daily active Instagram Stories users, whose main competitor was Snapchat, the first 'vanishing' photo sharing app. "As of the second quarter of 2021, Snapchat had 293 million daily active users." (*ibid*)

Eventually, Facebook strategically bought Instagram out for USD $ 1 billion (~£ 760 million) in 2012. In 2016, as mentioned above, Instagram copied its main competitor Snapchat's © characteristic 'stories' functionality (where it has photos that are streamed for a set duration, after which they

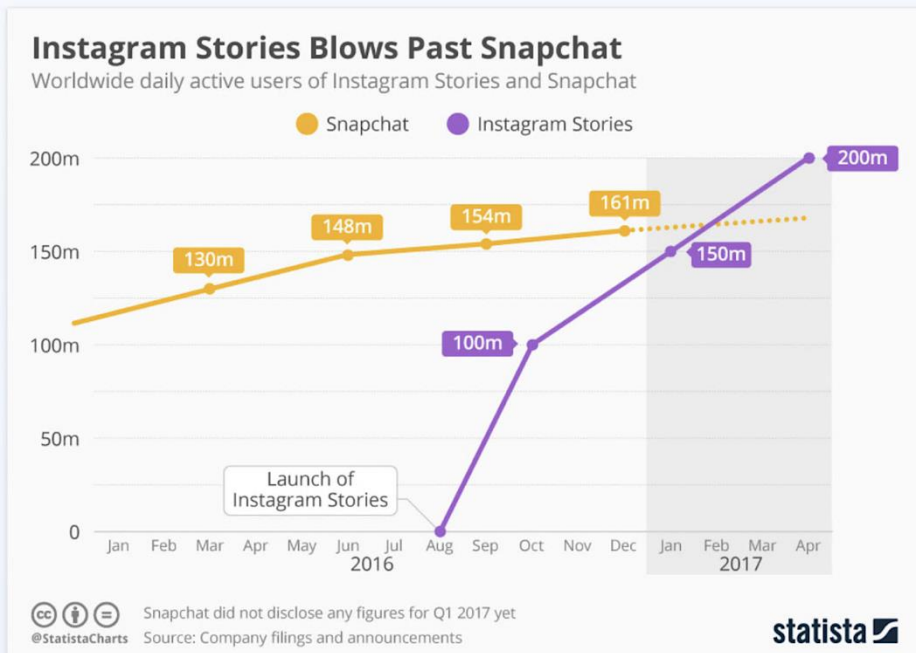

Figure 6: Instagram Stories launch and trajectory versus Snapchat daily active users (Statista, 2024)

disappear) and introduced Instagram Stories. To date, this feature is still one of the most popular features of the application. Users are able to post photos and videos directly to their Stories stream, where the content is then live for others to view for 24 hours before it disappears.

As can be seen in Figure 6, Instagram stories quickly overtook Snapchat users within a year of adding the functionality and remains (until 2024) the more popular and used social media application for this said feature. This shows how delicate and competitive the social media market is and how functionalities continue to evolve. With Meta owning and continuously evolving its main social media applications (including Facebook, Whatsapp, and Facebook Messenger), the functionalities of each tend to move together but are different enough that they don't overtake the other market share. Whatsapp and Facebook Messernger today are progressing into social media applications from strictly person to person chatting applications, with their constantly evolving functionalities.

What is also key for Instagram stories is that users are spending more time inside Instagram than ever before, especially after the launch of Instagram Stories (Instagram, 2020). Instagram's Android users in the U.S. spent more than 53 minutes per day using Instagram in June, according to data from SimilarWeb which is almost double the 28 minutes per day those users were logging a year earlier. This growth can't be tied directly to Stories, though it's likely a big factor.

At a glance, according to Statistical data (2024), there are over 2 billion daily active users of Instagram Stories, who, on average, spend nearly 1 hour a day perusing the application. The content on the application is extremely relevant as, even back in 2021 (Statista, 2021), there were almost 100 million new photos that are being uploaded per day, and 250 million stories being posted a day. As one of the top five most popular social media applications in the world, this data clearly identifies the potential of Instagram in terms of reach and access globally. Though it is undeniable that the application is one of the world's most far-reaching. As of 2023 (Statista) the country with the largest Instagram audience was India, with approximately 360 million users, followed by the US with 169 million, and Brazil with 134 million. What is key, is that the target audience, users between 18 and 24, made up 31% of the user base, and that they are not in the minority, to their older Millennial and Gen Z counterparts. What is even more significant for this key market segment is that its main competition is TikTok, the still Chinese-owned social media application that the US is trying very hard to control and currently ban. For the current 18 – 24 year olds, TikTok has become the main social media application, however, Instagram has maintained year on year growth of appx. 25%, implying that this age group wants and uses various media and that their requirements are ever evolving.

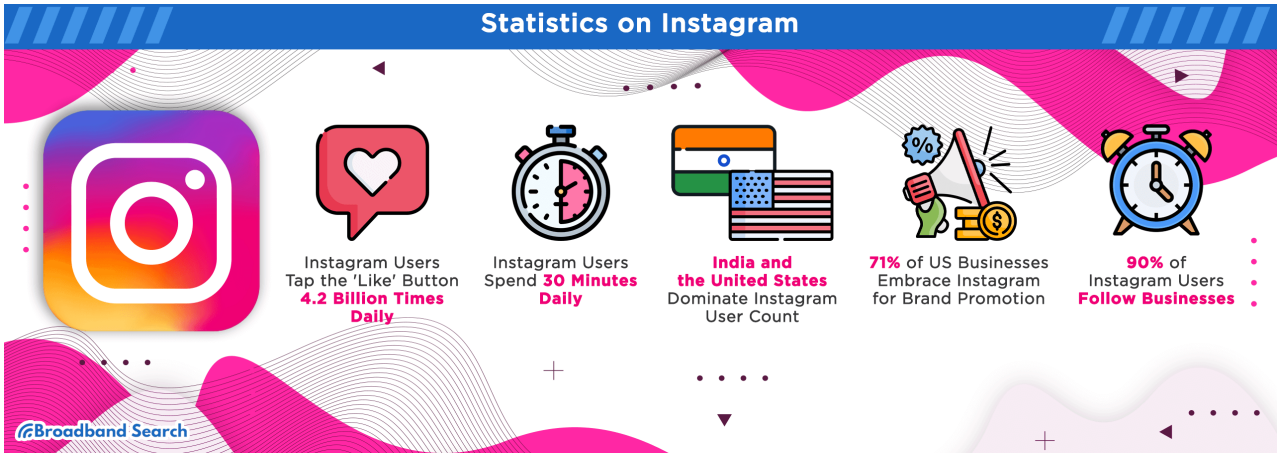

Figure 7: Instagram at a glance (Broadbandsearch.com, 2024)

Figure 7 provides some insight into the capabilities and strengths of various social media. Instagram's potential to capitalize on interest from consumers is undeniable. Originally, Instagram started as a social media platform that focused on user-generated content (UGC) spaces, similar to YouTube (Hou, 2018); however, the last few years have seen an increasing focus on professionalized content being uploaded by everyone, from corporate to amateurs (Fuchs, 2017) so as "to maximise and commodify their audiences" (van Driel & Demetrica, 2020).

2.4 Social Media and Generational Target Audience

To compare Instagram to other social media, some statistics on the other major social media applications is shown in the Figures 8-11.

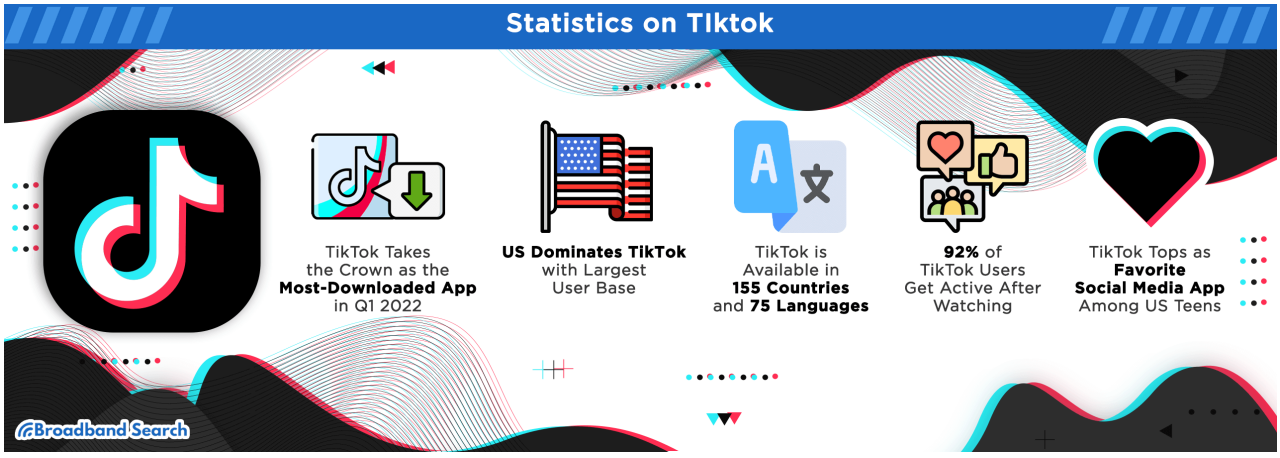

Figure 8: TikTok at a glance (Broadbandsearch.com, 2024)

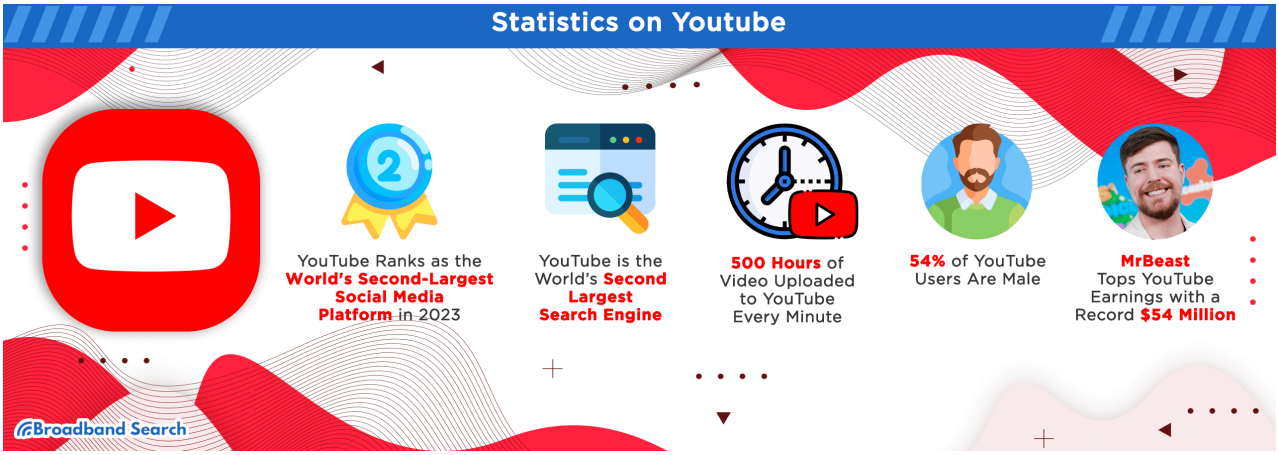

Figure 9: Youtube at a glance (Broadbandsearch.com, 2024)

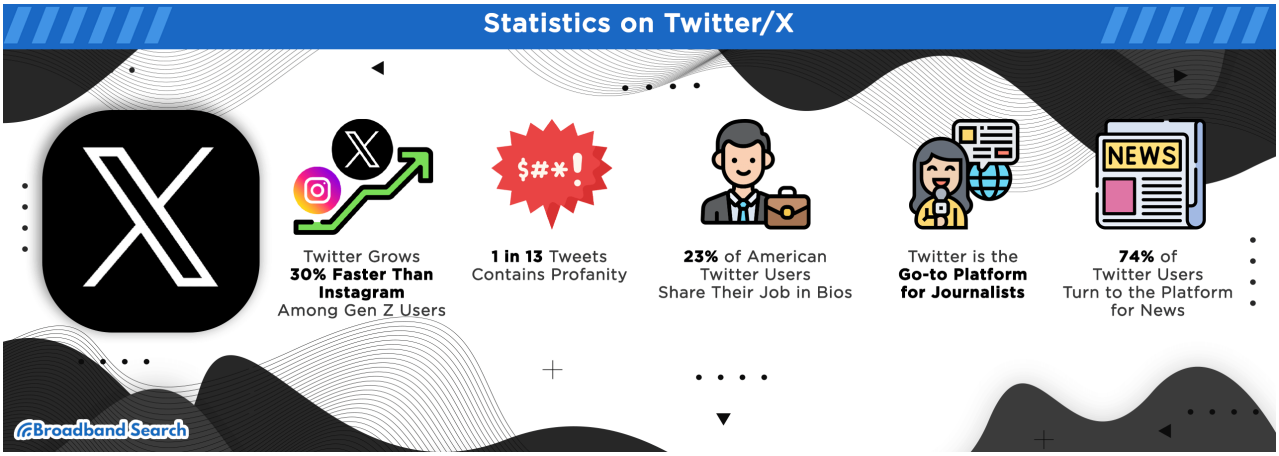

Figure 10: Twitter (X) at a glance (Broadbandsearch.com, 2024)

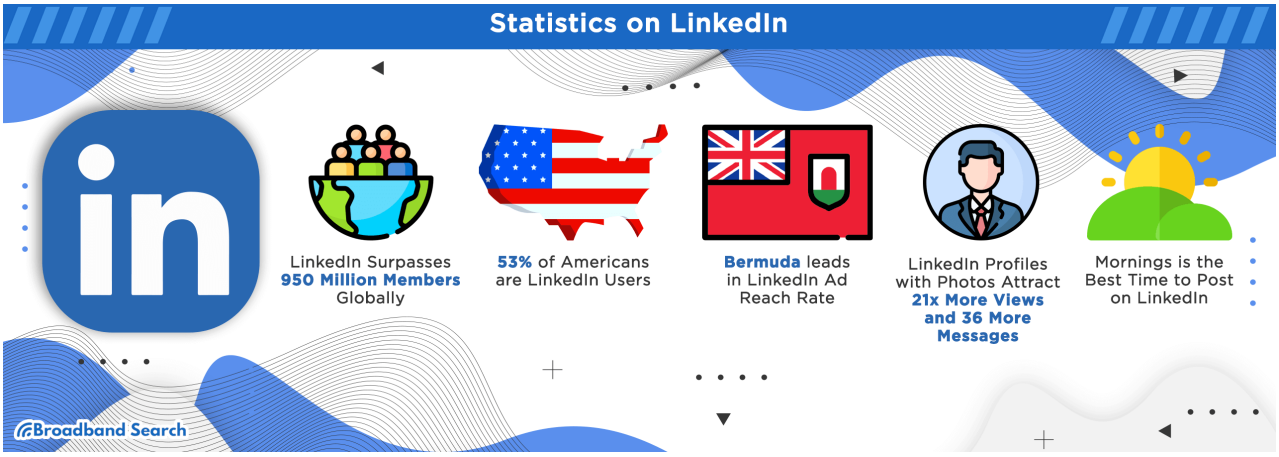

Figure 11: LinkedIn at a glance (Broadbandsearch.com, 2024)

These will be reflected upon in Chapter 6 (Discussion and Analysis of Results) of this Thesis when discussing the social media apps mostly used for both business and for social purposes by the respondents in this study.

2.6. IT & Social media Solutions for the Supply Chain

In a study done in 2008, Bandeira & Maçada found and emphasized that as a result of globalization, companies have started to integrate information technology (IT) within the supply chain in order to obtain planned cost reductions. "A connected supply chain consolidates company-wide data into a single source, so supply chain leaders have granular, real-time views into supply levels, demand forecasts, and costs. With instant visibility into critical supply chain metrics (via IT solutions), decision-makers can model and review various scenarios, better understand potential disruptions and get answers to complex supply chain problems quickly" (Anaplan, 2020).

IT has a supporting role in relationships among suppliers, buyers, producers and distributors, benefitting all participants (Mulligan and Gordan, 2002). What IT does is facilitate more communication in order to improve operations within the supply chain, as well as enhance trust, collaboration and commitment among all members. Furthermore, IT can enable the integration of information as well as physical and financial flows between a company and its partners in the supply chain. It can help to improve relations with suppliers by ensuring the quality and qualification of their services or products through the reduction of fraud and error (Machado and Oliviera, 2004). Therefore, when assessing the capabilities of suppliers, beyond the facilities and product being provided, the presence and the quality of the IT available is just as critical. One example of integrating a technological solution into the SCM is via RFID technology.

2.6.1. Examples of Technological Applications: RFID

Frequency Identification (RFID) is an "automatic identification and data capture technology which is composed of three elements: a tag formed by a chip connected with an antenna; a reader that emits radio signals and receives in return answers from tags, and finally a middleware that bridges RFID hardware and enterprise applications" (McFarlane et al., 2003). As supply chains consist of a greater network including the suppliers, manufacturers, distributors, and retailers, all the way to the customer; this invariably implies various multiple tiers of each category. Therefore, RFID tech is critical in today's competitive environment as it "provides real-time communication with numerous objects at the same time at a distance places without contact or direct line of sight (Garcia et al., 2007).

RFID is critical for SCM for the following reasons (Li et al., 2006; Masum et al., 2014):

1) Its' advanced identification and communication characteristics allow for improved product traceability and visibility among supply chains.

2) Ability to increase accuracy, efficiency and speed of processes.

3) Ability to allow decision-makers to make critical decisions in order to reduce storage, handling and distribution costs and improve sales by decreasing the number of stock outs.

4) Potential to reduce warehouse costs, stock errors, theft and shrinkage and allow companies to regularly update their logistics and inventory databases.

Many companies, including major consumer giants like Proctor and Gamble© and Gillete©, to fashion retailers Adidas© and GAP©, to Retail Wholesale giants like Wal-Mart© have leveraged RFID technology to improve and increase operating efficiencies in the supply chain. Such technology has had major success with the integration of social media as well.

Already in 2007, Bagchi et al. predicted RFID growth would jump from $4 billion in 2008 to $20 billion in 2013. In a study by Masum et al., RFID technologies helped both P&G and Wal-Mart reduce their inventory levels by 70% while improving service levels to 99%. In section 2.4.3, an example of how combining RFID technology with social media can create a new experience for consumers is presented. This strategy was carried out by Adidas and has, to date, been a very successful marketing campaign for the company.

2.6.2. Integrating Social Media into the Supply Chain

The SCM model has had major changes with the development of social media. "Today, supply chain leaders are also grappling with shifting consumer preferences and new channels for consumption. While traditional planning relied on demand-shaping activities like advertising and pricing promotions, in today's social world, an unplanned viral moment or organic influencer endorsement can send demand skyrocketing (or plummeting), leaving companies scrambling to keep up" (Anaplan, 2020).

Integral to SCM is the ability of a company to be able to quickly adapt and respond to their market's needs and communicate with not just their customers, but with today's globalization, be able to connect to each supplier and have them connect to the end users as well. "Success for many companies now depends on their ability to balance a stream of product and process changes with

meeting customer demands for delivery and flexibility. Optimally managing supply-chain operations has therefore become critical to companies' ability to compete effectively in the global marketplace" (Stewart, 1997). Though this was recognized over twenty years ago, it really has been with newer technology that this has recently been able to be properly addressed.

Again, what is key here is that "a connected approach to supply chain planning can help businesses turn social media moments into value-added opportunities that drive growth and steer business forward. With a clear view of relevant internal and external factors and access to actionable insights, supply chain leaders can sense and drive demand, steer clear of stock-outs and excess inventory, and make dynamic, informed decisions at the speed of a viral meme "(Anaplan, 2020).

2.6.3. How Social Media Can Help Supply Chain Management

Retaining an advantage, given that most companies have access to the same materials and information, is critical for companies to stay profitable. Technology and entrepreneurship have always been the two key ways of adding value to any process. In effect, they are how a company achieves a competitive advantage in order to maximize profits. Adding 'value' to the chain isn't the technology itself, but how technology is in fact integrated that allows for a company to reduce costs, increase sales, and accelerate returns (Kuglin and Hood, 2008). "Social media could be a tool that facilitates socialization of people between organizations that is fundamental to the development of supply-based advantages" (Handfield, 2011). For a company, "maintaining competitive advantage likewise forces constant redirection and enhancement of product features, quality, cost, options and services. Supply-chain effectiveness has therefore joined product quality and time-to-market as a key competitive differentiator (Stewart, 1997).

The benefits of embedding social media in various segments of SCM are numerous, and everyday new means of integrating them together are being found. One study done in 2011 found that by using social media then "the supply chain can gather information from a broad base of different sources, whether it is experts or just supply chain participants. As a result, information is gathered as part of the so-called "wisdom of the crowd"... (further, the information) can be gathered and used across the supply chain. As a result, information is not held and kept in secret. In so doing, social media can work to eliminate or mitigate asymmetries of information (O'Leary, 2011). Other benefits include higher transparency and enabling other means of collaboration among various partners, allowing for multidirectional communication between companies and customers, which allows for more receptive and adaptive products and services. "A firm should use social media to benefit its decision-making

process. Firms need to extend supply chain activities between a buyer and its supplier in responding to social responsibility issues. Social media must relate to activities in the firm to improve quality products/services, product and service innovations, marketing analysis, employee training and the efficient usage of resources" (Tseng et al., 2019).

Though social media can elevate supply chain activities (O'Leary, 2011), there are also potential shortcomings. "As one McKinsey & Company report stated: [Companies] have adopted [social] technologies but have generated only a small fraction of the potential value they can create… social platforms can unlock $900 billion to $1.3 trillion in value in those sectors alone. Two-thirds of this value creation opportunity lies in improving communication and collaboration within and across enterprises" (Chae et al., 2020)

2.6.4. Adidas: Integrating Social media and RFID technology for Marketing Campaigns

Leveraging their exclusive partnership with FIFA © just before the World Cup held in Brazil in 2014, Adidas attached cameras that delivered continuous live footage of the official ball all through the progression of its creation. The Brazuca© ball even had its own Twitter handle, and through its different stages in creation and even through the different countries it moved through, the world was witness to all that goes into creating just one ball. This campaign was further empowered as Adidas was in the process of integrating more social media in order to improve their supply chain management globally by creating transparency, increased visibility, communications and quality control in order to reduce operational and labour costs. With a global supply chain comprising of more than 1,000 independent factories around the world, this insight was definitely unique and revolutionary, both for the customers (in terms of their getting a bird's eye view of the process), as well as for the Company in that they were allowing for both customer and all companies involved to have more transparency and knowledge. In order to also evade past issues that other companies, including Nike, have had with child labour accusations, etc., Adidas even added their Adidas SMS Worker Hotline to enable direct communication with factory workers. The anonymous communication helped bridge the gap between management and workers and ensured transparency in tracking complaints. Furthermore, it also allowed for correction efforts to happen in real-time. Considering that many of the factories are in third-world developing nations, the fact that phone technology has become so much more affordable to the masses, thus provided the perfect medium so that such a solution became not only viable, but extremely effective as

well. With more communication, transparency, and real time efforts for corrective measures, customer satisfaction is increased as well as corporate sustainability.

Adidas continues to pioneer various supply chain optimization methods as a means of retaining a competitive advantage, especially considering the fierce competition they face. In today's intense battleground of e-commerce and customer expectations set by marketplace sellers, such as Amazon's 2-day promises, innovation for all retailers has become essential. Integrating social media and IT solutions, Adidas, for example, significantly improved sales in Russia by allowing customers to track their bought shoes through Radio Frequency ID (RFID) Tracking, and then through their 'click and collect' and 'ship from store' options that made receipt of goods much faster than conventional methods. Allowing their customers real time knowledge of where their shoes, customized or not, are further engages them in the process and improves customer satisfaction by optimizing efficiency as well (Benton 2017).

Adidas is further optimizing supply chain operations to benefit both customers and overall SCM by consolidating inventories between Adidas' online and in-store options. This will not only work to streamline processes but also help with overall efficiency and identifying weak links. Adidas is also using "data analytics to further optimize product portfolio, distributors, and logistics" (Pritee, 2017). Being able to identify which product has a higher turnover, and which one stays on the shelf longer, or is returned more, helps SCM Managers and Operations personnel in their design-related and purchase decisions. Integrating customer information, RFID tracking, and locator tags further add value by shedding light on which products are catching the interest of which specific target markets. This information could then help Identify 'hot ticket items' and allow them to be targeted and prioritized through the supply chain in order to accommodate demand more efficiently (Benton, 2017).

2.7. Issues for Social media Integration in Supply Chain Operations and Management

Though SM poses as a near-ideal solution for communication along supply chains, there have still been many obstacles towards the integration of social media into SCM worldwide. These obstacles have become more apparent during the pandemic due to:

1) Disrupted Communication (Musella. 2023; Smith, 2020; Sodhi & Tang, 2016): The pandemic disrupted traditional communication channels within supply chains. Difficulties were faced in maintaining real-time communication with suppliers and customers. This concept seems

strange considering that the pandemic did not affect the internet lines (in general), and as such, the reasons why and how are outlined in section 2.7.1 below. In response to these disruptions, businesses increasingly turned to digital communication tools including SM, video conferencing, cloud-based collaboration platforms, and supply chain management software which enabled communication with partners and customers while adapting to remote work and rapidly changing circumstances. However, for some companies and individuals, the learning curve also meant things slowed down, and eventually some companies were unable to compete.

2) Data Privacy Concerns impeded potential apps/IT solutions (Ivanov, 2020): Increased reliance on SM for SC communication raised concerns about data privacy and security, especially for sensitive information. An example of how this affected IT solutions (albeit an adapted supply chain issue) was in the management of the vaccines themselves, where a universal medical (even a pan-US or pan-Europe) digital application to document and facilitate records of who took what vaccine when was eventually denied and stopped primarily due to concerns of data privacy, and also who then owns the information.

3) Information Overload (Musella, 2023; Srivastava et al., 2020): SM platforms generated (and continue to) massive amounts of data and information, leading to challenges in filtering and extracting meaningful insights. This has potential solutions with AI evolving in 2022 – 2023 at an unprecedented rate; however, AI still has problems differentiating between legitimate information/concerns vs. what would be locally termed as 'trolling' data or data that is of no consequence, yet still confuses the AI.

4) Misinformation (Musella, 2023; Ivanov & Dolgui, 2020; Srivastava et al., 2020): The proliferation of unverified information (tied into point 3 above) on social media platforms pose a risk of spreading inaccurate information within supply chains

5) There is a Learning Curve with Adaptation to New Technologies (Yang et al., 2018): Many organizations struggled to adapt to new social media and communication technologies, hindering their integration into supply chain processes.

2.7.1. Understanding Disruptions to Communication During the Pandemic

One example of how the COVID-19 pandemic disrupted life, in general, is how it largely impacted (i.e., disrupted) traditional communication channels within supply chains. This occurred for different reasons, impacting the way businesses interacted with their suppliers, customers, and other stakeholders. The reasons include:

1) The Actual Tangible Disruption of Physical Meetings (Johnson, 2021; Smith, 2020): Almost every country experienced city to nationwide lockdowns, travel restrictions, and social distancing measures that then made it impossible or extremely challenging for individuals to meet in person. Regardless of technology, traditional communication, even until 2020, often relied on physical face-to-face meetings, supplier visits, and trade shows and so the inability to conduct these meetings disrupted the flow of information and relationship-building.

2) Actual Supply Chain Disruptions (Brown, 2020; Williams, 2020): The pandemic, as mentioned above, disrupted supply chains globally, including in that there were forced factory closures, labour shortages, and transportation challenges. Many companies globally faced difficulties in sourcing materials and products, leading to increased communication needs to identify alternative suppliers and adapt to changing circumstances.

3) Increased Reliance on Remote Work and Its Steep Learning Curve (Miller, 2021; Clark, 2020): To ensure the safety of employees and in order to comply with governmental obligations, many organizations shifted to remote work, which made it harder for employees to communicate, formally or informally, both within the organization and with external partners, leading to delays in decision-making and problem-solving. The learning curve here for so many who suddenly were forced to work online, never having done so before, brought with it major hurdles and took time for people to attain proficiency with the systems to enable them to continue operations at a more 'normal' pace.

4) High Demand for Information (Adams, 2020; Jones, 2020): The uncertainty surrounding the pandemic created a demand for real-time information, which then put pressure on businesses to communicate rapidly changing information, such as supply disruptions, safety protocols, and demand fluctuations. Without the required IT solutions to efficiently organize and coordinate such data, traditional channels, like email and phone calls, meant that systems as a whole struggled to keep up with this demand.

5) Supply Chain Complexity (Roberts, 2020; Lee, 2019): As global SC has become increasingly complex, there are an increasing number of players involved, ranging from suppliers, manufacturers, and logistics partners. Consequently, the pandemic exposed vulnerabilities in SC visibility and transparency, requiring more sophisticated communication channels.

6) Technology Gaps (Garcia, 2020; Harris, 2020): The reality of the inequality in access to technology meant (and continues to mean) that not all companies had the required 'robust' digital communication tools in place when the pandemic hit. Many businesses that did not have advanced communication technology struggled to adapt to remote work and maintain communication flows with partners, creating bottlenecks in the supply chain. This also forced many companies along the supply chain to lose business and even go out of business, being unable to operate at even a breakeven level.

7) Focus on Critical Communication (Chen, 2021; Nguyen, 2020): During a crisis, businesses need to prioritize critical communication, however, adding the new technology (all online) into the mix created a very challenging obstacle for companies to manage, leading to delays and miscommunication.

8) Surge in Demand for E-commerce (Musella, 2023; Diaz, 2020; Turner, 2020): Being forced to stay in lockdown, online shopping surged as consumers avoided physical stores. Retailers and suppliers needed to rapidly adapt to e-commerce and invest in digital channels to serve customers directly; again, in some cases, wiping out old businesses, whilst simultaneously allowing for new, emerging business solutions to succeed.

9) Emergence of New Regulations (Kumar, 2021; Wang, 2020): New regulations and safety protocols, whether local, national, or even international, emerged during the pandemic forcing companies to stay informed about the dynamic situation and further communicate compliance requirements to partners and employees.

2.7.2. Ongoing Obstacles and their (Potential) Solutions for Integrating Social media into Supply Chain

Though the onset of the pandemic was a few years ago (currently 2024), and though there has been plenty of time to address the issues involved with integrating social media into SCM, major obstacles remain, some of which have been presented below.

1) Data Analytics and AI (Ivanov et al., 2021; Tajvidi et al., 2020): Despite the rate at which AI is progressing, especially given 2023 and ChatGPT and other AI that are evolving more AI themselves, ongoing challenges include refining data analytics and A tools that are able to extract valuable insights from the overwhelming amount of social media data. Solutions involve investing in advanced analytics capabilities, as well as the numerous iterative attempts at making AI more 'intelligent.'

2) Privacy Regulations (Dubey et al., 2020): Despite the number of conferences and attempts at finding a more cohesive solution, the challenge of data privacy remains. Solutions include complying with the numerous international data protection regulations and implementing secure data-sharing protocols.

3) Integration with SCM Systems (Musella, 2023; Verma et al., 2020): Integration of social media with existing SCM systems remains an obstacle, partly also due to the inequality of access to technology. Solutions involve developing APIs and middleware for seamless integration, as well as working with groups and tech companies to ensure access to technology.

4) The Effective Managing of Information Flow (Powers, 2023; Musella, 2023; Ivanov, 2020): To address information overload caused by the incredible amount of data that social media outputs, companies are investing in AI-driven tools for information filtering and prioritization. The iterative attempts that many AIs themselves are doing in order to evolve better versions of themselves though provide hope for better, more sophisticated solutions in the near future.

5) Trust Building, Transparency and Communication (Musella, 2023; Sodhi & Tang, 2016): Building trust and transparency among supply chain partners on social media platforms remains crucial. Ongoing efforts include transparency initiatives and collaborative communication, as well as a lack of recognition at national levels of the need to help evolve companies towards the integration of social media across their supply chain partners.

2.7.3. Integration of Social Media into Supply Chain in Kuwait and the UAE

In Kuwait and the UAE, organizations have recognized the importance of integrating social media into supply chain management, especially in a post-pandemic world. This acknowledgement comes from places such as Kuwait, where the almost 'universal language' or default setting of communication is through WhatsApp itself, where the tech-savvy population is using WhatsApp to communicate with all applications, from banking to medical systems and logistics. While specific research on the

implementation of these solutions in the countries is limited, both countries have shown interest in digitalization and technology adoption in their supply chains.

Addressing many of the issues and solutions listed above, both Kuwait and the UAE have been investing in AI and data analytics technologies to enhance decision-making in supply chains (Government of UAE, 2021; State of Kuwait, 2021). Though some situations serve better than others, there are issues, such as in Kuwait, where due to more disruptions in government and other political instability (a continuously changing government over the last few years), regardless of national-level decisions, the implementation of them continues to be quite problematic and then having the right people to solve them, and actually then implement the correct changes, is where delays occur.

Further, both the UAE and Kuwait have regulations in place to protect data privacy and security. Compliance with these regulations is a key consideration in adopting SM in SCM (Government of UAE, 2021; State of Kuwait, 2021). Also, as both nations are heavily investing in their National Development Plans, the integration of SM with existing SCM systems aligns with the digital transformation initiatives in both countries (Government of UAE, 2021; State of Kuwait, 2021).

Considering the smartphone and SM penetration and usage in both countries, both governments have also made major efforts to manage information flow efficiently, with a focus on leveraging technology for better data handling (Government of UAE, 2021; State of Kuwait, 2021). However, this has its own unique problems, with so many languages spoken in the two countries due to the overwhelming expatriate populations that exist in both.

A key area where not enough work is being done is in building trust among supply chain partners, which is essential in the region. Both countries are working on collaborative initiatives to enhance transparency and communication within supply chains (Food Security Center - Abu Dhabi, 2021; Kuwait News Agency, 2021), however, this is a focal point that looking at social media accounts of companies from large corporations to small, there is very little communication and transparency being facilitated amongst supply chain partners to their end customers. It exists more in logistics, where third-party logistic companies are being tagged and integrated between the customer and at least one other company (where the good that is being delivered is being picked up from), however, here, there are normally just a few groups interacting, whereas the supply chain itself might be quite a bit larger.

In conclusion, integrating social media into supply chain management has faced challenges, but ongoing efforts to address these obstacles are evident. Kuwait and the UAE are actively adopting technology solutions and emphasizing data privacy and security in their supply chain processes,

however, there is still a huge gap that exists due to the populations of the countries having very little awareness and appreciation for the benefits that such integration can have within their own efficiencies and operations.

2.8. Social Media and Customer Engagement

In the current climate of the internet 3.0 - 4.0, “companies increasingly act as a platform that allows (for) multiple parties to connect to each other and create and exchange value… (Further) consumers have become both consumers and producers of value. Therefore, we call them "prosumers” (de Valck, 2017). Thus, the paradigm relationship between the traditional creators of value (companies) and consumers has completely changed. Now, consumers are able to increasingly utilize social media not just to gain insight about a product or service, and all its’ competitors but, more importantly, to “engage with the companies they purchase from, as well as other consumers who may have valuable insights about these companies” (Farook & Abeysekara, 2016).

Firms now have had to capitalize upon the power of internet, which is now universally recognized as an “open, cost-effective and omnipresent network, which contributes to reducing or even eliminating geographic barriers and physical distance, as a platform to co-create value with customers, thanks to the capabilities of internet: interactivity, broad scope, persistence, speed and flexibility” (Shawhney et al., 2005). In short, this has led to a platform where producers can gain client commitment.

There are a variety of ways in which to engage the customer and social media facilitates everything from building a rapport with followers, to providing a medium to make individual customers or followers feel special (even on a large scale globally, whether by providing exclusive access or deals, or even through the unveiling of new products or services), it allows cross communication with the customer directly to the producer as well as the opportunity for various parts of the supply chain to access that communication and even engage into the discourse. Such direct access to their consumers allows companies to build an even greater customer base and audience, as well as gain direct, immediate feedback from the customers. One viral tweet or video can make any ad campaign go global, boosting reputation, but at the same time, it can also just as badly harm a company’s brand.

In 2017, mega-brand Pepsi© took the heat for an ad where millennial model Kendall Jenner goes from a fashion show to joining a protest and appeasing cops by handing them a Pepsi. In a time where protests have globally become increasingly important forms of ‘democracy’ and, at the same time, dangerous for the people involved, making light of many tragic scenes of police brutality got the advert

pulled within 48 hours and Pepsi issued an apology. The ad had a few million views within a few hours, with universally negative feedback and no one coming to its defence. The difference in feedback is powerful as "people (now have) got the tools to respond to the misguided mash-up on a mass scale—in 140 characters or less" (Watercutter, 2017).

The one saving grace, though, when it comes to social media disasters is that, though once something is on the internet, it can never truly be erased, the pace of the world and viral stories is so fast that, fortunately, people's attention is quickly directed to the next big story. This short attention span can be both a positive and a negative for any company, but a giant like Pepsi is able to navigate such a media disaster storm with the proper crisis management response team, however, smaller companies might not survive the same.

2.8.1. Instagram Stories and Supply Chain Engagement

According to a marketing services provider aimed at supply chain and B2B marketers, Fronetics, Instagram Stories hold a lot of potential for supply chain engagement as Instagram stories are "a creative content-delivery platform that helps build rapport with followers, grow brand awareness, and educate potential buyers" (Collins, 2017). The article further maps out various ways how to maximise the use of Instagram stories, which include:

1. **"Deliver special offers and limited sales"** – since sales are time-sensitive and the customers and clients are well aware, this will push them to engage with the story within that period of time in order to benefit, therefore creating content that yields immediate results. Example "JCrew's promotion of the new Jane in Pink sunglasses: The brand posted a combination of GIFs and photos teasing the pink sunglasses before announcing that there were a mere 50 pairs available for purchase through a link in its bio. This caused half of the merchandise to sell out in two hours".
2. "**Sign in for a takeover"** – by having lesser-known companies or members within the supply chain take over more well-known brands/accounts, you allow for a "backdoor approach to accessing new demographics. The strategy is about deepening relationships, gaining exposure, hacking distribution, and raising awareness."
3. **"Go behind the scenes"** – present candid moments with workers, R&D process, or give access to what happens within the 'bubble' in which the company exists. Such access "humanize(s)

(the) company and (lets) customers see and experience (the) brand's personality... to get followers excited and intrigued as to what happens behind the doors of (the) company".

4. **"Q&A's" –** produce short videos that answer FAQ's or questions posted on Instagram and other social media in order to "allow viewers to feel as though they are really being heard... It's also a great opportunity to showcase the personalities of (the) employees and social media team while directly interacting with (one's) audience."
5. **"Survey the followers"** – getting input from those following an account can provide fast and affordable data before a product or service is launched. Many companies, including Red Bull, use this technique frequently in order to gauge response and cater more to what is popular (Collins, 2017).

2.8.2. Social Customer Relationship Management (SCRM)

With the development of the capabilities of a relationship with customers online, generally speaking, customer relationship management (CRM) has moved more towards social customer relationship management (SCRM) (Malthouse et al., 2013). Facilitating CRM via social media is by far the most effective and efficient means for any company to distinguish themselves from their competitors, where it provides an opportunity to communicate marketing messages to their target customers more clearly and effectively; and this allows them to achieve customer satisfaction better than competitors who do not perform SCRM (Ahani, 2017).

In SCRM, various metrics are used depending on the function. In terms of brand awareness, companies focus on website traffic, volume trends, volume of followers, and social mentions. In regards to sales, they look at the above plus the number of repeat visitors, number of sales online, feedback from quick surveys, as well as the correlation of various marketing schemes and the potential bumps in sales, i.e., an increase in sales after each new 'sale' notice on Instagram or a new video advertisement is launched.

Through multiple studies, Trainor et al. (2014) have recognised a multitude of SCRM activities that each may be considered events within an elongated process. First, in terms of identifying a customer, this is initialized when the person clicks "Like" or "follow" on the firm's page, video or tweet. This then triggers algorithms where sophisticated software accesses all engaged people's pages, retrieves critical information, compiles it, and provides the firm with deep insight into potential and current customers. The customer information provides key demographic information, from lifestyle and

personal preferences to age, as well as insight into potential complementary or even substitute products and services. This information is essential in regards to SCRM's segmenting customers into homogenized groups with similar preferences and thereby giving the firm deep insight into how to best market the product to that segment and engage them at unprecedented levels. Furthermore, by customers using hashtags, companies receive direct mass insight into customer feedback and awareness of various people's needs and preferences, as well as having immediate feedback in terms of what is working and what isn't. With sophisticated software, companies now don't need expensive PR firms to advise; instead, they can have more internal groups assessing and adapting to each environment and make firms better match their products and services to those of the customer.

2.8.3. Social Customer Relationship Management (SCRM) Strategy

With SCRM being a fully functional and recognized process, researchers have had enough time to initially study the engagement between both customers and producers and find that SCRM has the greatest advantage in "building trust, gaining customer insights, establishing customer loyalty, attaining customer retention, participating customers in new product or service development, expanding customer lifetime value and company reputation, and decreasing the cost of service" (El Mehelmi & Sadeq, 2019, Trainor et al., 2014).

In today's connected audience, SCRM is crucial in order to not just attract customers, but also retain and increase market share, and stay relevant in an increasingly dynamic marketplace (El Mehelmi & Sadeq, 2019). A key strategy for any firm is to have Executive support for SCRM and marketing that focuses on creative new means of engaging new customers, as well as having staff, not just in marketing but throughout the various functions, with knowledge of social media tools (ibid).

One key pillar on which SCRM fundamentally stands is the proper understanding of customers. Success for any engagement and marketing venture first requires the firm to carefully listen to the needs of the customer, adapt, and extrapolate towards understanding their future needs and wants as well.

2.8.4. Drawbacks of SM and IT in terms of Efficient SCM

"Today, supply chain leaders are also grappling with shifting consumer preferences and new channels for consumption. While traditional planning relied on demand-shaping activities like advertising and pricing promotions, in today's social world, an unplanned viral moment or organic influencer endorsement can send demand skyrocketing (or plummeting), leaving companies scrambling to keep up" (Anaplan, 2020). "Consumer behaviour is constantly evolving, and the growing

influence of social media brings a new layer of stress to supply chain leads who are tasked with maintaining service levels, regardless of outside variables. Not only do supply chains need to quickly adapt to changing business conditions, but today, they must be agile enough to respond to demand spikes from a viral tweet or to manage an influx of returned products following a bad influencer review" (Anaplan, 2020).

2.9. SM and the future of SCM

In 2016, a survey of supply chain professionals found that over 80% believe that the digital supply chain model will be the predominant one by 2021. While researching supply chain management, there were a few studies found that link the connection and the importance of SCM, however, very few, if any, really have addressed the issue from an 'economics' standpoint and provided statistics towards the benefit that a company might reap, if and how various elements of social media are integrated along the supply chain. Though there are many supply chain magazines and websites that enumerate the potential benefits and explore where and how using social media adds benefit, there are no real statistics to back the statements up, besides using 'common sense'. Of course, new legislation, such as being able to identify and show sources of products, such as sources of meat and vegetables, as well as calories and all listed ingredients in food, both pre-packaged and prepped meals (like in restaurants, etc.), also have put pressure on companies to allow customers to easily access information and increase transparency.

Studies and articles have been somewhat inadequate when even exploring the value-added benefits of social media. This could also be due to the fact that social media is a very organic phenomenon, which ebbs and flows, and affects industries in various ways and in short periods of time. To this, though there are a few social media applications that have stood the test of time (albeit 13 years or less), there have been many that have not really made the cut internationally, and some that have done well regionally for a time only. In this respect, it was found that blogs, online articles, and company site sponsored articles were more forthcoming with information and insight.

Limiting information gathered to that which was published in the last five years is critical to a potential thesis on the matter as information is also time sensitive to the technologies currently available and popular with general consumers. From various blogs and SCM company sites, as well as the few Journal articles that apply, it can be seen that there are a variety of benefits of using social media within Supply Chain Operations, including:

1) It (social media) is the ideal medium to build and grow relationships among Supply Chain participants, specifically a Company's trading partners (Markova and Petkovska-Mirčevska, 2013).

2) It can also be used to build and grow relationships with end use customers and determine key performance indicators (KPI's) including on-time performance, payment issues, and the added advantage of being able to get their input towards recommendations for improvement (Rusch, 2014).

3) Information and knowledge gathered from the use of social media by supply chain partners can provide insight into various issues of the supply chain, industry, competition, etc. (Lambert, 2014).

4) Increases transparency throughout the supply chain, and allows even the end user to be aware of the practices of the company (JDA, 2018).

In terms of SCM, the Supply Chain Operations Reference (SCOR) is a "process reference model developed by PricewaterhouseCoopers LLP (PwC) and endorsed by the Supply-Chain Council (SCC) as the cross-industry de facto standard diagnostic tool for supply chain management" (Rusch, 2015; Huan et al., 2004). In this SCOR Model, there are five key events: Plan, Make, Source, Deliver, and Return.

What is key about new dynamics is that social media can be used to acquire information for any of these chain events, and also help communicate between the partners of each event in order to achieve better efficiency and a product that is better received by the end consumer.

What is critical is that using such applications allows partners in a chain to monitor events and transactions, as well as enables them to all be up-to-date with current events, such as delays, traffic, and defects, etc. Social media can also provide more "timely and insightful information about risks and events, enabling (said companies) to take corrective action sooner and thus minimizing the impact of a supply chain disruption" (Rusch, 2015).

Most importantly, as seen by both (1) and (2) above, it is building communication and relationships between all partners, especially with the end user, that is critical to more efficiency in the supply chain and better profits for any company. "Pressure and partnerships influence practices, which in turn impact performance" (Sodhi, 2017). Developing dynamic relationships with customers is essential to the success of a firm. The most effective way to develop this type of relationship is by understanding customer buying behaviours and designing and sustaining a supply chain tailored to deliver value to each customer segment" (Gatorna, 2017).

In a 2015 article published by the online magazine SupplyChain247, an expert in Supply Chain Management (SCM), who operates his own consulting company, summarized his findings from numerous workshops and various surveys of company management. His insights are crucial for understanding the challenges of integrating social media into SCM. He found that while management generally recognizes that social networks are transforming supply chain processes, they struggle to understand how, where to begin, and why it is essential (Gonzalez, 2015). Some decision-makers perceive the 'social' aspect of social media as a distraction, limiting its application primarily to marketing and advertising. Others are overwhelmed by the volume of information that needs to be collated and analyzed, making it difficult to integrate social media data into their processes. The most significant obstacle identified is the inability of companies to quantify the business value of using social networking technologies. Without concrete statistics to justify the allocation of resources, few companies can secure management support, and even those that do may find it challenging to gain employee buy-in for implementing these technologies.

One major change that is forcing managers to look at social media, however, is the “rise of Supply Chain Operating Networks (SCON), the business equivalents of Facebook and LinkedIn, which are enabling communities of trading partners to communicate, collaborate, and execute business processes in more efficient, scalable, and innovative ways” (Gonzalez, 2015). In short, the SCON, including Dropbox, Google Dox, LinkedIn etc., are enabling faster, more efficient collaboration between people from various backgrounds.

Another interesting aspect of social media and SCM is due to the effect of ‘consumerisation of IT’, the tendency for the adoption of electronic devices and/or applications by consumers first, and enterprises or industry second. As millennials are entering the workforce, and even able to jump start their own ventures and companies, we are seeing a generation of employees who are very adept at using these social media interfaces and want to work on applications and mediums that are similar to those they already know and are comfortable with. This phenomenon is significant enough that all the major tech companies have been acquiring up and coming social media platforms and incorporating them into their own websites or applications. From Google© to SAP© to Microsoft© all major software companies are integrating collaboration platforms and some even incorporating cloud logistics software that has easy access via phones or tablets in order to compete in this new dynamic era.

The synergy between applications of social media and SCM is incredible, however, it seems that generally it requires key management decisions in order to see the bigger picture and know where and

how to integrate it. This, however, is a dynamic phenomenon and needs constant monitoring in regard to how receptive all partners in a supply chain are to the technology and methodologies involved, as well as to ensure that the latest and most efficient tech is being utilized. Unfortunately, there is not enough data and statistics out there to help many companies make such moves, and thus, this remains an area of research that begs a lot of attention.

2.10. Social Commerce

Social commerce refers to the process of purchasing products or services through social media platforms, utilizing the quality of social interactions and leveraging the power of online communities. According to Aladwani (2018), social commerce can be defined as a "socially-driven interaction process pertinent to purchasing a product or service using quality of social media" (p. 2). This emerging phenomenon has gained significant attention in recent years and has the potential to revolutionize the way businesses and individuals engage in e-commerce transactions. Social commerce allows users to discuss, share, and review their buying experiences, creating a dynamic environment for online transactions. The integration of social network elements into e-commerce platforms or the introduction of commercial functionalities within social networking sites has transformed the way individuals and businesses connect, communicate, and transact online. Tajvidi et al. (2020) highlight two main approaches to implementing social commerce.

The first approach involves integrating social network elements into traditional e-commerce platforms, enabling users to discuss, share, and review their buying experiences. There are two forms of what is considered Word of Mouth (WOM) – Transmission (or Buzz) and Recommendation (Reviews and Rating as well as Advocacy) (Valck, 2017). Both of these are critically important features where reviews are made and feedback is taken to engage the customers, and most importantly, building trust for others to follow. This integration creates a social environment that fosters interaction and engagement among users, enhancing the overall shopping experience.

The second approach focuses on introducing commercial functionalities directly into social networking sites. This means that users can engage in commercial transactions without leaving the social media platform, making it more convenient and seamless (Tajvidi et al., 2020). One of the key advantages of social commerce is its ability to facilitate direct engagement between businesses and customers. Through social media platforms, businesses can establish a two-way communication channel, enabling them to respond to customer inquiries, address concerns, and provide personalized recommendations. This interactive approach enhances customer satisfaction, builds trust, and fosters

long-term relationships (Aladwani, 2018). As such, social commerce has become a critical means of sourcing products for both individuals and businesses, thereby gaining a competitive advantage. Moreover, social commerce offers businesses valuable insights into customer preferences, behaviors, and trends. By monitoring user-generated content, such as reviews, ratings, and social media discussions, businesses can gather real-time feedback and adapt their strategies accordingly. This enables them to tailor their products or services to meet customer expectations, improve customer experiences, and increase customer loyalty (Tajvidi et al., 2020).

By leveraging social media platforms, businesses can engage in direct conversations with their target audience, gather valuable insights about customer preferences and behaviour, and tailor their offerings accordingly (Vongsraluang & Bhatiasevi, 2017).

For small businesses, social commerce presents significant opportunities for growth and competitiveness. It provides them with a level playing field to compete with larger corporations, as it allows them to reach a wider audience (beyond their geographical limitations, breaking down barriers to entry in the digital marketplace) and build brand awareness, enhance their visibility, and attract new customers without the need for substantial financial resources. Social commerce enables them to leverage user-generated content, influencer marketing, and word-of-mouth recommendations to expand their customer base and gain a competitive edge (Trawnih et al., 2023).

Social commerce enables small businesses to leverage user-generated content, influencer marketing, and social recommendations to increase their visibility and attract new customers (Trawnih et al., 2023).This is turn has interesting repercussions and evolution when such communication is offered along the supply chain of small businesses, as mentioned above in section 2.2 and 2.3. The growth and success of social commerce heavily rely on the integration of technology and the utilization of social media platforms. These platforms not only facilitate transactions but also create an environment where users can engage, interact, and share their experiences with others. By tapping into the power of social networks, businesses can leverage the trust and social influence that individuals have within their circles, leading to increased sales and customer loyalty. By incorporating social elements into e-commerce platforms or introducing commercial functionalities to social networking sites, businesses can enhance their online presence, connect with customers on a deeper level, and gain a competitive advantage. For small businesses, in particular, social commerce provides a cost-effective way to expand their reach and establish their brand in the digital marketplace.

However, successful implementation of social commerce requires careful consideration of several factors. Businesses need to understand their target audience and select the appropriate social media platforms that align with their customer demographics and preferences. They should also develop a comprehensive social media strategy that integrates social commerce seamlessly into their overall marketing and sales efforts. This includes creating engaging content, leveraging influencers, and optimizing the user experience to drive conversions (Vongsraluang & Bhatiasevi, 2017).

Furthermore, businesses should prioritize privacy and data security to build trust with customers. Clear communication of data usage and protection policies is essential to ensure customer confidence in sharing personal information. Compliance with data protection regulations and proactive measures to safeguard customer data are critical for maintaining a positive brand reputation (Tajvidi et al., 2020). In summary, social commerce has emerged as a dynamic and influential strategy for businesses to connect with customers, enhance their online presence, and achieve a competitive advantage. By leveraging social media platforms and incorporating social elements into e-commerce transactions, businesses can foster direct engagement, gather valuable insights, and drive customer loyalty. For small businesses, social commerce offers a cost-effective means to expand their reach, establish their brand, and compete in the digital marketplace. However, careful planning, understanding of the target audience, and prioritization of data privacy are crucial for successful implementation and long-term success.

2.11. Kuwait – Social Media Usage and its' F&B Industry

Kuwait as a strategic location and its' brief history and economic background are introduced in Chapter 1.

2.11.1. Kuwait and the Evolved Digital Culture of Kuwaiti People

The 1950s saw a huge change in Government in the Arabian Gulf as the various states started their journeys toward becoming independent nations. These changes, as well as the discovery of oil, brought massive changes in both the economy and lifestyle. According to the Kuwait Pocket Book, the official guide of Kuwait, "the transformation of Kuwait since the discovery of oil in 1938 goes beyond the urban development of impressive architectural buildings, roads and new townships. It changed the life style once dependent on boat building, fishing and pearl diving into sophisticated modern living with all round advancement in technology, communication, transport, industry, commerce, financial services, medical facilities and education" (Kuwait Pocket Guide, 2019). The sudden influx of wealth transformed

the nations into being oil dependent and focused the people to become businesses people, mostly within importing and trading. Slowly the people of the region started to gain more education, and many moved westward for better opportunities in education for both secondary and University degrees.

At the same time, Kuwait formed another dependent relationship. This time, however, on foreign intellect and labour, as a predominant number of workers, both blue and white collar, were foreigners leaving most management positions for the locals. "In 1970, with the help of an international consultant under the recommendation of the UN, a plan for infrastructural development of the country based on projected urban growth changed Kuwait policies to open the country to an influx of foreign labour" (Kuwait Pocket Book, 2019). Fast forward to the 2000's, you have a population who predominantly works in business, 80% aged 40 or under (CIA Factbook, 2020); this makes it a prime region for encouraging entrepreneurship and tech savvy consumers who are more than able to communicate both locally and internationally via their smartphones.

2.11.2. Digital Kuwait

The residents of Kuwait have comparatively a high amount of discretionary income (which is money that is able to be spent on luxury items and other similar things, including nonessential goods and services; it tends to be the first category to shrink in cases of recession and like the current economic downturn) per capita (Oxford Business Group, 2017). Digital Trends in Kuwait as of Jan 2020 is illustrated in Figure 12. Further, due to the strength of the Kuwaiti Dinar (KWD), which has remained the strongest currency in the world for decades, these two factors have helped Kuwait in terms of smartphone penetration.

Figure 12: Digital Trends in Kuwait as of Jan 2020 (Kemp, 2020)

As of Jan 2020, according to the statistical website Hootsuite, in a population of 4.2 million people, there was 99% internet penetration within the country, with a similar penetration of 99% in terms of social media users. What is interesting is that there are 7.38 million mobile connections, which represent 175% of the population. This could be due to the number of people who have more than one account, as well as businesses with accounts besides the accounts of the main people in charge of these businesses. Such data makes it clear that targeting marketing through social media in Kuwait is of prime importance and that clearly, it would be one of the most efficient means of communicating and engaging the population.

2.11.3. Instagram and Facebook Usage in Kuwait

As of July 2020, there are over 1 billion monthly active users on Instagram©, coming in fourth after Facebook, YouTube, WhatsApp and WeChat (Statista, 2020). In terms of Kuwaiti usage, according to the statistics site, NapoleanCat, the number of Instagram users in Kuwait is over 2.2 million, which represents more than 50% of the country's population. As can be seen in Figure 13, as of June 2020, almost 39% of the users are women, compared to nearly 61% being men. The bulk of users range in the age group of 25 – 34 year-olds, who represent 49% of the total users (approximately 1 million people in Kuwait). This group also has the largest disparity between 1 male and female users, with males outnumbering females with the greatest percentage (males, 30% of total user, vs. females 19% of total users). The other key age groups of users are 18 – 24 years old, representing almost 16% of total users,

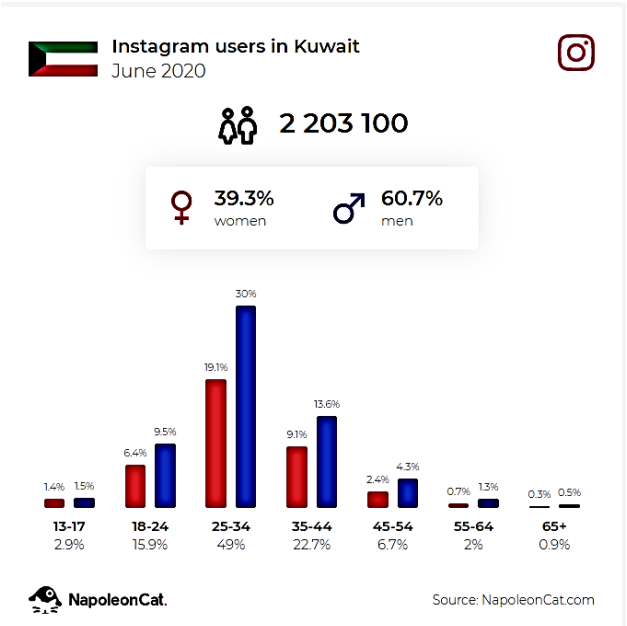

Figure 13: Kuwait Instagram Users (NapoleanCat, 2020)

as well as 35 – 44 years old, representing almost 23% of the users. In each of these age groups, males outnumber females roughly by a 3:2 ratio.

The most popular social media in Kuwait is still, by far Facebook. There seems to be 100% penetration within the market, as there are more than 4.2 million users in the country. It is important to account for users with multiple accounts. Notably, similar to Instagram, the age group with the highest number of users on Facebook remains 25–34 years old. While it might be expected that Facebook would be more popular among the 35–44 year-old demographic—considering this group was the primary target when Facebook launched internationally in 2005–2006—it is the 25–34 year-olds who constitute 47% of all Facebook users in Kuwait (Figure 14). Additionally, similar to Instagram usage in Kuwait, the user ratio remains approximately 3:2, with male users outnumbering female users.

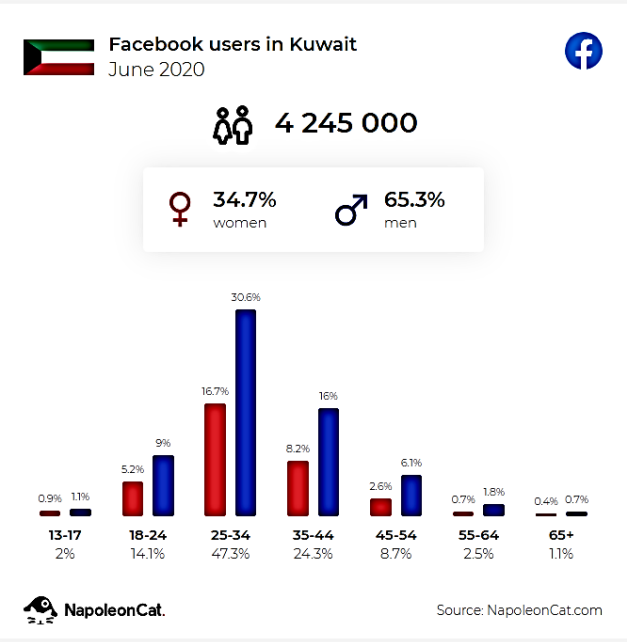

Figure 14: Facebook Users (NapoleanCat, 2020)

This is even more significant as the above graphic shows the financial snapshot and potential of the population. According to Figure 15, 80% of the population in Kuwait has a bank account, which grants them access to the KNET debit card system. KNET is the most commonly used online payment system in Kuwait, surpassing the usage of credit cards. Further, at least 36% of the population is currently making purchases online, with an almost equal percentage of women making purchases as men. This data, along with the social media penetration data in Kuwait, presents a clear picture of the potential of social media in the country. It also elucidates how not all the market has been captured in

terms of online purchases. Therefore, one strategy that may be used in order to ensure for more online purchases is to focus on further engagement within the supply chain with the customer itself. With more transparency and customer engagement, more people may be incentivized to trust online purchasing.

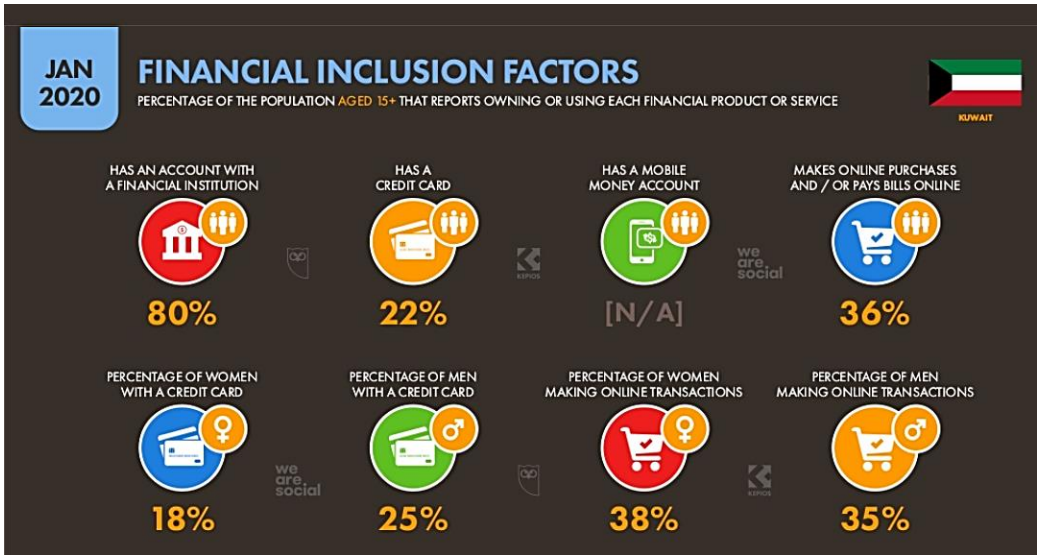

Figure 15: Financial Inclusion Factors in Kuwait as of Jan 2020 (Kemp, 2020)

2.11.4. Food and Beverage (F&B) Industry in Kuwait

The Food and Beverage (F&B) industry is by far one of the largest and most dynamic industries in the State of Kuwait. Again, with a population of just over 4 million people, in 2018, over USD 3.5 billion (~£ 2.7 billion) was being spent annually in restaurants (Aldaihani & bin Ali, 2018). In its New Kuwait 2035 Vision, Kuwait aims to be an international tourist destination focused on two primary areas: food and sports. Kuwait further plans to move "towards a knowledge economy, where economic growth is driven by technological innovation, research, development and the creation of globally competitive high value-added sectors" (Olver-Ellis, 2020). The country aims to do this by "encouraging new international investors (foreign FDI) to conduct business in strategically important industries, such as information and communication technology, renewable energy, electricity and water, tourism, healthcare and education" (*ibid*).

Though, thus far, Kuwait is a dry nation in that the sale, production and consumption of alcohol is prohibited, some of its GCC neighbours are not 'dry,' including the UAE, Qatar, and Bahrain. However, these countries generally limit the legal consumption of alcohol to private homes, restaurants, and bars. The absence of alcohol in Kuwait does pose a limiting factor in the growth of the F&B industry, as the

ability to sell alcohol enables the restaurant to offer higher prices, thus raising revenues substantially and thereby enabling some of the best chefs in the world to enter the market.

Though Kuwait does have a sophisticated food scene, with restaurants that are branded by some of the best international chefs, from American Chef Thomas Keller to British Chef Todd English, however, there is a tendency for the original setup and quality to quickly degrade as international chefs are not able to be retained in the country as their costs are just too high.

Kuwait has also seen a huge push within the F&B industry in that so many Kuwaitis are now becoming chefs themselves and are developing and executing their own concepts. Further, both men and women are finding careers in the industry, which until the 2000's was rare. Kuwaitis are now traveling the world to attend some of the best chef schools, be it cuisine or patisserie, and then coming back to Kuwait in order to tap into this fairly lucrative industry. However, the competition from international brands is extremely high, as by 2018, there were over 4,700 restaurants in the small country (Aldaihani & bin Ali, 2018). However, even though it seems that the market should be nearing saturation point, the number of cafes and restaurants continues to grow. Due to the intense competition, there is little tolerance for poor concepts, resulting in a high turnover rate (ibid).

This interest in food has also gone beyond just opening a new restaurant or café. There are more millennial Kuwaitis who are involved in providing within the food supply chain, providing a vast range of products from full-fledged organic farms, to prepared items that are prepped and packaged for easy home cooking, to diet centric (Paleo, Keto, etc.) meals and snacks.

Further, the number of home businesses in Kuwait has continued to increase, flourishing particularly with the development of social media platforms like Instagram. Many of these home businesses offer a wide array of food and beverage-related items, ranging from raw materials and supplies such as dairy, sauces, and vegetables, to finished products like cakes, cupcakes, and home-cooked meals.

Kuwait is also fuelling its' F&B industry through tourism, which is another goal of the New Kuwait 2035 Vision. With the aim of trying to become a global food destination, the number of investments into all the required logistics for tourism, from hotel rooms, to a larger, more efficient international airport and better transportation (in this case, roads and a major causeway) is well on its way. In such a competitive market, restaurants have to attract new customers and retain them to ensure a growing market share and gain a competitive advantage (Hong and Goo, 2014). With investments into F&B and tourism, there is ample opportunities for those in the supply chain as well. "The strong projected growth

in the tourism sector over the next few years will underpin expansion for equipment and materials suppliers, as new retail outlets and eateries fit out ahead of opening, and existing food and beverage purveyors seek to upgrade to keep pace with the increasing competition in the market" (Oxford Business Group, 2016).

Besides Kuwait, the whole GCC region is increasing its investment in the F&B industry. According to an in-depth financial and industry study by Alpen Capital, back "in 2016, the GCC region consumed 49.0 million MT of food products, with an annual consumption of 908.5 kilograms (kg) per person" (Ahmad et al., 2019). The total consumption has steadily grown since, driven by various factors including population growth, influx of tourists and strong GDP per capita (*ibid*).

Food consumption in Kuwait is largely influenced by the high per capita income (being the third highest in the GCC), as well as the fast population growth. With high discretionary income, which comes with having the strongest currency in the world, international travel and access to cheap tickets (the region has 3 of the top 5 major airlines in the world) has fuelled international travel and appreciation for high-quality food. "Hectic lifestyles coupled with Western habits (have) increased the demand for processed foods and fast-food restaurants. This has resulted in an increase in obesity among the local population where 54.3% of Kuwaiti adults were reported as obese. However, people are becoming aware of the health consequences of consuming processed and fast food, which has resulted in a shift to consumption of healthy food" (Ahmad et al., 2019).

Additionally, the Kuwait F&B scene is extremely influenced due to digitization. Kuwait was the founder of the original online ordering service in the world, Talabat ©, which eventually was sold for nearly £110 million (Curley, 2015). Thus "Kuwait enjoys strong internet connectivity and penetration (95%), (since 2004) following the establishment of the first ever food aggregator Talabat. Digitization in the nation's food and beverage sector received an international flavour with the entry of the UK-based restaurant aggregator Deliveroo in 2019" (Ahmad et al., 2019). Home delivery services geared at the F&B scene, including Carriage, have also driven the industry.

2.12. Research Gap

2.12.1. Introduction

As supply chain management has mainly evolved on the basis of developing technology, and as such technology has become more affordable and more accessible, companies continue to seek out 'new' adaptations of such tech or new tech altogether in order to gain a competitive advantage. Social

media is a key technology providing the infrastructure for today's communication. Despite its obvious potential, integrating and adapting it still remains difficult. Though many various forms of amalgamation have been cited above, the true potential of social media integration seems yet to be realized.

For this research, over 20 articles related to social media applications in supply chain management and operations in the GCC, published between 2010 and 2022, were reviewed. Most of the applications of social media were focused on enabling communication and collaboration along the supply chain. Some articles also addressed the use of social media for supervising human resource analysis. However, it is evident that further research is needed to explore the numerous creative applications of social media integration, especially considering the significant advancements in AI technology in recent years. A general review of the articles is provided below, followed by a detailed analysis of four specific articles to illustrate the current state of research and identify existing gaps.

2.12.2. General Research Gaps Identified

Reviewing over 20 articles reveals that, despite the global impact of social media, its integration into supply chain management (SCM) and supply chain operations (SCO) within the GCC remains limited. Logistics is a critical component of infrastructure development in the region, yet social media's potential in SCM/SCO has not been fully realized. Current uses are primarily confined to delivery tracking and basic communication, with little understanding or valuation of its broader potential. Social media's central role remains direct business-to-consumer feedback, interaction, and marketing, along with some applications in HR management, rather than integration into operational deliverables. This is true even in technologically advanced countries like Kuwait and the UAE. Despite a 99% smartphone penetration rate and GDPR compliance, which limits external big data mining, there is a significant information gap between academic research and creative application.

This research aimed to analyze the consequential impact of social media integration into organizations' supply chain management and operations. However, as highlighted in the research motivations, the clear lack of such integration necessitates an initial step of introduction. This is particularly crucial for industries with high service failure rates, such as the food and beverage (F&B) industry in Kuwait and the UAE. These industries face intense competition and serve populations that swiftly shift from one trend to another.

After reviewing the various articles on social media integration in supply chain management (SCM) in the GCC, several key points can be summarized. Firstly, despite the extensive research on social media and its overlap with SCM, there is a limited focus on this subject within the Middle East,

particularly the GCC. Although the number of studies in the region is growing, specific research on social media integration in SCM is almost nonexistent, with the notable exception of AlHaimer's work (2021). Studies centered in the Middle East often rely on findings from other regions, which may not be directly applicable due to cultural and economic differences. Furthermore, social media is primarily viewed as a communicative tool rather than a broader instrument for enhancing supply chain deliverables. The rapid evolution of social media applications is often overlooked, leading to a superficial understanding of how different platforms can be utilized for various SCM functions. This limited perspective fails to consider the potential impact of embedding social media at different stages of the supply chain.

This research underscores the double-edged nature of technological advancements, particularly the development of AI, which enables remarkable functionalities in supply chain management but remains underexplored in the GCC. This gap is partly due to the nascent stage of AI development and the scarcity of region-specific research. Another overlooked aspect is the inclusion of various players along the supply chain, especially small and medium enterprises (SMEs). Research tends to focus on larger multinational corporations (MNCs), which naturally have more extensive supply chain networks and operations.

Additionally, there is a notable absence of cultural considerations in existing research. The GCC has unique cultural dynamics, such as a strong tendency towards outsourcing and reliance on other companies, both large and small, for solutions like marketing. While larger companies may have dedicated marketing departments, they often lack the cross-functional teams needed to analyze and manage Big Data effectively. Similarly, many SMEs capable of organizing and handling social media campaigns still prefer to outsource to smaller firms, relying on traditional advertising materials adapted for social media. This cultural characteristic, detailed further in Chapters 5 and 6, reveals that hedonic motivation indicators do not fully correlate, highlighting the significant impact of regional cultural norms on social media integration in supply chain management.

Lastly, two additional criticisms warrant attention. Firstly, social media is predominantly perceived merely as a tool for communication, overlooking its potential to foster creativity and yield substantial benefits such as enhanced forecasting, real-time inventory management, and improved customer feedback loops. These aspects are often relegated to hypothetical advantages rather than being the focal point of rigorous inquiry. Secondly, a noteworthy motivation underlying this study is the apparent lack of comprehensive analysis on the impact of governmental policies and regulations, and

a corresponding deficiency in providing strategic guidance to governments for future planning. It is imperative that future research integrates critical considerations of sustainability and ethics, particularly in light of ongoing national sustainable development initiatives. Addressing these gaps will shed light on unexplored avenues and delineate crucial areas for future scholarly exploration.

2.12.3. Research Gap – Relevant Articles, Summaries, and Critiques

elow is a summary and analysis of four pivotal articles reviewed, aimed at offering a comprehensive analysis of current research gaps concerning the integration of social media in supply chain management (SCM) within the GCC region.

Article 1: The Role of Social Media in the Innovation and Performance of Kuwaiti Enterprises in the Food Sector by Rashid Alhaimer (2021)

In his 2021 study, Alhaimer also focuses on F&B SMEs in Kuwait and explores how their innovativeness and performance are influenced by their communication with their customers via social media. Using a mixed methods approach, he integrates two models, the Media Richness Theory and Social Exchange Effectuation Theory. Alhaimer uses both thematic analysis of 8 interviews of Kuwait F&B Managers as well as a survey of another 100 managers to form the basis of his data. His results reveal that social media is crucial for F&B related companies in Kuwait as it enhances communication and engagement with customers, thereby fostering innovation. However, this is focused on just creation of more products that meet growing trends, etc. He finds that, indeed, the various functionalities of social media and its quick and multifaceted capabilities significantly influence supplier selection processes, thereby positively impacting the overall performance of these businesses. Alhaimer argues that effective use of social media can lead to improved public visibility and performance of organizations in the food sector. The research emphasizes the adoption of social media towards operational efficiency.

Research Gap: Though this research is on a similar path to Alhaimer, as his work provides valuable insights into the connection between social media and Kuwaiti food enterprises, the actual integration with the supply chain is superficially touched upon. His study focuses on how companies see opportunities to innovate given the demands of the consumer and their feedback, but it completely misses the broader implications that impact the entire supply chain management system. From how social media affects the supply chain as a whole to its integration effects across various specific stages, i.e., from procurement to delivery, these have yet to be explored within the Kuwaiti and UAE food sectors.

Secondly, the research does not investigate the detailed comparative effectiveness of the different social media platforms. Whether Instagram, Facebook, LinkedIn or TikTok, there is less emphasis on who used what platforms for what purpose, and in comparison to what they personally use as well. Comparing which social media app yields the greatest benefits for specific objectives also equips decision-makers in government and commerce with targeted strategies to support F&B-related SMEs effectively.

Lastly, unique GCC-related cultural factors that are able to influence social media use and application is also not examined. For example, though many people might find using social media relatively easy, there is also a cultural phenomena where it is considered natural or expected always to seek out experts in social media to do your campaigns (experts used here both loosely and generically) as many will just go to newly graduated graphic design students/hired expats to do their campaigning for a relatively low price. The highly curated, thought-engaging marketing campaigns, led in Kuwait and UAE by many European and US top marketing agencies, are generally kept for the MNCs and is by default as per their contracts with the International agency holder of whom a branch is being registered in the region. Again, companies of all sizes and budgets employ or outsource (a few with internal Marketing Departments), but this goes against common sense in terms of hedonic motivation, whereby if something is easy and its effort relatively low, one would then accomplish the task themself.

Another area for research involves exploring the impact of cultural nuances on social media strategies and their consequential outcomes, aiming for a deeper understanding of social media's role in business innovation and performance within the GCC. Addressing these gaps, from cultural influences to deeper supply chain integration, would offer a more comprehensive perspective on how social media influences the performance and future innovation of SMEs in Kuwait and the UAE contexts.

Article 2: "Exploratory research on digitalization transformation practices within supply chain management context in developing countries specifically Egypt in the MENA region" by Khalifa, Abd Elghany, and Abd Elghany (2021).

The authors here also focus on the Middle East North African (MENA) region and explore digital transformation practices within supply chain management, particularly in Egypt. They review the extent to which digital technologies are adopted in supply chain operations and the impact of such adoptions on efficiency, transparency, and overall performance. Various key drivers for digital transformation are examined, from real-time data exchange, to improved responsiveness/adaptability to market changes. The research emphasizes the importance of integrating technologies such as IoT, AI, and blockchain in order to overcome traditional challenges associated with SCM. They pinpoint barriers to digital

transformation, including the lack of skilled personnel, the overall resistance to change that exists within both Government and general populace, as well as the sometimes very high implementation costs. They conclude that though the potential for development towards high performance is high, major efforts are still lacking from both the public and private sectors with which such gains would be realized.

Research Gaps: Despite valuable insights into digital transformation within supply chain management in Egypt (a key location due to the trade facilitated by both their ports and the Suez Canal), the researchers do not broaden their scope to the GCC. Further, there is a distinct lack of analysis on how social media integration can further enhance supply chain efficiency and customer engagement. Additionally, there is no exploration of the regulatory or cultural differences that might influence the adoption and implementation of digital technologies in the greater region. Further, the impact of government policies and support while facilitating such digital transformation in the supply chain sector is also not looked into. This is mentioned, as both in Kuwait and the UAE, the current National Sustainable Development Plans (including smart city projects) pose a huge potential for driving digitalization. Consequently, the region still lacks a comprehensive understanding of its digital transformation landscape, hindering the development of tailored strategies.

Article 3: "Sustainability Integration in Supply Chain and Logistics Higher Education: Where Is the Middle East? By Rosi and Obrecht (2023)

The authors examine integrating sustainability points within supply chain and logistics higher education in the Middle East. The research applied a mixed methods approach to do a detailed analysis of academic programs linked to sustainability integration into SCM. They conducted a content analysis of course descriptions and interviewed a variety of industry professionals and educators, finding that there is a distinct gap in the Middle Eastern higher education system regarding sustainability education in SCM/SCO. Despite the increasing emphasis globally on sustainability (and therefore movement towards higher performance efficiency), generally, Middle Eastern institutions have not properly included sustainability into their curricula. Their research underscores the need for educational reforms and the curation of specialized programs with which sustainability in supply chain and logistics may then be properly identified, assessed and then consequently addressed. The researchers put forward reforms to help align educational outcomes with industry needs toward meeting this gap.

Research Gap: Though the authors address sustainability and efficiency issues, they do not at all touch on the role of social media in meeting those goals within SCM in the Middle East. Instead, they

focus on higher education curricula and somehow completely ignore the potential of digital tools (including social media) as a medium for information dissemination and facilitating a transition towards more recognized sustainable practices in SCM. Also, the authors ignore the potential for social media offering greater transparency, cross stakeholder engagement, as well as consumer behaviour trends in terms of their impact on sustainability.

Article 4: "Impact of Information Technologies and Social Networks on Knowledge Management Processes in Middle Eastern Audit and Consulting Companies" by Raudeliuniene, Albats, and Kordab (2021)

The researchers' focus extends to the Middle East, specifically examining the impact of IT and social networks on knowledge management (KM) processes within audit and consulting firms in the region. Employing a mixed-methods approach involving surveys and interviews with professionals, they discovered that IT and social networks significantly enhance knowledge acquisition, sharing, and utilization capabilities within organizations. Social media platforms were particularly noted for improving communication, fostering collaboration, and providing access to real-time information, all critical for effective KM practices. The study underscores the imperative of embracing advanced IT solutions and integrating social networks to foster a more dynamic and responsive KM environment. They argue that these technologies are pivotal in enhancing decision-making processes, driving innovation, and optimizing overall operational efficiency. The insights gained emphasize the necessity for continued investment in these areas to sustain competitive advantage in the field.

Research Gap: While examining how IT and social media play a role in KM within audit and consulting firms, the researchers do not address how SM's impact within SCM/SCO. Focusing only on internal organizational processes, they ignore the broader implications of social media towards greater transparency, efficiency, real time communication and sustainability of SCM. They also do not consider how social media may be leveraged to engage external stakeholders i.e., suppliers and customers.

As mentioned in the introduction to 2.12, the research gaps above highlight opportunities for further investigation into the impacts of social media in supply chain management within the Middle East, particularly focusing on how these tools can drive sustainability and innovation. However, at this time, a first step of introduction and understanding the mindset of such decision-makers towards even approaching the matter is required in order to strategize how to then get to the next step of actual integration.

2.13. Conclusion

This Literature Review Chapter covers many areas of study, including supply chain management, social media integration, and their intersection within the F&B industry. This Chapter aimed to provide a comprehensive understanding of the current state of research, identify research gaps, and lay the foundation for the subsequent research. The Chapter highlighted the significance of understanding how social media integration is reshaping supply chain operations, particularly in the F&B SME sector.

The exploration of SCM encompasses its evolution, sustainability aspects, and distinctions from SCO. The discussion also investigate the profound impacts of the COVID-19 pandemic on SCM, proposing strategies to mitigate ensuing challenges. Notably, SCRM emerged as pivotal, emphasizing its role in mitigating risks across supply chains, particularly through SRM and sustainability measures. The chapter underscored the significance of SMEs in effectively implementing SCRM and leveraging various technologies to enhance competitive advantages. Additionally, the evolving digital landscape, including the internet and social media, was recognized as crucial for understanding the necessary shifts towards integrating social media into supply chain operations.

SM constitutes a critical focus of this research, encompassing topics ranging from the horizontal revolution to distinctions between social media platforms and messaging apps, with specific attention given to Facebook and Instagram. Technological applications such as RFID and its integration with social media within supply chains were explored, illustrated by a case study involving Adidas. The study examined SM's role in enhancing customer engagement, highlighting tools like Instagram Stories and strategies in SCRM, while also addressing challenges related to efficient SCM. Speculative discussions on the future of SCM in the context of SM and the emergence of social commerce were introduced. A particular emphasis on Kuwait and the UAE's social media landscape and its impact on F&B industry provided valuable insights into the local GCC context, underscoring the study's focus.

Several key themes and insights have emerged in this Chapter. The challenges and obstacles related to SM integration in SCO are numerous, especially due to disruptions during the pandemic and ongoing obstacles. The potential, however, for SM integration in Kuwait and the UAE's supply chains is huge, considering the populations and their evolving digital landscape. What creates an even bigger opportunity here is the lack of awareness of SME owners and decision-makers towards such efficiencies and capabilities, which then makes this Study even more valuable in terms of not only studying the current market but also providing stimulus to a substantial number of business owners

towards the potential, and hopefully help enact a ripple effect towards greater change in the industry as a whole.

The research gaps identified serve as the basis for this subsequent research. They show the inherent need for a comprehensive investigation into the adoption and sustainability of social media integration in SCM within the F&B SMEs in Kuwait and the UAE. In conclusion, this Chapter has provided a holistic understanding of the complex relationship between SM and SCM, particularly within F&B SMEs, thereby setting the stage for the empirical investigation and analysis that follows in this research.

3. CHAPTER THREE: CONCEPTUAL FRAMEWORK

3.1. Introduction

The Literature Review in Chapter 2 has provided a foundation of the intelligence and research of various aspects of the core parts of this research, from Supply Chain Management and Operations (SCM and SCO) to the different parts of social media and even Big Data, to the GCC, economies of Kuwait and the UAE, as well as the smartphone and technology diffusion within the two countries, and their populations' usage of social media.

Adoption of technologies is always a dynamic evolution, especially considering the various variables upon which the diffusion of technology depends. Likewise, though both the academic and practical side of supply chain management and operations have been developed thoroughly, and though technology is a vital and critical part of such operations, the digital aspects are more so focused towards GPS driven location, efficiency in stock and inventory, and even logistics. What the retailers and service providers have only just begun to appreciate is that the cross-communication aspect of social media provides a unique and significant opportunity towards efficiency and towards strengthening stakeholder relationships between all parties involved in any business.

The Literature Review confirms a huge gap in the academic research focused on social media integration within the SCO and SCM in the GCC region, generally, but also more specifically within the Food and Beverage Industry. The following Chapter (Chapter 3) thereby aims to contribute towards filling this existing gap and providing the research needs by developing a conceptual framework for analysing the use of social media within their supply chain operations by SME owners within the F&B Industry in Kuwait and the UAE.

3.2. Logical Approach to Research Question

The adoption of social media integration within supply chain and operations systems in the GCC is poised to continue evolving, with organizations exploring advanced analytics, artificial intelligence, and machine learning to derive actionable insights from social media data (Durugbo et al., 2020). As the digital landscape in the region continues to mature, it is expected that social media integration will play an even more significant role in shaping supply chain and operations strategies (Hamidreza & Shokohyar, 2020).

Considering there is a significant lack of research exploring social media integration within the SCM and SCO systems in the GCC, this aspect of technology adoption is therefore considered very new and underdeveloped (Alhaimer, 2021). Though the initial scope of this research was to investigate the use of social media in SCO and SCM systems in the GCC (regardless of industry), for over two years, examining different industries via their social media led to the conclusion that there is basically almost zero integration happening currently. During the Covid-19 pandemic, as more companies, regardless of industry, sought to digitize and move operations entirely via apps or their website out of necessity to continue operations during lockdowns, hashtag culture and norms started to potentially see some break in the previous norm where now cross marketing was taking place. However, there still is a major deficit where the scope of this research is concerned, as the supply chain of companies is still not integrated towards cross communication (and therefore benefiting from the subsequent efficiencies) between the various suppliers, logistic companies, and then end customers.

Besides changing the research scope completely, the alternate way forward is to therefore then communicate within one industry (here being the SME Food and Beverage Industry) in the GCC. The scope of the Question was previously focused solely on Kuwait, however, that was expanded then to include the UAE, as they are the most 'cutting edge' within the GCC due to the higher than normal (in respect to GCC norms) or expats as well as international company presence. The decision to expand the study to include both Kuwait and the UAE allows for a comprehensive understanding of social media integration across the GCC region. By comparing and contrasting the practices and experiences of organizations in these two countries, valuable insights into the unique challenges, opportunities, and best practices can be gleaned. Additionally, focusing on a specific industry such as F&B will provide a more targeted and in-depth analysis, allowing for a deeper understanding of the impact of social media integration on supply chain and operations within this particular sector.

As Dubai was the foremost 'mecca' of the region in terms of having the most multinational companies that are 'present' in the GCC (Tuner, 2023), now Riyadh is starting to aim to remove Dubai from the top spot and become the new 'it' place for all international corporations within the region. Regardless, for either city, being such a destination then brings with it a lot of foreign ideas and norms, which otherwise are not typical within the rest of the GCC. Even though this is true, even Dubai and Abu Dhabi (the next largest city), have limited evidence of such social media integration. By expanding to the UAE and Kuwait, there is more chance of interacting with companies that either have some examples of such integration or at least have knowledge of the benefits of the integration. Further, using

both Kuwait and UAE, we have approximately one fourth of the population of the GCC (Kuwait, 4.25 million and UAE, 9.365 million; GCC 58.25 million; World Bank (Statistica, 2023) and also one-fourth of the total current GDP: Kuwait USD 105 billion; UAE USD 415 billion; GCC ~ 2 trillion USD). This, therefore, validates this study as being more reflective of the GCC as a whole, rather than just one nation out of six.

The crux of the approach to this study is to understand the mindset of business owners and managers towards social media integration into their current SCM systems. As mentioned previously, despite having some of the highest smartphone penetrations in the world per capita, a lot of the social media integration potential is just not currently seen in the region (Alhaimer, 2021; Baker et al., 2019)

It is for this reason that the SME Food and Beverage industry has been chosen. Though initially this Research was supposed to focus on 'big chain' F&B Corporations, such as the largest supermarkets in the GCC, including Carrefour (who bought out Geant), Lulu Hypermarket, Sultan Centre, City Centre, etc., after some initial research, it was found that these companies tend to have a central office in the UAE, or Kuwait (one location), and though they have some marketing in each local country, a lot of the marketing decisions are made centrally. Furthermore, despite having over 10 to 15 locations in a country, the different locations definitely do not have local decision-making power, instead, they follow what the country head office (if not the regional head office) decides. Though many of these 'Big Chains' also offer their own brands within the markets, i.e., Sultan Centre Pancake Mix, Lulu whole wheat flour, City Centre Tissue Paper, and they provide for their locations throughout the GCC, there is no evidence whatsoever of any co-marketing opportunities where they show how and who actually produces their goods (the ones that they sell under their own branded names). For example, Lulu sells frozen 'chapattis' that are made and packaged in Malaysia. Chapattis are common for the South Asia populations, but because of the influence that the South Asians have had in the GCC for over a century (and before, as India had most of the largest cities with which local GCC merchant families would trade), every neighbourhood Cooperative has a super affordable restaurant where these are freshly made. This just signifies how much these bread are eaten, as our two neighbourhood bakeries (not French patisserie) offer these Indian bread or the fresh Iranian Tanour breads that we eat on a daily basis. These chappatis by Lulu are so quick and easy to warm and eat that they are as popular as frozen chicken nuggets. However, there is no social media information on how they are made, where they are made, etc. They are just another item on which routine specials and discounts are found.

Therefore, in order to be able to talk freely with decision-makers, who at the same time are able to make decisions quickly and enact change relatively fast, SMEs were instead focused upon. As also seen in the other research (Al-Nawafah et al., 2022), concentrating on SMEs within the F&B industry presents the ideal opportunity to examine the dynamics of social media integration in organizations with faster decision-making processes. SMEs often have more agility in implementing changes and adopting new technologies, making them an interesting focus for understanding the potential rapid transformations that can be driven by social media integration (Hosseinjazani, 2017). This segment of the industry could showcase innovative approaches and best practices that larger enterprises could potentially learn from and adapt to their operations.

There are some social media influencers who have done specials on various factories in the GCC, whether it is a behind the scenes look at a McDonalds in the UAE or how the catering company for Qatar Airways operates and prepares meals. However, there is no 'vlog' or special on where the raw ingredients are sourced from to the logistics (and the logistic partners) of how it is all made possible. Therefore, this research holds significant value to the F&B industry in the GCC, as it will focus on introducing such integration value and potential to these SME business decision-makers.

The F&B SMEs are prime targets for such introductions and to gauge the response, as they can create this integration and material for social media, be it photographs, videos, etc, in a short duration of time. Furthermore, considering the SEO analytics that already exists, we can also quickly assess what this new type of marketing has resulted in in terms of additional online engagement and see how much of this new engagement has resulted in successful visits by consumers.

Though RFID technology for consumer goods also has great potential, following the logistics and process of, say, Yeezy shoes from factory to end consumer is going to be lengthier and far more complicated. It also required more capital investment by the companies and therefore, not only due to bureaucracy but also getting approved budgets would prove more difficult and therefore harder in the time frame required to finish this research.

The SME F&B industry generally has fewer decision-makers makers, and thus less bureaucracy, in terms of adopting new technologies. Further, this industry seems more open to social media considering the role that social media plays not only in marketing, but also in access to menus and in online delivery services. Going the SME route vs. Big Chain caters to the requirement of having over appx. Three hundred surveys are being answered easily (at least for stage one). Whereas, the Big Chain route would, even if we included every single major private supermarket in Kuwait and the UAE, not even

50 decision-makers for the two countries (this is due to the centralized offices/decision-making/budgets that were explained above).

In summary, the goal of this research is, therefore, to assess the mindset of F&B SME business owners towards their adoption of new social media integration into their SCM systems.

Thus, the main objectives of this research are to answer the following:

- Understanding the mindset of decision-makers within the Kuwait and UAE SME F&B industry towards adopting this new technology
- Gauging the current levels (if any) of social media integration within SCO/SCM in the GCC SME F&B market
- Determine what obstacles prove to be most challenging and where social media can really create a difference (from concrete examples in the region)

3.3. SMEs in UAE and Kuwait – Individuals vs Organizations

In regard to the adoption of technologies, there are a few various theories in order to analyse such behaviour. The first major difference in these theories is whether the study is being done at an organizational level or on an individual level. "For individuals, behavioural theories including technology acceptance model (TAM), theory of planned behaviour (TPB), unified theory of acceptance and use of technology (UTAUT) are frequently used to predict intention and actual behaviour. For organizations, diffusion of innovation (DOI) model and technology-organization-environment (TOE) framework are commonly applied for predicting adoption" (Li, 2020).

For the research in this study, SMEs in Kuwait and the UAE within the F&B industry have been chosen. SMEs in Kuwait and in the UAE are defined slightly differently, with SMEs in the UAE having characteristic changes depending on the industry. "In Kuwait, SMEs are defined based on number of employees, asset size and revenue size. Entities that employ less than 50 Kuwaiti people and have an asset base of less than KD 500,000 with revenues of less than KD 1,500,000 are considered as SMEs" (Markaz, 2020; Kuwait National Fund, 2020).

In the UAE, SMEs are defined as "any enterprise which meets the thresholds of Employee Headcount AND Turnover, as applicable to the sector it belongs to (Trading / Manufacturing / Services). Further, the classification of enterprise size (Micro, Small and Medium), is based on unique thresholds for each sector" (UAE Ministry of Economy, 2023). In the UAE, the Food and Beverage Industry is focused on consumer goods and is organized under the Trading Sector of the economy, whereas Restaurants and Catering are organized under Services. This split in organization between two sectors of industry,

would need to be considered as in Kuwait, the Food and Beverage Industry include everything from consumer goods, to manufacturing, packaging and bottling of food products, to services such as restaurants and catering etc. Therefore, for conformity, the F&B industry shall include all services and trading.

In 2019, Kuwait SMEs contributed approximately 3% of the GDP, with a value added of KD 1,216 million (Kuwait National Fund, 2020). This is extremely small compared to most emerging economies where according to the World Bank (2020) SMEs contribute approximately 40% of GDP and up to 50% in high income economies. This is far more predicted in the UAE, where SMEs contribute 53% of GDP (keeping in mind that only of the seven emirates, Abu Dhabi, is the major oil producer for the country, whereas the other emirates focus on contributing to GDP through other sectors).

SMEs generally, however, tend to have centralized decision-making due to the size of operations. The reason for this is that the owners tend to either be the main managers or just hire a main manager and then are directly or indirectly involved with the decision-making. So, even though they are technically considered organizations, their decision-making is up to a limited number of individuals. Considering the definition of SME spans from employees of less than 9-20 employees (micro/small) to approximately 250 employees, it can be seen that SMEs are a blend of both individual and organizational type of decision-making. Thus, blending two types of models, one more towards individual decision-making and one more towards organization, would make the most sense for this research. This can be seen in section 3.5.0 (below). Furthermore, different moderators need to be added in order to assess the data being collected properly.

3.4. Potential Theoretical Lens Used for Research

Though technology is a formative part of SCO and SCM, research has shown that many companies have been slow to integrate all types of technology, or more specifically 'Big Data' into their SCM. For over a decade, researchers have been identifying this gap and investigating it, highlighting that of the many reasons that diffusion of this new subset of technology in SCM has been largely due to the poor understanding of its potential and how it works (Lavalle et al., 2011; Wamba et al., 2018; Hassan, 2021). What is even more lacking is that any analysis of how social media is used within SCM is also without a holistic focus on measuring constructs and the overall economic and social impact to an industry.

The Uses and Gratifications Theory (UGT) claims that consumers of social media are passive and that individuals seek out media that fulfil their needs which leads to ultimate gratification (Lariscy, Tinkham, & Sweetser, 2011). As the UGT is recognized to be suitable for representing human behaviour in terms of mediated communication (Moon et al., 2022), it is therefore an appropriate lens with which to approach the consumer-oriented dialogue that will result from cross connectivity within the supply chain channels (including the end customers of retailers). Bhattacharjya et al. (2016) used the UGT to examine social media's (more specifically Twitter) impact towards analysing customer service and interaction. The UGT, however, has traditionally been used to understand the reasons why and how consumers use social media, instead of understanding how marketers, businesses, or business decision-makers instead should use it. At the most, it is used as a justification for business decision-makers to adapt and change based on the information gathered from the consumers (Whiting and Williams, 2013). Below is a model of the three types of motivations for people's usage of social media is presented, which was created by Wang et al. (2018).

As can be seen by Figure 16, the three main types of motivations, Social, Utilitarian, and Hedonic are further derived into six factors: three for Social, including Social Connection, Relationship Benefit and Subjective Norm; two for Utilitarian, including Perceived Usefulness and Image Enhancing, and for Hedonic only Enjoyment. This was a model used by Wang et al. (2020) to study the Motivations for Using multifunctional social media with a group of over 400 respondents.

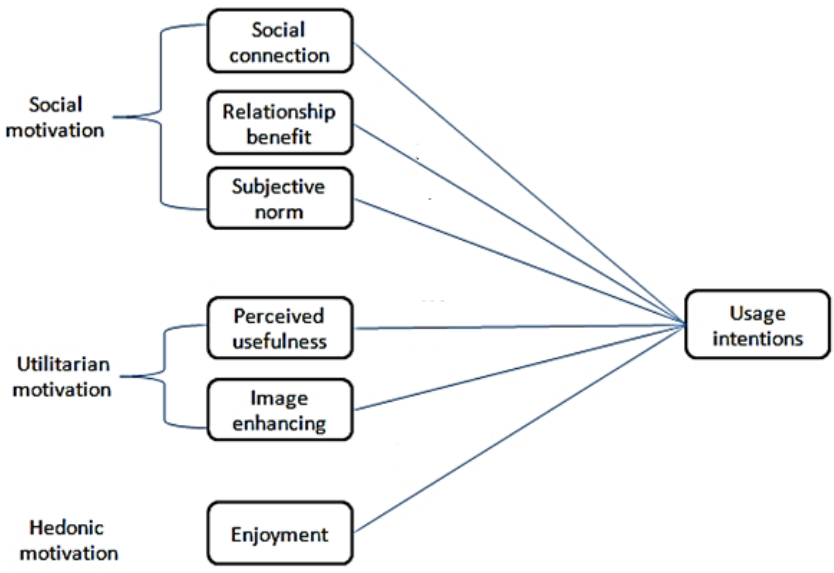

Figure 16: Three major types of motivations for people's usage intentions of various functions of social media (Wang et al., 2018).

Whereas the UGT is a great model and tool to examine the motivations for individual use of social media, the adoption of social media into the supply chain by SMEs remains a distant step forward. Current research in SCO/SCM and IT solutions proves to be problematic, as well as what is seen in practice, in that there exists a major gap in connecting various suppliers and facilitators on supply chains to end customers. Further, even though SCM and SCO are heavily technology oriented in many industries, theories that analyse the impact of Big Data Analytics (BDA) in SCM and SCO don't appreciate the value of BD 7(V) (including volume, velocity, variety, variability, veracity, visualization, value) as forces as drivers towards improving performance (Hassan, 2021). Besides BD 7(V) being a means of dynamic, real-time intelligence, the simple added value of suppliers communicating with end customers and, therefore, either changing their business decisions or impacting decisions of end customers is also lost.

For example, instead of just seeing a picture of a restaurant's daily special on their Instagram and Facebook page, if the same restaurant provides direct marketing feed from the local, organic supplier and presents short videos and images of the in-season bounty and the quality of what is being currently produced as directly seen by the expert, i.e., farmer, then a restaurant could also subsequently show changes in their menus to highlight the information from the farmer. Knowing that the special is a beet salad vs. seeing the beets in the height of their season being harvested and then being showcased on a menu are two completely different things. Furthermore, by connecting the suppliers, be it specialty cheesemakers in Italy, or local meat/cattle farmers, to local, organic farmers, etc., to the end customers, the suppliers then may also be able to engage in communication towards better understanding what customers require and answer their questions (i.e., increased engagement and stronger, more positive stakeholder relationships). This also then provides the suppliers with better information with which they can create alternate choices to those that they supply that match more with what the F&B customers require. This higher engagement, better relationships, and increased transparency provide huge opportunities towards less waste and even innovation.

This is especially important in the F&B industry (both service and consumer goods) as the relationship between many customers and their food choices has changed due to social media as a whole. Whether it is Instagram or TikTok, the constant visual feed of both new trends, recipes, lifestyles (vegan, keto, etc.), benefits of food (nutrition), and awareness of seasonality and equity and fair trade has changed the typical consumer's decision-making. The number of farm-to-table enterprises around the world is growing, while the ability of wholesale suppliers to reach end customers directly is also

changing. Now, more end customers are dealing with wholesale suppliers, be it farms, dairies, or international suppliers, in order to source fresh products. For many of these customers, especially in the GCC where both the average disposable income and simultaneously the highest penetration of smartphone technology is so high when compared to other parts of the world, these trends and awareness are something that no enterprise, regardless of where they lie in the F&B industry chain, should ignore. Whether it is the high-scale, five-star restaurant at the Four Seasons Hotel, a boutique chocolate café at the mall, a deli integrated into a supermarket, a bakery that provides assorted pastries and bread, or an at-home baker who makes cakes for a living, all these individuals/enterprises need to build integrate and understand that connecting their supply chain to their end customers is important towards both marketing, awareness, and understanding their end customer better by reducing the knowledge gap. This is even more important in the GCC as a majority of F&B enterprises import and source all their products and raw ingredients from suppliers. This then means that the specialists on all these ingredients, how they are made, and how they benefit are not them, instead, they are the suppliers themselves. If anything, the F&B industry service and consumer goods providers understand how to bring the ingredients together but knowing that a burger place sources non-GMO meat, that they have free range chickens and that these will help towards hormonal balance diets is definitely a marketing plus. The point is by connecting along the supply chain, the expertise for all this information, and thus the knowledge gap of the end consumers, is reduced, and more people are able to make decisions. Furthermore, this also then gets suppliers to change the ingredients and follow bigger trends to bring in more customers.

Unfortunately, we still are in a situation where there exists a huge lack of awareness and appreciation for both the tangible and intangible positives created by integrating social media throughout the supply chain to end customers. In order to understand how social media is impacting SCO and SCM, first, the spark of potential needs to be made within the markets and industries, whether F&B or other. Though it would seem that the connection would be obvious, the GCC is also strongly influenced by trends in terms of marketing, and unless a few companies start such integration, no one will follow in the mass market. By starting in one industry, in this case, the SME F&B in Kuwait and the UAE, one can interact directly with decision-makers with less bureaucracy and quickly see the reaction of the decision-makers and hopefully also have some impact on what the changes are performance, sales, and revenues. The value of social media within the Supply Chain needs to first establish credibility by understanding its potential to add value.

Other theories have also been used to describe and analyse social media use and IT integration, including, the Theory of Planned Behaviour and the Theory of Reasoned Action, which provides a psychological perspective on human behaviour though the analysis of variables, such as perceived behavioural control, attitude and subjective norms (Ajzen, 2011). However, this is more appropriate for generic insights "into individuals' attitudinal underpinnings, which make them applicable to a wide range of research contexts" (Momani, 2020), however, it proves too broad and obtuse for the purposes here.

A more appropriate lens could also be found using The Diffusion of Innovation Theory, which "focuses on innovation-specific factors that determine users' behaviour when it comes to new technology adoption" (Momani, 2020). These models each use different perspectives and approaches to IT usage and behaviour, and therefore are together good in "reflecting the type of variables in the model, such as subjective norm, motivational factors, attitudinal factors related to technology performance, social factors, experience and facilitating conditions" (Venkatesh et al., 2003; Momani, 2020). However, for the purposes here, and considering we are focusing on getting the decision-makers of the SMEs to provide their insight into their current and potential future actions/decisions to include social media in their SCOs, neither work. Each is too particular in its situation and thus a more unified approach is required that considers more variables and motivations of users (Venkatesh et al., 2003).

A final model that was seen but also decided not to integrate is the Task Technology Fit (TTF) Model. "The Task-Technology Fit (TTF) theory provides a means of quantifying the effectiveness of technology in a system by assessing the relationship between the technology and the tasks the technology aims to support" (Spies et al., 2020). However, this is intended to be applied to understand continued or further use of technology. However, in this case, though social media is used by more than 90% in Kuwait and reportedly over 100 % (the only nation to do so) in the UAE, the integration of social media in supply chain is very limited in both countries. As such, the context of TTF does not apply in this case as it should instead be taken as a 'new technology' (since indeed it is a new adaption) and therefore this research is more geared towards understanding the mindset and how open the decision-makers of F&B SMEs in both countries are to integrating such technological use in their supply chains given the benefits that they introduced to due to this study itself.

3.4.1. The Unified Theory of Acceptance and Use of Technology (UTAUT)

Therefore, towards a more holistic understanding of the acceptance and adoption of technology, in 2003, Venkatesh et al. (Venkatesh et al., 2003) found a new unified theory of technology acceptance that integrated multiple key variables that are able to predict and analyse behavioural intention and use. Combining seminal work from multiple theories, including the Theory of Reasoned Action (TRA), the Theory of Planned Behaviour (TPB) and Social Cognitive Theory (SCT) (Ajzen, 2011) as well as work from the Technology Acceptance Model (TAM), and combined TAM and TPB model (C-TAM-TPB), Innovation Diffusion Theory (IDT) and the model of PC utilisation (MPCU), the new Unified Theory of Acceptance and Use of Technology (UTAUT) was created in 2003. The objective and subjective basis of the UTAUT constructs are shown in Figure 17.

From its development, it has been found that the UTAUT's ability to explain technology usage behaviour is far more comprehensive than the ability of any other model (in terms of other technology acceptance models) (Venkatesh et al., 2012; Williams et al., 2015; Lin et al., 2019; Momani, 2022). The basic premise of the UTAUT is that the actual use of any technology is influenced and hence even governed by behavioural intention.

The theory posits four major variables upon which the perceived likelihood of adopting technology is dependent, including 1) use performance expectations, 2) ease-of-use expectations, 3) social influences, and finally, 4) facilitating conditions are the basis upon which behavioural intentions and usage are explained and understood. Therefore, this perspective frames the approach through which surveys for F&B SME business decision-makers can be drafted and analysed.

3.4.2. UTAUT Variables

In regard to the four variables upon which UTAUT is built on:

1) Performance expectancy is defined as "the degree to which an individual believes that using the system will help him or her to attain gains in job performance" (Venkatesh et al., 2003).

    - Performance expectancy is based on the constructs from Technology Acceptance Model (TAM), TAM2, Combined TAM and the Theory of Planned Behaviour (CTAMTPB), Motivational Model (MM), the model of PC utilisation (MPCU), Innovation Diffusion Theory (IDT) and Social Cognitive Theory (SCT) (i.e., perceived usefulness, extrinsic motivation, job-fit, relative advantage and outcome expectations) (*ibid*; Momani, 2020)

- This variable is the most effective “predictor of use intention and is significant in both voluntary and mandatory settings” (Venkatesh, Thong & Xu, 2016; Momani, 2020).

2) Effort expectancy is defined as "the degree of ease associated with the use of the system" (Venkatesh et al., 2003).

    - It is constructed from perceived ease of use and complexity driven from the previous models including TAM, MPCU, IDT, which all have similar definitions and measuring scales. As with any technology, after significant time of use, the effort of use becomes nil or non-significant (i.e., it becomes the norm and is not focused on as by users).

3) Social Influence is defined as "the degree to which an individual perceives that important others believe he or she should use the new system" (Venkatesh et al., 2003).

    - Social influence is heavily formed by the subjective norms, social factors and image constructs that are used in the previous models such as TRA, TAM2, TPB, CTAMTPB, MPCU, IDT in how they denote a person’s adjusting behaviour according to the perception of how they feel others will think about them (*ibid*)

4) Facilitating conditions is defined as "the degree to which an individual believes that an organisations and technical infrastructure exists to support the use of the system" (Venkatesh et al., 2003).

    - The facilitating conditions “construct is formed from compatibility, perceived behavioural control and facilitating conditions constructs drawn from TPB, CTAMTPB, MPCU and IDT. Facilitating conditions have a direct positive effect on the intention to use, but after initial use, the effect becomes nonsignificant. Therefore, the model proposes that facilitating conditions have a direct significant effect on use behaviour” (Venkatesh et al., 2003; Momani, 2020).

All four variables are summarized in Table 3.

Table 3: Definitions of the constructs or variables in the UTAUT Approach (Venkatesh et al. 2003, Momani, 2020)

Constructs	Definition
Performance Expectancy	The capability of the technology to provide benefits and enhance the performance to the user according to his/her expectations (Venkatesh et al. 2003, p 447).
Effort Expectancy	User expectations about the ease of use of technology (Venkatesh et al. 2003, p 450).
Social Influence	The expected influence of others on the user to start and continue using the technology (Venkatesh et al. 2003, p 451).
Facilitating Conditions	The expected level of organizational and technical infrastructure that can support the use of technology (Venkatesh et al. 2003, p 453).
Behavioral Intention	The expectation of the user's intention to perform plans and decisions regarding the use of technology (Venkatesh et al. 2003).

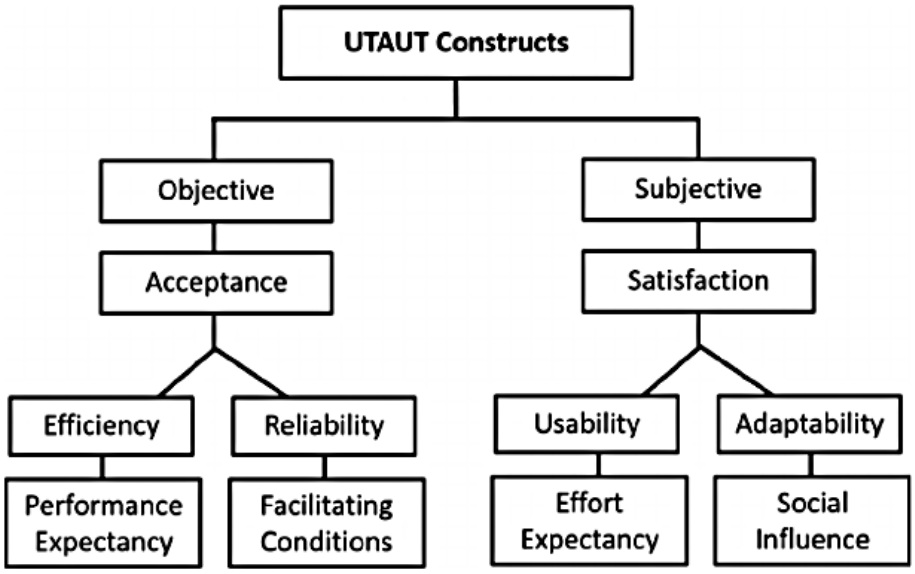

Figure 17: The Objective and Subjective Basis of the UTAUT Constructs (Venkatesh et al., 2003; Momani, 2020)

3.4.3. UTAUT 2

A variation of the UTAUT (now known as the UTAUT 2 model) includes further moderating variables such as gender, age, experience, and voluntary use. It was proposed by Venkatesh et al. as it addresses two main limitations of the original UTAUT. Instead, the UTAUT2 was now designed so as not to have a specific focus. "Instead, the goal of the theory was to represent an overarching framework for examining technology acceptance. The extension was designed to give a higher precision in explaining

user behaviour" (Venkatesh, Thong & Xu, 2012). The second was to propose a behavioural model of consumer technology acceptance that was able to further examine technology in organisational settings. As such, the authors developed the new model with the moderating variables (as mentioned above) and by further changing certain relationships (in this case, eliminating voluntariness) that existed in the original UTAUT. The conceptual framework of UTAUT is depicted in Figure 18.

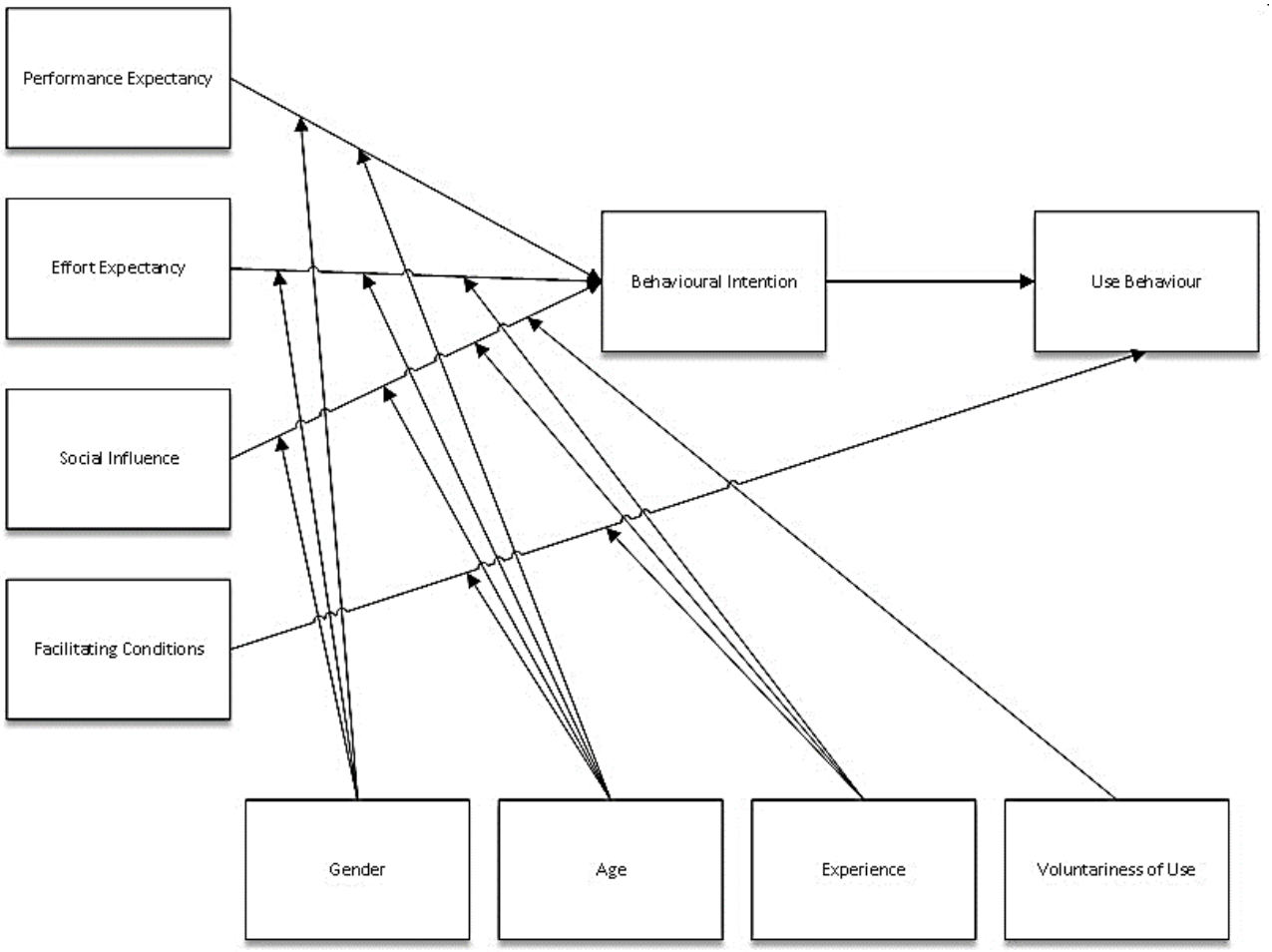

Figure 18: UTAUT 2 (Momani, 2020)

The new UTAUT2 has, in the last few years, been applied, integrated, and extended across a variety of settings that broadly have been grouped into six categories, such as: 1) different types of users, 2) different types of organisations, 3) different types of technology, 4) different task types, 5) different times, and 6) different locations (Tamilmani et al., 2021).

A further adapted UTAUT 2 has now also been used across multiple studies. The conceptual framework is illustrated in Figure 19, further to the main four variables (performance expectancy, effort, expectancy, social influence, and facilitating conditions) as well as the additional three moderators,

three more variables, including hedonic motivation, price value, and habit behaviour (see Figure below). "Brown and Venkatesh stated that fun and enjoyment were two key factors driving people to accept and use a new technology. Thong, Hong, and Tam (2006) indicated that hedonic motivation could be manipulated and transformed into perceived enjoyment, which in turn had impacts on consumer acceptance and use of a new technology. In UTAUT2 model, a significant relationship can be found between hedonic motivation and behavioural intention… such that… it was found hypothesized that hedonic motivation (will) positively influence(s) consumers' behavioural intention" (Chang et al., 2019).

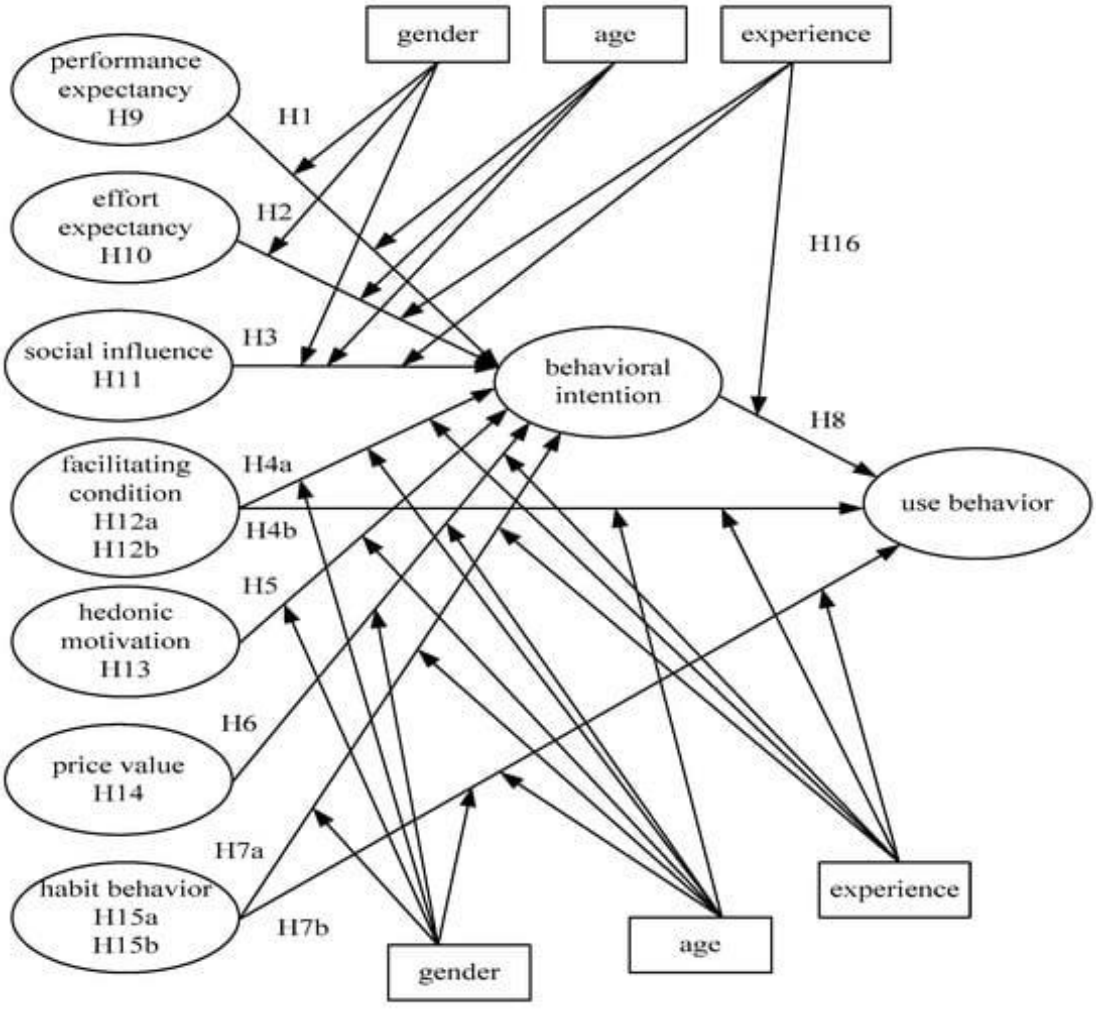

Figure 19: Extended UTAUT 2 (Chang et al., 2019; Martins et al., (2018); Lock and Shihah, 2021; Hassan et al., 2022)

The above extended UTAUT 2 model has been used for analysing the adoption of a variety of technology, including e-learning management systems (Al Ain et al., 2016) to eBook adoption (Martins et al., 2018), to accepting geospatial software (2020), to accepting online education portals (Lock and Shihah et al., 2021), to the adoption of medical applications (Hassan et al., 2022). In various cases, the consumer has been an individual and in others, it has been organizations, however, it rarely includes a study sample where the consumers could be, or act, as either/or.

3.4.4. Technology Organization Environment Model

The two models normally used for organizations (in terms of technology adoption) are the Technology-Organization-Environment (TOE) and, originally, the Diffusion of Innovation (DOI) approach. The TOE framework originated by Tornatzky et al. (1990) to comprehensively approach the behavioral intentions and diffusion/usage of innovation at a firm level. Compared to DOI, TOE takes into account more influencing variables in regards to why certain technologies are (or are not) adopted (i.e., the decision-making) based on the following three factors: technology, organization, and environment (Nguyen et al., 2022). Specifically for SMEs, "TOE (has been) widely utilized to illuminate firm intentions to embrace various innovation domains, comprising AI (Fonseca et al., 2022; SMEs in Sri Lanka), e-business (Putra and Santoso, 2020; SMEs in Indonesia), E-commerce (Dahbi and Benmoussa, 2019; SMEs in Morrocco; Garg and Choue, 2015; SMEs in South Africa); Generally speaking, each research reflects its own strengths and weaknesses

The technological factor provides context for existing technologies being used as well as takes into account new technologies relevant to each firm. The organizational factor puts into context the characteristics of the firm, i.e., scope/orientation, size, and resources, and finally, the environmental factor contextualizes the environment in which firms conduct business, including industry, competitors, and government (Nguyen et al., 2022).

Though it was first developed over 30 years ago, TOE continues to provide a scientific approach to a broad range of applications when firms or organizations are being considered. More recently, the following studies have been published with the moderators and factors provided in Table 4.

Table 4: TOE approach to digital adoption

	Study	Purpose	Technological	Organization	Environment
1	Nguyen et al. (2022)	Analyze what factors facilitate and hinder ORE adoption and business performance in Vietnamese SMEs	• observability • compatibility • relative advantage	• entrepreneurial orientation • technological orientation • top management support	• legal framework • perceived trend • government support
2	Hashimy et al. (2022)	To describe the adoption process of blockchain technology	• relative advantage • complexity	• competency • top management support	• competitive pressure
3	El-Haddadeh et al.(2021)	Big data analytics adoption drive value creation for realizing sustainable development goals among UK firms	• perceived benefits • technology complexity	• organizational readiness • IT infrastructure capability	• government policy • regulation, competitive pressure
4	Khan et al. (2021)	Used extended TOE to describe usage and intention towards mobile payment systems in China and Pakistan	• top management support • relative advantages	• compatibility	• competitive pressure
5	Mahakittikun et al. (2020)	Describe Thai firm performance who integrate mobile payments	• relative advantage	• Innovativeness • Mobile payment knowledge • Critical mass	• Competitive pressure • External support
6	Tajudeen et al. (2018)	How social media usage positively impacts understanding customer needs and improves organizational communication and PR	• relative advantage • compatibility	• top management support • entrepreneurial orientation	• Institutional pressure
7	Chatzoglou and Chatzoudes (2016)	Investigates online adoption for Greek SMEs	• IT Infrastructure	• Firm size • Firm scope	• Internet skills • Government support

The theoretical framework of TOE has been tested and largely confirmed for e-commerce due to the rare Covid-19 pandemic (Hoang et al., 2021; Ngyuen et al., 2022). Due to the massive and prolonged lockdowns, e-solutions had to be integrated on a larger scale and more SMEs had to adapt to the online solutions in order to survive. The digital transformation, regardless of country, was different per industry, per firm size, but overall, the GCC saw huge investment and government support to help transition more SMEs towards digital solutions. The UAE especially "have been investing in digital infrastructure over the past decade... from smart cities, (to) blockchain technology for government transactions, (to) ambitious financial technology (fintech) projects and launch a Fourth Industrial Revolution Centre. The

pandemic has accelerated the need for disruptions in the traditional forms of business and technology adoption" (Marmore, 2021).

This is even more important as the culture of shopping and consumption has changed due to COVID-19, most importantly by changing consumer consumption trends. "The pandemic situation and the subsequent cautiousness of shopping physically caused a dramatic shift in the consumption patterns with demand for online retail spiking. This spurt in online commerce has impacted the logistics sector with startups in third-party logistics space providing home-deliveries and a better last-mile delivery mechanism sprouting across the region. The adoption of technologies such as Internet of Things (IoT), driverless vehicles, drones, artificial intelligence, etc., are gaining traction and are expected to be the disruptors that can impact SMEs going forward" (Marmore, 2021).

3.4.5. TOE combined with other Models

TOE has also been used in combination with other commonly applied models to approach studies for digital adoption.

Table 5: TOE Combined with Other Models Variables and Factors

	Study	Model	Purpose	TOE Factors	Other Model Factors
1	Chatterjee et al. (2020)	hybrid TOE-TAM	applicability of Industry 4.0 and firm adoption of artificial intelligence (AI) embedded technology by digital manufacturing and production organizations	• Compatibility, • Complexity • Competency • Partner support	TAM • usefulness • ease of use
2	Hiran and Henten (2019)	TOE and DOI	for adoption of cloud computing within higher education in Ethiopia	• Compatibility • Complexity • Competency	Socio Cultural Aspects

TOE's strength lies in the clarification of both internal and external factors in a single paradigm. TOE focuses on both the empirical and theoretical data that explain behavioral intentions toward innovations for an organization. In terms of the three variables, the following are seen to be the parameters that are of the most importance:

1) Technological: Relative advantage, compatibility, and complexity seem to be the most appropriate.

2) Organizational: Top management support, firm size, and entrepreneurial orientation (supplier vs. food retailer vs. marketplace, etc.)

3) Environmental: Competitive pressure, perceived trend, External support (same as facilitating conditions in UTAUT).

Though TOE is used continuously, it can be seen that a limitation is that most have just applied the original TOE framework, especially for studies involving SMEs. Decision-makers and their mindset, and therefore motivations towards adoption of new technology, is not polarized between individual vs. firm. Further, the TOE framework depicted in Figure 20, as is overlooking interdependence between various factors, some of which are not necessarily included, whilst behavioural intentions also rely on various aspects of each individual innovation as well as the country and the environments within (socio-cultural influence, habits, trends, and now the influence of social media, i.e., Tik Tok trends, etc.) (Hiren et al., 2020; Nguyen et al., 2022).

Hence, an adapted model that extends the TOE is required to study and analyse SME technological adoption and motivation more accurately. Just as Tajudeen et al. (2018) used a TOE-based model that was extended to include various characteristics of social media such as cost, interactivity, and structural assurance, as the decisive predictors of social media usage, or as Park et al. modified TOE to include complementary variables such as security and privacy for the adoption of big data (Nguyen et al., 2022) or for analysing social commerce adoption by SMEs in Saudi Arabia (Abed, 2020).

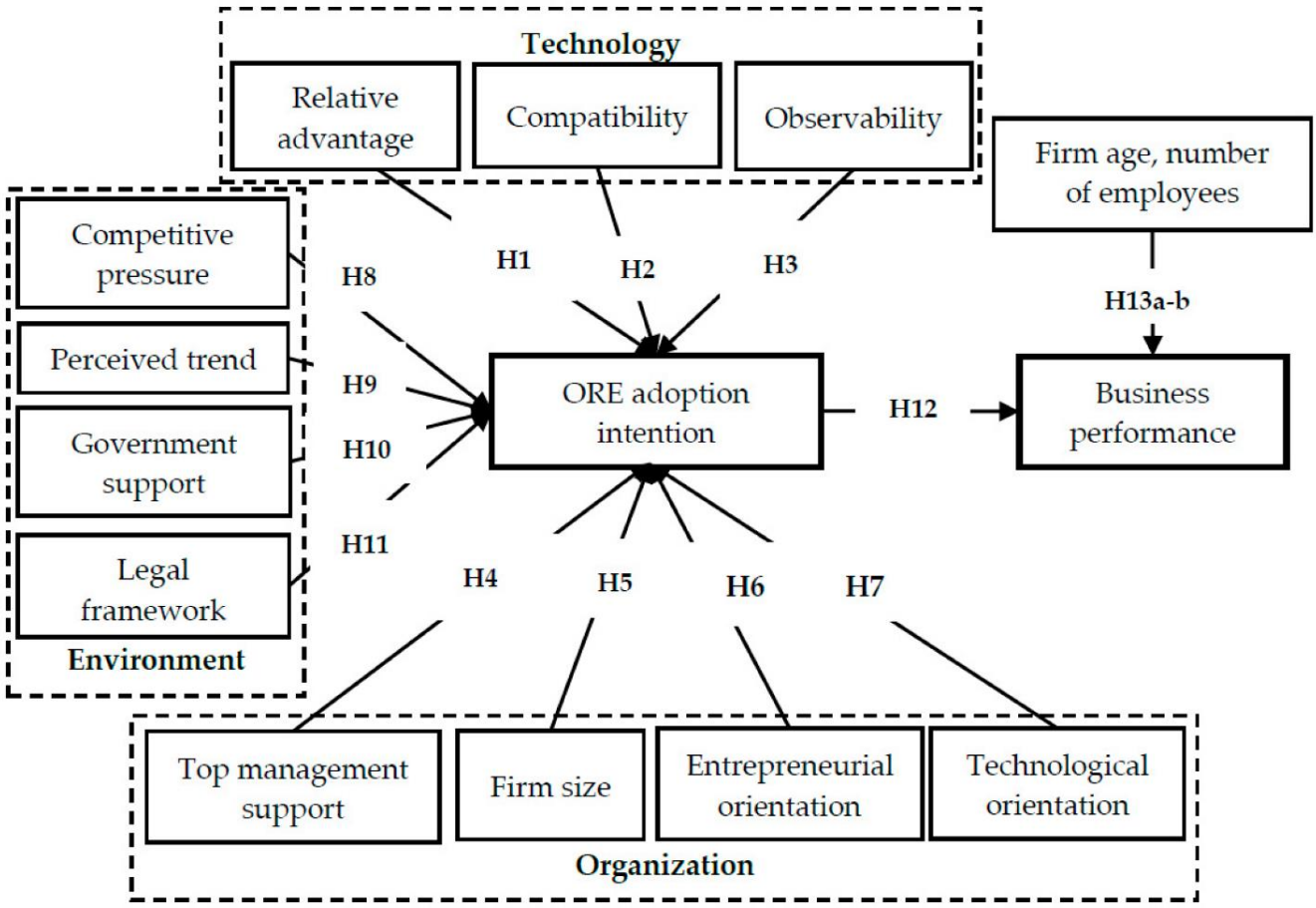

Figure 20: TOE extended model (Nguyen, 2022)

3.5. Initial Proposed Conceptual Model: An Adapted UTAUT 2 - TOE Model

This research initially planned to integrate the two models, UTAUT2 with TOE model. As we are not gauging consumers in this research but rather decision-makers who have the ability to link those on their supply chains to their end customers, a blend of the UTAUT and the TOE models was first deemed most appropriate. This blend of the two models has not been done before and, therefore further stands as an innovative means to analyse social media integration, as it can help others by employing the same model. The initial proposed conceptual model is illustrated in Figure 21.

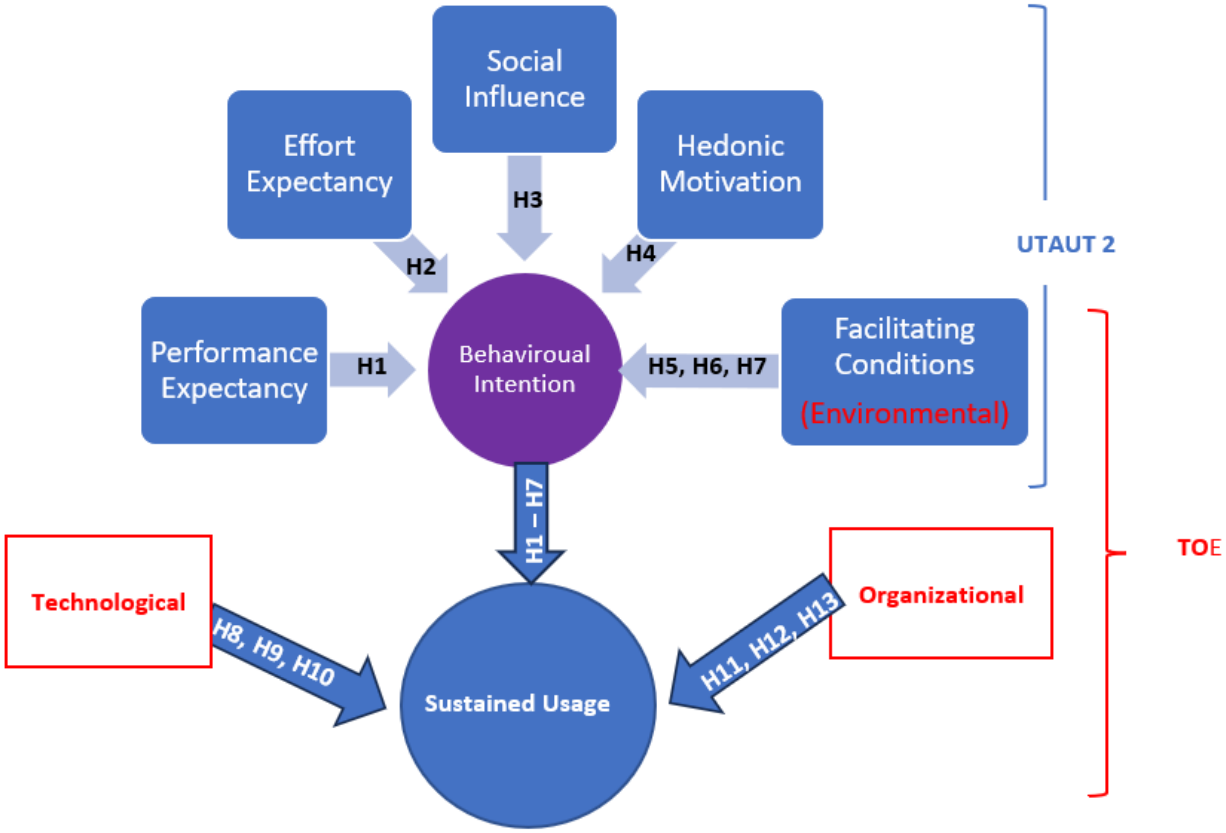

Figure 21: Initial Proposed Conceptual Model - Combined UTAUT2 and TOE Approach

In this model, there is an overlap between the UTAUT 2 and TOE model, where facilitating conditions (UTAUT2) and Environmental (TOE) may be considered the same overarching variable. Furthermore, this means that technology and organization are the other two constructs from the TOE model. Both the constructs from UTAUT 2 and TOE separately affect behavioural intention, but TOE constructs also have a direct application to sustained usage.

However, despite having almost a year to gather data, with the onset of the latest war in the region, it was easily seen that people didn't seem to be very interested in participating in surveys and or other studies. Especially considering how controversial things were getting and have been since Oct of 2023, what was assumed to take three months for the first stage of data gathering instead took almost eight. As such, this research only got to the second stage of data gathering, which was the initial interviews (after the introductory surveys) and therefore this research was not able to get to the point of actually having companies integrate social media in their SCM and then reflect on the process.

Thus, this research solely employs the UTAUT2 model and concludes its hypotheses at understanding the factors influencing behavioral intention (as outlined below). Integrating both models would have positioned the study to analyze the factors affecting sustained usage of social media within this context. However, due to time constraints, the research was limited to focusing on a single model.

Despite not being able to integrate and provide data for this new proposed model, however, this research is still considered fruitful as it utilizes the UTAUT2 model to understand the mindset of F&B SME decision-makers towards the more sophisticated utilization of social media, and thereby is providing valuable insight for both government agencies as well as hoping to provide the basis to kickstart a new transition of operations and communication in the region.

3.6. Chosen Lens Used – Adapted UTAUT2

As mentioned above, the UTAUT2 model has been widely used to understand consumers' behavioral intentions and actual usage of technology, especially in terms of analysing information systems and technology adoption. However, as also mentioned, there is a lack of research into its application in the context of SMEs in Kuwait and the United Arab Emirates. Therefore, since the original theorized combined model with TOE is not applicable as we did not get to the stage of actually integrating and checking back with companies on their performance and feedback after three months, the adapted UTAUT2 model was then used. The proposed conceptual model is presented in Figure 22.

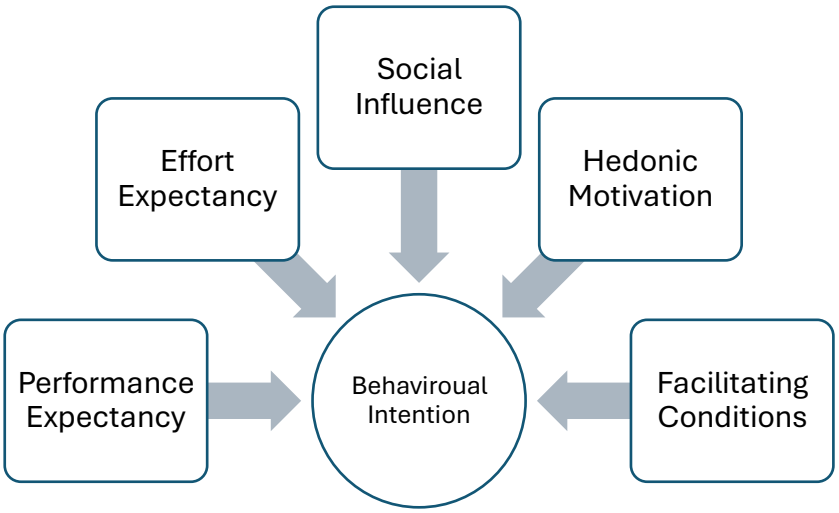

Figure 22: Proposed Model - Adapted UTAUT2

This research aims to fill the research gap that is significant for research within the GCC and, in this case, is using the adapted UTAUT2 model to the unique context of F&B SMEs in Kuwait and the UAE to provide a better understanding of the factors that influence technology adoption and usage in a

sector that is vital to the economies of Kuwait and the UAE, but also providing a platform with which future research using the combined model is also possible. Therefore, this research is important not only for academia but also towards advising Government policymakers towards the sustainable growth and development of the F&B sector in Kuwait and the UAE. Through analysing and better understanding of the mindset and attitudes of F&B SME decision-makers towards integrating social media into their supply chain management, this research can help identify barriers, motivations, and strategies for successful technology adoption and usage in these businesses.

3.7. The Hypothesis

The following hypotheses will be formulated for this research, where Hypotheses 1 – 7 will influence Behavioral Intention. These hypotheses will be validated through two distinct methods: an initial general survey and subsequent detailed interviews with selected individuals or organizations from the survey pool.

H1 Performance Expectancy has a significant impact on a user's behavioural intention to integrate Social media into the Supply Chain.

H2 Effort Expectancy has a significant impact on a user's behavioural intention to integrate Social media into the Supply Chain.

H3 Social Influence has a significant impact on a user's behavioural intention to integrate Social media into the Supply Chain.

H4 Hedonic motivation has a significant impact on a user's behavioural intention to integrate Social media into the Supply Chain.

H5 The existence of Facilitating Conditions has a significant impact on a user's behavioural intention to integrate Social media into the Supply Chain.

H6 Location significantly influences users' behavioral intention concerning the integration of social media into the supply chain, influenced by factors such as cultural norms and governmental roles.

3.7.1. Hypothesis Development

This section elaborates on the development of each hypothesis, detailing the variables used and providing contextual justification for their inclusion.

Hypothesis 1: Performance Expectancy Positively Influences Social Media Adoption

The variables involved here include Performance Expectancy (PE), which reflects the extent to which decision-makers believe that using social media can improve job performance. In the context of this study on F&B SMEs in Kuwait and the UAE, enhanced performance may manifest as increased customer engagement, improved communication with suppliers, streamlined operations, new collaboration opportunities, and greater stakeholder satisfaction. Research by AlHaimer (2021) has established a clear link between social media, enhanced communication, increased engagement, and subsequent improvements in innovation and overall performance. Similarly, Salloum et al. (2018) identified performance expectancy as a pivotal factor influencing social media adoption among university students in the UAE, illustrating that users who perceive substantial performance benefits are more inclined to adopt the technology.

Hypothesis 2: Effort Expectancy Positively Influences Social Media Adoption

The variable of focus here is Effort Expectancy (EE), which pertains to the perceived ease of use associated with social media platforms. In the context of this research involving F&B SME decision-makers, effort expectancy relates to how user-friendly they perceive social media tools and the minimal effort required to integrate these platforms into their current processes. According to AlHaimer (2021), perceived ease of use plays a pivotal role in the adoption of social media technologies, particularly in enhancing operational efficiency with minimal complexity for companies. Similarly, Salloum et al. (2018) found that ease of use positively influences the adoption of social media among students, indicating that technologies perceived as user-friendly are more likely to be embraced. Both studies highlight that individuals and organizations are more inclined to adopt technology if they perceive it as simple or easy to use.

Hypothesis 3: Social Influence Positively Influences Social Media Adoption

The variable under consideration here is Social Influence (SI), which encompasses the extent to which individuals perceive that influential people (such as peers or industry leaders) view integrating social media as positive or necessary. In the context of F&B SMEs, it is crucial how decision-makers perceive the expectations of competitors, suppliers, and customers. AlHaimer (2021) highlighted that social media's role in enhancing customer engagement is influenced by customer and peer expectations. Similarly, Salloum et al. (2018) demonstrated that social influence strongly predicts social media adoption among university students, many of whom may now be owners of F&B SMEs, providing evidence that societal and peer norms significantly influence adoption behavior.

Hypothesis 4: Hedonic Motivation Positively Influences Social Media Adoption

In this hypothesis, Hedonic Motivation (HM) is the variable of interest, referring to the enjoyment or pleasure derived from using social media. In the context of this research, HM can be understood as the satisfaction derived from engaging in creative marketing campaigns, interacting with customers online, or participating in collaborative activities on social media platforms. AlHaimer (2021) highlighted that the dynamic and interactive nature of social media enhances user engagement, thereby promoting adoption. Similarly, Salloum et al. (2018) found that HM significantly influences the use of social media, as users are more inclined to adopt technologies they find enjoyable compared to those they perceive as less engaging.

Hypothesis 5: Facilitating Conditions Positively Influence Social Media Adoption

Facilitating conditions encompass the range of resources, support, and environmental factors that facilitate the adoption and usage of social media. These conditions include access to technology, availability of training and support systems, and the presence of affordable outsourcing options and content generation networks, influenced by cultural norms. In the GCC region, a robust IT infrastructure and support for social media tools are crucial, given that marketing, including advertising and customer engagement, is predominantly conducted through these platforms. AlHaimer (2021) demonstrated that the availability of resources and technical support significantly impacts the effective utilization of social media in business operations. Similarly, Salloum et al. (2018) identified that facilitating conditions such as technical support, personal experience, and availability of resources play a critical role in the adoption of new technologies among students.

Hypothesis 6: Location Positively Influences Social Media Adoption

Considering the GCC's diverse cultural landscape and the perception of regional unity, it's important to acknowledge significant differences among its countries. These variations stem from factors such as demographics, government policies, effectiveness of governance, attractiveness to foreign investments, and corporate presence. For instance, Dubai and Abu Dhabi, as major cities in the UAE, boast more open and dynamic economies compared to Kuwait, which has faced challenges in recent years due to political issues. Therefore, this research hypothesizes that location will indeed influence technology adoption rates.

Thus, this research will utilize the constructs mentioned above to formulate questions directed at decision-makers of F&B SMEs. These questions aim to assess their interest in enhancing cross-

communication between SCOs and end customers, aligning with consumer preferences. As previously discussed, the UTAUT2 framework is particularly suitable for examining the integration of social media into supply chain operations, noted for its applicability in designing user-centric products and services (Momani, 2020).

Justification for the above hypothesis

The above hypotheses are grounded in established theoretical frameworks and empirical evidence within the domains of technology adoption and supply chain management. Together, they form a comprehensive framework for understanding the factors that influence the adoption and sustained usage of social media in supply chain management systems of F&B SMEs in Kuwait and the UAE. Key components include:

- **Performance Expectancy (H1):** Derived from the UTAUT, which posits that individuals are more likely to adopt a technology if they perceive it as beneficial to their performance. Previous research (Nordhoff 2020; Davis, 1989) has shown that perceived usefulness significantly influences users' behavioral intentions to adopt new technologies.
- **Effort Expectancy (H2):** As mentioned above, Venkatesh et al. (2003) formulated that the UTAUT2 model suggests that perceived ease of use is a key determinant of users' intentions to adopt technology. Hence, users are more likely to adopt social media in supply chain management if they perceive it as easy to use and implement.
- **Social Influence (H3):** Similarly, Venkatesh et al. (2003) also found that in the UTAUT 2 model, *social influence,* i.e., the extent to which an individual perceives that others believe they should use a particular technology, significantly influences users' behavioral intentions. If people around them are using technology, then more people will 'jump' onto a similar bandwagon towards achieving similar goals.
- **Hedonic Motivation (H4):** Furthermore, Venkatesh et al. (2003) also found that in the UTAUT 2 model, *hedonic motivation* refers to the pleasure or enjoyment derived from using a technology plays an important role in people continuing to use a particular technology. Hartelina et al. (2021) suggest that hedonic motivation can positively influence users' behavioral intentions to adopt technology.
- **Habit (H5):** Habit refers to the degree to which individuals tend to perform behaviors automatically (Venkatesh, Thong & Xu, 2012). In contrast to reason-oriented frameworks like

TOE, which posit that behavioral intention results from deliberate evaluations, the "automaticity perspective" suggests that technology usage can become an automatic, unconscious behavior (Limayem, Hirt & Cheung, 2007). Habit has been hypothesized to exert both direct and indirect effects on actual use through behavioral intention (Venkatesh, Thong & Xu, 2012). However, the strength of this influence depends on the extent to which individuals rely on routinized behaviors in accepting and using technology (Venkatesh, Thong & Xu, 2012; Ajzen, 2011).

- **Facilitating Conditions (H6):** Venkatesh et al. (2003) describe external support as the the availability of resources and support from external sources to facilitate technology adoption. Similarly, top management support is the extent to which senior management promotes and supports the adoption of a technology (Venkatesh et al., 2003). Researchers using the UTAUT 2 model (Herrero et al., 2017) find that there is a positive correlation between both the existence of external support and top management support and users' behavioural intentions.
- **Moderator: Firm Location (UAE or Kuwait):** Research using the UTAUT2 model (CY Huang, 2015; Venkatesh et al., 2007) suggests that both firm locations (due to competitive pressure, social influence, facilitating conditions, etc) significantly influence technology adoption.

3.8. What Next: Operationalizing the Theories to Frame the Data Collection

The intended approach is to first target a large number of various F&B SMEs in Kuwait and the UAE and, using a survey, explore their current usage of social media and how much (if any) integration they have of social media within their SCO. Then, with an introduction to the benefits and examples of cross-communication and integration of social media within their SCO, we then take a secondary questionnaire to gauge their willingness to try integration, as well as get feedback on ideas and means of how they will do this. This will also include what their expectations are of using such technology and where they perceive changes within their operations, customer service management, sales, and revenues to occur.

Then, once the replies come in, the first set of data will be analysed and then a minimum number of companies both in Kuwait and the UAE will be chosen to further communicate with (series of interviews) to see how they will enact the changes, and if possible, continued communication will occur to see what the impact has been (within a short time period) and therefore further assess their reactions

and satisfaction. The changes and impact on the following economic variable need to possibly be examined (if not in this study, in future research):

1) Levels of waste
2) Levels of customer satisfaction
3) Levels of engagement across the supply chains (impact on stakeholder relationships)
4) Examples of innovation (for the F&B retailer/company)
5) Increased sales, if any
6) Levels of cross supply chain innovation and adaption
7) Other significant changes, if any

3.9. Conclusion

The focus of this research is to assess the readiness of F&B SME owners to integrate social media into their SCO/SCM and subsequently explore the methods and impacts of this integration. Given the current lack of such integration in the GCC region, the research will commence with an initial survey targeting a large number of F&B SMEs in the UAE and Kuwait. This survey will be designed and analyzed using the UTAUT2/TOE approach to understand the current usage of social media and potential motivations for integrating it into SCO/SCM systems. Participants will be assessed on their current practices and their intentions regarding future changes. Following the analysis of the initial surveys, a selected subset of respondents from both countries will be further engaged through detailed interviews. These interviews will delve deeper into how they have implemented or plan to implement social media into their SCO/SCM systems, as well as the observed impacts within a few months of adoption. Chapter 4 – Methodology will outline various research approaches and philosophies, with a focus on justifying and selecting methods aligned with the UTAUT2 theory, which underpins the investigation into social media integration in SCM systems.

4. CHAPTER FOUR: METHODOLOGY

4.1. Introduction

This chapter outlines the methodology employed to effectively address the thesis question and gather pertinent data for analysis in the study titled "Social Media in Supply Chain: A UTAUT2 Framework-Based Investigation in the Food and Beverage Industry." The Conceptual Framework provides the rationale for applying the adapted UTAUT2 model to answer the research question. The Methodology chapter extends this framework by detailing the approach to data collection, assessment, and analysis. The study utilizes a mixed methods approach, integrating both qualitative and quantitative data collection techniques.

4.2. Research Philosophy and Approach

The research approach in this dissertation has utilized a Case Study approach to the possible impact of social media integration on supply chain management in Kuwait and in the UAE in the context of studying the mindset of small to medium (SME) business owners in the Food and beverage industry (F&B) in both countries and in regards to how they perceive the role of integrating SM into their respective SCM. Using a Case Study philosophy is deemed the best given that:

a) Both Kuwait and the UAE have relatively small populations (just over 4 million people and just under 10 million, respectively).

b) The populations in both Kuwait and the UAE exhibit high smartphone technology literacy, characterized by near-universal smartphone penetration of 99% in both countries (Kemp, 2020). This high level of smartphone dependence underscores the relevance of analyzing social media integration within supply chain management in these countries. The findings from this study can potentially serve as a model for other nations considering similar integration strategies in the future.

c) Moreover, these two countries present an intriguing case study. The study has the potential not only to demonstrate the benefits of integrating SM into their SCM systems but also to highlight the extended benefits through enhanced cross-connectivity. Given the relatively small populations of Kuwait and the UAE, the rapid diffusion of word-of-mouth can be observed over a short period. This provides an opportunity to assess the economic impact on revenues, losses, and waste within the F&B industry, particularly among SMEs, in the short term.

This makes it further ideal to use both these countries as a model for other nations to understand and appreciate the potential of such cross connectivity; in terms of marketing and supply chain operations.

4.2.1. Case Study

The nature of this research is such that Kuwait and the UAE are the sole focus, and as such, the approach to research that best fits the situation is the case study. A case study is a specific example or unit that is studied in depth, either in a descriptive or explanatory manner. "Case studies are analyses of persons, events, decisions, periods, projects, policies, institutions, or other systems that are studied holistically by one or more methods" (Thomas, 2011). The case that is the subject of the inquiry will provide an analytical framework within which the study is conducted and thereby provide references for understanding results (Thomas, 2011). "Case studies highlight an in-depth background analysis of a restricted number of situations, such as events and their correlation. The data collection system for this type of approach includes questionnaires, interviews, observations and documentary analysis" (Saunders, Lewis & Thornhill, 2003).

Therefore, using the Case Study philosophy in this research and applying it to both Kuwait and the UAE as the focus of our case study is logical for this research as the populations are frequent users of Instagram, Facebook, and (to a lesser degree Twitter) as well as now other social media such as Tik Tok, Snapchat, and online marketplaces. Naturally, each social media has specific users that tend to gravitate towards them, especially given their education background and age. The populations in both countries tend to have less hesitation in buying and selling and communicating via social media, especially through Instagram, as it is now a main 'portal' to many types of small businesses in the GCC, from wholesalers to those farther along the supply chain; a move away from websites and physical stores, a move made possible due to how affordable delivery services are. Though many SME business owners, or for the most part the managers of the stores, would not be conversant in website management, they would find taking pictures and uploading them to Instagram far easier and doable, and hence, use SM as their main source of information dissemination. However, there is still a major learning curve, and due to the nature of social media and how 'new' it is, there are many inefficiencies that exist. Thus, this study could also help identify those inefficiencies.

In a case study context, factors such as country differences (e.g., Kuwait vs UAE), SME company size, and company focus (e.g., supplier vs retailer) play pivotal roles in shaping behavioral intentions and usage behavior. The objective is to comprehensively grasp the motivations and rationale behind

SME F&B companies' decision-making regarding the integration of social media (SM) into their supply chain operations. This involves understanding their specific needs, desires, and the underlying reasons driving their adoption or reluctance towards SM integration. However, due to the scope of this research, by limiting this study to both Kuwait and UAE, in terms of both size of company and industry, this research should then be able to successfully have enough participants to allow for conclusions to be made while at the same time limiting the research to permit enough data to be collected within the limited period of time. Further, this will also facilitate in limiting and guiding the actual research in order to answer the specific research question itself (via answering the various sub questions), allowing for the collection of accurate information, in this unexplored field.

4.2.2. Mixed Methodology Approach

Case studies, however, have their own limitations, as getting information directly from the different stakeholders will inherently include various degrees of bias. As this study focuses on the mindset of the SME F&B decision-maker based on their assessment of what their customers would respond to, this inherently includes a subjective approach as the opinions of the public are therefore in question. Thus, this research falls under a subjective approach and will require both a qualitative and interpretive approach. However, since the study also requires quantitative justification for how and in what ways SM should or should not be integrated into the SCM, the approach should also include elements of an Objectivist approach, which will include both a quantitative and positivist approach (Saunders et al., 2016). Therefore, this will employ a Mixed Methodology.

Since the area of research will focus on people's subjective perceptions, a concern of words rather than numbers arises and thus a *qualitative approach* as well as a quantitative approach is deemed appropriate and so a mixed methodology that utilizes the triangulation approach has been incorporated (Walliman, 2016). The mixed methodology will require the input of the SME F&B business owners or the decision-makers in terms of how and why they will integrate SM into their SCM. This method is chosen to test the conceptual framework and to accept or reject hypotheses on the bases of data collected.

4.2.3. Benefits to a Mixed Methodology Approach

The Mixed Methods Approach benefits this study because of the following reasons.

1) A mixed methods approach facilitates comprehensive understanding (Creswell & Creswell, 2017): A comprehensive understanding of the mindset of SME F&B Owners towards

integrating and the sustained usage of social media into their supply chain management. By combining the strengths of both qualitative and quantitative data, this study is able to provide nuanced justification for the quantitative data gathered by looking at the qualitative and thus drawing better conclusions on the topic.

2) The Complex Nature of the Research Question Itself (Johnson & Onwuegbuzie, 2004): The research question is multifaceted and as such is being approached by blending two models, the UTAUT 2 and the TOE models, in order to gain proper conclusions towards the sustained usage of social media in SCM. Utilizing both qualitative and quantitative data will provide a more nuanced and holistic perspective.

3) The inherent diverse stakeholders that are involved (Teddlie & Tashakkori, 2009): The multiple stakeholders, varying from SME owners within the wide spectrum that makes up the F&B industry, will provide in-depth information from very integral yet completely different perspectives and spheres of knowledge. Qualitative questions provide a window into such understanding perspectives and experiences, while quantitative surveys can provide statistical data on various indicators to help validate their opinions as well as provide research triangulation opportunities when making conclusions.

4) The opportunity to perform data triangulation (Creswell & Creswell, 2017): The use of multiple data sources enhances data triangulation, increasing the validity and reliability of the findings.

4.3. Subjectivist and Realist Approach

When discussing consumer behaviour, it is integral to take a realist approach, as well as an interpretive approach, as it is important for the researcher during their role as a social actor to appreciate differences between people (Walliman, 2016). These very differences account for the various needs and wants, priorities, and thus account for the range in consumer behaviour.

Published literature, both included in the Literature Review as well as in the Analysis and Conclusions to give reference to some of the results found, shall also be used. Qualitative interview data can gather more in-depth insights into participant attitudes, thoughts, and actions (Kendall, 2008), and therefore, was deemed more appropriate for this study. However, as Kendall also pointed out, it is important to ensure that qualitative data is not used to illustrate quantitative results without first being analysed in its own right using techniques appropriate for the type of data collected.

Further, a grounded methodology shall be developed, which is an approach developed to generate theory from observations of real life as they occur (Grbich, 2007). This is relevant as the study questions focus on how perceived consumer preferences can positively impact businesses when integrating SM into SCM. The information that the conclusions shall be based on will be generated and collected through surveys that include both multiple choice and short answer questions, and whose answers will provide data to allow for the development of a new theory. Later on, a select group within both Kuwait and the UAE (based on eagerness and how well they responded to the initial survey) shall be chosen to see how the businesses respond. This information will be gathered through detailed interviews with a range of questions that focus not only on the quantitative but mostly on the qualitative aspects.

The surveys and interviews that will be conducted will collect new data and in order to develop any new theories, propositions and explanations, will require applying inductive reasoning "define(s) a more context-specific analysis, but also use numerous methods of data collection in order to gather multiple versions of phenomena" (Easterby-Smith et al., 2002), however, it will require interpretation as well (Popper, 1972).

Popper (1972) argues that in order to apply the inductive approach and therefore derive knowledge from observation, 'one must first know what is to be observed before one can see it.' Therefore, the theoretical constructions that outline the prerequisites for the observation in this study will be studying the mindset of SME F&B business owners in terms of their decision-making towards integrating SM into their SCM. The study will take on an interpretivist position, as it shall focus on understanding the social reality rather than explaining it (Bryman, 2008).

At the same time, this research is positivist as the role of the researcher is to also further then try and measure (via the select companies chosen) how SM enhances organization's supply chain operational performance, and ideally how this translates in terms of revenues and costs. Therefore, the researcher depends on empirical data to apply measurements. Thus, collecting and interpreting the data in an objective manner, resulting in a positivist philosophy discussion with intentions to focus on causal links between constructs. This would start with a theory linking constructs that the researcher would then test empirically to accept or reject a hypothesis.

4.4. Research Variables

This research aims to demonstrate the causal relationship between the following variables listed in Table 6.

Table 6: Research Variables

Variables of this Research	
Control Variable	• Organizational – All SMEs in the F&B Industry • All SMEs located in the GCC (either Kuwait or UAE, or both)
Moderators	• Location, i.e., Kuwait vs UAE
Independent Variables (Latent Variables)	• Performance Expectancy • Effort Expectancy • Social Influence • Facilitating Conditions (including Competitive pressure, Perceived trend, External support) • Hedonic Motivation • Habit
Dependent Variables (Latent Variables)	• Behavioural Intention

It employs a deductive approach where the data collected is statistically analysed to establish the causality. In other words, the generalisation is achieved through statistical probability. To achieve generalisation, the researcher is required to collect data from a significant population. Given the specificities of the industry and size of company (though later more specifics will be garnered from the survey as SMEs are very broad in definition). The researcher relies on the empirical data and facts where the organisation and other social entities are viewed, by the researcher, as physical objects, and natural phenomena.

4.5. Deductive Reasoning

For this study, a deductive approach is most appropriate for developing hypotheses, and therefore, the discussion in this section will be limited to deductive reasoning. The deductive approach draws logical consequences from the premises and assumptions with the aim of providing conclusions and recommendations. The deductive approach is based on hypotheses that are evaluated and tested, where the hypotheses are refined based on other plausible environments. Causal relationships are

established between the studied variables based on a framework using existing theories (Kase et al., 2011).

The deductive approach is applicable in this research as it primarily extends and uses the knowledge-based view to see how the SME F&B business owners respond in terms of how they will integrate SM into their respective SCM and then see the impact on the organisation's operational performance. This research has also provided evidence on other theories that are related to the development of the knowledge-based view. Furthermore, this research deduces information and derives knowledge from knowledge sharing (Johnson et al., 2007; Vaidyanathan and Devaraj, 2008) by developing causal links between constructs and testing these links empirically.

Deductive reasoning is mainly associated with a positivist research paradigm (Creswell, 2013; Mertens, 2014; Saunders et al., 2016) and therefore a quantitative research method, which is discussed in the next section. As discussed, the objective of this research is to demonstrate causality and provide generalisation based on data gathered from a number of SM and supply chain organisations. Therefore, the research uses existing theories and studies in SM, and supply chain operations to identify and measure the impact of SM sue on organisation's supply chain operational performance.

4.6. Research Type

This research is mainly exploratory as it attempts to explore the relationships between factors influencing how and why SME F&B decision-makers will integrate SM within their supply chain management. It explores how social media enables an enterprise's information flow and to also understand sharing across internal and external social networks, which enhance internal and external collaboration and allow firms to be more customer-oriented, contributing to operational performance improvement. In a marginal manner, it is descriptive since it describes the results of respondents before explaining them. For instance, demographic factors such as gender, age, type of company, company size, job role, and years of experience with SM describe the constructs being researched in our respective samples in the UAE and Kuwait.

4.7. Research Strategy

This research is based on interpretivism and constructivist philosophies; therefore, the strategy choices are experiments and surveys. According to Saunders et al. (2009), experiment research is strong in psychology-based social science research. Saunders et al. (2009) suggest that experiments fall under the "exploratory and explanatory research to answer 'how' and 'why' questions" (p. 142).

Nonetheless, researchers conduct experiments in controlled environments and not in the field. The purpose of this research is to collect data from supply chain organisations in the retail food industry. These employees are required to be present in the workplace regularly, which makes conducting an experiment in a controlled environment difficult.

Alternatively, a survey allows the researcher to collect the data from participants with minimal interaction. Surveys are more popular in quantitative research and allow a large amount of data to be collected using consistent and relatively inexpensive methods (Dawson, 2018). Therefore, this research shall employ a survey as a mean to collect primary data. Researchers using surveys ask questions in a written format, which is then either mailed, handed over personally, or electronically delivered (Neuman, 2007). In this research, surveys were conducted online via Google Forms, self-administered, and delivered in hard copies to ensure that participants conformed to the requirements of the study.

The choice of research strategy depends on the data collection and is related to the research approach and what is required to answer the research questions. This research used a survey based on interpretivist and constructivist philosophies. A survey does not require the researcher to be heavily involved with the data collection. Furthermore, choosing a survey allows for the efficient collection of data from the F&B industry in Kuwait and the UAE.

However, later on, in order to understand and possibly see the impact of integrating SM into the SCM, interviews will be conducted with a select group of enterprises in both Kuwait and the UAE. From the 50 chosen in each country to do the initial survey, 5 in each country will then be chosen to further extend the research and understand more the why of their choices as well as see the impact that there is in 2 months (if any).

4.8. Time Horizon

This study utilizes a cross-sectional Time Horizon. A cross-sectional time horizon involves collecting different samples at a single point in time. Greener (2008) states that cross-sectional data cannot be applied to time series. It may rather examine causal inferences of variables at a given point in time. In addition to this, the cross-sectional studies would require observing different samples, which is being applied as this Study is seeing different types of companies within the F&B industry in both Kuwait and UAE over a span of 4 months. This choice has been made to avoid long-term involvement risks and to ensure that the research can be conducted efficiently. Ihuah and Eaton (2013) indicate that cross-sectional data can be used in both qualitative and quantitative methods but recommend the use

of statistical software such as NVivo (for qualitative data analysis) and SPSS (for quantitative data analysis). However, as this study also utilizes PLS-SEM, the AMOS statistical software is instead being used to help with the data analysis.

4.9. Application of Control and Manipulated Variables

For control variables this study includes the following control variables, including:

- Organizational (Firm Size and Structure, i.e., SMEs only)
- Firm location (country) – either Kuwait or UAE or both (but they have to be in one or the other or both)
- The respondent had to have some influence as a decision-maker

In the survey analysis, respondents who indicated having offices in both Kuwait and the UAE were further queried about the distribution of their operations between these countries. Companies that reported an equal presence in both countries were counted towards the total for both Kuwait and the UAE. However, companies that shared operations but were primarily focused in one country were only counted towards that specific country. For example, if a company indicated offices in both countries but primarily focused in Kuwait, it was categorized under Kuwait. Conversely, those primarily focused in the UAE were categorized under the UAE. This approach ensures that companies counted for Kuwait include those based solely in Kuwait, equally shared between Kuwait and the UAE, or primarily focused in Kuwait. Similarly, companies counted for the UAE include those based solely in the UAE, equally shared between both countries, or primarily focused in the UAE. Percentages will be utilized to accurately represent each country's approach to integrating social media into SCM.

4.10. Sampling

This study involves testing multiple hypotheses that encompass various variables. Several techniques were evaluated to determine the most suitable approach, with Partial Least Squares Structural Equation Modeling (PLS-SEM) identified as the optimal choice. PLS-SEM is a modern adaptation of Structural Equation Modeling (SEM), known for its capability to analyze multivariate causal relationships in scientific investigations. Unlike traditional SEM, PLS-SEM excels in handling complex models and smaller sample sizes while assessing both direct and indirect effects among variables (Fan et al., 2016). This adaptation enhances the flexibility and applicability of SEM methodologies in contemporary research contexts, making it particularly well-suited for the current study's requirements.

PLS-SEM encompasses two primary variations: PLS-SEM for prediction-oriented studies and PLSc-SEM for testing and analysis purposes. While PLS-SEM has faced criticism in certain fields like psychology, proponents argue that its strength lies in its composite-focused approach rather than a formative one (Dash and Paul, 2021; Rigdon, 2016). On the other hand, Covariance-Based Structural Equation Modeling (CB-SEM), another leading SEM variant, is more suitable for factor-based models and requires a larger sample size to test established theories effectively. In essence, CB-SEM is ideal for theory testing and confirmation, whereas PLS-SEM is preferable for prediction and theory development due to its flexibility with smaller sample sizes and composite-focused approach. Therefore, for this research, which aims to predict and develop theories related to social media integration in supply chain management, PLS-SEM is deemed the most appropriate methodology.

4.10.1. Probability Sampling

This research used a probability/random sampling method despite the need for statistical testing of hypotheses and for drawing conclusions about the population of the F&B industry in both Kuwait and UAE providers. Probability samplings are often used when a known likelihood occurs for each unit within the population; a non-probability approach is used during the investigative and pre-testing phases of survey tests (Saunders et al. 2016).

The main objective of a quantitative approach is to obtain a sample that can reflect a population. The sample in this study consists of a single interpersonal relationship in the retail food industry. The researcher identified companies for the sampling of this study from the Linked In, Instagram and the Middle Eastern-focused Zawya Database, all popular non-governmental organizations. From the database, this study identified all the contact details of the companies. Hence, the above Databases were chosen for this study as they include detailed information about companies listed in the Kuwait and UAE directories. Through this, we could ensure that we had enough companies that satisfied each segment along the supply chain for the F&B industry. Furthermore, this database has details about key personnel (senior manager and purchasing manager, sales manager), including their names, titles, phone numbers, and email addresses.

The researcher employed a random sampling method by sending emails or social media messages (via Instagram and Facebook) to over 400 companies in each country, aiming for a response rate of at least two-thirds from each. Given the substantial number and diversity of SME F&B companies in both Kuwait and the UAE, including various types such as food retailers, cafes, restaurants, and wholesale suppliers, a comprehensive list of these companies was compiled from online directories

akin to 'yellow pages'. From each company type, a random selection of a minimum of 10 to 15 companies was made using the database's random sort function to ensure compliance with probability sampling principles.

4.10.2. Sample Size

In reference to the sample size, after choosing a sample approach, it is necessary to decide the sample size to represent the population. According to Collis and Hussey (2014), the sample size ought to be broad enough to answer the research question. This study uses PLS-SEM to analyze the conceptual model, which requires a large sample of data for it to work (Saunders et al., 2016). Therefore, a minimum sample size of 100 is required (Hair et al. 2010), but 300 is targeted. However, this study targeted about 300 Companies across both the UAE and Kuwait to be compliant towards applying PLS-SEM sampling to understand the results.

However, it is important to note that due to the Mixed Methodology approach, and considering that there is both a focus on quantitative as well as qualitative, two approaches need to be taken for each type of data, and then consensus is created as the data is gathered and analysis is started.

The research will first be approached by applying the more traditional PLS-SEM method for the quantitative data, with a targeted minimum of 250 to 300 respondents satisfying the model. However, within the same surveys, the qualitative data requires further analysis and using a thematic analysis approach, the data will be coded and then via the use of data saturation point, either more respondents will be required, or if data saturation is reached, then these 250 respondents will be enough.

4.11. Thematic Analysis

As already mentioned in the section above, due to the nature of the study focusing on a mixed methods approach, for the study of the qualitative information and data sets, a thematic analysis was chosen in order to help organize the information in order to find common themes within the answers. “Thematic analysis, put simply, is the process of finding and connecting patterns or themes within qualitative data (Maguire & Delahunt, 2017). Braun & Clarke (2006) found that in any research focused on qualitative data, thematic analysis should be the first method applied as it provides the necessary skills required for analysis of the substance. Furthermore, a significant benefit comes into play: it is a method rather than a methodology (Braun & Clarke, 2006; Clarke & Braun, 2013) and thus is not tied to a particular epistemological or theoretical perspective. This allows for versatility in adapting it to many different research approaches (Maguire & Delahunt, 2017). Thematic analysis therefore provides more

nuanced and complete answers with which to understand the quantitative data that has been gathered and analysed.

4.11.1. Applying Thematic Analysis

The best approach for applying Thematic Analysis, the 6-step framework founded by Braun & Clarke (2006), will be used in this Study where patterns or themes that are relevant to the topic or address the research in question are highlighted. The point is to go beyond just summarizing information but instead collating, connecting, and then analysing and interpreting the data (Maguire & Delahunt, 2017; Clarke & Braun, 2013).

The six steps include, as summarized from (Maguire & Delahunt, 2017; Clarke and Braun, 2013):

1) Data Familiarization:
    - Where researchers become acquainted with the data through multiple readings of transcripts and notes from the interviews.
    - One of the techniques mentioned by Smith (2017) is that during interviews, data transcription is very important as verbatim transcription ensures accuracy in data analysis and prevents researcher bias.
2) Initial Coding:
    - Here, initial codes are chosen ad generated to identify recurring patterns and themes in the data. More specifically, this involves the process of breaking down the data further and further and labelling them with descriptive 'codes' that capture the essence of the content of each part.
3) Theme Development:
    - In this phase, the generated codes are then grouped into broader themes based on relevance and similarity.
    - The data is continued to be refined, as the themes are then made more obvious (based on more data). This iterative process is the most concrete way to ensure the emergence of meaningful and comprehensive themes.

- Today, beyond just using highlighters, Qualitative Data Analytic Software such as ATLAS and Nvivo, etc. exist that are able to help analyse large data sets. However, there is also potential for simpler tools, such as Microsoft Excel, to code and help identify themes.

4) Data Review:

   - The analysis of the themes now occurs as the generated themes continue to be reviewed and refined to ensure they accurately represent the dataset. Researchers further have to maintain records of this said decision-making process. The reason for this is that the researcher has to be very careful as "a common pitfall is to use the main interview questions as the themes. Typically, this reflects the fact that the data have been summarised and organised, rather than analysed "(Maguire & Delahunt, 2017, pg. 3; Clarke & Braun, 2013)".

5) Definition and Naming of Themes:

   - In this next step, each theme is defined and assigned a concise and simple-to-understand name corresponding to its meaning/content. This step is important for clear communication as well as ensuring the researcher is separating content properly. Again, the more specific content has been broken down, the easier it is to find sub themes and overarching themes and have proper justification for them.

6) Mapping and Interpretation:

   - In this final step of the process, researchers then map the relationships between themes. More importantly, making connections and drawing conclusions by interpreting the significance of the connections and associations within the context of the research question. This step will also require justification of the thought process as the researcher explores the patterns that emerge.

The researcher will document the entire process, including all justifications, and maintain records of relevant codes, themes, and original data transcripts, detailing how the data was analyzed. It is crucial that all themes and conclusions are substantiated with illustrative quotes from the dataset, particularly from the interviews. The key to this analysis lies in the ability to identify patterns within the data and to connect these themes to address the research question comprehensively. This approach goes beyond merely summarizing the data; effective thematic analysis involves interpreting and making sense of the data to uncover deeper insights. Therefore, the Data Analysis section of this study will

present a coherent narrative that directly addresses the research objectives and provides meaningful insights into the research question. In this context, the research aims to assess the integration of social media into supply chain management within the F&B SMEs of Kuwait and the UAE, using the UTAUT2 model to understand factors influencing adoption. Additionally, it will offer insights into the touristic goals related to sustainability within the framework of Kuwait Vision 2035. A thematic analysis sample is presented in Appendix 4. This thematic analysis will thus interpret the data to reveal significant patterns and connections, ultimately providing a nuanced understanding of the subject matter.

4.11.2. Two Levels of Themes in Thematic Analysis

Braun & Clarke (2006) distinguish between two levels of themes in thematic analysis: semantic and latent. Semantic themes are straightforward, representing ideas and connections that are directly observed in the data. Conversely, latent themes delve deeper, identifying and examining the underlying ideas, assumptions, conceptualizations, and ideologies that shape or inform the semantic content of the data (Braun & Clarke, 2019). This study will employ both levels of thematic analysis, clearly distinguishing between semantic and latent themes to present more valid results and highlight where interpretations have been made. By doing so, the research will provide a nuanced understanding that acknowledges both the explicit content and the underlying context of the data, thereby offering a more comprehensive analysis.

4.11.3. Benefits of Thematic Analysis

In terms of qualitative vs. quantitative data, more often than not, it is easier to extrapolate meaning from quantitative data. Qualitative data, however, offers a profound amount of potential to infer and make conclusions, however, the ‘how’ would be problematic. This “how” is addressed by thematic analysis as it is able to provide, from qualitative data:

- An opportunity to achieve In-Depth Exploration, as thematic analysis facilitates the comprehensive exploration of the dataset, in this case, participants' perspectives and experiences. This is important, as when creating codes and even themes, it will be important to understand the differences in opinion and priorities between someone from the retail sector and the farm sector. Here, it is important to create a code in itself for perspectives as well, i.e., retailers, farms, etc.
- Flexibility, in that thematic analysis enables the researcher to identify and capture both ‘anticipated’ and ‘unanticipated’ themes within the data. Again, here, because a thorough

'dissection' is done, then coding, then relationships, the researcher is able to make connections that simple quantitative data is unable to. The process is just more complicated and, due to the iterative process, tedious.

- Contextual Understanding of the research matter. As thematic analysis offers this in-depth analysis, we thereby attain a far 'richer' understanding of how retail stores vs farms etc., can benefit from the use of SM.

4.11.4. Limitation of Thematic Analysis

Due to the nature of thematic analysis, a smaller sample size is usually taken into consideration (Creswell, 2017). However, as can be seen further down in the section regarding data saturation, this limitation may be mitigated if data saturation is achieved as further interviews prove no new findings. Another limitation, given the smaller sample size, is that also there needs to be care when choosing the respondents (i.e., as part of the purposeful sampling) so as to ensure that potential bias in participant selection and data analysis is not consciously or unconsciously being entered into the data by only asking a certain group of people (who potentially have the same opinion). It is, therefore, important to transparently document these concerns, as they were, in order to ensure research validity.

For this research, three companies in Kuwait and two in the UAE were chosen (also to reflect the demographic from the quantitative analysis, where Kuwaiti respondents exceeded those from the UAE). Also, the best attempts to choose different companies along the different supply chain (i.e. different roles) and/or size of companies were also considered to ensure that not just one segment of the population was being considered. As SMEs make up a majority of Companies in both the UAE and Kuwait, it was felt necessary to also engage a widest range of perspectives given the limited number who showed interest in continuing.

4.12. Reflexivity

Reflexivity is a concept that plays a critical aspect of qualitative research, particularly in the context of thematic analysis. It involves researchers' self-awareness and acknowledgment of their influence on the research process and findings. In the methodology outlined for assessing the use of SM by the owners of retail stores vs farms, etc, reflexivity plays a crucial role in enhancing the research's rigor and credibility by constantly being a reminder of bias, among other issues that can take away from analysis.

4.12.1. Definition of Reflexivity

In the context of research, reflexivity refers to the ongoing process of self-examination and self-awareness by researchers regarding their roles, biases, values, and assumptions during the research process (Finlay & Gough, 2008). This concept not only recognizes but also takes steps to account for the fact that researchers are not neutral observers but active participants in shaping the research outcomes (Gibson & Brown, 2009).

4.12.2. Application of Reflexivity in Thematic Analysis

In the thematic analysis of qualitative data, reflexivity may be applied in several ways:

1) Positionality (Braun and Clarke, 2019; Gibson & Brown, 2009): While analysing data and coding, researchers should be aware of their own (personal) positions, backgrounds, and experiences, which may influence their interpretations of the data. In the case of the Kuwait tourism study, researchers should consider their own cultural backgrounds and prior knowledge of the region's tourism industry, as well as political or personal bias, which could affect how they perceive and interpret the interview responses. This is extremely important as, considering the political atmosphere of the last few years in Kuwait, has been anything but stable. This is blatantly true in terms of the status of so many projects that were supposed to happen that have instead stalled or potentially even been cancelled (or we have no conclusive idea as to what will happen). Further, given Kuwait's size, it is natural that every major Kuwaiti family has relatives who are involved in various spheres, both public and private, and that regardless of who has what position, past or current, the researcher takes a neutral and objective approach to the research.

2) Bias Awareness (Braun and Clarke, 2019; Gibson & Brown, 2009): Researchers should be conscious of their biases and preconceptions when developing codes and themes themselves (beyond the bias in interpreting the data itself). For example, if researchers have a particular interest in one particular form of SM or in the status of Kuwait vs. the UAE in terms of standing and competition, they should acknowledge these biases and ensure that it does not unduly influence the coding and interpretation of data related to sustainability in the 2035 Vision.

3) Reflexive Journaling (Finlay & Gough, 2008): Another technique that is used, but more generally so for analysis that will be over a substantial period of time, is to maintain a reflexive journal throughout the research process. This allows researchers to document

their thoughts, emotions, and decisions while carrying out their analysis and is helpful in tracing the evolution of interpretations and understanding how personal perspectives may impact the analysis. However, in studies such as this, where the analysis is not over such a prolonged period, a way to mitigate the bias and to keep track of decision-making is to instead keep comments (track in another colour) so that there is a 'paper trail' of how the decision-making evolved.

4.12.3. Benefits of Integrating Reflexivity

For any analysis that is ever being carried out in research, reflexivity should play a role in that it ensures that the researcher is mindful of the content and the data as opposed to what they potentially would want to see in the data itself. In terms of thematic analysis, further, reflexivity adds the following benefits:

1) Enhanced Credibility to the Research Data (Braun and Clarke, 2019; Gibson & Brown, 2009): Due to the strictly qualitative nature of the data, subjectivity and bias play a considerable role. Therefore, reflexivity contributes to the credibility of the research by demonstrating the researchers' awareness of potential biases and their efforts to minimize them.

2) Richer Interpretations are able to be achieved (Finlay & Gough, 2008): Reflexivity enables researchers to provide richer and more nuanced interpretations of the data by acknowledging their own perspectives and assumptions.

4) Methodological Transparency (Braun and Clarke, 2019; Gibson & Brown, 2009): Reflexivity enhances transparency, and therefore validity of the study by allowing readers to understand the researcher's position and the potential impact of their subjectivity on the research. By documenting the thought process and the journey of how the analysis was made, as well as by consistently 'checking' work to ensure that bias is not being entered and, instead the data and what the respondent is trying to portray is focused on.

4.12.4. Limitations of integrating Reflexivity into Thematic Analysis

In the context of the research done to assess the use of SM in the SCM of F&BS, farms and SMEs, reflexivity is seen as something vital towards maintaining the research's integrity and validity. It ensures that the researchers' subjectivity is acknowledged and controlled for, ultimately enhancing the quality of the thematic analysis. However, there are limitations, as listed below, which were taken into consideration during research and therefore the impact of them was minimised.

1) The process of integrating becomes Time-Consuming (Finlay & Gough, 2008): Reflexivity can be time-consuming, particularly when researchers need to continually document and reflect on their thoughts and biases. However, as this process of data collection and analysis was not very prolonged, plus the comments were kept instead of the journals, this limitation was minimal at best.

2) Subjectivity is not easily identified and corrected for (Gibson & Brown, 2009): There is no ideal research where complete objectivity in qualitative research is reached; this is an impossible achievement. However, efforts to minimize bias were made and a string of questions were physically placed in front of the researcher to make quick checks of how analysis was documented and analysed. The point of the data and the analysis was to understand and interpret what the people interviewed meant and were saying, not make sense of it for the researcher's benefit (i.e., so that the researcher was satisfied). Reflexivity mitigates subjectivity in research; however, it is unable to completely eliminate it.

3) Despite clear questions, answers still require interpretation which introduce interpretive Challenges (Braun and Clarke, 2019; Gibson & Brown, 2009): As with any research, especially one who subject matter is extensive and complicated at its core, researchers face challenges during interpreting their own reflexive data, as it adds an additional layer of subjectivity to the analysis. The means to mitigate this that were integrated were to be very careful in coding and have an extended number of codes so that there was little room for trying to understand vs. taking the respondent's answers at face value.

4.13. Data Saturation

Another aspect of qualitative research is that of data saturation. Data saturation is a crucial concept, especially if thematic analysis is being considered. Data saturation refers to the point during the data collection process where new information or data no longer yields additional conclusions, insights or themes, thereby indicating that the sample size is sufficient to address the research question (Guest, Bunce, & Johnson, 2006). In the context of this research, data saturation plays a significant role in determining the adequacy of the sample size and the depth of data in order to assess whether or not the data collection can be considered complete. In order to apply data saturation, results were reviewed in stages and an initial analysis was done after 100 surveys, the second review at 200 surveys, and the third and final at 300+ surveys. The research took a simplified version of the 6 step process;

1) Data Collection started with Purposive Sampling (Guest, Bunce, & Johnson, 2006)
2) Initial Data Analysis Conducted (Braun and Clarke, 2019; Gibson & Brown, 2009)
3) A Continuous Comparison and Sampling was done (Guest, Bunce, & Johnson, 2006)
4) Theoretical sampling
5) Finding Data Saturation Point (Guest, Bunce, & Johnson, 2006), i.e., no new themes emerging
6) Ensuring Both Reflexivity Integration as well as Validation of Results (Finlay and Gough, 2008)

Additionally, in order to further validate the results (as mentioned before), corroboration from other interviews plus a literature review was undertaken.

4.13.1. Benefits of Data Saturation Point

There were several reasons why data saturation was used to determine the number of surveys required. The benefits of data saturation include that there is enhanced validity of data (Guest, Bunce, & Johnson, 2006) as it ensures the data collected is comprehensive and representative of the participants' perspectives; 2) it ensures efficient resource allocation (Braun and Clarke, 2019), the researcher was saved time by not trying to do a set number of interviews to fulfil a model requirement but rather adapt and conform to the research at hand itself; and 3) It still allows for In-Depth understanding (Guest, Bunce, & Johnson, 2006)

4.13.2. Limitations of Data Saturation Point

The limitations of this process that need to be mitigated include: 1) maintaining objectivity (Guest, Bunce, & Johnson, 2006) to ensure that the data is not biased or influenced by the researcher's own biases or opinions, and 2) managing the time-consuming nature of the process (Braun and Clarke, 2019), as the interviews were relatively long and required significant time to apply the thematic analysis.

4.14. Contingency Plan

Like any other research project, creating opportunities for a backup plan is necessary. During the first round of data collection, continuous messaging will be done in order to keep communication and reminders going so that we receive the 100 required surveys. This research, i.e., data collection, started during the summer months of 2023, which was problematic as many SME owners or decision-makers take the whole summer to travel to cooler climates, especially Europe or North America. Even though these surveys are online, people are busy with families, and due to the mass exodus, because it

is a given that there are fewer people in the country, people take that 'time off' seriously. Therefore, starting mid-September, when schools have restarted and people have established their routines,

Further, another part of the contingency process would be to extend the survey duration from September – end of October in order to ensure that there are more companies being involved. Else, another alternate route is to focus on one country instead of two (if it can be seen that one country is answering more) and then try and get the 100 samples by just increasing physical visits and reaching out to people who are known to ensure that there is a trusted pipeline of companies that are able to answer the surveys and therefore participate.

4.15. Development of Questionnaire

The design of questionnaires requires special care to ensure a reasonable response rate with reliable and valid responses since data can generally be obtained once (Collis and Hussey, 2014; Yin, 2014). In view of this, a user-friendly survey is essential to ensure a high response rate. Bryman (2015) offered some advice on the user-friendly nature of the questionnaire, e.g., developing an appealing design, maintaining a short length, offering specific instructions and a survey cover letter.

In order to comply and facilitate the decision-makers to answer the surveys, the surveys were created on the online service Jotform. This meant that the survey was available in two languages and was easily accessible to anyone who received the link and message.

Correspondingly, the researcher carefully crafted the questionnaire to collect reliable and valid analytical test results. Questionnaires consist of two kinds of questions, closed and open questions (Collis and Hussey, 2014). Closed questions are commonly used in positivistic research, as closed questions are answered from the specified list (Collis and Hussey, 2014). This study employed closed questions to make the answers simpler and faster. This questionnaire contained questions of classification (e.g., questions in the form of Likert scales) and numerical questions. All the evaluation questions were based on a five-point scale that gave participants a variety of opinions.

4.16. Research Instrument and Measurement Scale

For this study, the researcher implemented the items and measurements from prior studies in this stream of research. Considering this using the UTAUT2 model, with a total of 5 Main constructs, namely, Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions (including Competitive pressure, Perceived trend, External support), Hedonic Motivation various questions had to be carefully formulated to integrate and answer to each construct.

With regard to the survey questionnaires, a Likert scale is commonly used to measure perception and behaviours (Saunders et al., 2016). Hence, the study uses the Likert scale (Bryman, 2016) to rate the questions or collect respondents' opinions, as well as multiple choice and a few open-answer questions. To confirm validity and reliability of measures, the references for each survey question are listed in Table 7.

For the Likert Scale, a 5-point rating scale ranging from 1 = strongly disagree to 5 = strongly agree used to measure all constructs. The researcher used a 5-point rating scale because 5 points tend to give the right balance between having adequate points of discrimination without providing too many response options (Bryman, 2015). For the above constructs:

The controlled variables fulfilled three requirements:

1) The respondent represented an SME company (i.e., less than 250 employees)
2) The respondents were decision-makers (if they indicated anything different, the survey was removed)
3) The respondents' company worked either in Kuwait or the UAE, or both

For the remainder of the constructs, please find the table below with each question detailing the information

Independent Variables:

a) Performance Expectancy
b) Effort Expectancy
c) Social Influence
d) Facilitating Conditions (including Competitive pressure, Perceived trend, External support)
e) Hedonic Motivation

Table 7: Survey Question References

	Survey Question	Reference	
1	What is your age		Venkatesh et al. (2003) (2012); Nguyen et al. (2022)
2	What your personal level of experience using social media	Facilitating Conditions	Puriwat et al (2021)
3	What Social Media apps are you personally currently active on (if any)	Habit	Alhaimer (2021)
4	What is Your Highest Level of Education?	Social Influence	Adirinekso et al. (2020)
5	Do you personally enjoy social media	Hedonic Motivation	Mishra et al. (2022)
6	How often during a typical day do you spend on social media for yourself	Hedonic Motivation	Alhaimer (2021) Salloum et al. (2018)
7	Where is your Company located	Moderator	
8	How Many Full-time Employees Currently Work for Your Organization?		Salimon et al. (2021)
9	What is your Company's role in the food and beverage industry supply chain?		Salimon et al. (2021)
10	How long has your Company been in this role?		Salimon et al. (2021)
11	What is your role in the Company	Facilitating Conditions	Umami and Irawan (2020)
11.1	how influential is your input in overall decision for the Company?	Facilitating Conditions	Mohammad and Ahmed (2023)
11.2	Are you involved with business strategy and decision-making for the Company?	Facilitating Conditions	Umami and Irawan (2020)
12	How often do you use social media for your business operations?	Hedonic Motivation	Mohammad and Ahmed (2023)
13	What social media platforms do you use for your business operations?		Alhaimer, 2020
14	How useful do you find social media in enhancing your business performance?	Hedonic Motivation	Venkatesh et al. (2012);
15	How easy is it to use social media for your business operations?	Effort Expectancy	Nguyen et al. (2022) Salloum et al. (2018)
16	How often do you receive external support for your social media activities?	Effort Expectancy	Puriwat and Tripopsakul (2021) Venkatesh et al. (2014)
17	How much do you think your competitors are using social media in their business operations?	Social Influence	Alhaimer, 2021 Salloum et al. (2018)
18	How much do you think social media usage is a trend in the food and beverage industry supply chain?	Social Influence	Alhaimer, 2021 Salloum et al. (2018)
19	How much does the location of your business influence your social media usage?	Social Influence	Alhaimer, 2021 Salloum et al. (2018)
20	How important is it for your business to keep up with technological advancements?	Social Influence	Alhaimer, 2021 Salloum et al. (2018)

21	How does the use of social media align with your business goals?		Alhaimer, 2021 Salloum et al. (2018)
22	How important is social media in benefiting your company to market new products	Performance Expectancy	Alhaimer, 2021 Salloum et al. (2018)
23	How important is social media in benefiting your company to connect clients towards building community	Social Influence	Alhaimer, 2021 Salloum et al. (2018)
24	How important is social media in benefiting your company in attracting new customers	Performance Expectancy	Alhaimer, 2021 Salloum et al. (2018)
25	How important is social media in benefiting your company in allowing communication along the Supply chain to identify efficiencies	Performance Expectancy	Alhaimer, 2021 Salloum et al. (2018)
26	How important is social media in benefiting your company in building brand identity	Performance Expectancy	Alhaimer, 2021 Salloum et al. (2018)
27	How do you believe that integrating social media will make you profitable	Behavioural Intention	Alhaimer, 2021 Salloum et al. (2018)
28	How do you believe that integrating social media will help in achieving business goals	Sustained Usage	Alhaimer, 2021 Salloum et al. (2018)
29	How do you believe that integrating social media will improve the quality of understanding the market	Behavioural Intention	Alhaimer, 2021 Salloum et al. (2018)
30	How do you believe that integrating social media will make you more efficient	Sustained Usage	Alhaimer, 2021 Salloum et al. (2018)

4.17. Measurement for Social Media Use

Social *media use* was self-assessed by each decision-maker of F&B SMEs. Acknowledging that respondents will have varied approaches to social media, thus they should be allowed to respond relative to their own self-interpreted use of social media. Respondents were told to consider the use of social media as their utilization of commonly available social media platforms (e.g., Facebook, Twitter, LinkedIn, YouTube).

4.18. Pilot Testing

A pilot case study would have helped the researcher to review and refine the data collection methods and plans in terms of the data quality and the procedure to be followed for data collection (Yin, 2014). The pilot test would help create a more formal *means* to develop relevant questions. However, this research somewhat applies a 'psuedo' pilot test by first executing a mass survey and then coming back to interview ten enterprises in total to better understand motivations and behaviour. This way, as there is not enough time, the research will still be able to catch any 'flaws' that at first were overseen and still result in a reliable data set.

4.19. Data Analysis

4.19.1. Data Coding

Data coding refers to the conversion of some texts from the survey into numbers. This method allows researchers to translate answers to report them. The researcher used Microsoft Excel to translate all data from words to numbers and created a label for dummy variables. Further, AMOS Software was used.

4.19.2. Structural Equation Modelling (PLS-SEM)

Structural equation modelling (SEM) is a sophisticated multivariate technique that interprets complex multivariate patterns and is widely used across educational, social, behavioural, organizational, and communication studies (Hair et al., 2021). SEM comes in two forms: covariance-based SEM (CB-SEM), which is considered causal, and partial least squares SEM (PLS-SEM), which is considered composite or approximate (Purwanto, 2021). For this analysis, PLS-SEM was required.

Composite indicators view measurement as an approximation of a certain theoretical concept, which is more realistic for social sciences (Hair, 2017). Thus, PLS-SEM combines a number of presumptions that were previously separately tested within a single comprehensive model, allowing marketing researchers to analyse the causal relations among a number of market variables of interest (Hair et al., 2021). SEM is based on a combination of factor analysis and multiple regression. It is used for testing complex linear and non-linear patterns, as well as testing theoretical statements by determining whether assumptions underlying a particular model were confirmed or disconfirmed.

PLS-SEM is particularly useful in estimating the path relations in a construct-based model (CBM). A path is the directional positive or negative path between constructs in a conceptual model (Hair, 2017). In the model used in this research, the emphasis is on examining the relationship between constructs in a CBM, as well as testing the reliability and validity of these relationships (Hair, 2017). The steps for analysing a CBM using PLS-SEM in IBM SPSS AMOS predominantly include an exploratory factor analysis (EFA) analysis, then a confirmatory factor analysis (CFA) analysis, and finally, the SEM analysis assessing the measurement model, assessing the structural model as well as the most important part, which is the interpretability of the CBM paths (Hanafiah, 2020).

4.19.3. Using AMOS: Step 1 – Data Modification and Cleaning

The survey provided a data set with constructs intended to be analysed. Each indicator is from one specific question that is asked and needs to be analysed using some margin of error. The data has

to be modified and 'cleaned' further in order for the analysis to produce the right results. Unfortunately, this also requires some editing (Saidu et al., 2023)

In AMOS, the analysis won't run if missing numbers/data are present. Also, '0' is not valid as an input. So, all missing data had to be handled. For any analysis, the parameter scale must aim to maximize the likelihood estimate, and thus, the missing context must not bring empty items – i.e., the scale cannot be 0 to a positive number; it must start from 1. In actual application, what was applied was that for any data that was 'missing', a similar row of information was found (whose answers generally were found to be similar to the row in question), and then the missing data was inputted as per what the complete data indicated (Sharif and Nia, 2018). This is because the measurement errors must be verified, and the appropriate suggestions must be made to increase the reliability of the estimates of the scale score of the research (Schreiber, 2021).

Data cleaning is also an essential part of the analysis process. Steps that were followed to clean the data include (Saidu et al., 2023; Sharif and Nia, 2018).

1) Ensuring that the scale of each question was similar. This was a big lesson that had to be learned from later as the research originally had different scales (this is because of no experience using AMOS beforehand). For encoding the data, initially, the scale for every question was not the same; however, it was for a majority of the indicators. This then started a long journey where the learning curve was felt, in that many hours of combing the internet and Researchgate, as well as Youtube videos, started to see how to improve the data. The realization that similar scale then made things far more easier.
2) Then, every indicator was appropriately skewed to fit the scale that was being used with the majority (unless data was a moderator, which was handled more simply).
3) This encoding of the data ensured no '0' inputs.
4) Then, each and every column of data was double-checked to see if there were any '0' still left.
5) Each column had its maximum and minimum input (for the column as a whole) calculated, as well as the mean and the standard deviation (all formulas in Excel). This data helped show how to handle it later on in AMOS and why some indicators had to be dropped as they were not either scaled the exact same (i.e., some were based out of 5 whereas another indicator had only three option) and how they were not necessarily 'leaning' the same. This is important for doing the CFA analysis and when computing the Cronbach Alpha values (the factor loadings).

The indicators that were calculated in Excel (mean, standard deviation, variance, range, etc.) are still necessary for descriptive analysis when using IBM SPSS, as this fundamental data, frequency information, and distribution test information explain the strength and distribution pattern of each effect.

4.19.4. EFA Analysis

Pairwise deletion of missing data was performed since the sample data were not completely available for running the Missing Values node. Each EFA item variable measurement was based on a 5-point Likert scale, ranging from strongly disagree to strongly agree. The factor extraction techniques for each EFA item used principal component extraction and factor rotation with maximum likelihood, both with simple structure and Varimax performed.

Data analysis for EFA using the AMOS Method and Preliminary Analysis at Composite Reliability, AVE, and Chronbach's Alpha Subscale Calculation is the first step of EFA. The analysis of the research data using IBM SPSS AMOS for mean, standard deviation, and skewness-kurtosis of the normality test. All potential indicators underwent EFA for the exploratory phase of Primary Data analysis using SPSS. This was done as a basis for structural equation modelling to establish how data values cluster together. This was done three times, and finally, a return to the original six factors (not 7, 5, or 4) was chosen.

4.19.4.1. Kaiser-Meyer-Olkin (KMO) Measure

Before starting SPSS Amos, various tutorials and online sites were viewed to ascertain how to best proceed. Preliminary tests, including the KMO and Bartlett's Test for Factor Analysis were prescribed. SPSS Amos requires to have the results of these tests for its use in PLS SEM, especially the results from KMO test. All the results of these tests met the criteria required to use SPSS Amos in PLS SEM and their analysis shall be found in Chapter 5, Data Analysis. The KMO is specifically conducted to examine the strength of the partial correlation (i.e., how the factors explain each other) between variables. Values closer to 1.0 are recommended, while those less than 0.5 are unacceptable. Recently, however, more scholars have argued that a KMO of at least 0.80 would be considered good enough for factor analysis to commence (Analysis Inn, 2024).

4.19.4.2. Bartlett’s Test of Sphericity

Bartlett's test of sphericity tests the null hypothesis and that the correlation matrix is an identity matrix. Rejecting the null hypothesis in this case is a good thing, as it confirms that the variables are indeed correlated, for which we are able to do a factor analysis later. Again, rejecting the null hypothesis

is a desirable outcome (a good thing) within this context as it allows the researcher to proceed with the planned SEM factor analysis.

An identity correlation matrix reveals that the variables are unrelated and, therefore, not ideal for factor analysis. A significant statistical test (usually less than 0.05) reveals that the correlation matrix is indeed not an identity matrix (rejection of the null hypothesis). This low probability value (less than 0.05) is expected, assuming that residual correlations are not too large and that computer precision isn't a problem (Sharif and Nia, 2018).

For Bartlett's test of sphericity, if the sample size is too large, the test will likely find trivial restrictions of the correlation matrix to be significant. This might be a problem in this case as the sample size is well over 300. The recommended minimum sample size is five times the number of items. There are many ways in which such tests may be applied. For example, for an ordinal level of measurement, unweighted least squares estimation, or if the residuals are not normally distributed and/or produce large chi-squared statistic values after estimation with maximum likelihood can also be used.

4.19.4.3. Principal Extraction Analysis

Extraction of factors is done for the following two reasons:

1) Finding data that explains the maximum variance of a variable and achieving data reduction.
2) To analyse the relationship among variables by understanding their structure and to represent objects. Thus, a more restricted view of factor analysis is required.

In this study, when the various theoretical dimensions developed for the measurement of the research model were submitted to principal component analysis, a number of factors were calculated, and their variance was determined. Chapter 5, Data Analysis, presents these results.

4.19.5. CFA Analysis

The next step is the CFA analysis, which is used to assess the relationships between observed and latent variables. Observed, i.e., indicator variables, are drawn directly from the questions in the data set. CFA is then used to establish the measurement model and to check for reliability and validity.

If the measurement model is valid, the validity and reliability of the measurement model are determined and compared with acceptable values. The measurement model is considered valid if the following conditions are met.

1) Convergent validity is established.
2) The discriminant validity is established and lastly
3) The indicators that are used to measure the latent variables have high loadings, composite reliability, and Cronbach's alpha, and they also satisfy the average variance extracted for the latent variables.

A measurement model to generate a latent construct is built in AMOS. Convergent validity is important as it involves checking if all items load significantly on their respective latent variables. Convergent validity is established if all individual items of the same construct have high loadings on the same construct, i.e., 'lean' the same way. Once done, one can then confirm that the various indicators are indeed appropriate for the respective latent variable.

If the items reflect a specific construct, then there is high convergent validity and the factor loading is high. In AMOS, these loadings are seen both in standardized and unstandardized values. Standardized values that have a minimum value of 0 to a maximum value of 1 need to meet a certain threshold (depending on which source you reference). These Cronbach alpha values provide a suitability measurement of that item. These indicators then elucidate whether or not the model as a whole is reliable, efficient, and aesthetically appealing. By modifying these indicators and adding covariances, one can make the model even more so as a whole.

4.19.5.1. CFA Step 1: Plotting Latent Variables with Indicators

Latent variables are variables that we cannot measure directly, so accessible indicator variables are used to measure them. Latent variables can also be both independent and/or dependent variables. In this study, there are multiple latent variables, including but not limited to Facilitating Conditions, Effort Expectancy, Social Influence, etc.

In AMOS, models of latent variables with their indicator variables (and then their error terms) are created. All latent variables and endogenous variables are drawn with their respective indicators. In social science, the theory is what models are built upon and then tested. Sometimes, both theories and models need editing. Exploratory factor analysis (EFA) is, in essence, the beginning of creating a construct. AMOS allows the researcher to build a latent variable model that provides a better measure than the classical framework, the *latent variables framework*. AMOS is thus more than just a mathematical analysis tool as it has graphical tool capabilities and therefore this augments the way it can be used and exploited to best frame and test the data.

4.19.5.2. CFA Step 2: Covariances between Latent Variables

The focus is on the relationships between the indicators (measured or observed variables) and their respective latent variables that need to be measured, starting with the weights and the factor loadings of each dimension (Cronbach alpha values). These relationships (known as the path model) are shown as arrows that are directed from the measured variable to the latent variable. This is because each indicator yields its own respective latent variable.

Next, each latent variable is compared with every other latent variable. In the Confirmatory Factor Analysis (CFA), no specific paths are indicated; rather, all latent variables are covaried, and the analysis is conducted accordingly. The report generated from this analysis is then reviewed before proceeding to the next step.

4.19.5.3. Acceptable Cronbach Alpha/Factor Loading Values

Cronbach Alpha/Loading factors allow one to check for the reliability of the model. *Reliability,* in this case, measures the accuracy or scale of the instrument (Sharif and Nia, 2018). Reliability has two types: internal consistency and consistency over time (Kumar, 2024). Internal consistency checks for any correlation between measurement items, whereas consistency is based on whether the set of items measures an unobservable concept (*ibid*). Here, Cronbach's alpha analysis is used, thus, factor loadings are studied in a standardized form. Cronbach's alpha needs to be oriented positively, and randomizing the scoring results in an alpha value of random (Kumar, 2024). In standardized form, Cronbach's alpha can range between a minimum of 0 and a maximum of 1. The bare minimum is 0.4 to show consistency, whereas others would recommend a minimum of 0.5 – 0.6 for exploratory studies (Sharif and Nia, 2018).

In general, a Cronbach's alpha value of 0.70 or higher is considered good if the items are related to different constructs. On the other hand, if a Cronbach's alpha value is too high, it indicates that some indicators are duplicates, leading to non-usable data (Hair et al., 2017). This is the first step in determining the Model of Fitness

4.19.5.4. Indices in CFA Analysis

Other indices are also used to evaluate overall model fitness for both reflective and formative measurement models. These models indicate the levels of adjustment needed. There are numerous indicators that AMOS automatically analyses, including $\chi 2$, the $\chi 2$/Sample Size, the Goodness of Fit Index GFI, the Adjusted Goodness of Fit Index AGFI, the Root Mean Square Residual RMSR, the

Standardized Root Mean Square Residual SRMSR, the Parsimonious Normed Fit Index PNFI, and the Bayesian Information Criteria BIC. The results are presented in Table 8.

Table 8: Model Fit Indices Recommended Values (Sharif and Nia, 2018)

Fit Indices	Authors/reference	Recommended Values
$\chi 2$	Meyers et al., 2005	P-Value > 0.05
CMIN/DF	Hair et al., 2013	< 3.0 Good; < 5.0 May be permissible
GFI	Chau, 1997	> 0.90
RFI	Meyers et al., 2005	> 0.90
IFI	Meyers et al., 2005	> 0.90
NFI	Bentler & Bonett, 1980	> 0.90
CFI	Hatcher, 1994	> 0.90
RMSEA	Meyers et al., 2005	< .08 Good fit
RMSR	Meyers et al., 2005	< .05

4.19.6. Changes based on Modification Indices (MIs)

In many cases, the initial model may not fit the data well. If so, researchers may need to respecify the model based on theoretical justifications and empirical evidence. AMOS provides modification indices (MI), which suggest potential improvements. Only certain justification within the same latent variable is recommended, despite the various potential covariances that are suggested by AMOS between different error terms across latent variables and even connecting error terms to the latent variables themselves.

As per Bollen (1989) and Byrne (2010), a few things to remember when using modification indicators (MIs) are:

1) To keep MIs local.
2) To ensure that error covariances are not kept across latent variables as this is theoretically problematic.
3) Modification should only be cautiously and in conjunction with strong theory and model parsimony.

Overfitting is also problematic and can occur if too many parameters are added, and the model may not generalize well to new data. Furthermore, MIs are not directly interpretable and require careful

consideration of the theoretical basis for any modifications and the potential impact on other parameter estimates.

4.19.7. Structural Equation Modelling (SEM) Analysis

SEM, as mentioned before, is a comprehensive statistical technique that combines multiple regression equations in order to evaluate complex relationships among both observed and latent variables. This expands the capabilities of CFA, testing structural relationships between latent variables.

After the CFA, the already defined latent variables and their indicators are mapped out with paths drawn between them. These paths represent the hypothesized relationships between the latent variables that are to be tested. They indicate causal relationships and are therefore the focus of hypothesis testing in SEM (Sharif and Nia, 2018). Next, model parameters are estimated using a chosen method, such as maximum likelihood estimation (MLE), to provide the best fit of the model to the observed data.

Given a model that is appropriate (after CFA has deemed it so), the hypotheses are then tested by examining the significance of the path coefficients. Each path coefficient has an associated critical ratio and *p-value*, which indicates whether the relationship between the variables is statistically significant. Typically, a p-value less than 0.05 indicates that the relationship is significant. The decision to accept or reject a hypothesis is based on the significance of the path coefficients. If the p-value for a path coefficient is less than 0.05, the hypothesis is accepted, indicating a significant relationship between the variables. If the p-value is greater than 0.05, the hypothesis is rejected, indicating that the relationship is not significant.

4.20. Ethical Consideration

Ethical concerns are related to the basic standards and principles on which the code of ethics is based (Collis and Hussey, 2014). Ethical issues have a significant impact on research with human subjects. Ethical concerns such as avoidance of injury, voluntary involvement, confidentiality, and privacy are to be addressed by the researchers (Collis and Hussey, 2014). In all phases of research, this study followed all ethical requirements.

Before data collection commenced, the necessary ethical approvals were sought. The approval letter is provided in Appendix 5. All respondents were informed of the purpose of the study and the need for their participation. Participation was voluntary, and participants were free to withdraw during the

survey at any time. However, if the participants did not wish to participate or change their minds, they could quit the survey at any time. The researcher also ensured that the participants were confidential and anonymous. The code of conduct for this study was led by the Brunel University Ethics Committee. The requirements for this Committee include the submission to the academic programme office of a research ethics document containing the signatures of both students and supervisors.

4.21. Chapter Summary

This PhD Thesis explores the use and impact of social media in supply chain operations in the food and beverage industry in Kuwait and the UAE. This chapter presents a mixed-methodology approach, incorporating both quantitative and qualitative data analysis techniques. The study uses an adapted UTAUT 2 model to explore the factors that influence the adoption and usage of social media in the supply chain. The study also moderates the results when comparing the UAE to Kuwait. The variables being tested are performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, and habit.

The study includes a sample size of 300+ respondents, each from Kuwait and the UAE, distributed among the different players along the supply chain, including producers, wholesalers, importers, food retailers, and cafes. The data collected from the respondents will be analysed using the Partial Least Squares Structural Equation Modelling (PLS-SEM) technique, as well as an interview of 5 SME owners or managers that will provide the data with which to conduct thematic analysis. This approach allows for the exploration of complex relationships between variables and provides insights into the causal relationships between them.

5. CHAPTER FIVE: Analysis

5.1. Introduction

Table 9: Interviewee Summary and Description

Id	Location	Size of Company (Employees)	Job	Company Type	Description
1	Kuwait	1 – 5	Owner and main chef	Café/Restaurant	Specialty Food, Food Truck (Napolitan Style Pizza) – also does Pizza Cooking Lessons
2	Kuwait (Also in UAE, Bahrain, KSA). Each branch is franchised and run independently With assurances of keeping on brand		Kuwaiti Owner	Café/Restaurant + Marketplace	Award-winning food shop and restaurant with multiple locations in the U.A.E., Kuwait, Bahrain and Saudi Arabia. • Known for their commitment to using organic and locally-sourced ingredients in their freshly prepared dishes • The company offers a range of baked goods, salads, sandwiches, and other food items.
3	Kuwait	100 - 250	Kuwaiti Owner and CEO – main manager	Producer + Restaurant + Marketplace + Wholesaler	Farm for organic products • Renowned for their organic produce • Are also involved with a variety of collaborations between other chefs and speciality products for cross marketing • Supply various niche restaurants and cafes with smoothies and juices • Have supper clubs and pop up food regularly • During the winter, organize weekend family picking sessions with food and marketplace after
4	UAE (also in KSA, Qatar, and now recently Kuwait) Owned by two ladies who are running their own branches throughout the region	100 – 250	Country Manager of UAE	Café/Restaurant	A trendy burger restaurant that focuses on gourmet burgers and sides. Very cool aesthetic that quickly has become popular with people of every strata
5	UAE (also in KSA)		Country Manager of UAE	Café/ Restaurant + Marketplace	An Italian focused breakfast, lunch and dinner concept (with multiple locations across both countries) that offers higher end food based off of core Italian food and fusion with local favourites and culture

The Data and Analysis chapter of this thesis aims to provide a comprehensive understanding of the use and impact of social media in the food and beverage industry's supply chain operations in Kuwait and the UAE. The findings of this study will contribute to the development of new strategies for implementing social media in the supply chain and will be of significant interest to researchers and practitioners in the field of supply chain management. The summary of the interviews is presented in Table 9.

As seen in Chapter 4, this research uses an adapted UTAUT 2 model to explore the factors that influence the adoption and usage of social media in the supply chain. The constants in the study include the organizational factors (SME), firm location, and the fact that the respondent is a decision-maker. The variables being tested are performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation.

The study includes a sample size of over 300 respondents, each from Kuwait and the UAE, distributed among the different players along the supply chain, including producers, wholesalers, food retailers, and cafes. The data collected from the respondents will be analysed using the Partial Least Squares Structural Equation Modelling (PLS-SEM) technique. This approach allows for the exploration of complex relationships between variables and provides insights into the causal relationships between them.

5.2. Qualitative Data

5.2.1. Interviews Methodology

Based on the initial survey and the findings and answers provided in the survey, five people who indicated they would be interested in taking part in the second interview were contacted. They were then emailed or directly phoned to explain the purpose of the interviews and a brief introduction to the possibilities of social media integration in the F&B supply chain. They were then emailed a brief introduction further explaining potential SM integration into SCM with benefits and companies who are engaged in such technology worldwide. They were then given an interview with 13 set questions that they could then answer. All five interviewees were also encouraged to look into the various examples provided and see, through the links provided, in order to do their own research and get a better idea. The reason for this is that currently, there is almost no SM integration into the supply chain within the F&B industry in the region; despite the potential and considering the high penetration of smartphones (the highest in the world), the region poses the best situation for such innovative integration to take place.

The pamphlet also provided details about what goes into such integration so as not to just bias the results. The aim of this information was to then allow for informed answers instead of general confused assumptions of people towards the realities of how and what such integration would entail.

The answers were then copied and pasted into Microsoft Excel, and the main ideas were placed in boxes next to the answers. These main ideas, many of which were repeated in different interviews as well as within the same interview in different questions, were tabulated into Excel. For more details, please see the next section. For the analysis of this data, please find a detailed discussion in Chapter XI. Data Analysis.

5.2.2. Latent Analysis

In order to find proper meaning from the data examined, a choice between Semantic or Latent analysis had to be made. Latent analysis, as per Braun and Clarke (2013, 2020), is a "systematic method for identifying patterns and themes within qualitative data." Due to the context of this research on the integration of SM into the F&B SCM, latent analysis played a crucial role in analyzing the responses obtained from semi-structured interviews conducted with F&B owners or managers in Kuwait and the UAE.

As mentioned above, the responses from the interviews were meticulously reviewed and entered into an Excel spreadsheet for systematic analysis. Each response was coded based on the content of the answer, capturing key concepts, ideas, and recurring themes. The coding process here involved assigning descriptive labels to segments of text that encapsulated the essence of the content. In some cases, these phrases were exact word for word matches; in others, some inherent reason was also attached (which was generally implied in the answer itself). These codes were then organized into a codebook, which served as a reference guide for the analysis.

Once all responses were coded, then the researcher moved to identify overarching themes which emerged from the coded data. These themes were identified through pattern recognition, wherein similar codes were grouped together based on meaning or intent. This was a fairly iterative process.

As latent analysis techniques were being applied, a deeper look and analysis were taken towards the underlying meanings and interpretations found within the coded data. By exploring the connections between codes and themes, then coherent narratives were able to be written which elaborated on the perspectives, experiences, and challenges faced by F&B owners and managers regarding SM integration in their supply chains and their approach to using such technology where the

populace is highly sophisticated and with the highest smartphone penetration, yet no such integration has taken place previously.

Through this iterative process of coding, theme identification, and interpretation, latent analysis was able to provide a stronger, more grounded framework for understanding the qualitative data collected during the interviews. The insights taken from this analysis not only complemented the quantitative findings but also enriched the understanding of the complexities surrounding SM integration in the F&B supply chain within the GCC, thereby contributing to the depth and richness of this research as a whole.

5.2.3. Results and Mind Maps of Categories/Themes from Qualitative Analysis

The results and mind maps of themes from qualitative analysis are presented in Figures 23 – 32.

Category 1: Positive Impact

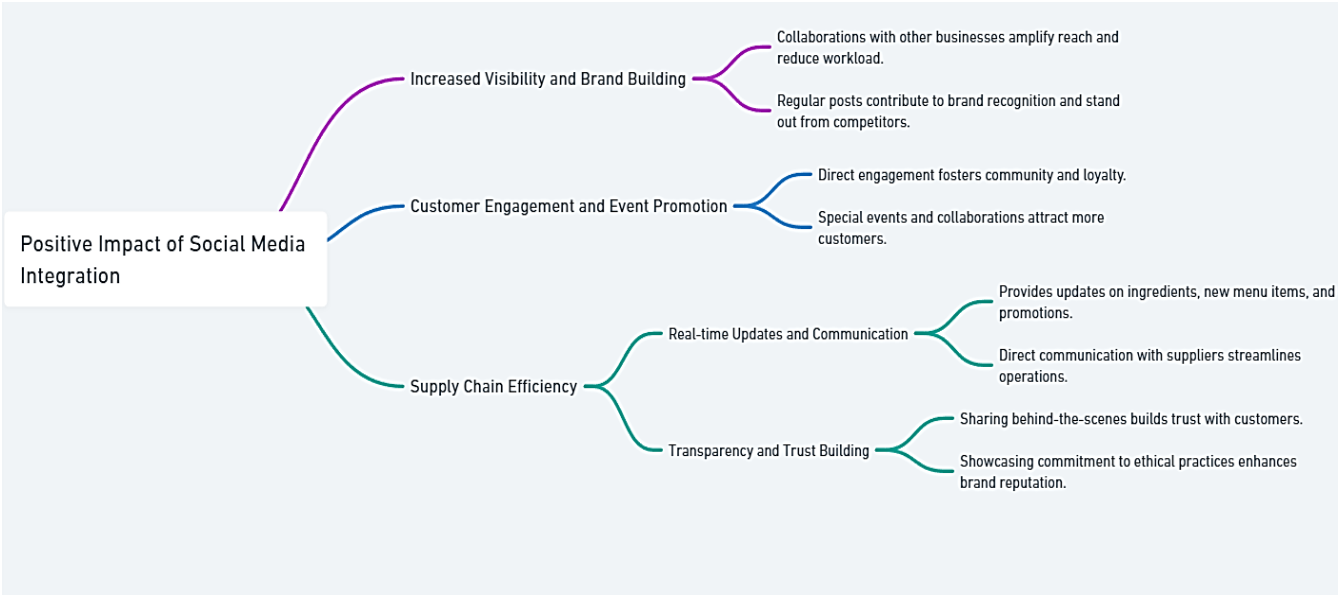

Figure 23: Thematic Results Mind Map 1: Positive Impact of SM Integration

Category 2: Potential Obstacles

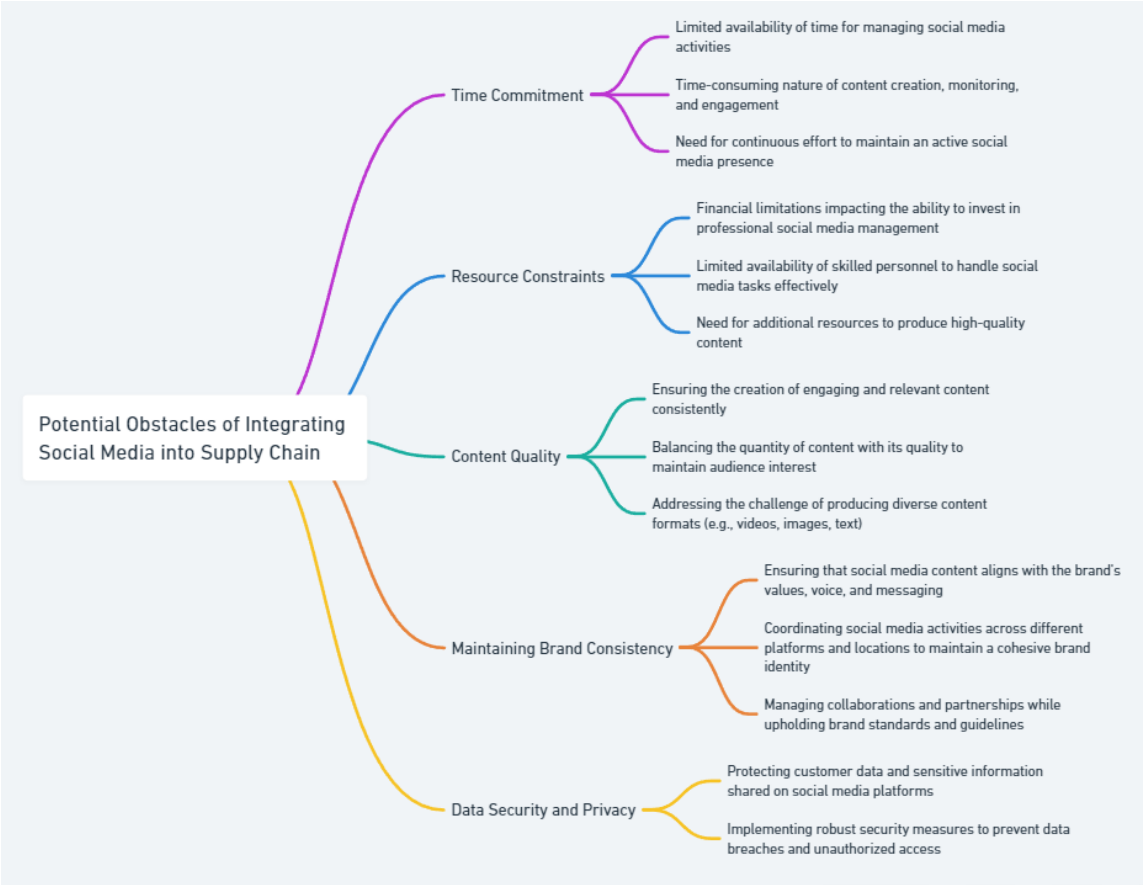

Figure 24: Thematic Results Mind Map 2: Potential Obstacles

Category 3: Transparency

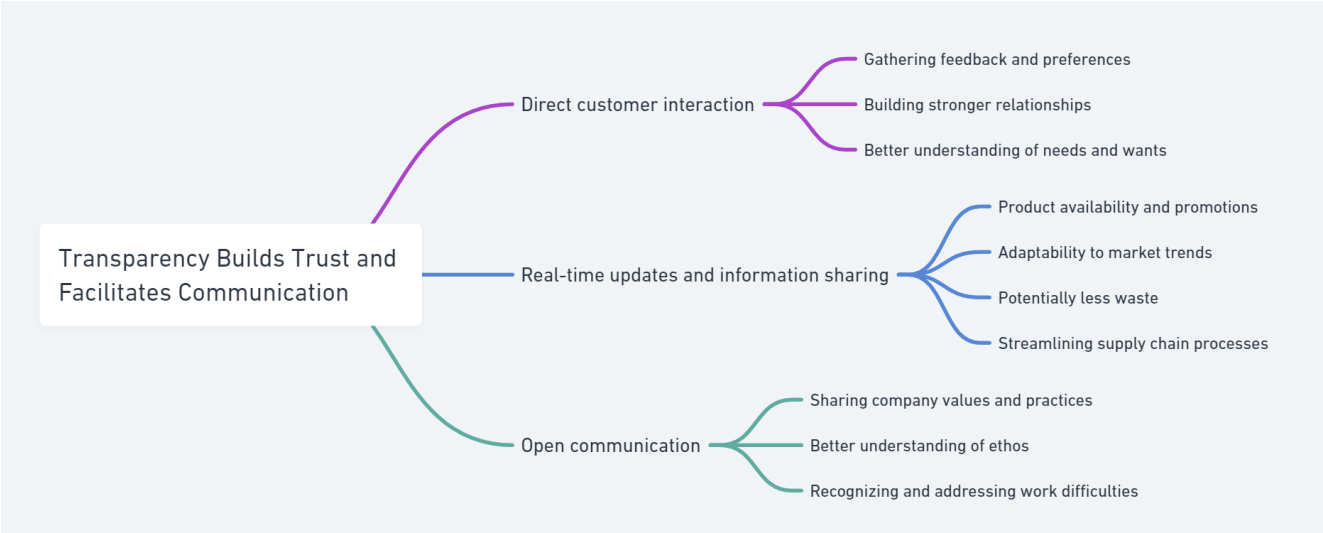

Figure 25: Thematic Results Mind Map 3: Transparency

Category 4: Brand Building and Increased Visibility

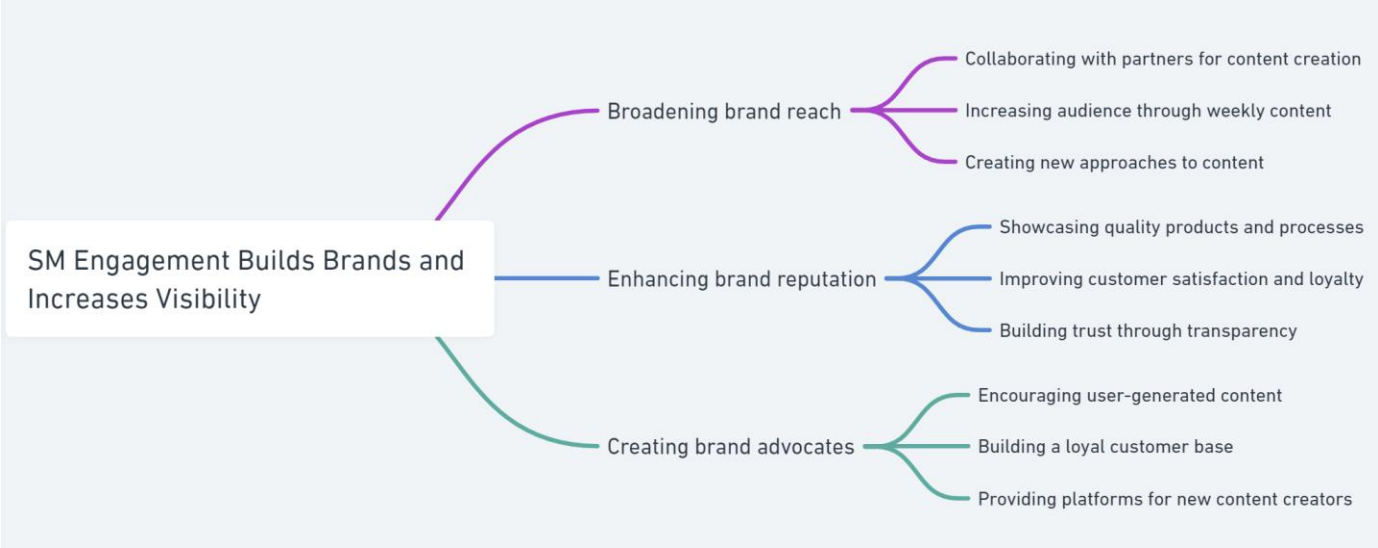

Figure 26: Thematic Results Mind Map 4: Brand Building

Category 5: Learning Curve

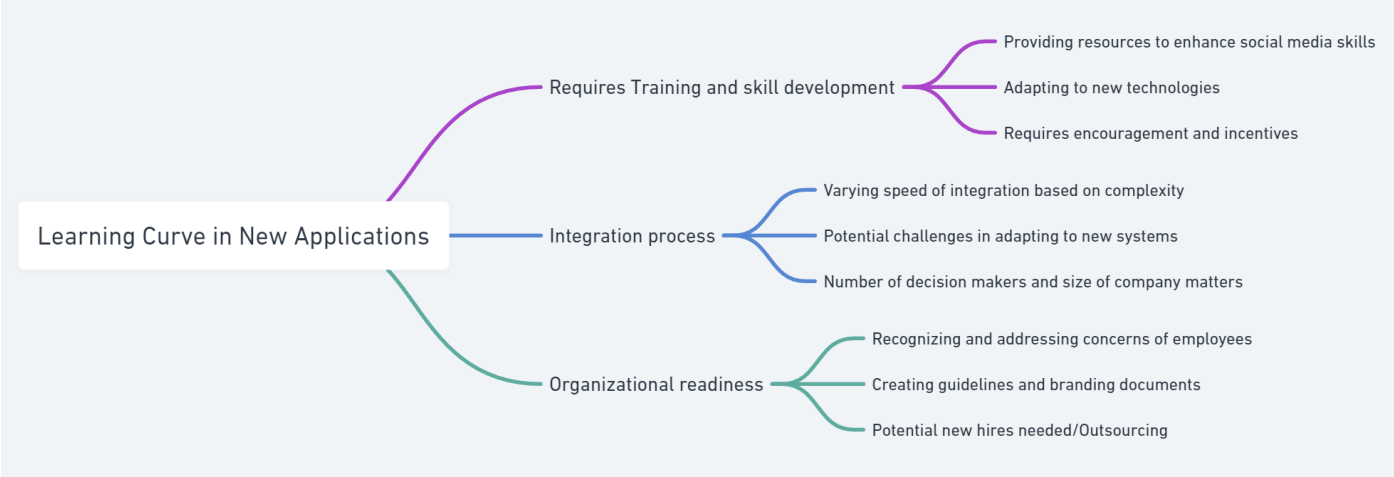

Figure 27: Thematic Results Mind Map 5: Learning Curve

Category 6: GCC is the prime Location for SM Innovation

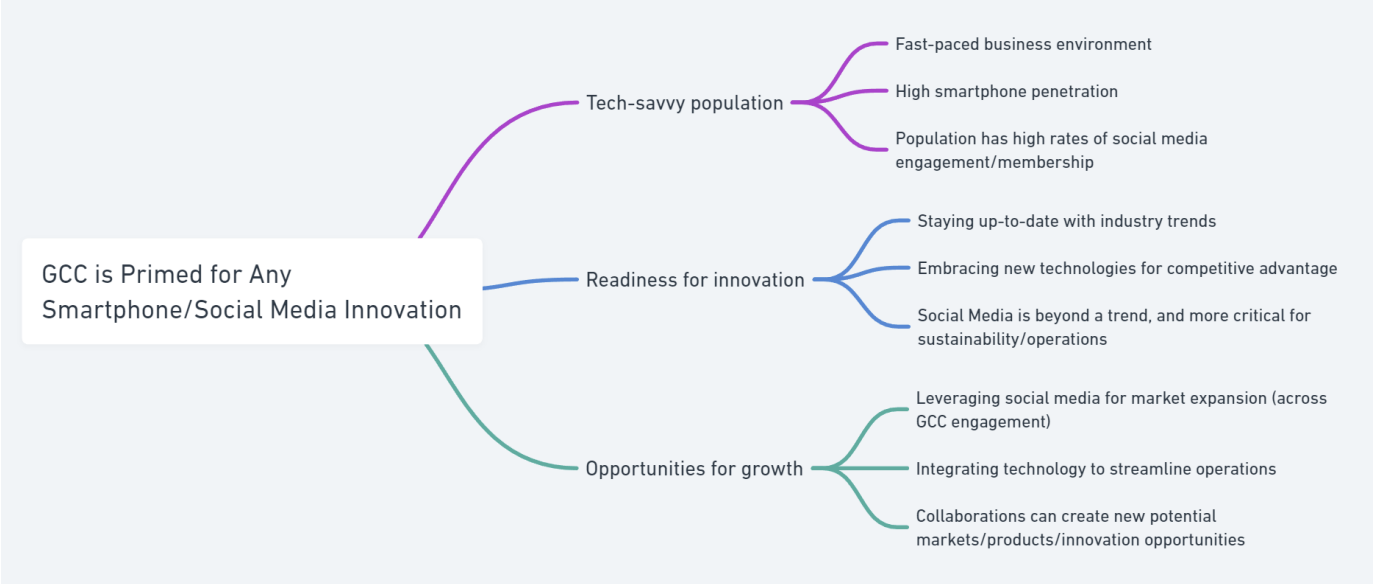

Figure 28: Thematic Results Mind Map 6: GCC is a prime location for SM innovation

Category 7: Collaboration Potential

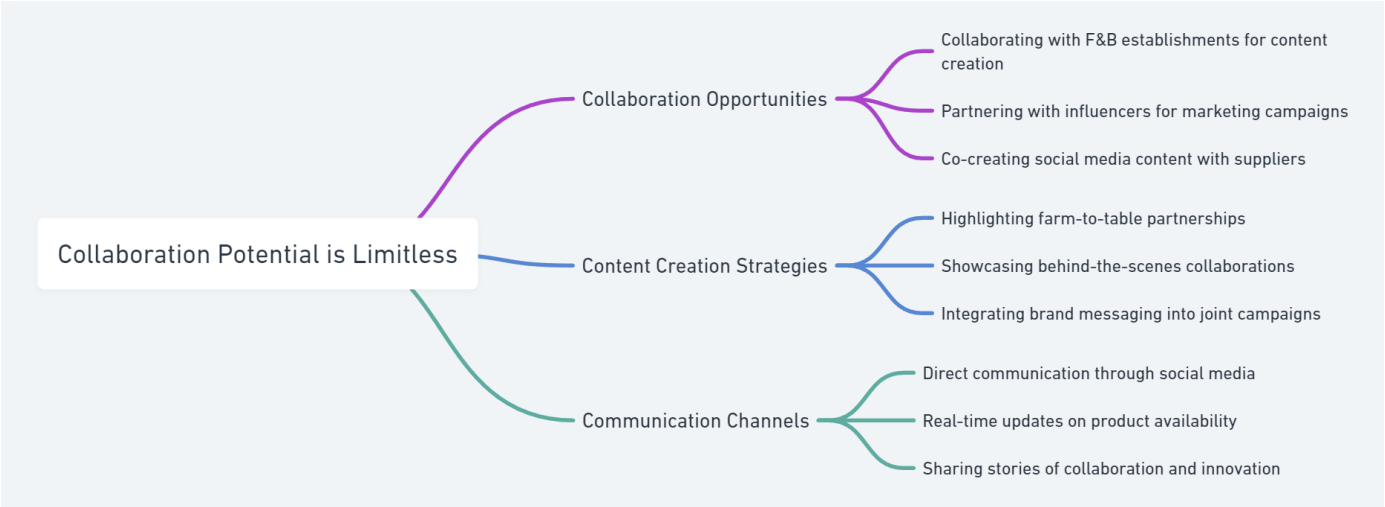

Figure 29: Thematic Results Mind Map 7: Collaboration Potential

Category 8: Customer Feedback Integration

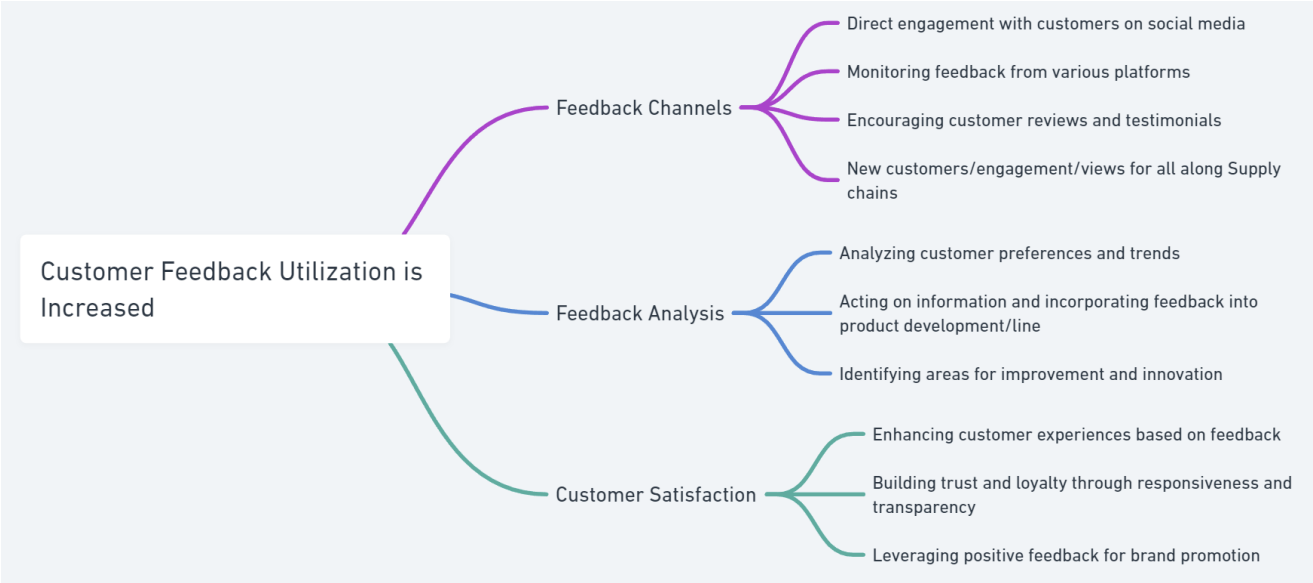

Figure 30: Thematic Results Mind Map 8: Customer Feedback Integration

Category 9: Employee Opportunities

Figure 31: Thematic Results Mind Map 9: Employee Opportunities

Category 10: Social Media Is Integral to the Current Trend and Future

Figure 32: Thematic Results Mind Map 10: SM is integral

5.3. Quantitative Analysis

General Analysis, using the size of the company and location as the control variable, will be used to compare and analyse information.

5.3.1. EFA Analysis

The data was subjected to a Factor Analysis to understand the underlying structure. The suitability of the data for factor analysis was assessed prior to the analysis. The Kaiser-Meyer-Olkin (KMO) measure verified the sampling adequacy for the analysis, KMO = 0.735 (Kaiser, 1974), which is above the commonly recommended value of 0.6 (Hutcheson & Sofroniou, 1999). Bartlett's test of sphericity (Bartlett, 1954) indicated that correlations between items were sufficiently large for PCA (Approx. Chi-Square = 2535.670, df = 276, Sig. = .0001).

The initial eigenvalues showed that six components explained 55.816% of the variance. This was further supported by the scree plot, which also suggested a six-component solution (Cattell, 1966). Given the convergence of the scree plot and eigenvalues greater than one criterion, it was decided to retain six components for further investigation.

The Rotated Component Matrix revealed the nature of the relationship between the variables and the identified components. For instance, the variable BI1 had a high positive loading on Component 1 (0.861), indicating a strong positive correlation with that component. The Component Transformation Matrix, which provides the component score coefficient matrix, can be used to create factor scores (DiStefano et al., 2009). The extraction method used was Principal Component Analysis (Jolliffe, 2002), and the rotation method was Varimax with Kaiser Normalization (Kaiser, 1958). The rotation converged in 7 iterations. The results are presented in Table 10. Detailed results are provided in Appendix 3.

Table 10: KMO and Bartletts Test of Sphericity

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.735
Bartlett's Test of Sphericity	Approx. Chi-Square	2535.670
	Df	276
	Sig.	.000

In order to get a better analysis, the EFA was done multiple times – changing it from 6 to 5 to 4 factors. Though in each case, the model fit (CFA) was adequate, the SEM analysis for each was not very favourable. Therefore, in the end, it was decided to present the first analysis regardless of the six factors. The results are presented in Figure 33.

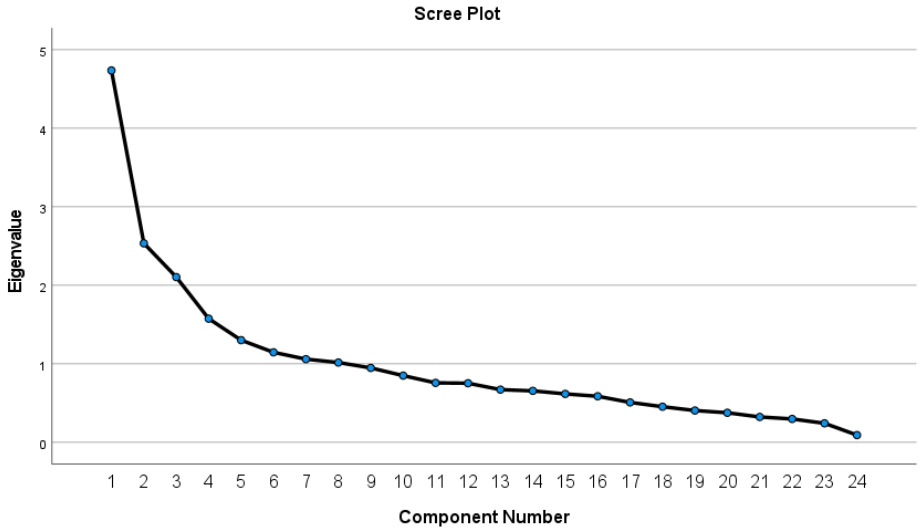

Figure 33: Screen Plot for EFA Analysis

5.3.2. Model Fit / Measurement Model Assessment

When leveraging PLS-SEM to evaluate a model for the proposed research, a measurement model assessment and a structural model assessment are required (Sharif and Nia, 2018). There are multiple measurement model assessment tools that may be considered to evaluate a model fit and to see the reliability and validity of the reflective constructs, as shown in Table 11.

Table 11: Summary of Model Fit Indices (Sharif and Nia, 2018)

Fit Indices	Reference	Recommended Values
$\chi 2$	Meyers et al., 2005	P-Value > 0.05
CMIN/DF	Hair et al., 2013	< 3.0 Good; < 5.0 May be permissible
GFI	Chau, 1997	> 0.90
RFI	Meyers et al., 2005	> 0.90
IFI	Meyers et al., 2005	> 0.90
NFI	Bentler & Bonett, 1980	> 0.90
CFI	Hatcher, 1994	> 0.90
RMSEA	Meyers et al., 2005	< .08 Good fit
RMSR	Meyers et al., 2005	< .05

Though it is recommended by various professors and researchers to use at least three various tests to ensure a good fit, a summary of all nine is presented below as the most concerning value of the Cronbach α factor loadings included two that were under the 0.5 minimum threshold (though depending on which author, a minimum of 0.6 – 0.7 is considered a good fit, whereas > 0.5 is acceptable.

According to the majority of research papers reviewed, the first step in assessing model fit on SPSS AMOS is to determine the factor loadings or Cronbach alpha values. These loadings are critical to assess reliability as they compare the amount of shared variance, or covariance, among the items making up an instrument to the amount of overall variance (Meyers, 2005). If the instrument is reliable, therefore, a great deal of covariance should exist among the items relative to the variance. Lower Cronbach alpha values denote a poor interrelatedness/covariance between the constructs. This could be due to either the question being scaled improperly, not having a large enough sample, or poor correlation (*ibid*). Table 12 illustrates the list of factor loadings/Cronbach alphas values for the model.

Table 12: Cronbach Alpha Factor Loading from Model Analysis in Amos

Latent Variable	Indicator	Cronbach Alpha (standardized)	Comment
Facilitating Conditions	FC1	0.512	OK > 0.5
	FC2	0.593	OK > 0.5
	FC3	0.605	Good > 0.6
	FC4	0.387	Bad < 0.5
Hedonic Motivations	HM1	0.279	Poor Bad << 0.5
	HM2	0.362	Bad < 0.5
Social Influence	SI2	0.794	Very good > 0.7
	SI3	0.826	Very good > 0.7
	SI4	0.854	Very good > 0.7
Effort Expectancy	E1	0.504	OK > 0.5
	E3	0.575	OK > 0.5
	E4	0.463	Bad < 0.5
Performance Expectancy	PE1	0.642	Good > 0.6
	PE2	0.332	Bad < 0.5
	PE3	0.421	Bad < 0.5
Behavioural Intention	BE1	0.989	Very good > 0.7
	BE2	0.968	Very good > 0.7
	BE3	0.319	Bad < 0.5
	BE4	0.511	OK > 0.5

All the indicators were kept in the model, despite some of them having a Cronbach alpha value of less than 0.5, as they were all found to be significant (as per the critical ratios found below > ± 1.96. The results are presented in Table 13 and Figure 34.

Table 13: Regression Weights of Indicators

			Estimate	S.E.	C.R.	P	Label
FC3	<---	FC	.999	.163	6.127	***	par_1
FC2	<---	FC	1.000				
FC1	<---	FC	.606	.107	5.691	***	par_2
HM2	<---	HM	1.000				
SI4	<---	SI	.799	.146	5.460	***	par_3
SI3	<---	SI	.851	.110	7.740	***	par_4
SI2	<---	SI	1.000				
EE4	<---	EE	1.000				
EE3	<---	EE	.954	.167	5.732	***	par_5
EE1	<---	EE	.656	.121	5.404	***	par_6
PE3	<---	PE	.476	.118	4.041	***	par_7
PE1	<---	PE	1.000				
BI4	<---	BI	1.000				
BI3	<---	BI	.629	.091	6.886	***	par_8
BI2	<---	BI	2.068	.207	9.989	***	par_9
BI1	<---	BI	2.155	.218	9.875	***	par_10
PE2	<---	PE	.378	.101	3.740	***	par_43
FC4	<---	FC	.620	.132	4.707	***	par_49
HM1	<---	HM	.985	.176	5.585	***	par_50

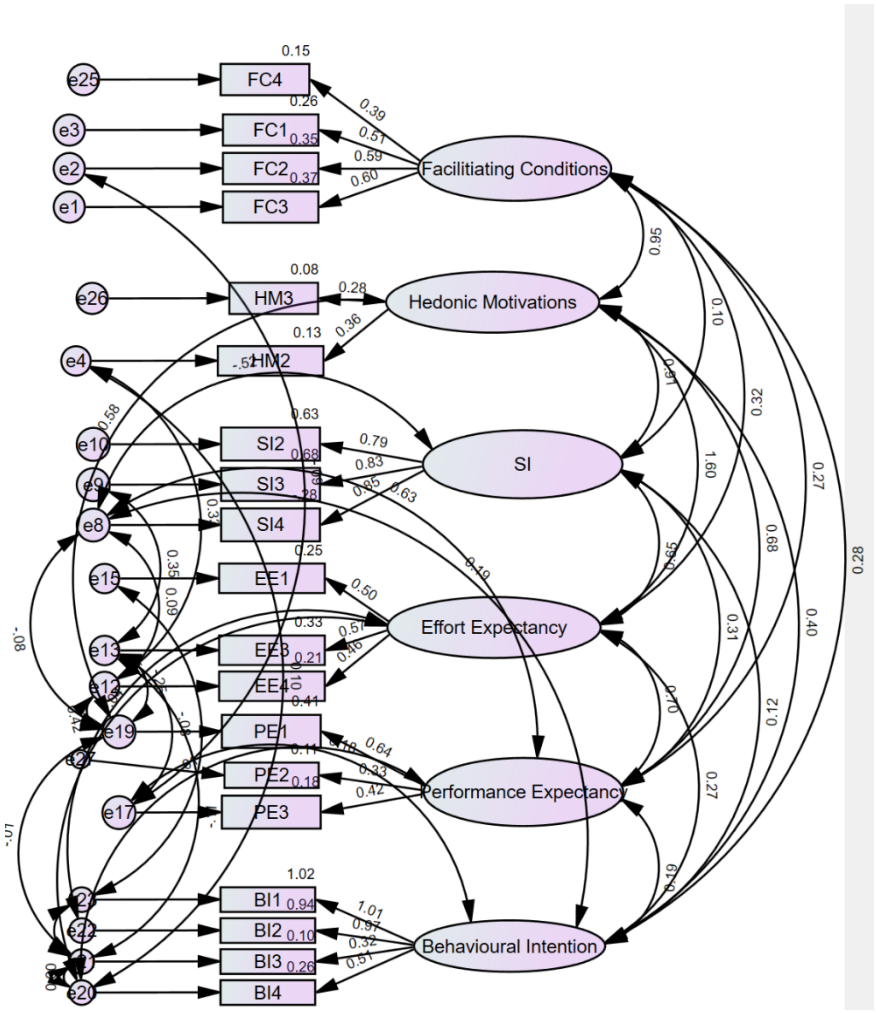

Figure 34: CFA Model in SPSS AMOS, rendered

Though the modification indices that were used and various data were removed, including 3 indicators themselves, further editing was paused as the other indicators for reliability were met, and so it was felt that it was better to minimize more editing as the data seemed to be increasingly manipulated. As the sample was over 300, and a few questions had to be scaled differently because the process was not fully understood at the time of writing the survey, it is assumed that because the other reliability tests show a 'Good Fit' that, the few variables that aren't with higher Cronbach alphas values, should be used to guide but not set a hard limit in accepting the model itself. Using the above data regarding the other Good Fit indicators for the various reliability tests, the model was found the have the corresponding values, as presented in Table 14 and Figure 35.

Table 14: Other Model Fit Index Indicators

Fit Indices	Recommended Values	Model Indicators	Comment
$\chi 2$	P-Value > 0.05	0.000	
CMIN/DF	< 3.0 Good	1.878	Good
GFI	> 0.90	0.930	Good
RFI	> 0.90	0.863	Acceptable
IFI	> 0.90	0.955	Good
NFI	> 0.90	0.908	Good
CFI	> 0.90	0.954	Good
RMSEA	< .08 Good fit	0.056	Very Good
RMSR	< .05	0.05	Good

Chi-square = 215.995 Degrees of freedom = 115 Because all the other indices show that this model is acceptable, the SEM analysis was continued without further editing (Pahlavansharif, 2020; Barrichello, 2018)

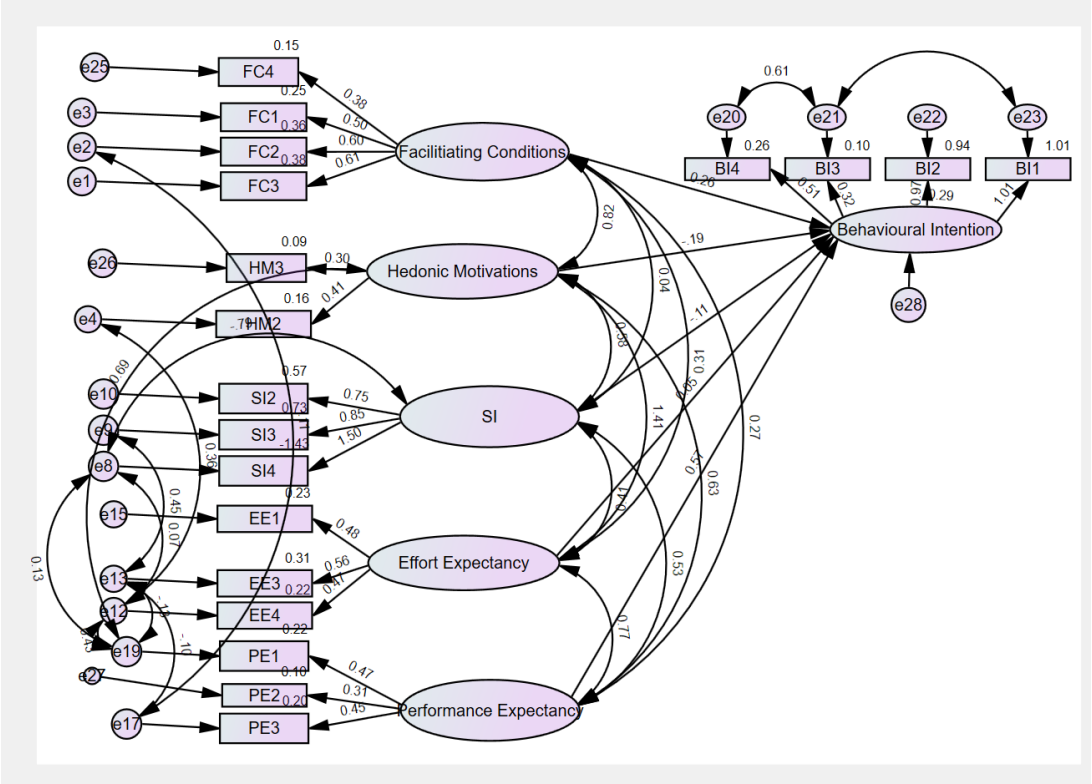

Figure 35: SPSS AMOS SEM analysis

5.3.3. SEM Results

The model was moderated by location, where location had two potential answers (Kuwait or UAE). The Model Fit for SEM is presented in Table 15.

Table 15: The Model Fit for SEM

Fit Indices	Recommended Values	Model Indicators	Comment	CFA Model Indicators
$\chi 2$	P-Value > 0.05	0.000		0.000
CMIN/DF	< 3.0 Good	2.099	Good	1.878
GFI	> 0.90	0.916	Good	0.930
RFI	> 0.90	0.847	Acceptable	0.863
IFI	> 0.90	0.938	Good	0.955
NFI	> 0.90	0.888	Acceptable	0.908
CFI	> 0.90	0.937	Good	0.954
RMSEA	< .08 Good fit	0.062	Very Good	0.056
RMSR	< .05	0.05	Good	0.05

Chi-square = 262.326
Degrees of freedom = 125

The following are the corresponding *p* values for the three Groups.

All Data

The comments below are based on the significance or non-significance of the negative estimates, determined by the P value being > 0.05 and the Critical Ratio being > ± 1.96, as presented in Table 16.

Table 16: All Data Analysis and Unstandardized Regression Weights for Hypothesis

	Estimate	S.E.	C.R.	P	Comment
BI <--- FC	.093	.041	2.284	.022	Significant
BI <--- HM	-.142	.074	-1.926	.054	Significant
BI <--- SI	-.040	.030	-1.329	.184	Not Significant
BI <--- EE	.032	.111	.286	.775	Not Significant
BI <--- PE	.367	.130	2.813	.005	Significant

All the paths listed in Table 17-21 were found to have an insignificant path, i.e., found to have the following effects on Behavioural Intention.

Table 17: Path Analysis – All Data

All Data – Latent Variables	Effect on Behavioural Intention	Hypothesis
Facilitating Conditions	Positive	Supported
Hedonic Motivations	Positive	Supported
Social Influences	Potentially Positive	Not Supported
Effort Expectancy	Negative	Not Supported
Performance Expectancy	Positive	Supported

KUWAIT

Table 18: Kuwait Analysis (Moderator) and Unstandardized Regression Weights for Hypothesis

	Estimate	S.E.	C.R.	P	Comment
BI <--- FC	.091	.049	1.857	.067	Almost Significant
BI <--- HM	-.277	.146	-1.894	.058	Almost Significant
BI <--- SI	-.001	.035	-.029	.977	Not significant
BI <--- EE	-.049	.284	-.173	.863	Not significant
BI <--- PE	1.000	.527	1.897	.059	Almost Significant

Table 19: Path analysis – Kuwait

Kuwait – Latent Variables	Effect on Behavioural Intention	Hypothesis
Facilitating Conditions	Potentially Positive	Potentially Supported
Hedonic Motivations	Positive	Potentially Supported
Social Influences	Negative	Not Supported
Effort Expectancy	Negative	Not Supported
Performance Expectancy	Positive	Supported

UAE

Table 20: UAE Analysis (Moderator) and Unstandardized Regression Weights for Hypothesis

	Estimate	S.E.	C.R.	P	Comment
BI <--- FC	.087	.047	1.851	.068	Almost Significant
BI <--- HM	.041	.089	.458	.647	Not significant
BI <--- SI	-.082	.043	-1.907	.061	Almost Significant
BI <--- EE	.122	.112	1.089	.276	Not significant
BI <--- PE	.498	.312	1.596	.111	Not significant

Table 21: Path analysis – UAE

UAE – Latent Variables	Effect on Behavioural Intention	Hypothesis
Facilitating Conditions	Potentially Positive	Potentially Supported
Hedonic Motivations	Negative	Not Supported
Social Influences	Potentially Positive	Potentially Supported
Effort Expectancy	Negative	Not Supported
Performance Expectancy	Negative	Not Supported

5.3.4. Demographics

There were a total of 325 people who answered the initial survey; of these, only 294 surveys are applicable as they are from individuals and companies that fulfill the following criteria:

1) Are an SME in Kuwait or the UAE or both (SME being any company of less than 250 employees).
2) Are someone who is involved in at least some of the decision-making and is in a position to be aware of the social media activities of the company.

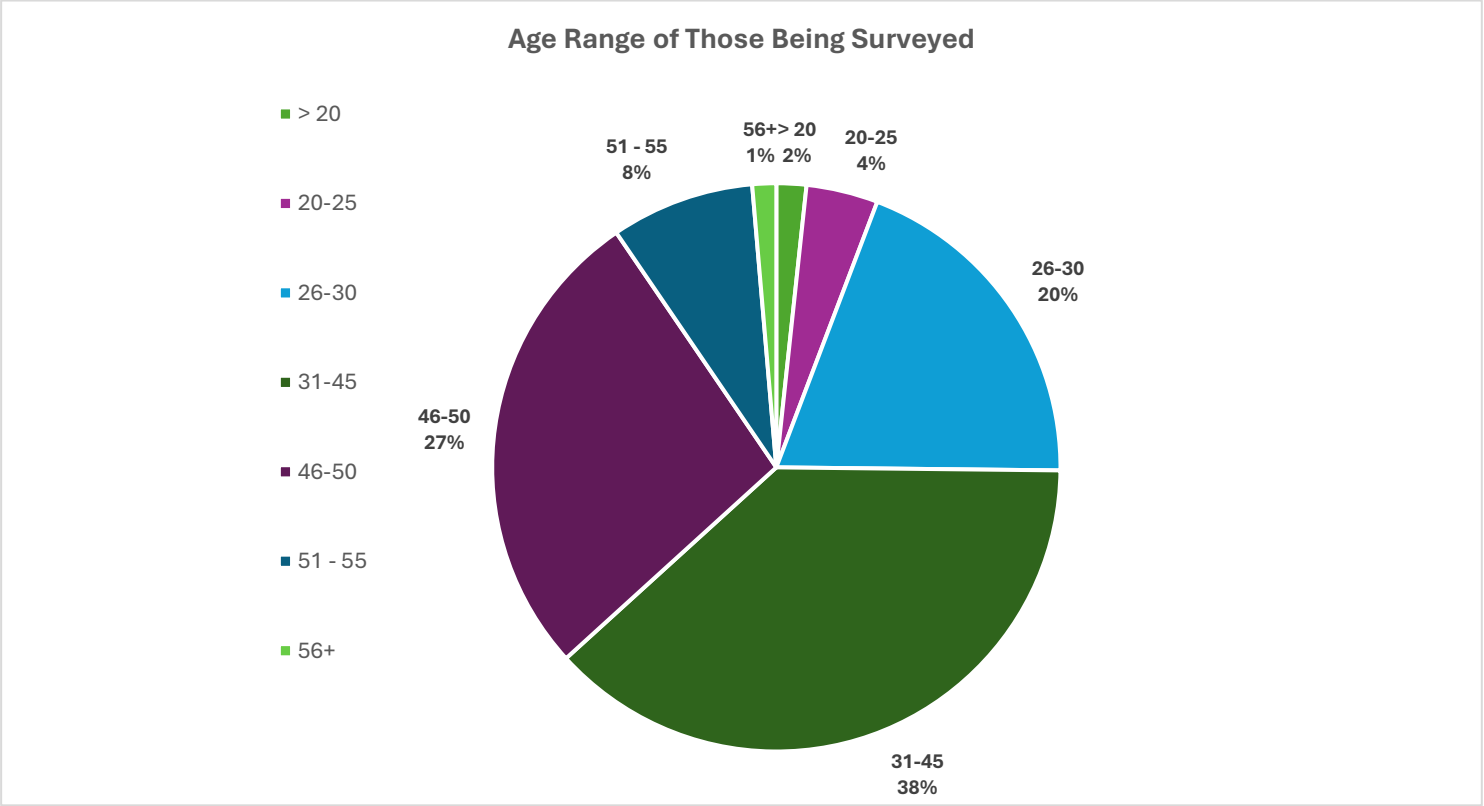

Figure 36: Age Range of Surveyors (294 applicable)

As can be seen from Figure 36, almost 90% of the respondents were between the ages of 26 – 50, signifying that, though younger people are opening companies, the majority of decision-makers and those with the finances (or the ability to gain the finances) are slightly older.

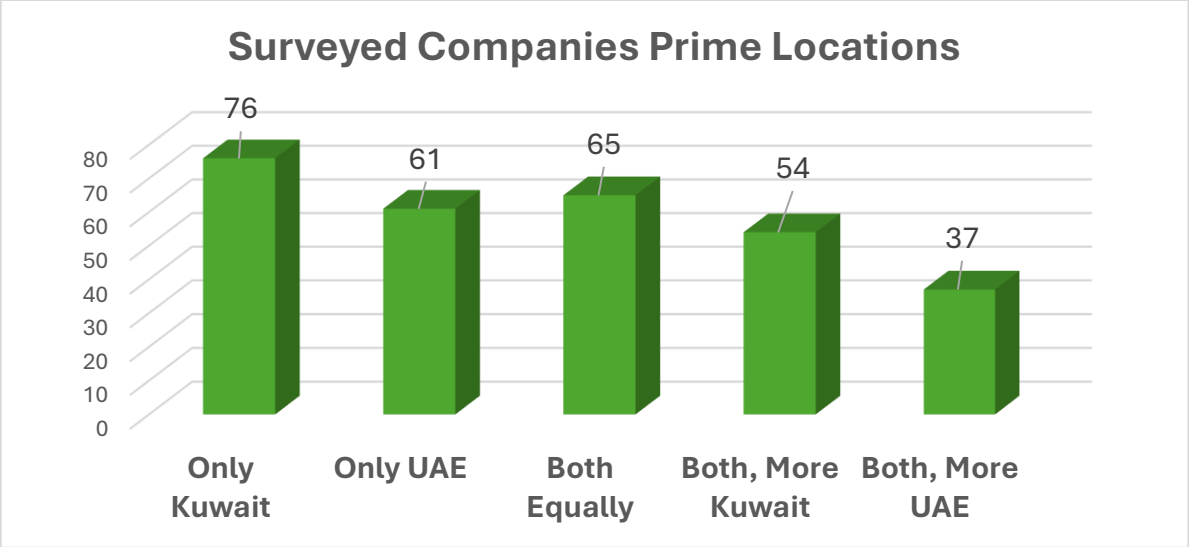

Figure 37: Prime Locations of Surveyed Companies

According to Figure 37, the respondents were majority fairly distributed between Kuwait and the UAE. The data was manipulated to represent just one country, either Kuwait or UAE (as explained above)

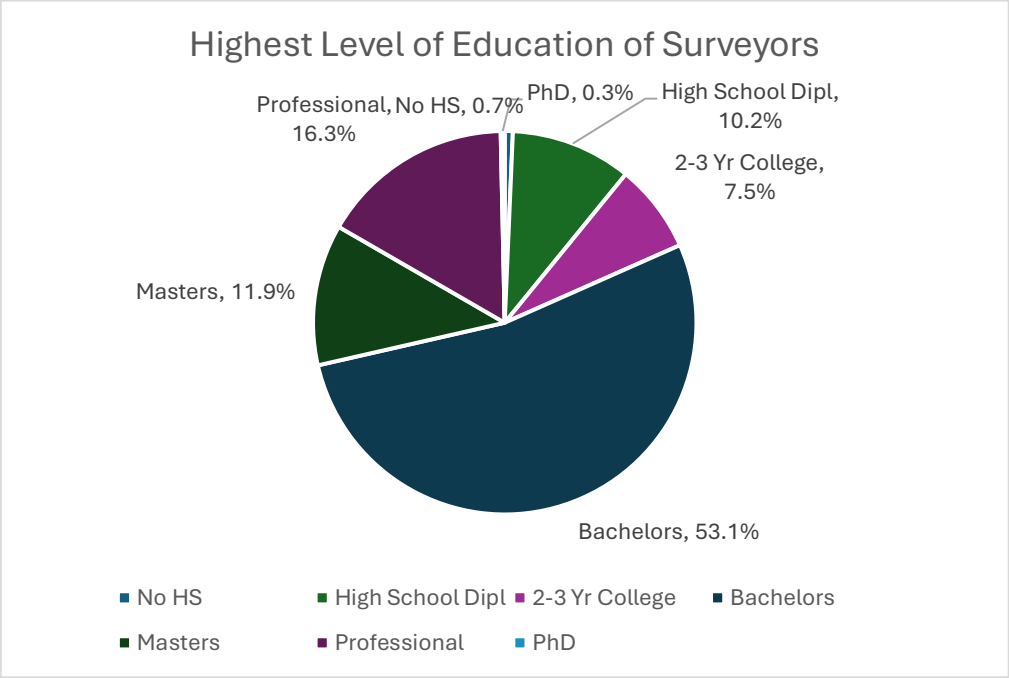

Figure 38: Highest Level of Education Achieved by Surveyors

Figure 38, regarding Education, is important as it shows that the majority of those making decisions in F&Bs have Bachelor's degrees only. As F&Bs are a more 'trendy' industry, regardless of

being so competitive, those with Master's and higher education tend to go into other industries or work for the Government (in these two countries) where they get higher benefits for their education. Very few of the respondents had no education (as correlates with the Governmental policies in both countries), both in terms of education accessibility and being a requirement, as well as laws for expats in terms of gaining visas to then work.

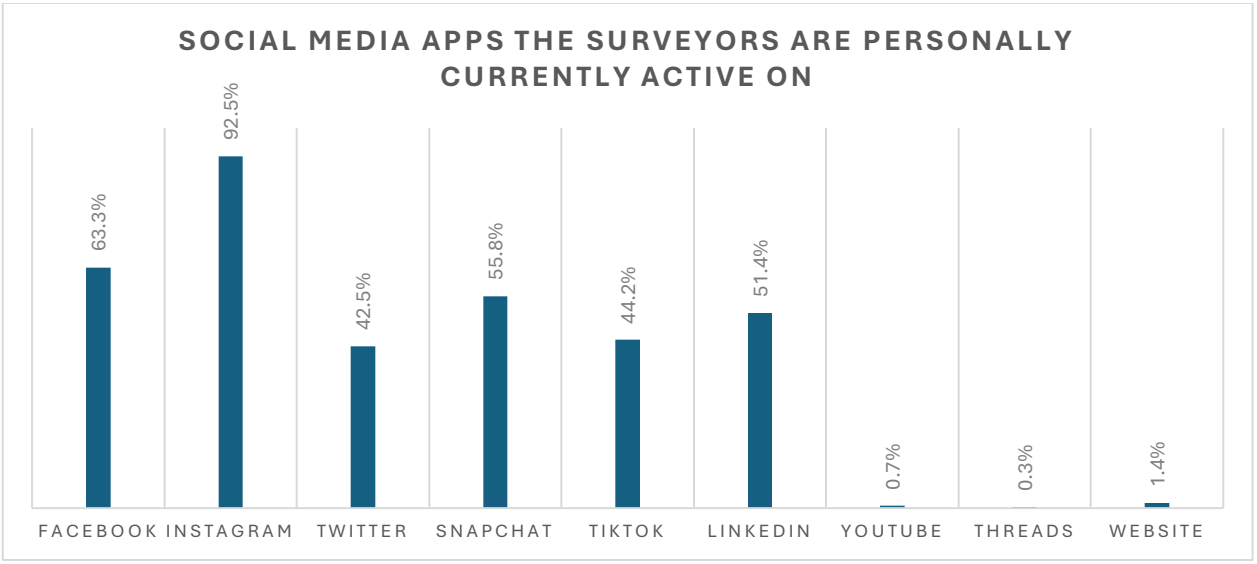

Figure 39: The social media apps the surveyors are all personally currently active on

Figure 39 is crucial as it illustrates the predominant social media platforms used, highlighting Instagram as the leading application in the region. While Snapchat maintains a significant user base among respondents, Facebook emerges as the second most utilized platform, generally appealing to Millennials and older demographics. In contrast, TikTok garners popularity among younger generations. Despite the GCC's lack of official issues with TikTok, concerns have arisen regarding its potential to distract younger users from academic and cultural norms. Notably, YouTube as a personal channel and personal websites/blogs are nearly absent, indicating a shift away from these platforms in favor of utilizing Instagram, Facebook, and TikTok for effective communication and engagement strategies.

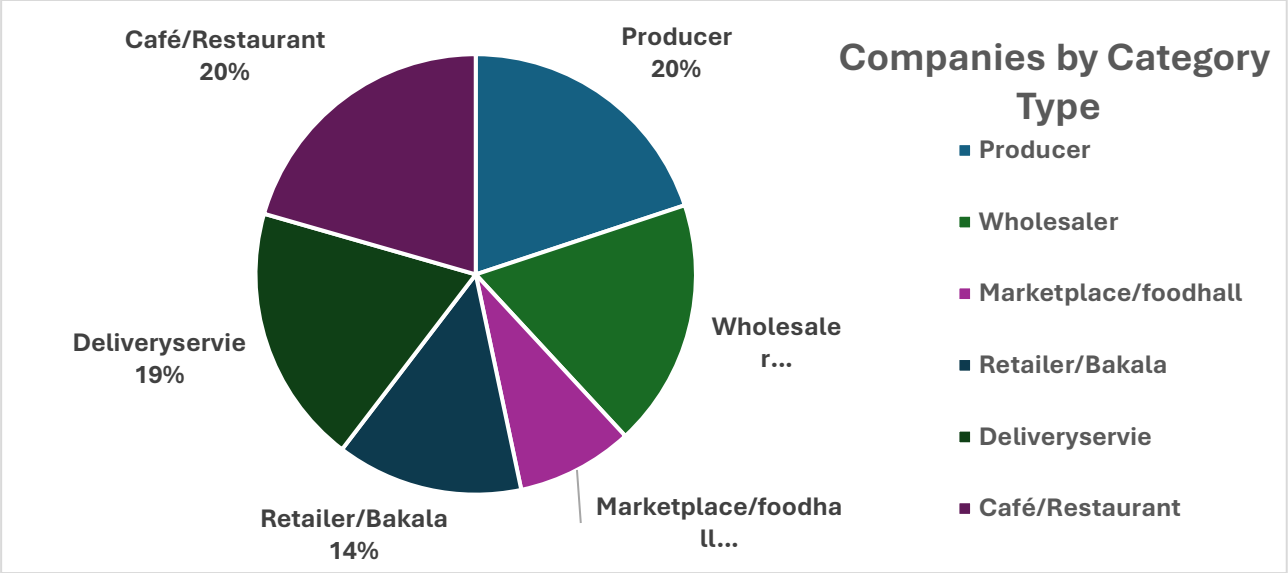

Figure 40: Companies by various Company/Category Types

Figure 40, in terms of Companies by Category or Role in Supply Chain, shows a very distributed sample. Though many companies checked more than one box, showing that to survive in today's competitive market, that is one strategy that is required.

From this point forward, the companies that count as Kuwait include those in Kuwait, those that are considered to be equally in both Kuwait and the UAE, and those that are in both countries but whose focus is more on Kuwait. Likewise, the UAE is therefore all companies that are only in the UAE, equally in both countries, and also those that are in both countries but that is mostly focused in the UAE rather than Kuwait.

5.4. Hypothesis Testing

Table 22 lists the hypotheses that were proposed and whether they were confirmed/supported through the data collected.

Table 22: Hypothesis testing

	HYPOTHESIS	Confirmed/Supported
H1	Performance Expectancy has a significant impact on a user's behavioural intention to integrate Social media into the Supply Chain	Supported
H2	Effort Expectancy has a significant impact on a user's behavioural intention to integrate Social media into the Supply Chain	Not Supported
H3	Social Influence has a significant impact on a user's behavioural intention to integrate Social media into the Supply Chain	Not Supported
H4	Hedonic motivation has a significant impact on a user's behavioural intention to integrate Social media into the Supply Chain	Supported
H5	Existence of Facilitating Conditions has a significant impact on a user's behavioural intention to integrate Social media into the Supply Chain	Supported
H6	Location affects user's behavioural intention due to variety of factors such as cultural norms and government role, in regards to integrate Social media into the Supply Chain	Supported

5.5. Conclusion

The above Chapter presents the results of the conducted comprehensive analysis of data in order to provide insightful revelations on the mindset of F&B SME decision-makers with respect to their integration of social media into their supply chain management.

Beginning with the thematic analysis, whose results have been presented via ten mind maps. This analysis has uncovered several themes, including perceived benefits, challenges, and how trends and social competitive pressure are of utmost importance when considering social media integration. These insights highlighted that while decision-makers clearly recognise the potential for stakeholder customer engagement, transparency, and operational efficiency, there, however remain important reservations about implementation complexity (especially towards training and for limitations set by smaller companies) and return on investment. Kuwait and the UAE, though they normally strive to be 'firsts', might require an MNC (with strategic locations in the other regions) to kickstart the process after already finding success elsewhere in the world. Then, knowing the culture, this might lead to a fast domino effect of change.

The quantitative SEM PLS analysis conducted using SPSS Amos Software provided a weaker validation of the hypothesized relationships. While the model's reliability and validity were initially confirmed, questions arise regarding its suitability for modeling behavior in the GCC. Issues may have arisen due to insufficient introduction of the subject and potential benefits of social media (SM) integration in SCM, which remains a novel area in the GCC context. Despite these challenges, none of the six hypotheses were confirmed. Key variables such as performance expectancy, hedonic motivation, and facilitating conditions were found to significantly influence decision-makers' attitudes and behavioral intention. Conversely, social influence and effort expectancy did not demonstrate significant effects. Additionally, the analysis revealed a notable disparity between Kuwait and the UAE, confirming the influence of location as hypothesized (Hypothesis 7). It further underscored that performance expectancy and facilitating conditions are primary drivers, consistent with established literature on technology acceptance models.

To complement the existing data analysis, various charts and graphs were utilized to present demographic distributions, response frequencies, and correlation matrices. These visual aids were instrumental in summarizing and illustrating trends and patterns among respondent groups. In the upcoming chapter, a detailed discussion accompanied by additional charts and supporting data will delve deeper into the analysis. These visual representations will enrich the discussion by elucidating differences in attitudes between Kuwaiti and UAE-based SMEs. The observed disparities highlight distinct cultural, economic, political, and demographic landscapes that influence perceptions and behaviors related to social media integration in supply chain management.

This chapter's mixed-method approach, combining thematic analysis with PLS-SEM results, provides a comprehensive understanding of the factors influencing social media adoption in the context of F&B supply chain management, particularly within the GCC.

Though cautious, the positive approach and mindset to social media integration show areas where government and incubator/advisory entities may now clearly strategize to overcome the identified barriers. Further, this research presents the groundwork for future research with a new hypothesized model where both UTAUT2 and TOE integrate to study the sustained usage (i.e., once actual usage has started and then do feedback on the system) of new technological adaptations/integrations.

6. CHAPTER SIX: DISCUSSION

This chapter presents an overview of the study and the insights gathered through the research in the following BB sections. The first section restates the goals of this study. The second presents the research findings. The third section discusses the contribution and implications, while the fourth discusses the limitations. Lastly, the fifth presents future potential research ideas and provides insight into how to take this research further.

6.1. Overview of Main Findings

This dissertation examines the integration of SM into SCM for SMEs in F&B industry in Kuwait and the UAE. By employing UTAUT2 framework, the study identifies key factors influencing SM adoption, compares regional differences, and explores the implications for enhancing supply chain resilience and sustainability. The main findings are discussed below.

6.1.1. Current Levels of Social Media Integration

The study revealed varying levels of SM integration between Kuwait and the UAE. UAE-based SMEs showed a higher degree of SM utilization in SCM compared to their Kuwaiti counterparts. This disparity is attributed to differences in digital infrastructure and cultural attitudes towards technology adoption.

6.1.2. Factors Influencing Social Media Adoption

Six hypotheses were tested to identify the factors influencing SM adoption:

Performance Expectancy: Expected benefits of SM integration, such as improved customer engagement and operational efficiency, were significant drivers.

Effort Expectancy: The ease of using SM platforms was less influential, suggesting that decision-makers are more concerned with the outcomes than the processes.

Social Influence: Peer and industry pressures were less significant, indicating a need for more awareness and advocacy for SM adoption.

Facilitating Conditions: The availability of resources and support systems was the most significant factor, highlighting the necessity for adequate training and infrastructure.

Hedonic Motivation and Habit: These factors were moderately influential, suggesting that personal enjoyment and established routines can impact adoption decisions.

6.1.3. Regional Differences

Decision-makers in the UAE are generally more open to innovation and recognize the strategic value of SM in SCM, while those in Kuwait exhibit more conservative attitudes. This difference is partly due to the UAE's more competitive market environment and proactive government policies promoting digital transformation.

6.1.4. Challenges and Opportunities

The primary challenges include limited resources for training, concerns about the complexity of implementation, and doubts about the return on investment. Smaller companies, in particular, face significant barriers due to their limited capacity to manage and integrate new technologies. Despite these challenges, there is a strong potential for SM to enhance transparency, customer trust, and market reach. The study suggests that government and industry bodies should focus on creating supportive environments to mitigate these barriers and promote digital integration.

6.1.5. Theoretical Contribution

This research extends the UTAUT2 framework by incorporating factors specific to the F&B industry's SCM practices. The findings contribute to the academic discourse on technology adoption by highlighting the unique challenges and opportunities faced by SMEs in the GCC region. The integration of qualitative insights from interviews with SME owners and managers enriches the understanding of the contextual nuances influencing SM adoption.

6.1.6. Practical Implications

For policymakers and business leaders, the study provides actionable insights into fostering an environment conducive to SM integration. Key recommendations include:

- Enhanced Training Programs: Develop comprehensive training initiatives to equip SMEs with the necessary skills and knowledge.
- Infrastructure Development: Invest in digital infrastructure to support seamless SM integration.
- Awareness Campaigns: Promote the benefits of SM in SCM through targeted awareness campaigns and industry advocacy.

- Support Networks: Establish support networks to facilitate knowledge sharing and collaborative learning among SMEs.

6.2. Discussion of Qualitative Results – Mind Map Summaries

In order to first ensure that the interviewees understood the potential benefits of integrating SM into their SCM, a short intro was provided that included the following benefits with examples of how MNCs around the world are using them. These benefits include (for reference, please see the interview question sample in Appendix 1):

- Collaborations with Influencers
- Showcase supplier content on your page/collaborate with suppliers to create new content for your page as well
- Event Livestreams and Launches
- Collaborative Recipe Sharing/Online Community or Competition
- Innovative Marketing Campaigns
- Real-time Customer Support

They were provided with websites or other online videos to watch and see how such integration manifests. Based on this, the interviewees responded, and a summary of their responses has been picturised in each of the following Mind Maps

6.2.1. Mind Maps 1 & 2

The first two Mind Maps are just straight answers to the first and second questions that were asked of the interviewees. The discussion here is longer in comparison to the others' mind maps, which are the general ideas that were taken from the rest of the 11 questions in the interviews.

Mind Map 1: Positive Impact of Social Media Integration (their take)

The different interviewees were very positive about the impact of social media integration in their F&B supply chain. By leveraging social media platforms for their supply chain operations, the various benefits that seem to resonate the most include:

- enhanced visibility
- customer engagement
- supply chain efficiency
- brand promotion

What was very encouraging and enlightening was how the interviewees not only thought about their own benefits but also the potential positive outcomes for various players along the supply chain, including producers, wholesalers, retailers, and cafes.

1) **Increased Visibility and Brand Building/Showcasing**: The interviewees were responsive to how social media platforms may enable F&B businesses to enhance their brand visibility through collaborations with influencers and other partners. This is already established as previous research by F&Bs in the GCC shows that they recognise that regular posts help maintain brand recognition and distinguish the company from competitors. Ahmad et al. (2018) found that it was well-understood that collaborations not only extend reach but also enhance credibility through endorsements and shared content. This was echoed in this research as respondents acknowledged that regular social media activity ensures their companies stay relevant and fresh with their audience, which is crucial for survival in the extremely competitive GCC market, increasing customer loyalty and market share.

   One aspect that was seen in multiple interviews was the potential for showcasing products, "we can showcase our in-season products and then work with them to help create menus that highlight the products. This will increase engagement with customers, as well as ensure better meals and high customer satisfaction. Instead of just showing our products to our customers, showing our products to their (others along the supply chain) customers create more buzz and we have the ability to produce the high-quality content to satisfy all our customers as well" (Interviewee 3, Farm/Organic FMCG owner). This increased engagement and more creative means of collaboration for the benefit of the customer seem to be favourable for SME.

2) **Customer Engagement and Event Promotion Fosters a Sense of Community**: This was another aspect that most of the interviewees responded to. It wasn't just about engagement itself, as people can technically engage with likes to an image. However, engaging in a way that builds community and loyalty leads to higher retention rates, and as such, engagement facilitates actual interaction, dynamic communication, and the ability to gather feedback and grow. Besides the opportunity to just engage with the newest promotion, engagement here may be on values, important themes, and relevant topics such as current events. Similarly, Sm is a powerful tool for promoting special events and collaborations that boost attendance enhancing brand visibility. Alhaimer (2021) also notes that this research found the importance of social

media's reach for event promotion in the F&B sector. “Social media allows for direct engagement with customers, which helps create a sense of community and loyalty... we can hear their feedback, see what the latest trends are and how important they are, and make adjustments for allergies, etc. (and) also know what to put on the menu” (Interviewee 1, Food Truck Owner).

3) **Supply Chain Efficiency**: A major benefit that interviewees also gravitated toward was the ability of SM to facilitate real-time updates and communication within the supply chain. For example, real-time updates of ingredients, new menu items, and promotions can ensure streamlined operations and reduce delays. With the growing trend of ‘pop up’ markets, cafes, restaurants and even marketplaces, rapid transmission of information (viral ability) can help all businesses of all sizes be accessible.

Efficiency is also a byproduct of transparency; transparency in operations, from sourcing practices to sustainability and equality or ethical standards or efforts, is especially important in the GCC region, where consumers are increasingly concerned about ethical practices. Examples of sharing behind-the-scenes content and showcasing ethical practices can also build trust with customers and enhance brand reputation. For Interviewee 2, the Kuwait Manager of a GCC farm-to-table chain, “Sharing the love for seasonal ingredients and local farmer stories – we want people to connect and see and feel the storytelling. To know the farmers, the why’s and how’s, and the benefits,” transparency further provides ‘storytelling’ opportunities which engage the customer in the ethos and the mission/vision of a company. This is achieved not only by articulating a company’s mission but also by actively involving all suppliers in demonstrating these values through their actions. Increased engagement with suppliers contributes significantly to brand building.

Mind Map 2: Potential Obstacles to Integrating Social Media

On the other hand, SM integration into SCM also presents several challenges, including time commitment, resource constraints, content quality, maintaining brand consistency, and data security and privacy. The obstacles mentioned are proof that various interviewees took the time to really consider the whole process and how in-depth/detailed their analysis and feedback went. From technological barriers to organizational resistance and cultural considerations, areas were uncovered that are crucial for government/SME/incubator decision-makers to consider in order to help guide and facilitate this segment of the economy.

1) **Time Commitment and Resource Constraints**: even though maintaining SM platforms today is already challenging, integration brings with it far more challenges due to the complexity and the number of people/groups involved. One aspect of this is a significant time investment. Each activity, from content creation to monitoring and engagement, demands continuous effort and is time-consuming, which poses a particular challenge for SMEs with limited staff. Adjei (2019) emphasizes that the ongoing nature of social media engagement is a significant barrier for many SMEs.
2) This can also be quite costly, which is a sensitive point for SMEs operating with tight budgets. Hiring dedicated social media or marketing personnel, or investing in high-quality content production, isn't feasible for everyone. Moreover, involving other players within a company's supply chain adds another layer of complexity. This challenge is amplified in the GCC, where there is a prevalent culture of outsourcing marketing and creative content to 'experts'—often friends or private companies specializing in these areas. Unlike other cultures that may prefer a hands-on approach, in the GCC, outsourcing is valued for its prestige and convenience, highlighting a distinct preference for external expertise.

   However, this complexity presents both intrigue and practical challenges. For smaller SMEs like Interviewee 1, a Food Truck Owner who primarily operates solo, financial constraints limit the professional management of his social media. As he expressed, 'My budget constraints may restrict the professionalism of my social media management.
3) **Ensuring Content Quality**: Creating engaging and relevant content in a consistent manner is not easy. Furthermore, balancing the quantity of content with its quality is equally important to maintain interest and engagement. Being responsible for diverse content formats and even keeping in mind how quickly such formats evolve or change in taste/trends definitely require skill sets and resources. For interviewee 3, a Farm/Organic FMCG owner who is known well in Kuwait for her humour and funny videos based on her friends and family, “increasing the content and connecting to other social media pages means we have to balance how much of each type of content is produced, while still keeping to our ‘brand’ that is recognizable in terms of video content. This is balancing the quality while keeping up with the frequency of posts, and maintaining brand, will definitely pose a challenge”.
4) **Maintaining Brand Consistency**: Ensuring that social media content aligns with the brand's values, voice, and messaging is also crucial but becomes exponentially harder across different platforms and when more than one group is representing you online (i.e., your suppliers). The

potential for inconsistent messaging is real, as it is able to dilute a brand's identity and confuse the audience.

For interview 2, the Kuwait Manager of a GCC farm to table chain, as they have legal commitments to a brand, such integration proves challenging as they would have to continuously "double check and synchronize marketing to some extent".

Efforts across platforms, locations, and even countries make it especially challenging to maintain a cohesive brand identity, adding to the complexity. "Managing the influx of customer enquiries and feedback (presents issues for) maintaining consistency in brand messaging across various platforms" (Interviewee 4, owner of Pan GCC higher end restaurant)

5) **Data Security and Privacy**: Inherently important today is protecting customer data and sensitive information from being shared on social media. Integrating robust security measures in order to prevent data breaches and unauthorized access is non-debatable for anyone's site/SM who asks for personal info as this builds/maintains customer trust. Some GCC nations are also more heavily guarded/monitored for their compliance with data protection regulations (varying from country to country), which further requires businesses to have additional expertise in order to be able to adhere to each location's local laws regarding data privacy and security. Privacy and security was a point all the interviewees touched upon, and it shows what a growing concern it is even in the GCC where many would think it couldn't be taken seriously (as our legal framework for 'suing' etc. is not as robust as the West).

6.2.2. Analysis of Mind Maps 1 and 2 in terms of the Research Questions

Question 1: Key Factors Influencing the Adoption and Usage of Social Media in the F&B Supply Chain

The integration of SM into the F&B SCM is influenced by several key factors, as highlighted above. Specific emphasis should be put on:

- **Current Levels of Integration**: Mind Map 1 demonstrates an existing significant level of social media integration within the GCC SME F&B market in terms of more conventional marketing. Businesses have to be tech savvy and leverage social media for brand building, customer engagement, and operational transparency. Ahmad et al. (2018) and Alhaimer (2021) further support and also emphasize the increasing reliance on social media to enhance supply chain visibility and efficiency.

- **Mindset of Decision-Makers**: The interviewees showcase various perspectives and present a mixed attitude towards adopting social media. While all of them acknowledge and recognize the potential benefits (Mind Map 1), Mind Map 2 also shows that they are not taking it lightly and are deep in their analysis. They are weary of the challenges outlined, from time and resource constraints, to maintaining brand consistency and data security. Adjei (2019) and Alhaimer (2021) also support this, as their research found that the perceived benefits, ease of use, and socio-cultural factors significantly influence the willingness of a SME to adopt new technologies.

Key Constructs:

- **Country Differences (Kuwait vs. UAE)**: Using the Excel analysis, we see that regulatory environments and digital literacy levels differ between Kuwait and the UAE, affecting social media adoption rates. UAE firms may be more proactive due to a more supportive regulatory framework (Ahmad et al., 2019).

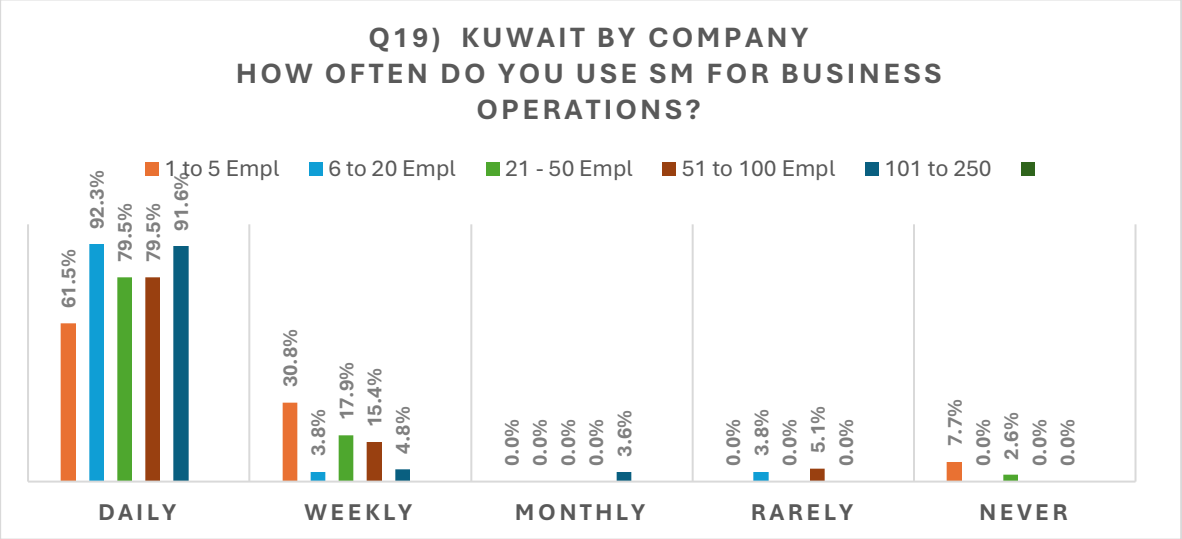

Figure 41: Kuwait by Company Size – How often do you use SM for business operations?

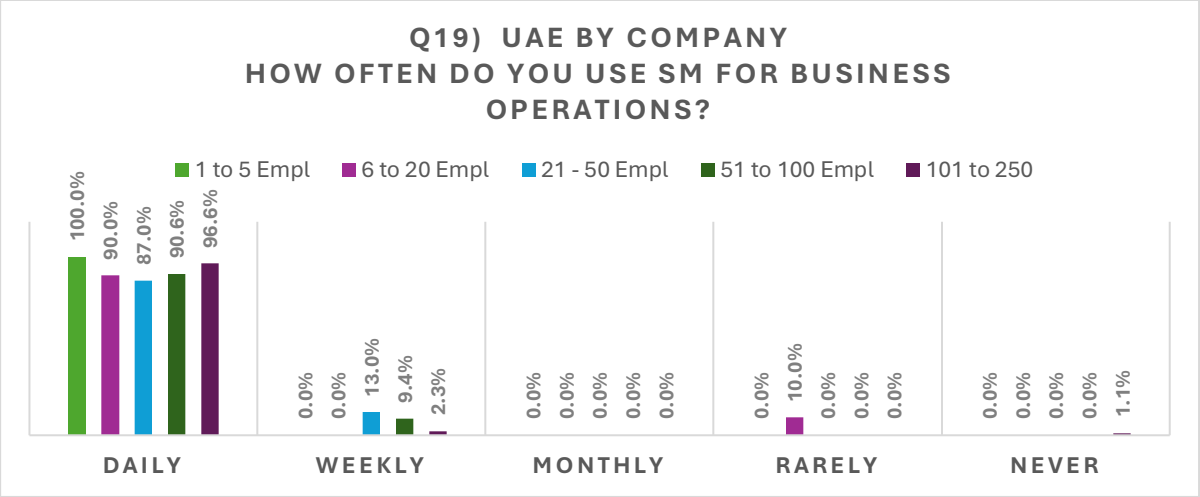

Figure 42: UAE by Company Size – How often do you use SM for business operations?

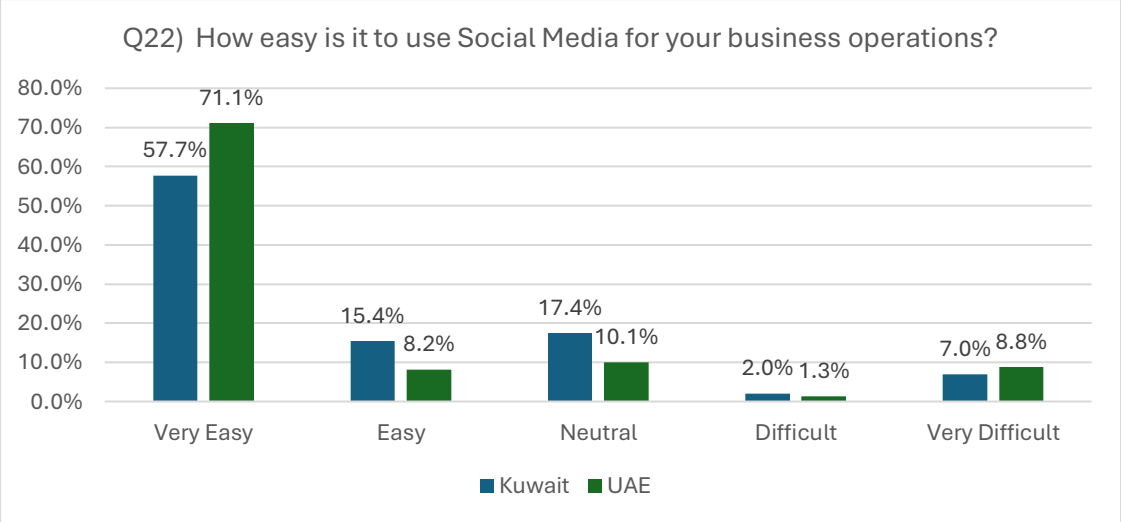

Figure 43: Kuwait vs UAE - How easy is it to use Social Media for your business operations?

As can be seen in Figures 41-43, the UAE is consistently more integrated when it comes to social media and business operations. This is also because of the increased support that companies, especially SMEs,, receive from the government and incubators. Though Kuwait has many incubators as well, their reach and efficiency are far less than those in Dubai or Abu Dhabi. This is also affected by how many MNCs are in Dubai vs Kuwait and how the UAE is far better and getting experts to engage with start-ups and smaller companies for learning and developing opportunities.

An article comparing Kuwait's startup ecosystem to the other GCC nations also shows that Kuwait has fallen behind and that this is due to varying factors, including Kuwait mainly backing larger,

'big ticket' sized ventures, it being more difficult to source funds for startups and that post-COVID, "VC investment grew across the board (across the GCC), yet in Kuwait, the pandemic's impact was less pronounced. Of the $3 billion raised by startups in MENA in 2022 for VCs, Kuwait's share of that was just $25.7 million, down from $41.7 million in 2021" (Azim, 2023).

- **SME Company Size**: Larger SMEs can better leverage social media tools due to more available resources. Smaller firms may struggle with resource allocation, as noted by Bakar et al. (2019). Though there are less pronounced differences between company sizes in the UAE, there is a much greater discrepancy between the size and how easy it is to use SM in business operations in Kuwait. This also ties into the point above due to the facilitating conditions in the UAE vs. Kuwait.

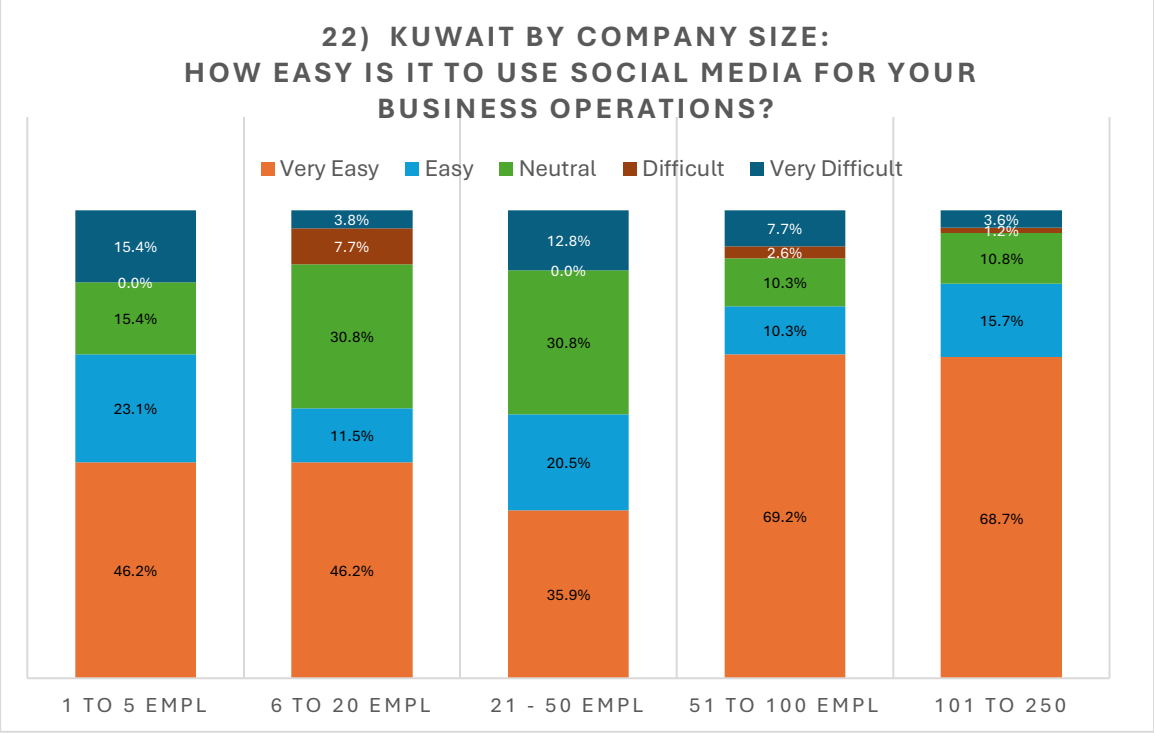

Figure 44: Kuwait by Company Size: How easy is it to use Social Media for your business operations?

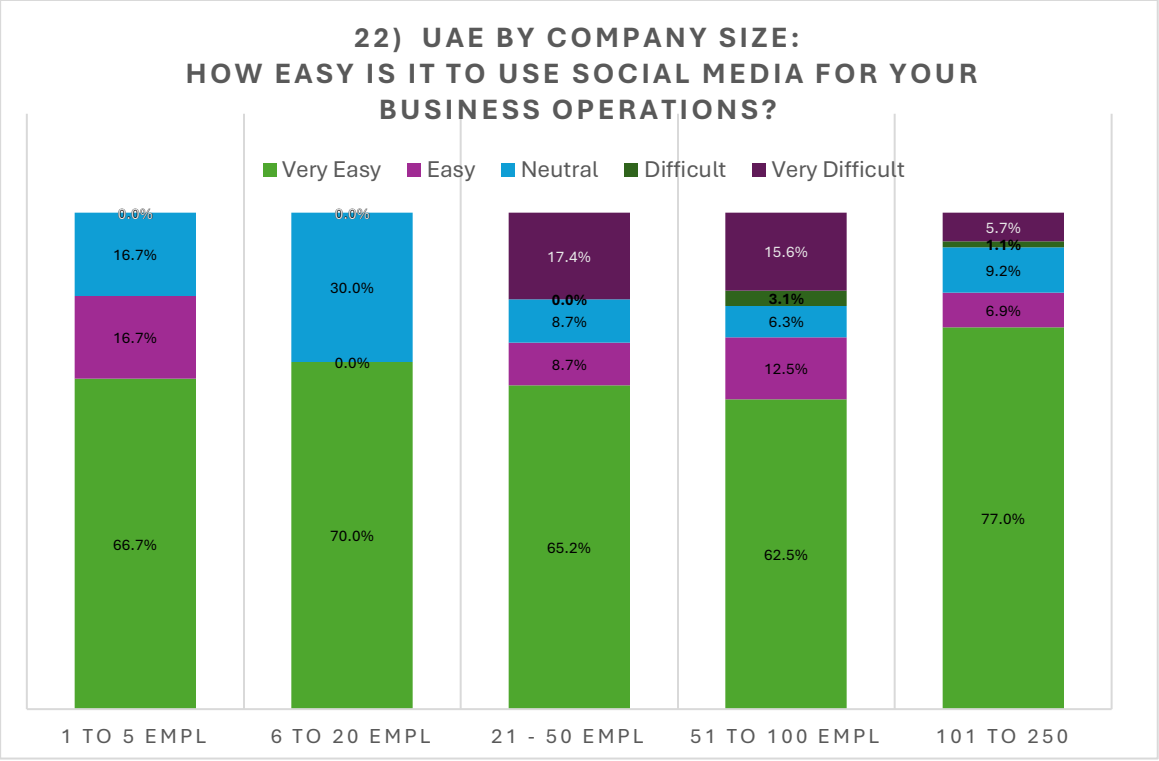

Figure 45: UAE by Company Size: How easy is it to use Social Media for your business operations?

- **Company Focus/Orientation (Supplier vs. Retailer)**: Retailers, who by default deal with consumers more frequently, prioritize social media for brand building and customer engagement more than suppliers, who focus on operational efficiencies (Bakri, 2017) and also supported by the findings by Alhaimer (2021).

Question 2: Challenges and Opportunities of Integrating Social Media into Supply Chain Operations

Challenges: The obstacles highlighted in Mind Map 2 include time and resource constraints, brand consistency messaging across platforms, and data security, which are all significant barriers to social media integration. These challenges can deter SMEs from fully leveraging social media, as supported by Alhaimer (2021) and Alsharidah et al. (2020). Continuous effort and the need for skilled personnel are particularly daunting for SMEs with limited resources. This may be alleviated with special functionalities that are made available either by governments or incubators or even this may prove an ideal opportunity for new venture capitalists to create solutions that offer affordable, easy to use applications or programs that can help integrate across platforms and connect with partners.

Opportunities: The opportunities presented in Mind Map 1 provide a compelling case for social media integration. Enhanced visibility, transparency, brand building, customer engagement, and supply chain efficiency are all important benefits. The ability to provide real-time updates, promote events, and build loyalty as well as community through transparency and creative engagement are extremely appealing to all those in the F&B field. As an industry, not only competitive, it is also creative, but this SM integration offers opportunities for new creative expression and collaborations to form, making it an ideal place to start such integration in the region. Further, due to the size and number of decision-makers in general and less bureaucracy, this makes it an even more persuasive argument for government agencies and private incubators to step up and invest in resources in this area. Such opportunities can lead to higher customer retention and operational efficiencies, making the SM integration valuable and potentially high-return investment for SMEs in the GCC region, both in terms of financial and human capital returns.

6.2.3. Mind Maps 3, 4, 5, 6

All the questions in the rest of the interviews highlight one of these benefits or issues in SM Integration (briefly described above) but go into more detail below specifically in that context.

Mind Map 3: Transparency Builds Trust and Facilitates Communication

This focuses on the importance of transparency for F&B SMEs in building trust and facilitating communication within the supply chain. The data emphasizes the vital role SM plays in enhancing not only transparency but also in enabling direct customer interaction, real-time updates, and open communication, all pivotal towards recognising, understanding and adapting to customer needs and preferences; thereby making companies more dynamic, adaptable, and improve decision-making and enable need/demand-oriented product development. This includes:

1) **Direct Customer Interaction:**
    - Gathering Feedback and Preferences: ability to collect direct feedback from customers, improving/enhancing/adapting both products development and marketing strategies.
    - Building Stronger Relationships: Direct engagement fosters stronger relationships, which builds trust, and loyalty and increases customer retention.

- Interviewee 3, Farm/Organic FMCG owner “we are a community-based company whose brand is centred on developing and helping community. Without feedback, that would not be possible.”

2) Real-Time Updates and Information Sharing:

- Product Availability and Promotions: Real-time updates on product availability/ promotions keep customers up to date and engaged, potentially driving sales and improving customer satisfaction.
- Adaptability to Market Trends: Allows opportunity to quickly identify and adapt to market trends.
- Streamlining Supply Chain Processes: Streamline supply chain processes may be streamlined through real-time communication which could (given the right conditions) reduce delays and increase efficiency.
- Interviewee 4, owner of Pan GCC higher-end restaurant: “Technology is extremely important in our industry, as it enables us to streamline processes, improve efficiency, and deliver better products and services to our customers.”

3) Open Communication:

- Sharing Values and Communicating Company Ethos: Transparency in sourcing, sustainability work, and ethical practices builds trust and improves brand reputation. Accessing behind-the-scenes content further humanizes the brand, which entails fostering emotional connections
- Identifying Work Difficulties: Open communication also allows employees to advocate and help collectively build a positive work environment and potentially improve productivity.
- Interviewee 5, Manager of a multi-location mid-range restaurant: “We work hard to let to contact with all the employees in the company, we work hard to gain new ideas of communication, and we are able to recognize work difficulties and deal with them better.”

Mind Map 4: Engagement Builds Brands and Increases Visibility

Highlights the role of SM in building brands and increasing visibility. It also summarizes interviewees' feedback on how consistent innovative and trendy content can broaden reach, improve reputation, and lead to brand advocates, again leading to greater loyalty and broader market presence.

1) **Broadening Brand Reach:**

   - Collaboration Opportunities: Partnering/collaborating with influencers and other partners may significantly amplify a brand's reach.
   - Engaging through Regular Content: Weekly updates maintain and increase engagement and audience reach.
   - Creative Opportunities for Approach to Content: Experimenting here can be made easier through collaborations and pay off with higher engagement using new formats and themes.
   - Interviewee 1, Food Truck Owner: "Social media are enhancing the visibility of the pizza food truck, reaching a wider audience beyond traditional marketing – through collaborations, etc."

2) **Enhancing Brand Reputation:**

   - Showcasing Quality Products/Processes: A platform is created to highlight product quality and other processes, building transparency, trust, and reputation with customers as well as credibility.
   - Enhance Satisfaction and Loyalty: Engaging with customers allows the opportunity to address concerns and appreciate their feedback.
   - Interviewee 1, Food Truck Owner "Enhancing experiences. I think it could help in terms of providing an edge by showing the high-quality products I am providing and validating the higher price point. I am a gourmet, but my prices have been relatively low. This could eventually help me increase my price point."

3) **Creating Brand Advocates:**

- Fostering User-Generated Content: Such content, given honest disclaimers about no compensation, allows it to be perceived as more authentic and trustworthy, broadening brand advocates.
- Increasing the Loyal Customer Base: Honest engagement fosters loyalty and advocacy.
- Providing Platforms for New Creators: Supporting emerging influencers helps to build the brand's reach and relevance, as well as invest in influencers of tomorrow.
- Interviewee 4, owner of Pan-GCC higher-end restaurant, said, "Yes, creating connections and transparency along our supply chain leads to happier customers, who are more likely to engage with our company, advocate for our brand, and become repeat buyers.

Mind Map 5: Learning Curve in New Applications

Addresses the learning curve involved in adopting new social media applications, and the resources or practical requirements needed for employee (or self) training, skill development, and organizational readiness. The interviewers all emphasize the importance and their willingness to providing resources, build a supportive, open, creative and continuous learning environment, and also adapting to new technologies to ensure successful social media integration. Their main concerns here, despite of size of company (though the smaller the company, the greater the concern) were:

1) **Need for Training and Skill Development:**

- Providing Resources to Enhance Skills: Investing in workshops, online courses, and tools to develop social media skills.
- Adapting to New Technologies: Staying updated with social media trends and tools.
- Encouragement and Incentives: Motivating employees through recognition and rewards.
- Interviewee 3, Farm/Organic FMCG owner "(can support by) Training and listening to ideas. As well as having concrete guidelines and branding documents for them to follow."

2) **Integration Process May be Problematic:**

- Varying Speed of Integration Depending on Company Size and Number of Decision-makers.
- Potential Challenges: Adapting existing processes to new technologies.
- Interviewee 4, owner of Pan-GCC higher-end restaurant, said, “The integration process may vary in speed depending on factors such as the complexity of our existing supply chain systems, the level of technological readiness, and the extent of organizational change required.”

3) **Organizational Readiness is Hard to Gauge and Guide:**

- Recognizing and Addressing Employee Concerns and Hesitations: Open communication is required.
- Need for Brand-Specific Guidelines and Branding Documents: To ensure consistency and proper branding.
- Outsourcing/Hiring: New staff or outsourcing to manage extensive SM across all platforms.
- Interviewee 3, Farm/Organic FMCG owner: “Limited Time Commitment: Managing social media is definitely time-consuming, especially with multiple collaborations and regular content creation. This will require hiring either a consultant or a full time employee as the time required is far more than I personally can dedicate.”

Mind Map 6: The GCC is Primed for Smartphone/Social Media Innovation

Explores how the GCC is an ideal location for smartphone and/or social media innovation due to its tech-savvy population, readiness and open desire for new applications, and opportunities for growth. This is underscored by the fast-paced business environment (especially in the UAE), high smartphone penetration, and high social media engagement, all key factors driving social media adoption.

1) **Tech-Savvy Population:**

- Fast-Paced Business Environment: Businesses have to adapt quickly to new technologies to survive.

- High Smartphone Penetration: 99% penetration in both markets.
- Very High Social Media Engagement: The population's familiarity with SM provides the ideal platform for integration and engagement.
- Interviewee 1, Food Truck Owner "(Staying up to date with tech is) Definitely very Important. Kuwait is super heavy on social media, as everyone has a smart-phone and now more people order online, then visit places."

2) Readiness/Want for Innovation:

- Staying on par with industry trends to retain/gain a competitive edge: Be proactive and adopt technologies/SM trends. Early adoption of tech means company/brand differentiation.
- Social Media being Critical for Sustainability/Operations: Recognizing both current and long-term benefits of integration. I need to be different and have a desire to be creative/innovative.
- Interviewee 2, the Kuwait Manager of a GCC farm to table chain "(Keeping up with technology and trends) is super important! It's how we compete, communicate and survive. Integrating SM into SCM makes a lot of sense, at least for our company, because it aligns with our branding and it also helps that we have stellar suppliers who are able to produce the right type of content."

3) Opportunities for Growth:

- Market Expansion: Enables reaching new customers and expanding presence (geographically).
- Aids in Streamlining Operations: Improves efficiency via real-time communication, better data management, and knowledge of market demands/needs/changes as required.
- Collaborations Could Lead to Innovations: Partnerships creating new products/product lines/services.

6.2.4. Analysis of Mind Maps 3 - 6 in terms of the Research Questions

Question 1: Key Factors Influencing the Adoption and Usage of Social Media in the F&B Supply Chain

From these 4 Mind Maps (3 – 6), it can be seen that some of the key factors that influence the adoption and usage of social media in the F&B SCM include transparency (Mind Map 3), brand building (Mind Map 4), the learning curve and need to hire/train (Mind Map 5), as well as regional readiness for innovation (Mind Map 6).

- Transparency (Mind Map 3): If facilitated by SM, this enhances trust and improves efficiency via open communication and real-time engagement/dynamic interactions. Transparency and these benefits are vital for decision-makers who are motivated by the potential improvements in supply chain operations and customer trust, as well as the mindset of staying up to date with trends.

- Brand Building (Mind Map 4): Significantly enhances brand visibility and customer loyalty. Further, decision-makers can utilize SM as a strategic tool for enhancing market needs, and by meeting them, they can expand their market presence and strengthening their brand. Once more companies start to see the benefits and potential, this will drive SM adoption within SCM, potentially across industries.

- Learning Curve (Mind Map 5): Depending on the size and resources of a company, there will be a need for training and skill development, which may impact the rate of adoption. Furthermore, the facilitating conditions (i.e., the readiness of the organization and the availability of resources) for training may also influence decision-makers toward adoption strategies.

- GCC Readiness for Innovation (Mind Map 6): The high smartphone penetration and SM engagement present a strategic advantage. Decision-makers are likely influenced by the region's readiness for innovation, viewing social media adoption as an opportunity to leverage these advantages.

The constructs that moderate/affect these factors include:

- Company Size and Orientation (small vs. medium enterprises, Location, B2B vs. B2C, i.e., client focus, which 'player' along the Supply Chain)

- Facilitating Conditions (existing usage of social media, existing integration)

- Suppliers/partners and potential language barriers
- Training and Skills Development
- Organization's ability to Integration (readiness)
- Population's Tech-Savviness

Question 2: Challenges and Opportunities in Integrating Social Media into the Supply Chain

The challenges associated with integrating social media into the supply chain include maintaining transparency (Mind Map 3), consistent engagement and content creation (Mind Map 4), overcoming resistance to change by administration/employees, ensuring readiness for technology integration (Mind Map 5), and staying updated with technological changes (Mind Map 6).

Opportunities include developing/creating brand advocates, building stronger customer relationships, enhancing efficiencies, leveraging brand enhancement, providing adequate training and creative opportunities for employees, collaborating and creating new/innovative services and products, and capitalizing on regional readiness for innovation.

Some of these in more detail:

- Transparency (Mind Map 3): The challenges here are focused on maintaining open communication and aligning operations with customer expectations. Opportunities within this category involve improving customer relationships and increasing SCM efficiency through transparent activities and practices.
- Brand Building (Mind Map 4): The challenges here involve maintaining consistent engagement and successfully navigating complex SM content creation. Whereas the opportunities are in leveraging SM for brand enhancement and expanding one's customer base through user-generated content and transparent practices (developing more brand advocates).
- Learning Curve (Mind Map 5): Overcoming resistance to new technologies and ensuring organizational readiness are challenges, whereas the opportunities focus on providing comprehensive training/skills development and creating a supportive learning environment.
- Regional Readiness for Innovation (Mind Map 6): Staying up to date with rapidly evolving technology while ensuring effective integration are the challenges. Here, the opportunities

revolve around leveraging the region's tech-savvy people, whose high social media engagement will drive market expansion and work toward operational efficiency.

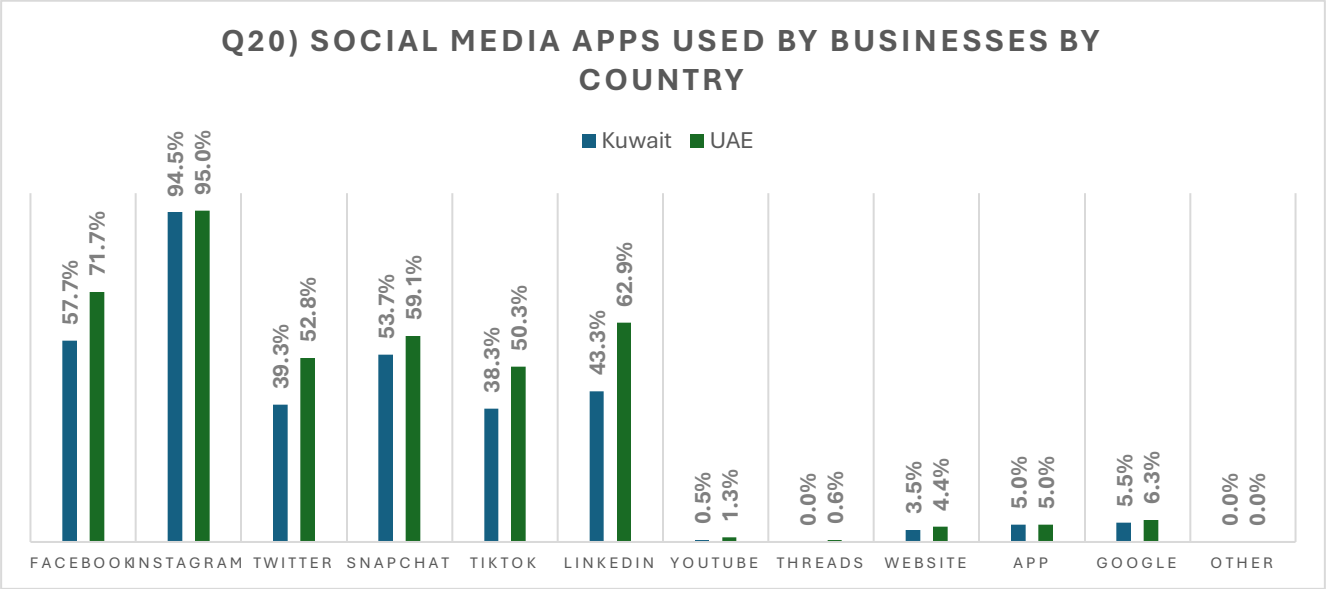

Figure 46: Kuwait vs UAE: Social Media apps used by businesses by country

According to Figure 46, the UAE is almost always higher than Kuwait in the types of SM applications that are currently used by businesses today. This is one of the facilitating conditions, and shows how the UAE is more diversified, whereas Kuwait is more focused on three – Instagram, Facebook, and Snapchat.

Another key factor here is the drive/acknowledgment of technology/social media integration into the operations of the Company. The graphs below indicate that the UAE shows more awareness and openness to social media integration compared to Kuwait. This disparity can be attributed to the UAE's greater exposure to and influence from social media, influenced in part by its geographical location.

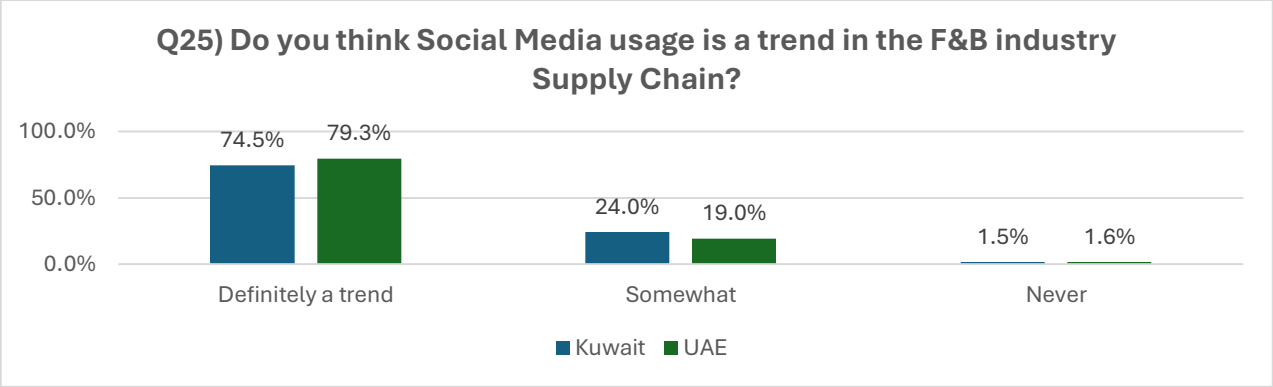

Figure 47: Kuwait vs. UAE - Do you think social media usage is a trend in the supply chain of the F&B industry?

According to Figure 47, Kuwait and UAE are similar, though generally, the UAE is more conscious of tech, and its location is attributed to the need to be more competitive in order to survive.

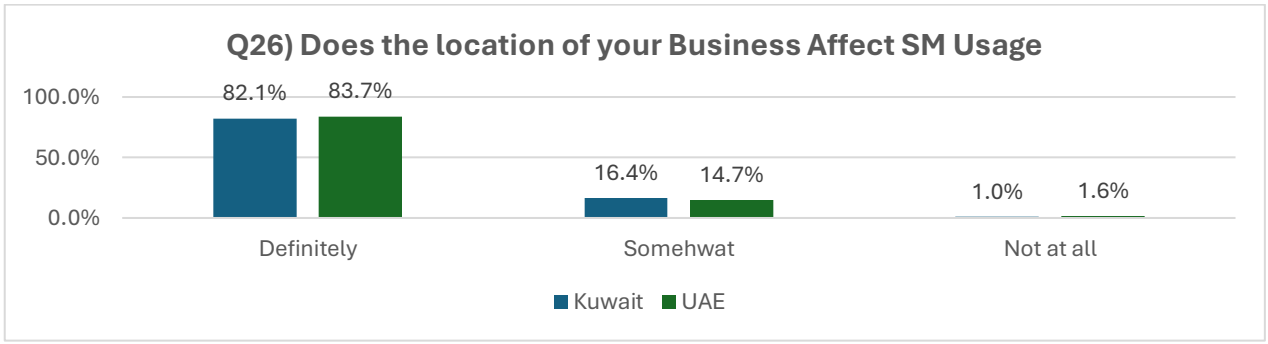

Figure 48: Kuwait vs. UAE: Does the location of your Business Affect SM Usage?

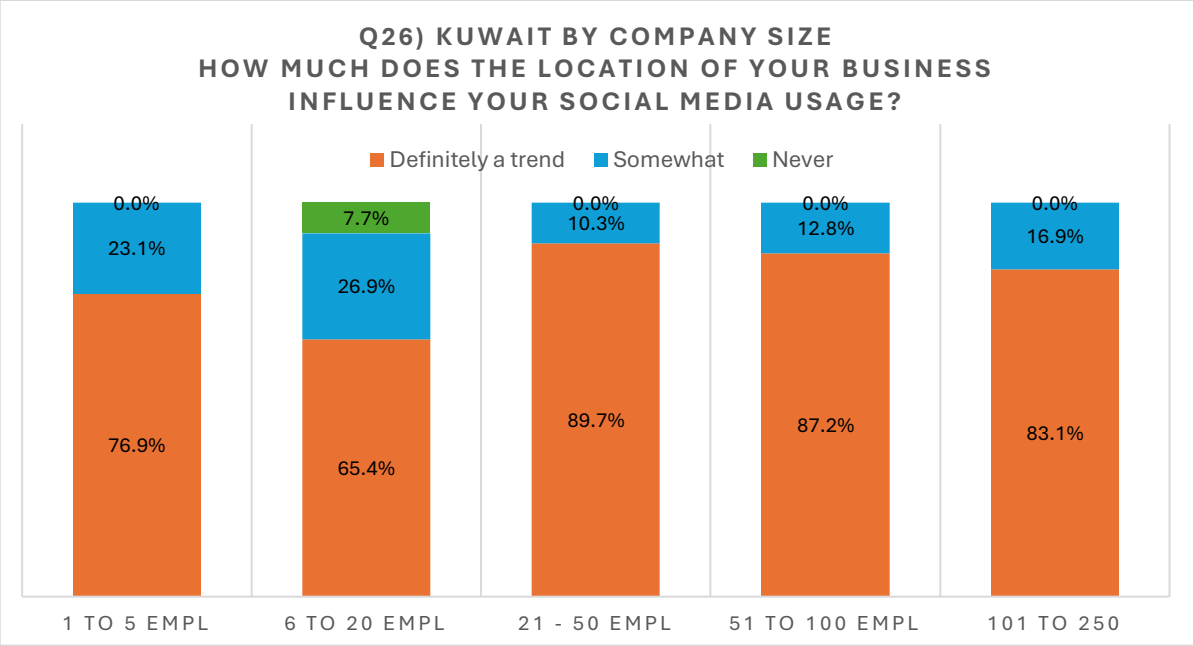

Figure 49: Kuwait by Company Size: How much does the location of your business influence your Social Media usage?

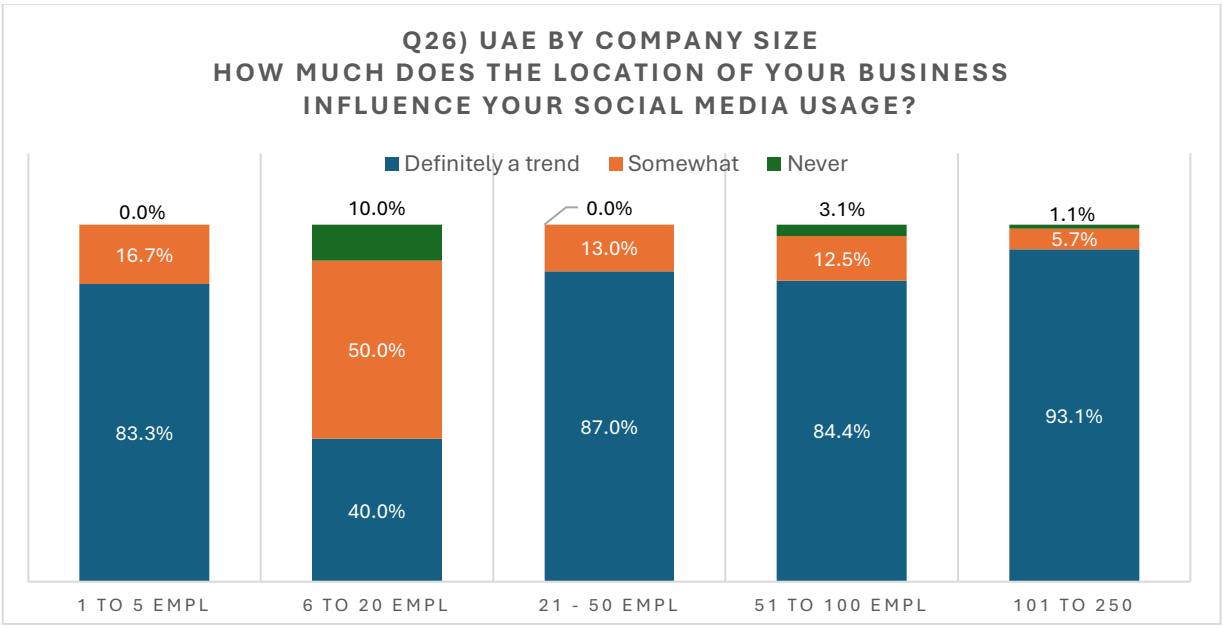

Figure 50: UAE by Company Size: How much does the location of your business influence your Social Media usage?

Furthermore, though these are similar as well per category of company size between the UAE and Kuwait, the UAE generally finds (especially the larger the company size, i.e., more employees) that

being up to date with technology is important for operations. See Figures 48-50. Again, exposure in the UAE is different from that in Kuwait, and therefore, the conditions to 'survive' are harsher and require more continuous work.

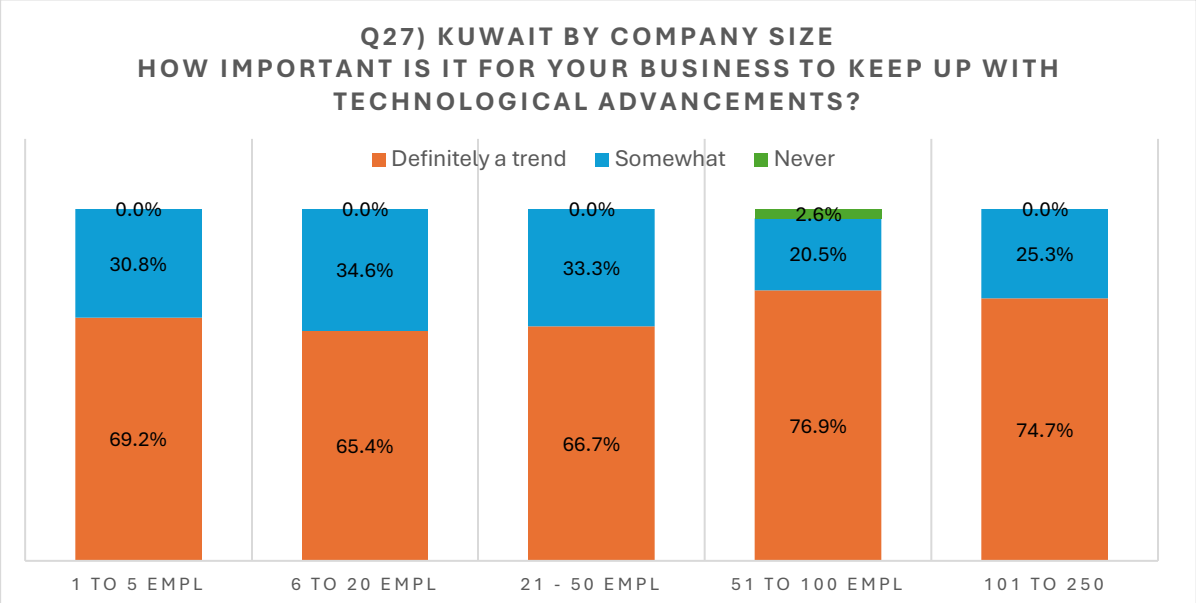

Figure 51: Kuwait by Company SIZE: How important is it for your business to keep up with technological advancements?

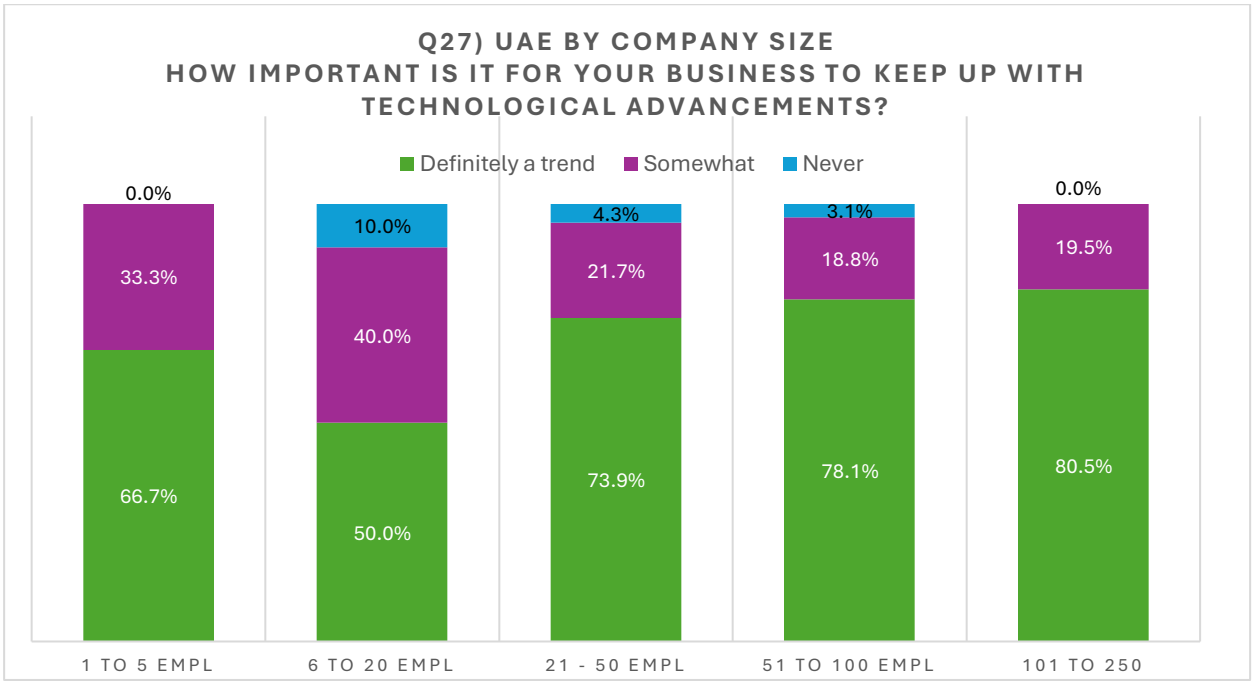

Figure 52: UAE by Company SIZE: How important is it for your business to keep up with technological advancements?

6.2.5. Mind Maps 7, 8, 9, 10

Mind Map 7: The Potential for Collaboration is Significant

1) **Collaboration Opportunities**

    - Collaborating for Content Creation with jointly held events and promotions to save energy and resources for social media campaigns and reduce overall costs.
    - Working with lifestyle/brand-specific influencers to increase brand awareness, brand reach, and credibility (GCC's influencer marketing is influential).
    - Co-creating content with supply chain partners to enhance transparency and trust
    - Interviewee 3, Farm/Organic FMCG owner **"**We do hashtags, but this has given me lots of ideas to help collaborate with our F&B customers towards creating content together and elevating each other's marketing by co-creating content for both sides".

2) **Content Creation Strategies**

    - Highlight and showcase sustainable and ethical practices to build trust.
    - Sharing stories and behind-the-scenes content to increase brand reputation and humanize the brand and the people behind the brand.
    - Maintaining brand consistency during collaborative campaigns.
    - Interviewee 2, Kuwait Manager of a GCC farm to table chain **"**This totally is something that we could use as this would make our communication with our organic farm partners and suppliers better and integrate customers into seeing the benefits of growing locally and the whole farm to table appeal."

3) **Communication Channels**

    - Enables direct, immediate communication with all stakeholders/partners, allowing for quick decision-making and coordination
    - Facilitating real-time updates on stocks to improve SCM efficiency.
    - Highlighting partner success stories and partnered innovative practices

- Interviewee 3, Farm/Organic FMCG owner **"**for whoever is purchasing from us, social media allows for real-time updates on product availability, promotions, and farm-to-table events. This is extremely important for us to showcase our seasonality; and help more menus potentially change due to seasons."

Mind Map 8: Customer Feedback Utilization is Increased

1) Feedback Channels

- Direct communication gives immediate feedback on products and services. Businesses can interact with all stakeholders, address concerns, and gather insights.
- Collecting feedback across multiple platforms provides diverse perspectives giving a more comprehensive understanding trends and preferences.
- Embracing more feedback and testimonials helps others in their trust by allowing them the opportunity to read reviews.
- Interviewee 3, Farm/Organic FMCG owner**: "**One of the reasons we are a small business is because we want that ability to adapt and take in key feedback. We are a community-based company whose brand is centred on developing and helping the community. Without feedback, that would not be possible."

2) Customer Feedback Integration/Analysis

- Feedback helps refine products and services towards higher customer satisfaction.
- Addressing reviews promptly demonstrates market responsiveness and dedication to customer satisfaction.
- Leveraging feedback enables strategy development that is more aligned with customer expectations and market demands/trends.
- Interviewee 4, owner of Pan-GCC higher-end restaurant **"**Integrating social media in our supply chain operations will allow us to engage directly with customers, gather feedback, and give us an idea on our products and services to their preferences, ultimately improving customer satisfaction and loyalty."

Mind Map 9: Employees Get Access to Potential for Creative Opportunities

1) **Employee Training Required**
    - SM training, marketing and resources are essential for proper management.
    - A supportive environment enables employees to be creative and take risks/think outside the box.
    - A workplace culture that appreciates innovation helps ensure trust and confidence
    - A system of incentives and recognition to motivate other employees.
    - Interviewee 3, Farm/Organic FMCG owner: **"**Training and listening to ideas. As well as having concrete guidelines and branding documents for them to follow."

2) **Empowerment**
    - **Access to platforms where all employees may communicate and share ideas and contribute.**
    - **Allow for creative/professional development.**
    - **Interviewee 4, owner of Pan-GCC higher-end restaurant "As a decision-maker, I can support our employees/workers** during the integration process by providing training and resources to enhance their Social media skills, encouraging open communication and feedback, and recognizing and rewarding their efforts in adapting to new technologies."

3) **Team Collaboration**
    - Provides incentives and supports teamwork and collaboration
    - The admin should get involved in providing input and editing in order to guide and ensure quality assurance and brand maintenance.
    - Allow for cross-functional collaboration in order to get diverse perspectives and also to be able to highlight different aspects.
    - Interviewee 4, owner of Pan-GCC higher-end restaurant "The adoption of social media in our supply chain can contribute to the overall enjoyment and satisfaction of our team

by empowering them to connect with customers, share their expertise, and contribute to the success of our brand. Similarly, customers will appreciate the transparency, responsiveness, and personalized experiences facilitated by social media integration."

Mind Map 10: Social Media is the Current Trend and Integral to the Future

1) **Trend Awareness**

   - Appreciate the role SM plays today in terms of communication.
   - Need to be aware of SM's influence on how it affects client interactions/communication.
   - Keeping abreast of emerging platforms and features.
   - Interviewee 1, Food Truck Owner **"**Definitely an Upcoming Trend: Kuwait is definitely ready for such integration, especially, after COVID-19 when so many people now rely on social media for all their knowledge/communication as well as the ability to order food. There are still some challenges, but these will be solved as other SMEs/experts step in to help smoothen the process. Kuwait likes to stay on top of trends, and this definitely seems like a future move forward.

2) **Future Integration**

   - Needing to take proactive steps to be prepared for changes in SM landscape (i.e., new applications and trends)
   - Working with operations to provide a guide to allow for the strategic integration of SM into SCM, including investing in resources as necessary
   - Interviewee 2, the Kuwait Manager of a GCC farm to table chain "(SM Integration) is definitely something that should have already been done and instituted throughout Kuwait.**"**

3) **Competitive Advantage**

   - Getting in early on integration to ensure competitive advantage.
   - Showing the brand to be forward-thinking and innovative.
   - Seek opportunities for brand visibility and engagement.

- Interviewee 4, owner of Pan-GCC higher-end restaurant: “Social media integration is definitely an upcoming trends for SMEs like ours, as it offers numerous opportunities to enhance customer engagement, streamline operations, and differentiate ourselves in the market.”

6.2.6. Analysis of Mind Maps 7 - 10 in Terms of the Research Questions

Question 1: Key Factors Influencing Adoption and Usage of Social Media

The various points below summaries the main key factors as per the information gleaned from Mind Maps 7 – 10. Further, each point is supported by information that is also found in the references provided. Though the references might not touch upon the supply chain management perspective, the general points are touched upon in their summaries and conclusions.

1) **Gauging Current Levels of Social Media Integration**

   - Mind Map 7: Collaboration is emphasized as a main benefit of SM integration, which will then work towards improving brand reach and improve SCM/general operational efficiency (Ahmad et al., 2018; Alhaimer, 2021).
   - Mind Map 8: Focuses on integrating and responding to client and customer feedback, making SM the ideal platform to facilitate pan-supply chain communication and information access (Ahmad et al., 2018; Alhaimer, 2021).
   - Mind Map 9: Acknowledges the need for employee training and appreciates employee empowerment as essential for enhancing a company-wide culture of innovation and collaboration (Ahmad et al., 2018).
   - Mind Map 10: Highlights being updated on trends and emerging platforms in order to keep a competitive edge (Ahmad et al., 2018; Alhaimer, 2021).

2) **Understanding Decision-Makers' Mindset**

   - Mind Map 7: SMEs that value collaboration and work with influencers are more inclined to adopt social media technologies (Yiadom and Isaac, 2023; Alhaimer, 2021).
   - Mind Map 8: SMEs that give merit to customer satisfaction and the need to be responsive to the market will be more open to integration (Nyamboli, 2021**;** Alhaimer, 2021).

- Mind Map 9: SMEs who seek to be innovators are more likely to adopt SM integration (Alhaimer, 2021).
- Mind Map 10: Trendsetters (or those who aspire to be) will be more likely to align strategies with consumer behaviour, and therefore more open to SM integration (Nyamboli, 2021; Alhaimer, 2021).

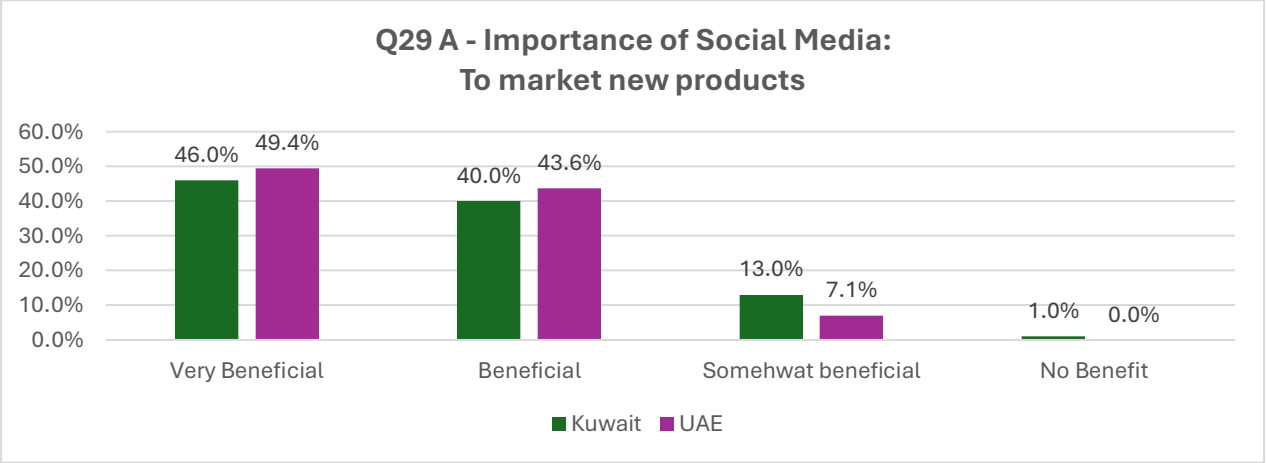

Figure 53: Kuwait vs UAE Importance of SM to Market New Products

Figure 53 shows that respondents from the UAE marginally believe that SM is a more vital factor in marketing new products compared to those in Kuwait. This suggests a higher level of SM general integration in the UAE, which is also supported by literature and indicates the UAE's proactive approach to digital transformation (Al-Khouri, 2012). This marginal difference is probably due to the UAE's robust digital infrastructure and supportive government policies, which encourage SM adoption (Ahmad et al., 2018). The data indicates that decision-makers in the UAE are more likely to value SM in their marketing strategies, thereby presenting themselves as more forward-thinking in their mindset. As can be seen in the AMOS results, for the UAE specifically, the Facilitating conditions and Social Influence were the only two latent variables that would almost be accepted. A big part of this is their worldwide exposure, with so many people communicating, marketing, and then traveling and doing business from international countries as well as that the playing field there seems more competitive, with more international marketing agencies, etc., and more MNCs have to abide by higher standards in terms of innovation, as well as brand reach.

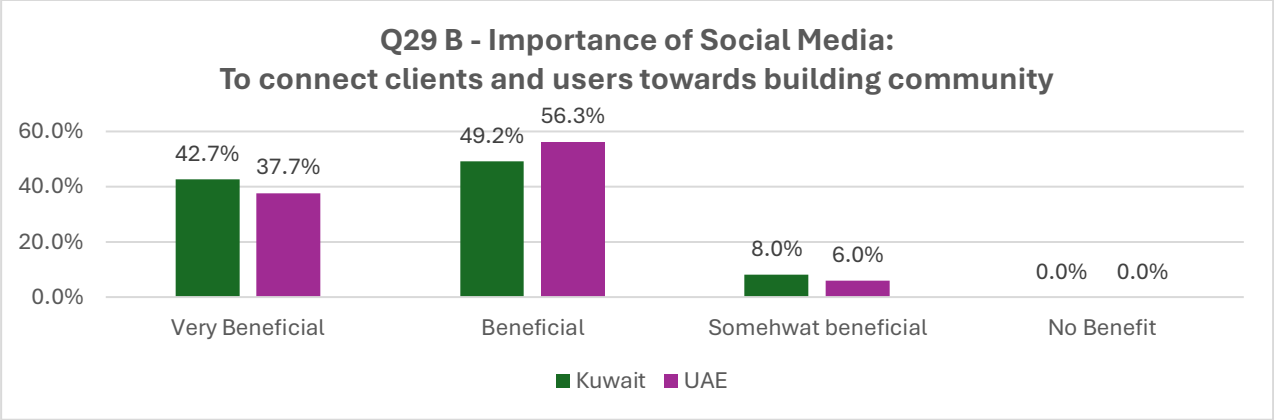

Figure 54: Kuwait vs UAE Importance of SM to Build Community

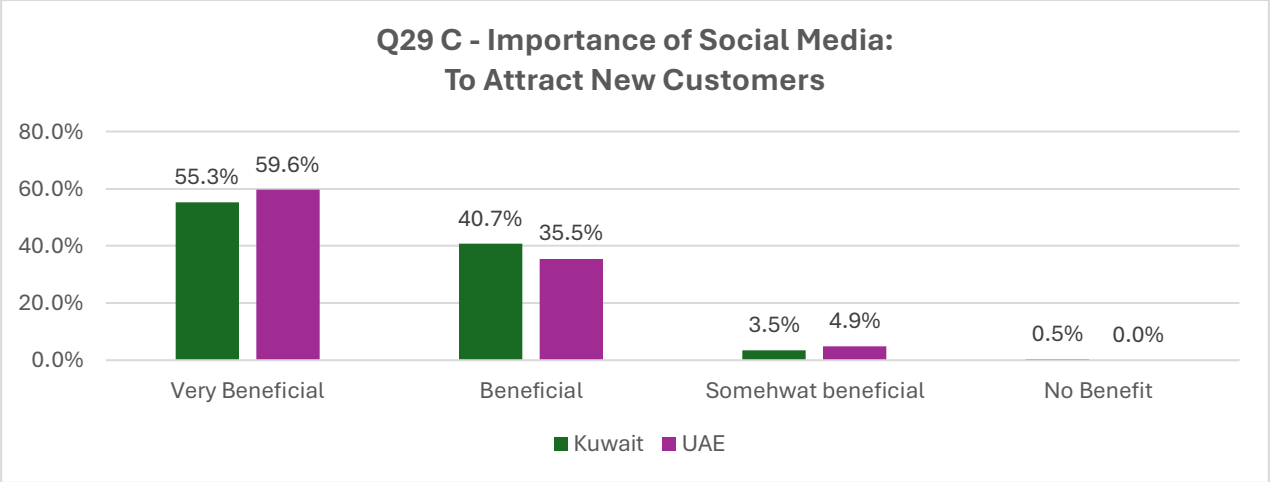

Figure 55: Importance of Social Media: To Attract New Customers

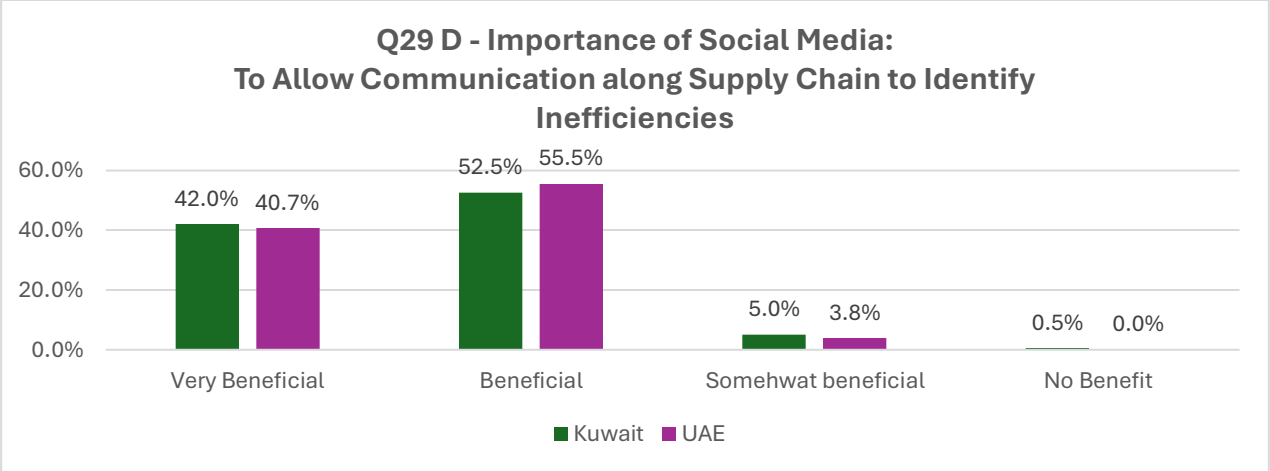

Figure 56: Importance of Social Media: To Allow Communication along Supply Chain to Identify Inefficiencies

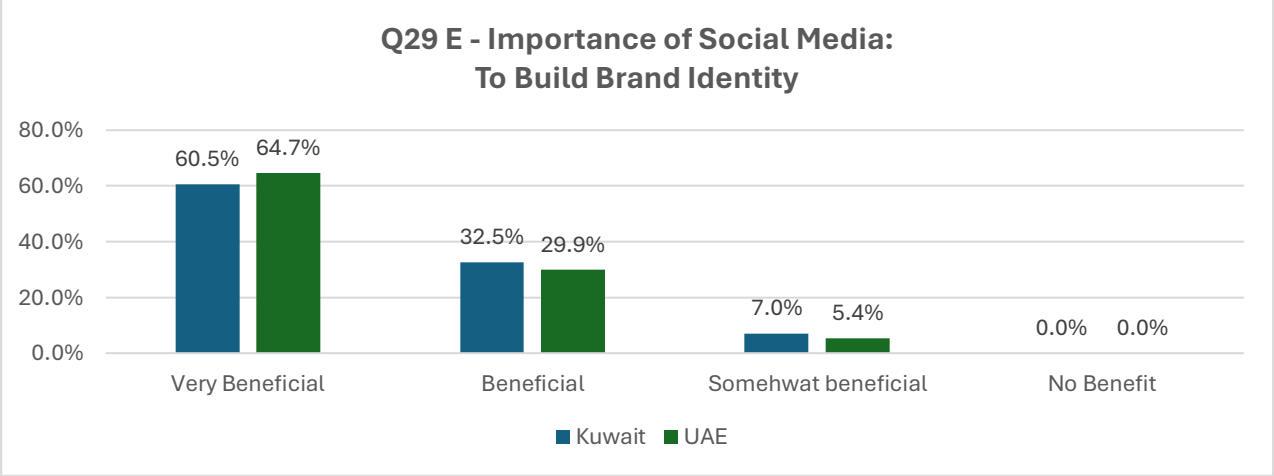

Figure 57: Importance of Social Media: To Build Brand Identity

Figures 54-57 collectively present the Decision-Makers' Perception of SM Trends (Kuwait vs. UAE). Further to the first chart in the series (Q29A), the next four charts also highlight that UAE decision-makers are more attuned to SM trends, suggesting a greater openness to innovation and SM adoption. This trend aligns with AL-Khoury (2011), Ahmad et al. (2019), and Alhaimer (2021), who all emphasize the importance of leadership in embracing new technologies and how the facilitating conditions are more supportive and the general mindset is more open in the UAE, compared to Kuwait.

Decision-makers in Kuwait tend to show a more conservative approach, possibly because of infrastructural limitations or because they know that, in comparison, they don't have to work as hard or as much. Despite being less competitive when compared to Dubai (Alhaimer, 2021), Kuwait is still

considered a 'food' destination and is highly appreciated by all those in the GCC for its innovative chefs and F&B options. However, there still remains a big difference in options and range of eateries and other provisions (from dedicated luxury food retailers to different concept marketplaces, etc.) because of the difference in-laws as well as international F&B concepts that Kuwait attracts (due to both laws, exposure, and tourism). However, these charts present and help support the findings that Facilitating Conditions and Social Influence do play a role and are positively inclined toward SM integration in SCM. Furthermore, the Excel analysis also shows that company size and organizational culture were found to have an effect on SM adoption.

Question 2: What are the Challenges and Opportunities of Integrating Social Media

1) **Challenges summarized**

   - **Mind Map 7:** Ensuring successful collaboration while keeping on brand (Alhaimer, 2021; Alsharidah et al., 2020).
   - **Mind Map 8:** Overseeing and integrating multiple platforms of data while still being prompt in responses (Alhaimer, 2021; Alsharidah et al., 2020).
   - **Mind Map 9:** Financing potentially continuous training (Alhaimer, 2021; Alsharidah et al., 2020).
   - **Mind Map 10:** Being prepared for future changes and having the infrastructure to adapt (Alhaimer, 2021; Alsharidah et al., 2020).

2) **Opportunities summarized**

   - **Mind Map 7:** Enhanced brand visibility, the potential to be involved in creative marketing, enhanced transparency, increased customer engagement, trust, and ultimately, loyalty.
   - **Mind Map 8:** responding to feedback enables better products and services better customer satisfaction and can help with market positioning (Alhaimer, 2021; Alsharidah et al., 2020).
   - **Mind Map 9:** The Brand will benefit from more creativity and collaboration (Alhaimer, 2021; Alsharidah et al., 2020).

- **Mind Map 10:** Gaining a better competitive edge through early adoption, ensuring relevance of and working towards exceeding expectations (Alhaimer, 2021; Alsharidah et al., 2020).

6.3. Quantitative Analysis

Using IBM SPSS AMOS, the quantitative analysis was done for a survey with data from over 300 respondents. However, the results were not fully in alignment with the qualitative data, and not all the hypotheses were confirmed using this approach. These discrepancies will be later addressed in this discussion.

6.3.1. Hypotheses and Quantitative Results

The aim was to test the six hypotheses in regard to what the mindset of F&B SMEs was towards the integration of SM in SCM within Kuwait and the UAE. Despite rigorous statistical testing, where the data was approached in multiple ways, using EFA factors that were limited to 6, then 5, and then four factors each, and then modelling them each using a CFA and ultimately the SEM analysis, the hypotheses were not all supported. These findings and the information garnered are far less positive when compared to the qualitative findings.

6.3.2. PLS Sem vs Research Questions

Question 1: Key Factors Influencing Adoption and Usage of Social Media include:

1) **Current Levels of Social Media Integration:**

The charts above show varied levels of SM integration by country, company size, etc. Chart Q29 A Kuwait vs. UAE - Importance of SM to Market New Products further emphasizes that those in the UAE generally feel SM is a more important tool compared to those in Kuwait, aligning with the findings of Ahmad et al. (2018) and Alhaimer (2021), who highlight varying levels of SM adoption as per differences in regional digital infrastructure and cultural aspects and approaches.

2) **Decision-Makers' Mindset:**

The charts Q29 B - E, also show how decision-makers in the UAE recognize the value of SM more in not just marketing, but building brand identity, spotting inefficiencies, building community, and attracting new customers. These suggest that UAE-based leaders are more forward-thinking and open to innovation, corroborating Al-Khoury (2012), Ahmad et al. (2019), and Alhaimer (2021).

Understanding the demographics:

- **Age Range of Respondents:** Majority (> 90%) of the respondents were between the ages of 26– and 50. This shows that these decision-makers are relatively young, which helps in their being more open to adopting new technologies and new adaptions, such as SM into SCM
- **Prime Locations of Surveyed Companies:** The majority of companies operate in both the UAE and Kuwait, with a significant portion focused solely on one of the two countries, resulting in a more balanced distribution.
- **Highest Level of Education:** In line with Kuwait and the UAE's policies of aiding and providing higher education scholarships and bettering their local private and public Universities, it is no surprise that most respondents have at least a Bachelor's degree. This is also supported by the fact that getting visas (for expats) has become harder and a minimum for administration jobs is having, depending on the salary, even a Master. This shows that the respondents are a well-educated group, which also reflects their openness to adopting new technology and recognition of comparative advantage, i.e., to understand and leverage SM technologies effectively.

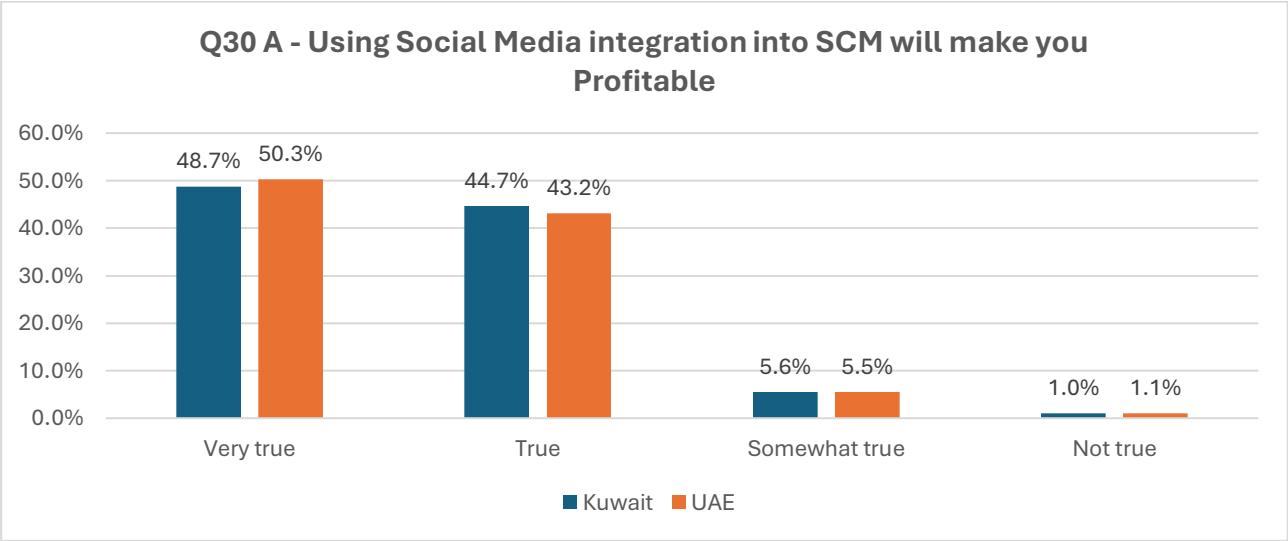

Figure 58: Using Social Media integration into SCM will make you Profitable

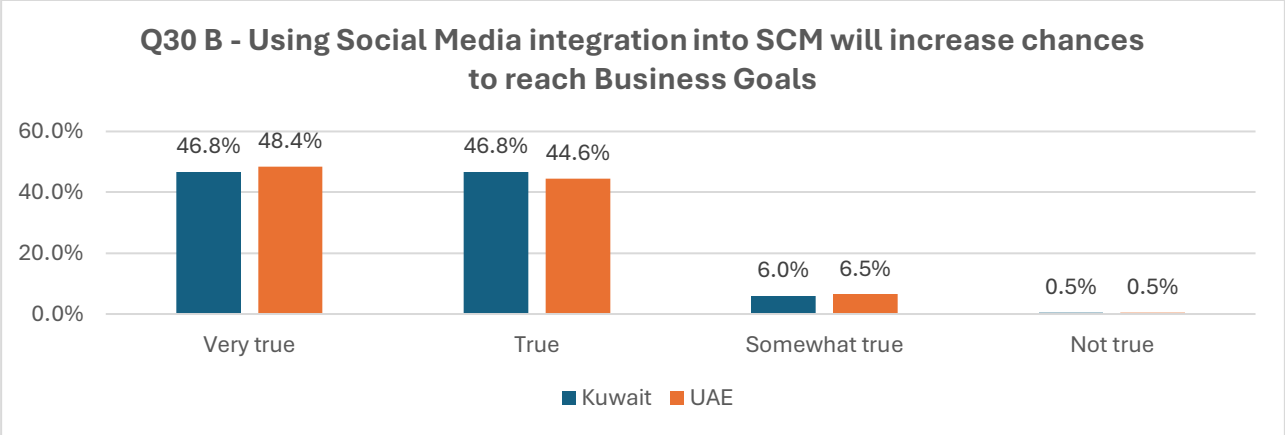

Figure 59: Using Social Media integration into SCM will increase chances to reach Business Goals

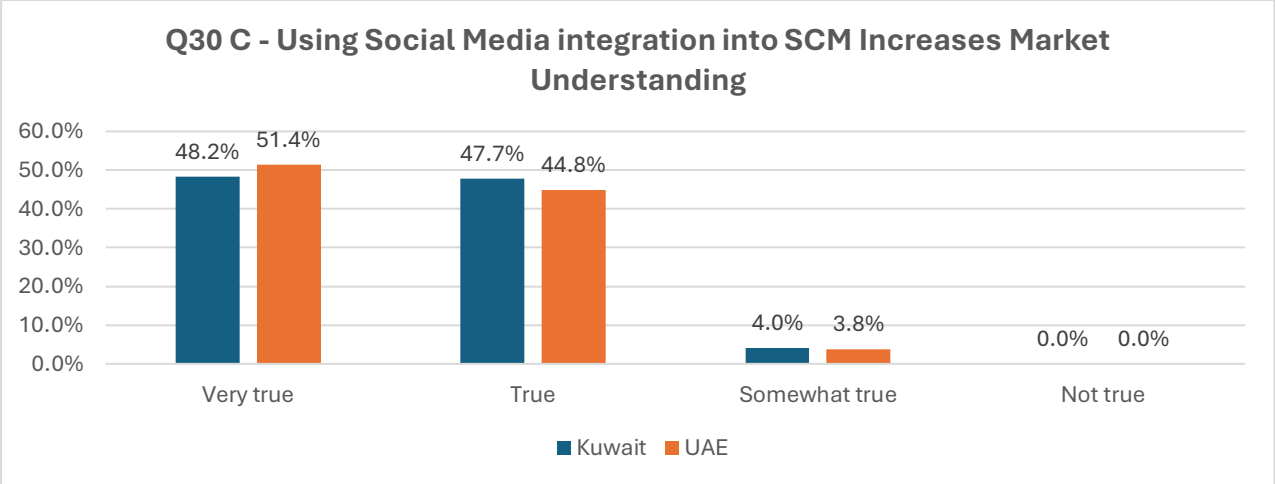

Figure 60: Using Social Media Integration into SCM Increases Market Understanding

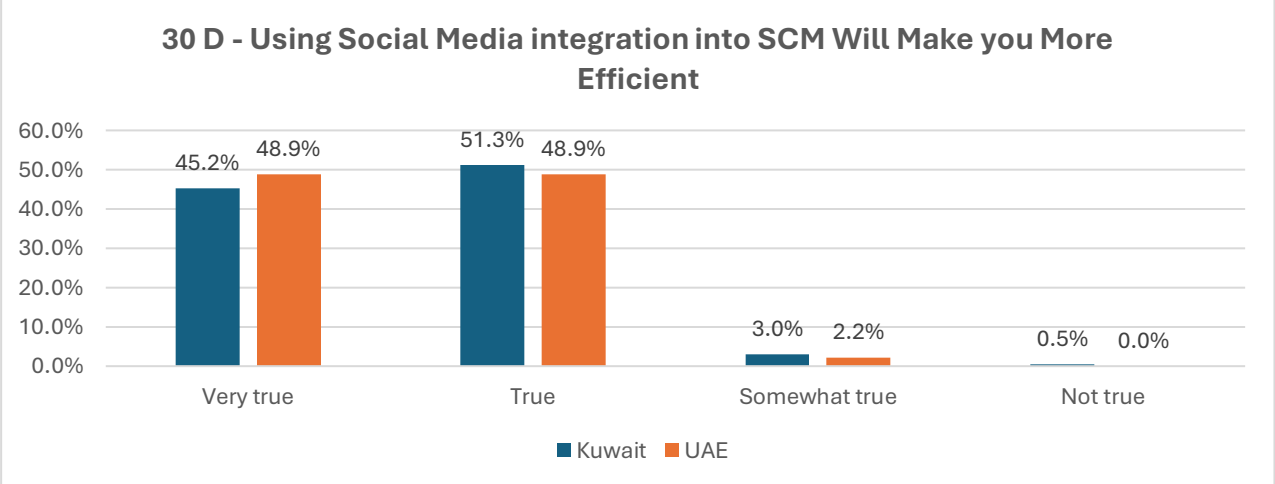

Figure 61: Using Social Media integration into SCM Will Make you More Efficient

Figures 58-61 (all focused on Q30 regarding how they feel about SM integration into SCM in terms of the four different aspects: a) making more profitable, b) enhancing the ability to reach business goals, c) increasing marketing understanding, and d) making more efficient); together, it shows the anticipated mindset and the effects of organizational culture on SM integration into SCM (Kuwait vs. UAE).

What is interesting to note is that in all 4, the UAE is slightly greater than Kuwait for those who are most affirmative (i.e., Very True), whereas Kuwait then takes the lead in all four charts for the second option (i.e., true). All the data, therefore, reinforces how facilitating conditions is the primary driver for social media adoption into SCM. However, again, the difference in understanding what this means between those who were taking the survey and those who were interviewed is clearly shown in the difference in the richness of the data gathered. The qualitative data is far more in depth, but also reflects how they understood the topic matter and the idea of SM integration into SCM far better, than those who were answering the survey. This, of course, makes a difference in the end results, as can be seen by how the hypotheses in the quantitative data (via PLE SEM) were not all satisfied or met.

The Qualitative study is therefore a more comprehensive resource about SM integration, as it not only showed more encouraging results but shows that they understood not only the obstacles and challenges but the potential and what was required to get there. Being better informed about the benefits also definitely leads to more positive attitudes towards adoption. Again, this suggests that the lack of more detailed introductory framework for the survey has led to less favorable results.

Another aspect is various biases that are inherently involved with surveys. The survey was in no matter short, and even though it was offered in both Arabic and English, people wanted to finish answering as fast as possible, and then also social desirability bias, where they might be answering what they think people want to hear, vs central tendency bias, choosing a more neutral tone as it requires less thinking and is faster, as well they might not have understood what was actually being asked – or at least not appreciate the questions fully.

Question 2: Challenges and Opportunities of Integrating Social Media

1) **Challenges**:

Various significant challenges were made evident, including the need for continuous training and effective collaboration, as well as the questions that indicated the need to maintain up-to-date knowledge and manage real-time updates are perceived as major hurdles (integrating Q21 – 27 on the survey), again supporting the findings of Alhaimer (2021) and Alsharidah et al. (2020).

2) **Opportunities**:

The potential benefits of SM integration were emphasized to a lesser degree than in the qualitative study. The results show that UAE SMEs are more likely to recognize opportunities (from Q29 A – E) for enhanced brand visibility and competitive advantage. This finding supports the view that early adoption and trend awareness can provide significant strategic benefits (Al-Khouri, 2012).

However, Q30 A – D, also showss that the UAE is slightly more optimistic about SM integration due to the benefits it could bring. This optimism is being validated by the UAE's higher level of digital maturity and strategic investment in SM technologies (Al-Khouri, 2012). Whereas, Kuwait is more prevalent in their slightly less enthusiastic choice (i.e., true vs. very true), thereby showing Kuwaiti respondents to be more cautious, emphasizing the need for more exposure, education, and resources towards their being able to fully appreciate the benefits of SM integration.

Despite this, the opportunity remains that both countries are open, and there is a readiness and willingness to change. What will really change the environment is when people start integrating and seeing the success stories, as both countries are very pro 'fad' and will then likely jump on the bandwagon, with the UAE potentially taking a slight lead, however, Kuwait being very quick to copy and keep up.

6.3.3. Potential External Factors Influencing PLS SEM Results

- **Niche Group and Regional Challenges**:

As per the survey setup, a niche group of F&B SME decision-makers was targeted as the respondents. However, one reality that could have affected this group, more so than others, is that pressing world issues, like the war in Gaza and very evident global cost of living crisis affecting prices of food, services, as well as logistics in general, have also been a prime focus for many. These external factors likely diverted attention from non-essential activities like participating in surveys or adopting new technologies. This is why it took so long and was so difficult to have the survey finished. SMEs in the GCC have been particularly impacted, with many focusing on immediate survival rather than strategic enhancements like SM integration. Survey questions are presented in Appendix 2.

- **Differences Between UAE and Kuwait**:

The definite difference in approach of the UAE's (i.e., their being more proactive) towards digital transformation and facilitating conditions such as government support for technology adoption contrasts with Kuwait's more conservative stance. This discrepancy is reflected in the survey results,

where UAE respondents show higher SM adoption and integration levels and a more enthusiastic and less risk-averse approach. UAE's diversified economy and significant investments in digital infrastructure are noted by Al-Khouri (2012) and Kuwait's pro but cautious approach, by Alhaimer (2021)

Furthermore, a difference in cultural attitudes towards technology and innovation vary between the two countries, potentially due to the UAE's being more international, cosmopolitan and progressive vs. Kuwait's more conservative approach.

6.4. Conclusion

The qualitative data through the thematic analysis presented a more nuanced and comprehensive data set, which reflected a higher level of thinking and reflection by the respondents. The quantitative analysis, done by both Excel and PLS-SEM analysis via IBM SPSS AMOS, presented a more 'tempered' view of SM adoption in Kuwait and the UAE's F&B sector in comparison.

The quantitative approach, however, was still fruitful as it was supported by various charts and demographic insights to provide a more nuanced understanding. The results highlight regional differences between the UAE and Kuwait, with the UAE showing greater readiness and optimism towards SM integration in SCM. External factors, such as the ongoing conflict in Gaza and the global cost of living crisis, have also impacted SMEs' focus on SM integration. The difference in approach of the UAE and Kuwait underscores the importance of exposure, training, and the required proper introduction to the benefits of SM integration.

By addressing these issues and leveraging insights taken from all aspects of this study, the governments and private sector that is involved may better aid SMEs to navigate the complexities of SM integration so that the whole economy may eventually benefit.

The quantitative analysis revealed that not all of the hypotheses were fully met, which here feels more suggestive of the limitations of a survey-based approach rather than the actual approach of the people. The qualitative research had more favourable, richer insights because of the time taken to comprehensively introduce and contextualize the matter at hand.

7. CHAPTER SEVEN: CONCLUSION

7.1. General Conclusions

This research aimed to explore the key factors influencing the adoption and integration of SM into the SCM of F&B SMEs in Kuwait and the UAE, two key members of the GCC. The aims of this research also sought to identify the challenges and opportunities related to such integration in order to create guidelines, recommendations, and advice for various players in each country, including government officials and bodies of planning, private sector led incubators, as well as GCC F&B decision-makers. This is especially important at this critical time when all GCC countries are heavily investing, planning, and implementing various components of their National Sustainable Development Plans aimed for completion between 2030 – 2035, in which tourism, thereby F&B, as well as logistics, innovation technology, and more means of diversifying economy all play key segments towards their sustainable development for the future.

This study employed both qualitative and quantitative methods to provide a comprehensive, nuanced, and relevant discourse on the future of logistics, F&B SCM, and social media integration as a whole. Mainly derived from a comprehensive and detailed thematic analysis, the qualitative data provided deep insights and takeaways that reflect the high level of engagement and understanding among multiple respondents in both the UAE and Kuwait. Given a detailed introduction, with multiple examples, videos, and online sites detailing examples of SM in SCM integration, the respondents were then more able to properly articulate relevant perspectives and give insight to potential benefits, challenges, and opportunities that arise from SM adoption in SCM. The qualitative approach revealed a far higher level of optimism and readiness towards SM integration, especially from the UAE, who, for multiple reasons (exposure, more competitive landscape, higher international marketing and corporate presence, greater government support) are more open to advanced digital marketing strategies.

On the other hand, the quantitative analysis was conducted through a detailed survey in which over 300 respondents were able to participate over a period of almost seven months. The data was then analysed using both Excel and IBM SPSS AMOS to carry out PLS-SEM analysis. This data presented a more restrained perspective for multiple reasons, first probably due to the far less detailed introduction to the topic matter. The Excel analysis aided to analyse demographic data, giving further context, including that there is an existing recognition of the SM benefits and awareness of the need to keep up with trends to survive in the competitive landscape that F&B companies are in the region; still, there are

significant regional differences and external factors influencing the adoption and integration of SM into SCM. After a prolonged effort of carrying out multiple EFA, CFA, and SEM analyses (using multiple approaches in order to ascertain the best results), the six hypotheses were found to not all be supported by the quantitative data using PLS-SEM analysis. However, they were given a lot of nuanced support given the more macro level analysis in Excel as well as through the qualitative data analysis.

Other factors have also limited the quantitative analysis, including the global cost of living crisis, where all aspects of the F&B industry have been affected and then made more complicated due to the ongoing war in Gaza, all factors impacting the focus and time availability of F&B SME decision-makers.

7.2. Conclusions Based on Two Research Questions:

Question 1: Key Factors Influencing Adoption and Usage of Social Media

The various analysis emphasised several factors influencing SM adoption and integration.

- Age demographics showed F&B SME decision-makers are mostly between 26-50 years old, suggesting that potentially the younger generation might be more open to SM integration.
- The majority of respondents have Bachelor's degrees; this educational background highlights a high level of awareness and ease of use of digital tools (especially given that both countries have 99% smartphone penetration). Instead of a higher level of education (i.e., Master/PhD), a new level of SM usage courses that may be generated and given online would be more beneficial for all ages and people to learn how to best utilize the various SM media. This would be even more beneficial in Arabic, English, Hindi, Tagalog, etc, as these are the predominant languages in both countries in terms of the F&B industry. See recommendation below for government and incubator groups.
- A personal level of social media use was also a good indicator of openness towards SM adoption and integration, playing a role in both hedonic motivation and facilitating conditions. With the existing ease of use of various applications, more people are then able to be proactive about complicating the usage via multiple platforms and then managing more partners for collaborative content creation.
- Instagram emerged as the most popular platform in both Kuwait and the UAE, reflecting its effectiveness in visual marketing as well as the familiarity of the population in Kuwait, i.e., this

is how the market reacts to it. The UAE generally had higher usage rates of other SM platforms than their Kuwaiti colleagues, therefore highlighting regional disparities in digital engagement.

- The qualitative data supports the above results and further provides nuanced context, including the need for training and exposure, as well as providing a supportive environment in which a creative atmosphere may be fostered, further creating an overall supportive organizational culture and the need to make available resources to facilitate the transition and managing of SM integration.
- Those F&B SME decision-makers who were more aware of the strategic worth of SM were naturally more inclined to invest both time and resources towards integration.
- Regional differences between Kuwait and the UAE were made more evident, with the UAE showing greater readiness, motivation, and optimism toward SM into SCM integration.
- Furthermore, external factors, such as the global cost of living crisis and the war in Gaza also impacted F&B SME decision-maker's priorities.

Question 2: Challenges and Opportunities of Integrating Social Media

Several challenges in the process of SM into SCM integrating were revealed, including:

- There is a need for continuous training and to be up to date with trends and other technological updates.
- Effectively managing the plethora of data from various platforms of real-time updates and promptly replying to ensure customer satisfaction.
- Important or maintaining quality control and consistent brand messaging among various platforms.
- Maintaining and ensuring effective collaboration.

These challenges further emphasized the importance of organizational readiness and the need for a supportive, creative/innovation-conducive environment for SM content creation and general integration.

Both qualitative and quantitative data also highlighted various opportunities.

- The massive potential for increased brand reach and visibility.
- Distribution of work and potential (reduction of resources) due to combined efforts for SM content creation.
- Pathways to new innovation and potentially new products and services.
- Potential for improved customer engagement.
- Meeting customer demands better and being able to adapt more to dynamic preferences/trends.
- Enhanced operational efficiency.
- Increased transparency, thereby increasing customer trust and loyalty.

The qualitative data was far more specific and detailed in describing both the role of innovative marketing campaigns and how they may be leveraged towards building customer trust loyalty and increasing satisfaction and customer engagement in general.

7.3. Recommendations for F&B Decision-makers, Government, and Incubators

General Advice for Policy Makers in terms of Research Questions

In order to effectively leverage the region's various facilitating conditions (high smartphone penetration and existing social media engagement), the following areas need to be worked upon.

Question 1: Key Factors Influencing Adoption and Usage & Question 2: Challenges and Opportunities in Social Media Integration

- **Awareness Programming:** To bring to light the competitive advantages of not just integration but the early adoption of SM into SCM and the need for continuous work towards innovation.
- **Facilitate market expansion**: Work towards general logistic and industry efficiency improvements through strategic social media integration across all sectors.

- **Custom-made Training Programs:** Industry-specific programming and workshops, segmented potentially based on company size and orientation, in order to address varying needs, functionalities, and capacities.
- **Strategic Guidance:** Creating pan-industry collaborative opportunities to not only benefit from industry specific work but encourage cross-industrial innovation and product and service marketing and logistics. Further, strategic guidance and improvement towards general practices concerning transparency and real-time communication.
- **Resource Allocation:** Provide incentives and resources for training, adoption, collaborative/innovative content creation, and pan industry brand-building to enhance regional and potentially international visibility and customer engagement.
- **Continuous Support:** Create communication channels and incubator services for continuous support and updates on social media trends.

By implementing the above steps, policymakers are then able to ensure that

- Enhanced engagement and innovative content creation.
- Build strong cross-stakeholder relationships.
- Help overcome the significant learning curve.
- Leveraging regional advantages.
- Drive market expansion and operational efficiency.

Recommendations/Advice For F&B Decision-makers:

1) Invest in Training: Prioritize training and provide continuous resources to facilitate and help enhance the potential of SM in SCM integration. From Conferences, workshops, and webinars to developing certification courses that focus on the latest SM trends and SCM technologies and collaborative culture in content creation and cross-functional potential

2) Leverage Influencers: Help bring social media influencers after careful selection process and create opportunities for cross-communication and idea generation of new, innovative ways to boost brand visibility and engagement. Further, provide the infrastructure for new influencers to

come up, and also look into means of ensuring more authentic creation rather than paid-off reviews, etc.

3) Adopt Cross-Functional Culture: Facilitate cross-functional dialogue in and between groups within the same industry, across industries, and across supply chains to help achieve operational efficiencies and facilitate collaborative marketing, logistics, and IT department solutions.

Recommendations/Advice For Government Bodies/Policy Makers:

1) **Create Awareness Programs:** Work with industry leaders and influencers, as well as creative marketing and supply chain operations and management efficiency leaders, to develop strategic guides and awareness campaigns to elucidate the potential of SM in SCM integration.

2) **Provide Incentives:** Governments, especially with the SME Development funds and Incubator services, can influence greatly by offering financial incentives for SMEs that invest, lead, and co-manage digital transformation.

3) **Develop Resource Centres:** Provide free resources (make it accountable in the sense that its free based on future steps taken by the SMEs) to help offset initial costs of training and inner company resources and help more employees across the region gain expertise and confidence.

4) **Facilitate Networking:** Sponsor industry-specific, as well as pan-industry, collaborative forums, design thinking style workshops, and networking events to help facilitate communication, access, and generate ideas and connections.

Recommendations/Advice For Incubators:

1) **Mentorship Programs:** Identify key leaders in content creation and SM in SCM integration and build expert-led mentorship programs towards valuable guidance and support. Incubators can help offset the tremendous cost and organizational requirements of such mentorship and give SMEs (and even larger companies) access to information to help create a domino effect and help transition the economy and existing processes.

2) **Access to Technology:** Work with Governments and Funds to research and sponsor access to advanced SM tools and platforms, as well as provide associated training.

3) **Support Communities:** Help build both online and physical communities where members can voice concerns, help develop regulation and quality control measures, as well as access continuous support towards troubleshooting. By fostering a collaborative environment, you build a sustainable environment for ongoing development.

7.4. Future Research Recommendations

There are many areas of potential research due to the fact that social media integration is still so new as well as varied across cultures and corporations around the world. Below is a general description of current gaps in research, as found by the Researcher.

1) In order to bridge the gap between the qualitative and quantitative analysis in this study, longitudinal studies could provide more in-depth insights into the evolving attitudes. Further research, expanding both the qualitative thematic analysis (i.e., more interviewees) and then having some type of incubator-sponsored event to introduce the topic more formally and in-depth to a greater number of people, and then have a survey so as to have a more profound study whose data is more reflective of informed decisions and input.

2) One of the key functionality changes in terms of SCRM is that social media integration allows for real-time monitoring and analysis of potential risks and disruptions within the supply chain. Such information provides the ability to analyse potential risks and disruptions within the supply chain and is, therefore, vital to effective risk management due to improved risk identification and analysis. (Lee et al., 2021; Tseng et al., 2019).

3) Another key structural change is that an isolated marketing department in itself is not an ideal solution for any institution. With more and more companies putting forth cross-functional teams to help spearhead decision-making and find new creative and efficient solutions to everything from product development and idea generation to back-end customer service, all aspects of selling today require integrated communication with the consumer. (Lei, L., 2017).

This requires a level of 'literacy' when it comes to social media, both in terms of understanding the information as well as in terms of content generation. Simply put, today, SCRM has to be integrated through various levels of any corporation and through the different functionalities that any company has. In order to be able to communicate efficiently with the consumer and provide the transparency that today's online world requires, this needs fully

developed and well-rounded communication where answers are not just top-down (Olivia and Watson, 2010).

How best to implement and measure the efficacy of social media literacy across all levels of a company becomes the central question. The focus is on optimizing product and supply chain efficiency while maintaining consistent brand representation. Additionally, addressing the complexities and adaptations required for multinationals (MNCs) operating across diverse continents, cultures, and etiquette norms is crucial.

4) Another very important aspect to study would be how social media and SCRM help corporates generate accurate sales forecasting and reduce wastage, especially in terms of how long their product stays on the shelf (Goncalves, 2017). For Corporations, it is necessary for them to access more tools and theories, primarily based on research, to enable them to utilize both internal and external social media in order to increase collaboration, communication and reduce inefficiencies as a whole.

5) A fourth area of study could explore how social media facilitates not only feedback on current products but also communal generation of customer-centered product ideas within a structured framework. It's not just about ideation but also about effective application. This approach could pave the way for new apps and media platforms that place global consumers at the forefront of product development, with professionals refining these ideas. Moreover, integrating the entire supply chain could lead to innovative solutions for utilizing discarded by-products. Jiao et al. (2020) examined how customers engage dynamically in new product development (NPD) through social media, fostering innovation through communication, co-creation, and collaboration with corporations.

The above idea could further be expanded upon, as providing access to the public to the supply chain of any corporation also gives many more 'eyes and heads' access to identifying and solving issues within the supply chain. This could become an interconnected sphere where entrepreneurs can then see more and therefore be able to come up with new, more efficient solutions. It is giving entrepreneurs and corporations alike the opportunity to 'crowd-solve' solutions. In effect, it will bring about a more egalitarian environment in terms of 'sensing capability', which is 'the ability to spot, interpret, and pursue opportunities in the environment' (Pavlou & El Sawy 2011).

6) More detailed research would also be helpful in the role and functionality of suppliers within the social sphere of supply chain management. Understanding and creating best practices for various players within SCM, including the suppliers, is key towards optimization (Jacob-John and Veerapa, 2015). Let us take an MNC, such as Starbucks ©. The chain has over 28,000 stores, spanning 50 countries. "Starbucks uses one centralised system to manage its supply chain and logistics network across six continents. By doing so, Starbucks is able to operate and manage multiple global distribution centres centrally with complete control: five in the United States, two in Europe and two in Asia" (Mathews, 2015). Using digital technologies, the Company uses an automated information system that monitors and enables real-time decision-making in order to efficiently manage all spikes and dips in consumption. This flexibility and agility to change schedules in order to perfectly match demand has helped tremendously in reducing waste and inefficiencies. However, a focus is now being placed on providing access to the local farmers and increasing their engagement with the public. In order to stand by their promises of fair trade, in terms of coffee especially, transparencies are being set up so that the public can actually see where and how the coffee is being sourced. Further, the public wants proof of what else Starbucks is doing for its farmers in its supply chain in order to justify and enable its own consumer ethics. Seeing how and where such strategies are being utilized and what the best ways of doing so are would also be extremely helpful as it could then provide insight to many other corporates who don't have the ability to invest millions in this learning curve itself.

7) Other investigations are required into the efficacy and best use of user-supplied tags, especially in terms of evaluating and expanding upon current applications for supply chains (Unhelkar et al., 2022). Though blockchain and other innovative technologies like RFID are changing the dynamics of SCRM, there is still far more to be examined, and cost-effective means of applying them are still to be worked on. Such technologies could help governments and monitoring agencies in terms of maintaining the quality of products, reducing smuggling, and levying taxes. By making it real time and giving access to various levels of people, there are so many ways, if properly identified, thought out and implemented, that an online supply chain model can help all those involved. This could then also be combined with understanding and analysing what KPIs accurately identify interactions within supply chain networks. Knowing how and where to measure the KPI's best in order to improve efficiency is key for the supply chain as a whole.

REFERENCES

Abed, S.S. 2020. Social Commerce adoption using TOE framework: An empirical investigation of Saudi Arabian smes. International Journal of Information Management 53, p. 102118.

Advanced Solutions International, Inc. CSCMP Supply Chain Management Definitions and Glossary. Retrieved September 19, 2018, from https://cscmp.org/CSCMP/Educate/SCM_Definitions_and_Glossary_of_Terms/CSCMP/Educate

A., Barbosa-Póvoa, A. P., & Relvas, S. (2019). A review of quantitative models in supply chain risk management: State of the art and future research directions. European Journal of Operational Research, 274(3), 854-876.

Agrawal, P. and Narain, R. (2021) 'Analysis of enablers for the digitalization of supply chain using an interpretive structural modelling approach', International Journal of Productivity and Performance Management, 72(2), pp. 410–439. doi:10.1108/ijppm-09-2020-0481.

Ahani, A., Rahim, N. Z. A., & Nilashi, M. (2017). Forecasting social CRM adoption in SMEs: A combined SEM-neural network method. *Computers in Human Behavior*, 75, 560–578. doi: 10.1016/j.chb.2017.05.032

Ahmad, Z, S., Bakar, A, R, A. and Ahmad, N. (2018) Social media adoption and its impact on firm performance: the case of the UAE. Available at: https://www.emerald.com/insight/content/doi/10.1108/IJEBR-08-2017-0299/full/html.

Ahmad, Z, S., Bakar, A, R, A. and Ahmad, N. (2019) Social media adoption and its impact on firm performance: the case of the UAE. Available at: https://doi.org/10.1108/ijebr-08-2017-0299.

Ain, N.U. et al. 2016. The influence of learning value on learning management system use. Information Development 32(5), pp. 1306–1321.

Aladwani, A. M. (2018). Social commerce definitions and its dimensions. In Proceedings of the 2018 International Conference on Information and Communication Technology and Digital Convergence (ICID) (pp. 1-4). IEEE.

Albawaba (2016). Kuwait announces $11.3B of new infrastructure projects. Available at: https://www.albawaba.com/business/kuwait-announces-113b-new-infrastructure-projects-820026.

AlChami, R. (2023) 'MANAGING UAE SUPPLY CHAIN CARBON FOOTPRINT: SUSTAINABILITY AND CLIMATE CHANGE MITIGATION STRATEGIES', Polish Journal of Management Studies 2023, 28(1), pp. 7–24. doi:10.17512/pjms.2023.28.1.01.

Aldaihani, F. M. F., & bin Ali, N. A. (2018). Factors Affecting Customer Loyalty in the Restaurant Service Industry in Kuwait City, Kuwait. *Journal of International Business and Management, 1*, 1–8.

Alhaimer, R. (2021) The Role of Social Media in the Innovation and Performance of Kuwaiti Enterprises in the Food Sector. Available at: https://doi.org/10.3390/jtaer16060110.

Al-Khouri, A. M. (2012) 'e-Government strategies: The case of the UAE', *European Journal of ePractice*, 16, pp. 126-133

Al-Malki, M. and Alkahtani, M. (2022) "Allocation of Regional Logistics Hubs and Assessing Their Contribution to Saudi Arabia's Logistics Performance Index Ranking," Multidisciplinary Digital Publishing Institute, 14(12),p. 7474-7474. Available at: https://doi.org/10.3390/su14127474.

Almeida, Fernando Luis. "Concept and Dimensions of Web 4.0." *International Journal Of Computers & Technology*, vol. 16, no. 7, 2017, pp. 7040–7046., doi:10.24297/ijct.v16i7.6446.

Al-Nawafah, S S., Al-Shorman, H M., Aityassine, F L Y., Khrisat, F A., Hunitie, M F A., Mohammad, A., & Al-Hawary, S I S. (2022, January 1). The effect of supply chain management through social media on competitiveness of the private hospitals in Jordan. https://doi.org/10.5267/j.uscm.2022.5.001

Alsharidah, M, Y. and Alazzawi, A. (2020) Artificial Intelligence and Digital Transformation in Supply Chain Management A Case Study in Saudi Companies. Available at: https://doi.org/10.1109/icdabi51230.2020.9325616.

Alsharji, A., Jabeen, F. and Ahmad, Z, S. (2019) Factors affecting social media adoption in small and medium enterprises: evidence from the UAE. Available at: https://doi.org/10.1504/ijbir.2019.100072.

Andreas, M., Kaplan, H. and Haenlein, M. (2010) 'Users of the world, unite! The challenges and opportunities of social media', *Business Horizons*, Vol. 53, No. 1, pp.59–68

Anon SME definition [Online] Available at: https://www.uaesme.ae/en/about/official-definition [Accessed: 30 December 2022].

Ajzen, I. (2011) The theory of planned behaviour: Reactions and reflections, Psychology & Health, 26:9, 1113-1127, DOI: 10.1080/08870446.2011.613995

Awaysheh, A., & Klassen, R D. (2010, November 16). The impact of supply chain structure on the use of supplier socially responsible practices. https://doi.org/10.1108/01443571011094253

Bartlett, M. S. (1954). A note on the multiplying factors for various chi square approximations. Journal of the Royal Statistical Society. Series B (Methodological), 16(2), 296-298.

Bagchi, Uttarayan, et al. "The Effect of RFID On Inventory Management and Control." *Springer Series in Advanced Manufacturing Trends in Supply Chain Design and Management,* pp. 71–92., doi:10.1007/978-1-84628-607-0_4.

Bakar, A, R, A., Ahmad, Z, S. and Ahmad, N. (2019) SME social media use: A study of predictive factors in the United Arab Emirates. Available at: https://doi.org/10.1002/joe.21951.

Bakri, A, A. (2017) The impact of social media adoption on competitive advantage in the small and medium enterprises. Available at: https://doi.org/10.1504/ijbir.2017.083542.

Bandeira, R. A. D. M., & Maçada, A. C. G., 2008. Impact of IT in the Supply Chain: The Case of the Gas Industry, *Online*. 18(2), 287-301. https://doi.org/10.1590/S0103-65132008000200007.

Barrichelo, A. et al (2018), **The relationship between Innovation and Global Competitiveness: The mediating role of Management Practices evaluated by Structural Equation Modeling.** Review of Business Management. v.21 n.2 apr-jun. 2019 p.195-212 DOI:10.7819/rbgn.v21i2.3970

Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. Psychological Bulletin, 88(3), 588.

Bhattacharjya, J., Ellison, A., & Tripathi, S. (2016). An exploration of logistics-related customer service provision on Twitter The case of e-retailers. *International Journal of Physical Distribution & Logistics Management*, *46*(6-7), 659-680.

Biehl, M., & Rennhak, C. (2019). Food quality and safety assurance in the digital age: Applications of blockchain technology. Journal of Food Protection, 82(4), 644-654.

Blackhurst, J., Craighead, C. W., & Elkins, D. (2011). The role of supply chain complexity and integration in supply chain risk management. International Journal of Production Economics, 133(1), 313-321.

BroadbandSearch. Average Time Spent Daily on Social Media (Latest 2020 Data). Retrieved October 28, 2020, from https://www.broadbandsearch.net/blog/average-daily-time-on-social-media

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77-101.

Braun, V., & Clarke, V. (2013). Successful Qualitative Research: A Practical Guide for Beginners. SAGE Publications.

Brown, A. (2017). Designing Qualitative Research. Sage Publications.

Brown and Venkatesh (2005) Model of adoption of technology in households: A baseline model test and extension incorporating household life cycle. MIS Quarterly 29(3), p. 399.

Bryman, A. (2016). Social Research Methods. Oxford University Press.

Buckley, P. J., & Ghauri, P. N. (2016). Global marketing strategy. Routledge.

Busse, C., Meinlschmidt, J., & Foerstl, K. (2016, November 7). Managing Information Processing Needs in Global Supply Chains: A Prerequisite to Sustainable Supply Chain Management. https://doi.org/10.1111/jscm.12129

Cagliano, A. C., Grimaldi, S., & Rafele, C.

Canetta, L., Cavalieri, S., Cecchinato, L., Cattaruzza, D., & Niero, M. (2017). Risk analysis in the food supply chain: A review. Food Control, 75, 364-372.

Cao, M., Zhang, Q., & Cavusgil, S. T. (2015). Supply chain collaboration: Impact on collaborative advantage and firm performance. Journal of Business Research, 68(2), 443-449.

Cartalucci, T. (2012, August 9). The Gulf States. Retrieved October 20, 2020, from https://www.globalresearch.ca/the-gulf-state-despots-ten-facts-about-saudi-arabia/32285

Cattell, R. B. (1966). The scree test for the number of factors. Multivariate behavioral research, 1(2), 245-276.

Chae, B. (2015, July 1). Insights from hashtag #supplychain and Twitter Analytics: Considering Twitter and Twitter data for supply chain practice and research. https://doi.org/10.1016/j.ijpe.2014.12.037

Chae, B. (K., Mchaney, R., & Sheu, C. (2020). Exploring social media use in B2B supply chain operations. *Business Horizons, 63*(1), 73–84. http://doi.org/10.1016/j.bushor.2019.09.008

Chang, C.-M. et al. 2019. Factors influencing online hotel booking: Extending UTAUT2 with age, gender, and experience as moderators. Information 10(9), p. 281.

Charmaz, K. (2014). Constructing Grounded Theory. SAGE Publications.

Chatterjee, S. et al. 2020. Adoption of artificial intelligence integrated CRM system: An empirical study of Indian organizations. The Bottom Line 33(4), pp. 359–375.

Chatzoglou, P. and Chatzoudes, D. 2016. Factors affecting e-business adoption in smes: An empirical research. Journal of Enterprise Information Management 29(3), pp. 327–358.

Chau, P. Y. K. (1997). Reexamining a model for evaluating information center success using a structural equation modeling approach. Decision Sciences, 28(2), 309-334.

Chavan, B, S. and Khadse, N, D. (2018) "A Study of Supply Chain Management in Selected Mechanical Engineering Units (Some Literature Review)," , V(3(9)),p. 10-10. Available at: https://doi.org/10.18843/ijms/v5i3(9)/02.

Chen, I. J., & Popovich, K. (2003). Understanding customer relationship

Chen, Y., & Paulraj, A. (2004). Towards a theory of supply chain management: The constructs and measurements. Journal of Operations Management, 22(2), 119-150.

Choi, T.-M., Guo, S., & Luo, S. (2020). When blockchain meets social-media: Will the result benefit social media analytics for supply chain operations management? *Transportation Research Part E: Logistics and Transportation Review, 135,* 101860. http://doi.org/10.1016/j.tre.2020.101860

Chopra, S., & Sodhi, M. S. (2004). Managing risk to avoid supply-chain breakdown. MIT Sloan Management Review, 46(1), 53-61.

Chopra, S., & Sodhi, M. S. (2014). Managing risk to avoid supply-chain breakdown. MIT Sloan Management Review, 55(2), 53-62.

Chopra, V., Meindl, P., & Kalra, V. (2019). Sustainable supply chain management: Theory and practice. In Sustainable Supply Chains (pp. 1-30). Springer.

Christensen, C. M., & Raynor, M. E. (2013). The innovator's solution: Creating and sustaining successful growth. Harvard Business Review Press.

Christopher, M. (2016). Logistics & supply chain management. Pearson UK.

Christopher, M., & Peck, H. (2004). Building the resilient supply chain. International Journal of Logistics Management, 15(2), 1-14.

Christopher, M., & Peck, H. (2012). Risk management: A source of competitive advantage in the supply chain. International Journal of Physical Distribution & Logistics Management, 42(6), 475-494.

Clement, J. (2020, August 21). Most used social media platform. Retrieved October 20, 2020, from https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/

Collins, S. (2017, February 28). Instagram Stories: How the Supply Chain Can Use Them to Engage Prospects and Customers. Retrieved October 28, 2020, from https://www.fronetics.com/instagram-stories-supply-chain-can-use-engage-prospects-customers/

Creswell, J. W., & Creswell, J. D. (2017). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. SAGE Publications.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure

Curley, N. (2015). The war story behind Rocket Internet's acquisition of Kuwait's Talabat. Retrieved October 20, 2020, from https://www.wamda.com/2015/02/war-story-behind-rocket-internet-acquisition-kuwait-talabat

Dahbi, S. and Benmoussa, C. 2019. What hinder smes from adopting e-commerce? A multiple case analysis. Procedia Computer Science 158, pp. 811–818.

Dahlmann, F., Branicki, L., Brammer, S., & Murillo, D. (2017). The social dimension of corporate sustainable development: An exploration of small-and medium-sized enterprises in the European Union. Business Strategy and the Environment, 26(3), 336-351.

de Valck, Kristine. (2017) Horizontal Revolution." *HEC, Paris, France* https://www.coursera.org/learn/marketing-through-social-media/lecture/HUX2u/horizontal-revolution.

Deloitte. (2021). Blockchain in the food industry. Retrieved from https://www2.deloitte.com/us/en/pages/consumer-business/articles/blockchain-in-food-industry.html

DiFranzo, D., & Noto, G. (2020). Artificial intelligence in the food and beverage industry: A comprehensive review. Foods, 9(9), 1230.

DiStefano, C., Zhu, M., & Mindrila, D. (2009). Understanding and using factor scores: Considerations for the applied researcher. Practical Assessment, Research, and Evaluation, 14(1), 20.

Driel, L. V., & Dumitrica, D. (2020). Selling brands while staying "Authentic": The professionalization of Instagram influencers. *Convergence: The International Journal of Research into New Media Technologies,* 135485652090213. http://doi.org/10.1177/1354856520902136

Dubey, R., Gunasekaran, A., Childe, S. J., Papadopoulos, T., & Luo, Z. (2020). Sustainable supply chain management: Framework and further research directions. *European Journal of Operational Research*, 233(2), 299-312.

Durugbo, C., Amoudi, O., Al-Balushi, Z., & Anouze, A L. (2020). Wisdom from Arabian networks: a review and theory of regional supply chain management. https://doi.org/10.1080/09537287.2020.1796144

Durugbo, C.M., Al-Balushi, Z., Anouze, A. and Amoudi, O., (2020) Critical indices and model of uncertainty perception for regional supply chains: insights from a Delphi-based study. Supply Chain Management: An International Journal, 25(5), pp.549-564. [HTML]

El-Haddadeh, R. et al. 2021. Value creation for realising the Sustainable Development Goals: Fostering organisational adoption of Big Data Analytics. Journal of Business Research 131, pp. 402–410.

Faisal, M. N., & Banwet, D. K. (2014). Supply chain risk management: review, classification and future research directions. International Journal of Business Science and Applied Management, 9(2), 15-42.

Farook, S., & Abeysekara, N. (n.d.). Influence of Social Media Marketing on Customer Engagement. *International Journal of Business and Management Invention*, 5(12), 115–125.

Fan, Y. (2013). Social media and its impact on consumers' behavioral and decision-making outcomes: A review. Journal of Retailing and Consumer Services, 20(1), 202-210.

Fathelrahman, E. and Başarir, A. (2018) "Use of Social Media to Enhance Consumers' Options for Food Quality in the United Arab Emirates (UAE)," Urban science, 2(3),p. 70-70. Available at: https://doi.org/10.3390/urbansci2030070.

Fawcett, S. E., Magnan, G. M., & McCarter, M. W. (2008). Benefits, barriers, and bridges to effective supply chain management. Supply Chain Management: An International Journal, 13(1), 35-48.

Fernie, J., & Sparks, L. (2018). Logistics and retail management: Emerging issues and new challenges in the retail supply chain. Kogan Page Publishers.

Food Security Center - Abu Dhabi. (2021). *Food Security Strategy*. Retrieved from link.

FoodNavigator (2020).ASEAN leaders call for urgent collaboration in food security and open trade Available at: https://www.foodnavigator-asia.com/Article/2020/04/27/Can-t-fight-COVID-19-alone-ASEAN-leaders-call-for-urgent-collaboration-in-food-security-and-open-trade.

Fonseka, K. et al. 2022. Impact of e-commerce adoption on business performance of smes in Sri Lanka; moderating role of Artificial Intelligence. International Journal of Social Economics 49(10), pp. 1518–1531.

Francis, et al. (2010). What is an adequate sample size? Operationalising data saturation for theory-based interview studies. Psychology & Health, 25(10), 1229-1245.

Fuchs, C. (2017). *Social media*. *A critical introduction*. London: SAGE Publications.

García, A., et al. "RFID Enhanced MAS for Warehouse Management." *International Journal of Logistics Research and Applications*, vol. 10, no. 2, 2007, pp. 97–107., doi:10.1080/13675560701427379.

Garg, A.K. and Choeu, T. 2015. The adoption of electronic commerce by Small and Medium Enterprises in pretoria east. The Electronic Journal of Information Systems in Developing Countries 68(1), pp. 1–23.

Ghadge, A., Dani, S., & Kalawsky, R. (2019). Designing supply chain resilience: A case study in retailing. International Journal of Physical Distribution & Logistics Management, 49(1), 70-90.

Gibson, W., & Brown, A. (2009). Working with Qualitative Data. SAGE Publications.

Giunipero, L. C., Hooker, R. E., & Joseph, N. L. (2015). Purchasing and supply management sustainability: Drivers and barriers. Journal of Purchasing and Supply Management, 21(2), 94-103.

GoGlobe (2023) E-commerce and digitization in Kuwait: Trends and future opportunities, GO. Available at: https://www.go-globe.com/e-commerce-and-digitization-in-kuwait/ (Accessed: 26 January 2024).

Golmohammadi, D., Ebrahimi, P., & Rabbani, M. (2018). Big data analytics in supply chain management: A comprehensive review. Journal of Cleaner Production, 189, 129-147.

Gonzalez, B. (2024) Biometric border control gates speed air passenger processing in UAE and Indonesia: Biometric Update, Biometric Update | Biometrics News, Companies and Explainers. Available at: https://www.biometricupdate.com/202403/biometric-border-control-gates-speed-air-passenger-processing-in-uae-and-indonesia (Accessed: 2024).

Gonzalez, A., & Adelante (2018) SCM. The Social Side of Supply Chain Management - Supply Chain 24/7. http://www.supplychain247.com/article/the_social_side_of_supply_chain_management_all_pages

Goncalves, A. (2017) Social Media Analytics strategy: Using data to optimize business performance. New York: Apress.

Government of UAE. (2021). *UAE Strategy for the Fourth Industrial Revolution*. Retrieved from link.

Grover, P., Kar, A. K., & Dwivedi, Y. K., (2022) Understanding artificial intelligence adoption in operations management: insights from the review of academic literature and social media discussions. Annals of Operations Research. e-tarjome.com

Gubbi, J., Buyya, R., Marusic, S., & Palaniswami, M. (2013). Internet of Things (IoT): A vision, architectural elements, and future directions. Future Generation Computer Systems, 29(7), 1645-1660.

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. Field Methods, 18(1), 59-82.

Gupta, R., Singh, R. K., & Singh, R. K. (2020). An empirical investigation of artificial intelligence techniques in supply chain management. Technological Forecasting and Social Change, 151, 119735.

Hair Jr et al. (2021) An introduction to structural equation modeling. Partial least squares structural equation modeling (PLS-SEM) using R: a workbook, pp.1-29. springer.com

Hair, J, Hult, G., Ringle, C., & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (2nd ed.). Thousand Oaks, CA: Sage.

Hamidreza, A., & Shokohyar, S. (2020, January 1). Advantages and challenges of Digital information at the intersection of Social networks and Enterprise Social Networks and Supply Chain Management. https://doi.org/10.1088/1742-6596/1457/1/012016

Hanafiah, M. H., (2020). Formative vs. reflective measurement model: Guidelines for structural equation modeling research. International Journal of Analysis and Applications. etamaths.com

Handfield, R. B., & Sroufe, R. (2005). Introduction to supply chain risk and its management. The International Journal of Logistics Management, 16(1), 1-19.

Handfield, R. (2011, May 5). Supply Chain Resource Cooperative. Retrieved September 22, 2018, from https://scm.ncsu.edu/scm-articles/article/the-impact-of-social-media-in-supply-chain-intelligence

Hartelina, H., Batu, R.L. and Hidayanti, A. (2021) 'What can hedonic motivation do on decisions to use online learning services?', International Journal of Data and Network Science, pp. 121–126. doi:10.5267/j.ijdns.2021.2.002.

Hashimy, L. et al. 2022. Determinants of blockchain adoption as decentralized business model by Spanish firms – an innovation theory perspective. Industrial Management & Data Systems.

Hassan, M. F., Jusoh, S., Yunos, M. Z., Arifin, A. M. T., Ismail, A. E., Ibrahim, M. R., & Rahim, M. Z. (2017). Application of design for six sigma methodology on portable water filter that uses membrane filtration system: A preliminary study. *IOP Conference Series: Materials Science and Engineering, 243,* 012048. http://doi.org/10.1088/1757-899x/243/1/012048

Hassan, M. A., Shriaan, A. A., & Mirza, I. A. (2018). Revealed Comparative Advantage of GCC Economies. *International Journal of Economics and Finance, 10*(10), 61. http://doi.org/10.5539/ijef.v10n10p61

Hasan, Ruaa (2021). Investigating the Impact of Big Data Analytics on Supply Chain Operations: Case Studies from the UK Private Sector. PhD Thesis, Brunel University,

Herrero, Á., San Martín, H. and Garcia-De los Salmones, M. del (2017) 'Explaining the adoption of social networks sites for sharing user-generated content: A revision of the UTAUT2', Computers in Human Behavior, 71, pp. 209–217. doi:10.1016/j.chb.2017.02.007.

Hiran, K.K. and Henten, A. 2019. An integrated toe–DOI framework for cloud computing adoption in the Higher Education Sector: Case Study of Sub-Saharan Africa, Ethiopia. International Journal of System Assurance Engineering and Management 11(2), pp. 441–449.

Hodgson, P., & Bertoncelj, A. (2020). Robotics and automation in food production: Challenges and opportunities for small and medium-sized enterprises. Trends in Food Science & Technology, 96, 60-72.

Holsapple, C., Hsiao, S. H., & Pakath, R. (2014). Business social media analytics: Definition, benefits, and challenges. *The 20th Americas Conference on Information Systems*, 1–12.

Hosseinjazani, N. (2017, January 1). An exploration study on the effects of social media on building SMEs brands. https://doi.org/10.5267/j.jpm.2017.6.003

Huan, S. H., Sheoran, S. K., & Wang, G. (2004). A review and analysis of supply chain operations reference (SCOR) model. Supply Chain Management: An International Journal, 9(1), 23–29. http://doi.org/10.1108/13598540410517557

Huang, Z., Benyoucef, M., & Dubé, L. (2013). The effect of positive and negative online customer reviews: Do brand strength and category maturity matter? Journal of Marketing Communications, 19(5), 383-400.

Hutcheson, G. D., & Sofroniou, N. (1999). The multivariate social scientist: Introductory statistics using generalized linear models. Sage.

Iansiti, M., & Lakhani, K. R. (2017). The truth about blockchain. Harvard Business Review, 95(1), 118-127.

Ivanov, D. (2018). Supply chain visibility as an enabler of supply chain resilience. International Journal of Production Research, 56(1-2), 358-379.

Ivanov, D., & Dolgui, A. (2020). A digital supply chain twin for managing the disruption risks and resilience in the era of Industry 4.0. *Production Planning & Control*, 31(10-12), 962-976.

Ivanov, D., Das, A., Choi, T. M., & Hasan, M. (2021). A new digital and decentralized supply chain paradigm post-COVID-19. *International Journal of Production Research*, 59(5), 1449-1471.

Jacob-John, J. and Veerapa, N.K. (2015) 'A conceptual model of socially responsible business practices on supply chain relationships in organic fresh produce supply chains', Acta Horticulturae, (1103), pp. 159–166. doi:10.17660/actahortic.2015.1103.24.

Janssen, F., van den Hoogen, J., & Dullaert, W. (2017). Data analytics in operations management research. Journal of Operations Management, 53-54, 78-94.

JDA. The Impact of Social Media on the Supply Chain: Is There One? Retrieved September 20, 2018, from https://blog.jda.com/the-impact-of-social-media-on-the-supply-chain-is-there-one/

Jiao, Y., Wu, Y. and Lu, Q.S. (2020) 'Improving the performance of customer participation in new product development: The moderating effect of social media and firm capabilities', Asian Journal of Technology Innovation, 28(2), pp. 284–304. doi:10.1080/19761597.2020.1742749.

Kaushik, A., Singla, R., & Kansal, S. (2021). Role of cloud computing in supply chain management and logistics. In Advances in Intelligent Systems and Computing (pp. 665-674). Springer.

Kemp, S. (2020, February 18). Digital 2020: Kuwait - DataReportal – Global Digital Insights. Retrieved October 22, 2020, from https://datareportal.com/reports/digital-2020-kuwait#:~:text=There were 7.38 million mobile,174% of the total population.

Khalifa, N., Abd Elghany, M. and Abd Elghany, M., (2021) Exploratory research on digitalization transformation practices within supply chain management context in developing countries specifically Egypt in the MENA region. Cogent Business & Management, 8(1), p.1965459. tandfonline.com

Khan, N.A. et al. 2021. Mobile payment adoption: A multi-theory model, multi-method approach and multi-country study. International Journal of Mobile Communications 19(4), p. 467.

KNF. THE NATIONAL FUND FOR SMALL AND MEDIUM ENTERPRISE DEVELOPMENT. Retrieved from https://www.nationalfund.gov.kw/en/

Kuglin, F & Hood, R. The Media Supply Chain Key Word. (2008). *Using Technology to Transform the Value Chain*, 57–68. http://doi.org/10.1201/9781420047608.ch4

Kumar, S., 2024. Cronbach's Alpha: Genesis, Issues and Alternatives. *Journal of Applied Psychology*, 35(2), pp.123-135.

KUNA. (2021). *Kuwait's e-commerce sector flourishing amid COVID-19 pandemic*. Retrieved from link.

KUNA (2024) Nazaha VP Champions Technological Solutions in battle against corruption, KUNA. Available at: https://www.kuna.net.kw/ArticleDetails.aspx?id=3150832&language=en (Accessed: May 2024).

Lai, K. H., Wong, C. W. Y., & Cheng, T. C. E. (2019). Supply chain risk management: A literature review. International Journal of Production Economics, 211, 107-117.

Lambert, D. M. (2014). *Supply chain management: processes, partnerships, performance*. Ponte Vedra Beach, FL: Supply Chain Management Institute.

Lambert, D. M., & Cooper, M. C. (2000). Issues in supply chain management. Industrial Marketing Management, 29(1), 65-83.

Lambert, D. M., & Cooper, M. C. (2014). Issues in supply chain management: Progress and potential. Industrial Marketing Management, 53, 1-8.

Lariscy, R. W., S. F. Tinkham and K. D. Sweetser (2011). Kids these days: Examining differences in political uses and gratifications, Internet political participation, political information efficacy, and cynicism on the basis of age. American Behavioral Scientist.

Lavalle, S., Lesser, E., Shockley, R., Hopkins, M. S., & Kruschwitz, N. (2011). Big Data, Analytics and the Path From Insights to Value. *MIT Sloan Management Review*, *52*(2), 21–32.

Lee, H. L., Padmanabhan, V., & Whang, S. (1997). The bullwhip effect in supply chains. Sloan Management Review, 38(3), 93-102.

Lee, Chung-Hong, Hsin-Chang Yang, Yu-Chen Wei, and Wen-Kai Hsu (2021) "Enabling Blockchain Based SCM Systems with a Real Time Event Monitoring Function for Preemptive Risk Management" *Applied Sciences* 11, no. 11: 4811. https://doi.org/10.3390/app11114811

Lei, L. (2017). Sales and Operational Planning in Supply Chain Management. Managing Supply Chain Operations, pp. 81–132. doi:10.1142/9789813108806_0003.

Leuschner, Rudi. 2020. Supply Chain Operations Course. Coursera - Rutgers The State University of New Jersey. https://www.coursera.org/lecture/operations/what-is-supply-chain-operations-09mp5

Li, L., Wu, J., & Yu, Y. (2013). The impact of social media on firm value creation. Information

Li, Suhong, et al. "Radio Frequency Identification Technology: Applications, Technical Challenges and Strategies." *Sensor Review*, vol. 26, no. 3, 2006, pp. 193–202., doi:10.1108/02602280610675474.

Liang, X., Shetty, S., & Sheth, A. (2020). Towards enterprise integration of blockchain and IoT for supply chain traceability. ACM Transactions on Internet of Things, 1(1), 1-24

Lock, Michelle & Shihah, Mai. (2021). A Review of UTAUT and Extended Model as a Conceptual Framework in Education Research. 1. 1-20. 10.37134/jpsmm.vol11.sp.1.2021.

Lup, K., Trub, L., & Rosenthal, L. (2015). Instagram #Instasad?: Exploring Associations Among Instagram Use, Depressive Symptoms, Negative Social Comparison, and Strangers Followed. *Cyberpsychology, Behavior, and Social Networking, 18*(5), 247–252. http://doi.org/10.1089/cyber.2014.0560

Mahakittikun, T. et al. 2020. The impact of technological-organizational-environmental (TOE) factors on firm performance: Merchant's perspective of mobile payment from Thailand's retail and service firms. Journal of Asia Business Studies 15(2), pp. 359–383.

Mageto, J., (2021) Big data analytics in sustainable supply chain management: A focus on manufacturing supply chains. Sustainability. mdpi.com

Malthouse, E. C., Haenlein, M., Skiera, B., Wege, E., & Zhang, M. (2013). Managing Customer Relationships in the Social Media Era: Introducing the Social CRM House. *Journal of Interactive Marketing, 27*(4), 270–280. doi: 10.1016/j.intmar.2013.09.008

Mangold, G. and Faulds, J. (2009) 'Social media: the new hybrid element of the promotion mix', *Business Horizons*, Vol. 52, No. 4, pp.357–365.

Markaz (2020) Markaz issues a special report titled 'Kuwait smes post covid-19: Current situation', ZAWYA. Available at: https://www.zawya.com/mena/en/press-releases/story/Markaz_issues_a_special_report_titled_Kuwait_SMEs_post_COVID19_Current_Situation-ZAWYA20200720063622/ (Accessed: 26 May 2024).

Markova, S., & Petkovska-Mirčevsk, T. (2013). SOCIAL MEDIA AND SUPPLY CHAIN. *Supply Chain Management, 15*(33), 89–102.

Masum, Abdul Kadar Muhammad, et al. "Impact of Radio Frequency Identification (RFID) Technology on Supply Chain Efficiency: An Extensive Study." *Global Journal of Researches in Engineering Civil And Structural Engineering*, vol. 13, no. 4, 2013.

Mathews, C. (2015, March 5). What Can We Learn From Starbucks' Supply Chain Management? Retrieved from https://www.maistro.com/procurement/what-can-we-learn-starbucks-supply-chain-management/

Mcfarlane, Duncan, et al. (2003) "Auto ID Systems and Intelligent Manufacturing Control." *Engineering Applications of Artificial Intelligence*, vol. 16, no. 4, 2003, pp. 365–376., doi:10.1016/s0952-1976(03)00077-0.

Mehelmi, H. E., & Sadek, H. (2019). Investigating the usage of social customer relationship management (SCRM) and its impact on firm performance in the mobile telecommunication services: Egypt case. Journal of Business & Retail Management Research, 13(03). doi: 10.24052/jbrmr/v13is03/art-25

Meixell, M. J., & Luoma, P. (2015). Developing sustainable supply chains: Exploring social sustainability in the extended supply chain. Journal of Industrial Ecology, 19(5), 786-797.

Meyers, L.S., Gamst, G.C. & Guarino, A.J., 2005. **Applied Multivariate Research: Design and Interpretation.** Sage Publications, Thousand Oaks.

Mohamed, A.A. and Ahmad, A.R. (2023) 'Factors affecting secondary school teachers' intention to use education 4.0 in UAE: A Utaut analysis', Malaysian Journal of Social Sciences and Humanities (MJSSH), 8(4). doi:10.47405/mjssh.v8i4.2254.

Molina, A., Ponte, B., Martínez, C., & Robla, I. (2018). A blockchain-based traceability system for agri-food supply chains. Sensors, 18(8), 2732.

Momani, A. (2020). The Unified Theory of Acceptance and Use of Technology: A New Approach in Technology Acceptance. *International Journal of Sociotechnology and Knowledge Development* 12(3):79-98. DOI:10.4018/IJSKD.2020070105

Morgan, L., & Katsikeas, C. S. (2017). Export stimuli and export barriers: The role of strategic orientations. Journal of International Marketing, 25(2), 57-85.

Moura, A., Barbosa-Póvoa, A. P., & Relvas, S. (2019). A review of quantitative models in supply chain risk management: State of the art and future research directions. European Journal of Operational Research, 274(3), 854-876.

NapoleanCat. Instagram users in Kuwait - June 2020. Retrieved October 20, 2020, from https://napoleoncat.com/stats/instagram-users-in-kuwait/2020/06

National Fund (2024) Kuwait Fund for Small and Medium Enterprises, Kuwait Fund for National Development of Small and Medium Enterprises. Available at: https://nationalfund.gov.kw/en/ (Accessed: 2024).

Nguyen, T.H. et al. 2022. An extended technology-organization-environment (TOE) framework for online retailing utilization in digital transformation: Empirical evidence from Vietnam. Journal of Open Innovation: Technology, Market, and Complexity 8(4), p. 200.

Nyamboli, T. I. (2021) 'Strategies to Implement Social Media Marketing in Small Businesses', Walden University Dissertations. 1-1-2021.

O'leary, D. E. (2011). The Use of Social Media in the Supply Chain: Survey and Extensions. SSRN Electronic Journal. http://doi.org/10.2139/ssrn.1963980

Oliva, R. and Watson, N. (2010) 'Cross-functional alignment in Supply Chain Planning: A case study of sales and operations planning', Journal of Operations Management, 29(5), pp. 434–448. doi:10.1016/j.jom.2010.11.012

Olver-Ellis, Sophie (2020) Building the new Kuwait: Vision 2035 and the challenge of diversification. *LSE Middle East Centre Paper Series* (30). LSE Middle East Centre, London, UK.

Oxford Business Group; Kuwait: Appetite for growth in food and beverage sector. (2016, September 19). Retrieved October 20, 2020, from https://oxfordbusinessgroup.com/news/kuwait-appetite-growth-food-and-beverage-sector#:~:text=The busy food and beverage,the retail and hospitality chains.

Pagell, M., & Shevchenko, A. (2014). Why research in sustainable supply chain management should have no future. Journal of Supply Chain Management, 50(1), 44-55.

Pagell, M., Wu, Z., & Wasserman, M. E. (2010). Thinking differently about purchasing portfolios: An assessment of sustainable sourcing. Journal of Supply Chain Management, 46(1), 57-73.

Pereira, S. C., Rahman, S., & Jabbour, C. J. C. (2021). COVID-19 pandemic and the lack of resilience in global trade: Analysis and potential implications on supply chain disruptions. *World Development*, 138, 105234.

Plant, J. New Kuwait 2035 vision spurs economic diversification in 2019. Retrieved from https://www.arabianindustry.com/construction/united-arab-emirates/news/2019/oct/13/new-kuwait-2035-vision-spurs-economic-diversification-in-2019-6234176/#close

Polanska, K. 2014. Social Media in Modern Business. European Scientific Journal, 1(1), 335-345.

Ponomarov, S. Y., & Holcomb, M. C. (2009). Understanding the concept of supply chain resilience. The International Journal of Logistics Management, 20(1), 124-143.

Prajogo, D., & Olhager, J. (2012). Supply chain integration and performance: The effects of long-term relationships, information technology and sharing, and logistics integration. International Journal of Production Economics, 135(1), 514-522.

Premkumar, G. and Roberts, M. (1999) 'Adoption of new information technologies in rural small businesses', Omega, 27(4), pp. 467–484. doi:10.1016/s0305-0483(98)00071-1.

Purwanto, A. (2021) "Partial least squares structural equation modeling (PLS-SEM) analysis for social and management research: a literature review." Journal of Industrial Engineering & Management Research. jiemar.org

Rafiq, M. (2017, July 14). The Role of Social Media in Customer Engagement. Retrieved from https://socialnomics.net/2017/07/14/the-role-of-social-media-in-customer-engagement/

Raju, P., & Raghavendra, G. (2019). Applications of data analytics in supply chain management: A review. Journal of Industrial Engineering and Management Science, 2(2), 56-66.

Rao, P., & Kumar, S. (2021). Adoption of robotics and automation in supply chain and logistics management: A comprehensive review. Computers & Industrial Engineering, 152, 107211.

Rao et al. (2021) Reimagining the Fashion Retail Industry Through the Implications of COVID-19 in the Gulf Cooperation Council (GCC) Countries. Available at: https://doi.org/10.1177/23197145211039580.

Raudeliuniene, J., Albats, E. and Kordab, M., (2021) Impact of information technologies and social networks on knowledge management processes in Middle Eastern audit and consulting companies. Journal of Knowledge Management, 25(4), pp.871-898. lut.fi

Rogers, D. S., & Tibben-Lembke, R. S. (2001). Going backwards: Reverse logistics trends and practices. Reverse Logistics Executive Council.

Rosi, M. & Obrecht, M., (2023) Sustainability Topics Integration in Supply Chain and Logistics Higher Education: Where Is the Middle East?. Sustainability. mdpi.com

Rusch, E. (2015, December 18). Using Social Media In The Supply Chain. Retrieved September 23, 2018, from https://www.manufacturing.net/article/2014/08/using-social-media-supply-chain

Saidu, M., Shagari, S.L., Kabir, M.A. and Abubakar, A. (2023) Improving University Students' Data Analysis Outputs through Effective Data Collection, Cleaning, Screening and Normalisation. Applied Quantitative Analysis, 3(2), pp.32-45. researchsynergypress.com

Salloum, S. A., et al. (2018). "Studying the Social Media Adoption by University Students in the United Arab Emirates."

Sembiring, N., Tambunan, M. and Ginting, E. (2020) Collaboration of sustainability and digital supply chain management of achieving a successful company. Available at: https://doi.org/10.1088/1757-899x/830/3/032093.

Seuring, S., & Müller, M. (2008). From a literature review to a conceptual framework for sustainable supply chain management. Journal of Cleaner Production, 16(15), 1699-1710.

Shamout, D, M. et al. (2022) "A conceptual model for the adoption of autonomous robots in supply chain and logistics industry," Growing Science, 10(2),p. 577-592. Available at: https://doi.org/10.5267/j.uscm.2021.11.006.

Sharif, S.P., Mostafiz, I. & Guptan, V.,(**2019)** Available from Sheffield Hallam University Research Archive (SHURA) at: http://shura.shu.ac.uk/25048/

Sheffi, Y. (2005). The resilient enterprise: Overcoming vulnerability for

Sivapalan, S., & Kannan, D. (2021). Augmented reality and virtual reality in supply chain management: An integrated framework. Computers & Industrial Engineering, 161, 107595.

Sivan, J. (2024) Unlocking transformation: GCC's journey to supply chain digitalization, GPCA. Available at: https://www.gpca.org.ae/2024/04/29/unlocking-transformation-gccs-journey-to-supply-chain-digitalization/ (Accessed: 2024).

Sodhi, M. S., & Tang, C. S. (2016). Social Responsibility in Supply Chains. Sustainable Supply Chains Springer Series in Supply Chain Management, 465–483. http://doi.org/10.1007/978-3-319-29791-0_21

Spies, R., Grobbelaar, S., Botha, A. (2020). A Scoping Review of the Application of the Task-Technology Fit Theory. In: Hattingh, M., Matthee, M., Smuts, H., Pappas, I., Dwivedi, Y., Mäntymäki, M. (eds) Responsible Design, Implementation and Use of Information and Communication Technology. I3E 2020. Lecture Notes in Computer Science(), vol 12066. Springer, Cham. https://doi.org/10.1007/978-3-030-44999-5_33

Srivastava, S. K., & Shervani, T. A. (2010). Marketing, business processes, and shareholder value: An organizationally embedded view of marketing activities and the discipline of marketing. Journal of Marketing, 74(3), 83-101.

State of Kuwait. (2021). *Kuwait 2035: New Kuwait Vision*. Retrieved from link.

Statista (2020). Statista market forecast (no date) Statista. Available at: https://www.statista.com/outlook/socialmedia/kuwait

Statista (2024). Statista market forecast (no date) Statista. Available at: https://www.statista.com/outlook/cmo/food/kuwait (Accessed: Jan 2024).

Stewart, G. (1997). Supply-chain operations reference model (SCOR): the first cross-industry framework for integrated supply-chain management. Logistics Information Management, 10(2), 62–67. http://doi.org/10.1108/09576059710815716

Svensson, G., & Wagner, B. (2011). The impact of social media on value chains and business models. In Proceedings of the 2011 International Conference on Information Systems

Tajudeen, F.P. et al. 2018. Understanding the impact of social media usage among organizations. *Information & Management* 55(3), pp. 308–321.

Tajvidi, M., Mehrinejad, K., Khosravi, P., & Mojtahedzadeh, R. (2020). Identifying the components of social commerce from the perspective of consumers. International Journal of E-Business Research, 16(1), 23-42.

Talwar, S., Kaur, P., Fosso Wamba, S. and Dhir, A., (2021) Big Data in operations and supply chain management: a systematic literature review and future research agenda. International Journal of Production Research, 59(11), pp.3509-3534. tandfonline.com

Tang, C. S. (2020). Perspectives in Operations Management: COVID-19 and supply chain management: disruptions and lessons learned. *Production and Operations Management*, 29(6), 1361-1376.

The World Factbook: Kuwait. (2020, August 1). Retrieved from https://www.cia.gov/library/publications/the-world-factbook/geos/ku.html

Thomas Y. Choi, Dale Rogers and Bindiya Vakil. "Coronavirus Is a Wake-Up Call for Supply Chain Management." *Harvard Business Review*, 14 Aug. 2020, hbr.org/2020/03/coronavirus-is-a-wake-up-call-for-supply-chain-management.

Thong, J.Y.L. et al. 2006. The effects of post-adoption beliefs on the expectation-confirmation model for information technology continuance. *International Journal of Human-Computer Studies* 64(9), pp. 799–810.

Tiwari, S., (2020). Supply chain integration and Industry 4.0: a systematic literature review. Benchmarking: An International Journal. researchgate.net

Tornatzky, L.G. et al. 1990. In: *The processes of Technological Innovation*. Lexington, MA: Lexington.

Trainor, K. J., Andzulis, J. (M., Rapp, A., & Agnihotri, R. (2014). Social media technology usage and customer relationship performance: A capabilities-based examination of social CRM. *Journal of Business Research*, 67(6), 1201–1208. doi: 10.1016/j.jbusres.2013.05.002

Trawnih, M., Al-Hawari, A. M., Almajali, D. A., & Aljarmouzi, S. (2023). The effect of social commerce on small business growth. In Proceedings of the 2023 International Conference on Business and Technology (ICBT) (pp. 1-6). IEEE.

Tseng , M.-L., Wu, K.-J., Lim, M. K., & Wong, W.-P. (2019). Data-driven sustainable supply chain management performance: A hierarchical structure assessment under uncertainties. *Journal of Cleaner Production, 227*, 760–771.

Tseng, M.-L. et al. (2019) 'Improving sustainable supply chain capabilities using social media in a decision-making model', Journal of Cleaner Production, 227, pp. 700–711. doi:10.1016/j.jclepro.2019.04.202.

Turner, J. (2023) Why multinationals are setting up regional headquarters in Dubai, Investment Monitor. Available at: https://www.investmentmonitor.ai/sponsored/why-multinationals-are-setting-up-regional-headquarters-in-dubai/ (Accessed: 03 May 2024).

Venkatesh, V., Morris, M., Davis, G., Davis, F (2003). User Acceptance of Information Technology: Toward a Unified View. MIS Quarterly. Vol. 27, No. 3 (Sep., 2003), pp. 425-478. DOI:10.2307/30036540

Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer Acceptance and Use of Information Technology: Extending The Unified Theory. Management Information Systems Quarterly, 36(1), 157–178. doi:10.2307/41410412

Verma, S., Gustafsson, A., & Investigating, R. (2020). Retailer resilience: A review, conceptual framework, and research agenda. *International Journal of Retail & Distribution Management*, 48(10), 943-965

Vongsraluang, P., & Bhatiasevi, V. (2017). Social commerce adoption in Thailand: An investigation of influencing factors. Journal of Electronic Commerce Research, 18(1), 64-84.

Wagner, K. (2018, August 8). 'Stories' was Instagram's smartest move yet. Retrieved October 28, 2020, from https://www.vox.com/2018/8/8/17641256/instagram-stories-kevin-systrom-facebook-snapchat

Wang, S., Luo, C. & Jiang, P.S. (2018). Empirical study about the motivations for using multifunctional social media: Based upon the uses and gratifications theory. Proceedings of the 18th International Conference on Electronic Business (pp. 265-274). ICEB, Guilin, China, December 2-6

Wang, Z., & Kim, H. G. (2017). Can Social Media Marketing Improve Customer Relationship Capabilities and Firm Performance? Dynamic Capability Perspective. Journal of Interactive Marketing, 39, 15–26. doi: 10.1016/j.intmar.2017.02.004

Wamba, S. F., Gunasekaran, A., Papadopoulos, T., & Ngai, E. (2018). Big data analytics in logistics and supply chain management. *The International Journal of Logistics Management*. doi.org/10.1007/s10479-018-3024-7

Watercutter, A. (2017, September 11). Pepsi's New Kendall Jenner Ad Was So Bad It Actually United the Internet. Retrieved from https://www.wired.com/2017/04/pepsi-ad-internet-response/

Williams, M. D., Rana, N. P., & Dwivedi, Y. K. (2015). The Unified Theory of Acceptance and Use of Technology (UTAUT): A Literature Review. Journal of Enterprise Information Management, 28(3), 443–448. doi:10.1108/ JEIM-09-2014-0088

Whiting, Anita and David L. Williams. (2013) "Why people use social media: a uses and gratifications approach." *Qualitative Market Research: An International Journal* 16: 362-369.

Yang, C.-C., Holden, S. M., Carter, M. D., & Webb, J. J. (2018). Social media social comparison and identity distress at the college transition: A dual-path model. *Journal of Adolescence, 69*, 92–102. http://doi.org/10.1016/j.adolescence.2018.09.007

Yiadom, E. and Isaac, N. (2023) ' Social Media Adoption, An Alternative Marketing Tool for Business Development by Small and Medium Enterprises (SMEs) In Ghana', Iris Online Journal of Arts and Social Sciences, 1(5), pp. 1–14. doi: 10.33552/IOJASS.2023.01.000523.

Yin, R. K. (2014). *Case Study Research: Design and Methods* (5th ed.). Thousand Oaks, CA: Sage.

Young, C. (2020). The Impact of Social Media Technologies on Supplier and Customer Relationship Management: An Empirical Analysis in the U.S.. https://doi.org/10.1109/ACCESS.2020.3043143",

Zhu, S., Huang, B., Zhang, L., & Guo, H. (2020). Internet of things for the agriculture–food supply chain: A systematic review, framework and opportunities. Computers and Electronics in Agriculture, 179, 105825.

Zsidisin, G. A., & Wagner, S. M. (2010). Do perceptions become reality? The moderating role of supply chain resiliency on disruption occurrence. Journal of Business Logistics, 31(2), 1-17.

Zsidisin, G. A., Melnyk, S. A., & Ragatz, G. L. (2018). An institutional theory perspective of supply chain orientation. Journal of Supply Chain Management, 54(3), 37-58.

APPENDICES

APPENDIX 1: Interview Questions

Dec 2023

Dear Respondent,

Thank you for participating in the survey for my PhD research being conducted for Brunell University in the UK, and agreeing to participate in the following interview. Again, the goal here is to create awareness and understanding of how social media may be integrated into the Food ad Beverage (F&B) supply chain in Kuwait and the UAE and see the benefits that can come to all stakeholders. Before we get to the questions themselves, here is a list of different examples of how the F&B (among other industries) in other countries are integrating social media in their supply chain and how they are benefiting. Please look at the different examples, and if you have any questions, please do not hesitate to ask me by emailing me at (EMAIL) or Whatsapp me at ##. After you have a better feel for what the potential is (and it is huge) please answer the following questions and email them back to me at (EMAIL). Again, your personal details and company name will be held private and not published in my research, so please feel free to answer to your best ability. This research is purely towards understanding the scope and potential of social media integration into supply chain in the GCC as we have some of the highest smart-phone and social media use in the world per capita, and therefore having such ability opens new windows of opportunity and engagement for all those along the supply chain. I thank you again for your participation and look forward to hearing from you.

Sincerely,

Jenan

Introduction to Social Media Integration in Supply Chain

In order to understand the potential benefits and advantages of social media integration into the supply chain, a few examples of how and where it is successfully been done is presented below. These examples are to provide an idea and range of how you can follow or do similar integration for your company(s) as well. The examples are in the table below, where the benefit from the example is identified, the company that has successfully implemented it, and how they are implementing it. After reading or further exploring the ideas, please answer the questions in the interview to the best degree you can

EXAMPLE	BENEFIT OF SOCIAL MEDIA INTEGRATION	HOW IT WAS USED/IMPLEMENTED	COMPANY – SOURCE
Collaborations with Influencers	Leverage simultaneously yours, the influencer's and your supplier's audience and network, thereby extending reach of the promotion whilst also bringing authenticity to the brand and influencer Engage the customers to see what products are special and why and gain different perspective	Partnering with food influencers on Instagram for exclusive product launches or promotions at your company, while highlighting your suppliers – your company becomes the platform for the influencer to also showcase their/your supplies and the quality that those products bring to your establishment and to their brand	Food Influencer/Top Chef Judge Padma Lakshmi goes to Lapis Restaurant and films the chef and her making Kabuli Pulao and what brands of rice/saffron is used for the best food. AlSadeer Farms holds cooking social media videos with chefs and showcases their own produce
Showcase supplier content on your page/collaborate with suppliers to create new content for your page as well	By showing customers who your main or major suppliers are, you can facilitate cross communication and provide transparency so that customers understand the value of who your suppliers are, value of your products, and be more satisfied customers (builds trust) Further, more information can be provided by suppliers via your social media to create awareness of other products, benefits of products Especially beneficial for high end products	Niche restaurants provide social media content (behind the scenes footage, or info on production or use) about their suppliers, for example, main dairy producers, or main niche product suppliers (from dairy to truffles) so that customers understand the restaurants seasonal menu Build relationships/communication between customers and suppliers to allow for more information towards what products to source or what new products may be introduced	Eataly showing videos of their suppliers on their insta and other social media pages so that customers understand the value of their seasonal campaigns in their restaurants as well as their marketplace Coca-Cola Journey - YouTube. Marketplaces/eateries showing content on how certain new products are made or used, and then seeing customer feedback on their interest for new products
Event Livestreams and Launches	Enable real-time interaction, builds anticipation, and allows for immediate feedback.	Broadcasting live events or product launches on platforms like Facebook Live or Instagram Live.	Collaboration between a Retailer who sells Red Bull and their Launching New Products at Sporting Events
Collaborative Recipe Sharing/Online Community or Competition	Creates a sense of community, inspires creativity, and generates user-generated content.	Create buzz around a platform for customers to share their recipes using the company's products on Instagram/Tik Tok	Kraft/Heinz working with different chefs/restaurants/retails/markets to highlight how their Ranch dressing is used in different ways

	Extend the network/reach of all players involved		
Innovative Marketing Campaigns	Captures the attention of a younger audience, encourages sharing, and establishes a modern brand image.	Launching unique marketing campaigns on platforms like Snapchat or TikTok to showcase products in a fun and interactive way	Chipotle has held three different strategies on Tik Tok – all very successful https://medium.com/dailytiktok/chipotle-tiktok-campaigns-how-a-brand-uses-tiktok-well-5bcda8981cd5
Real-time Customer Support	Demonstrates responsiveness, improves customer satisfaction, and resolves issues transparently.	Work with a delivery company that delivers your meals/products and showcases where the order is as it moves through the process/if there are any changes – rapid feedback Customers provide feedback on your social media and alert your suppliers towards their wants/feedback so that there is better communication and knowledge flowing both ways	Various AI focused delivery services People posting on makeup influencers pages with hashtags of the companies alerting the makeup supplier of their feedback/questions as well – having the suppliers live with the influencers during the Live session on Insta towards getting information from the influencer as well as the company from where the product is from

Questions: Please write as much as helps to answer the question. Writing with bullet points is preferred, but not required.

1) In terms of your F&B SME, and using the examples above, in which ways do you think integrating social media in the supply chain will positively influence/give you the comparative advantage in:

   a) your business operations?

   a) your supply chain efficiency/operations itself?

2) Do you see any potential problems or obstacles that could evolve and impact your company's overall performance due to integrating social media into the supply chain?

3) Are you willing to integrate social media in your supply chain and therefore enable more transparency, facilitate more cross communication, build more trust with your customers, and generate more buzz and content towards your social media engagement? If yes, please continue the rest of the questions. If no, please skip to question 7

4) Do you think that integrating social media into your supply chain will be a fast or slow process for you? Why?

    a) What challenges or concerns in terms of the ease of integration do you anticipate?

    b) Do you believe the size of your company influences the ease/difficulty of integrating social media into your supply chain?

    c) Do you feel the size and orientation (restaurant vs marketplace) of a company relate to the capacity for innovation and change?

    d) In terms of the rest of your Team, how comfortable do you think they would be in adapting to social media integration?

    e) Do you think your supply chain partners will be willing to collaborate in creating social media content with you?

5) As a Decision-maker, how can you support your employees during the process of integrating social media into the supply chain?

6) Do you feel that social media integration is a new and upcoming trend for SMEs like yours, or do you feel that its still too early for such ideas?

7) How do industry trends or competitor practices influence your decision to integrate social media?

8) How important do you think using technology is in your industry? What about using technology within supply chain?

9) How important are general feedback, opinions and recommendations of key stakeholders within your industry? (your customers, your suppliers, your competitors, your workers) in terms of how you operate?

10) How do you foresee the adoption of social media in your supply chain can contribute to the overall enjoyment or satisfaction of your team (workers) and customers?

11) Do you feel that creating connections and transparency along your supply chain makes for happier customers, who would then engage more with your company?

12) In terms of technological adoption, do you think it important to match or exceed (be ahead of) competitors/others in the industry, in terms of technological adoption?

13) Are you, as a Business Decision-maker, keeping up to date with industry trends in terms of integrating technology? If yes, are there any that you have integrated that you feel provide an edge?

APPENDIX 2: Survey Questions

1) What is your age
   a) > 20
   b) 20 – 25
   c) 26 – 30
   d) 31 – 35
   e) 36 – 40
   f) 41 – 45
   g) 46+

2) What is Your personal Level of Experience Using Social Media?
   a) No experience
   b) 1 – 2 years
   c) 2 – 4 years
   d) 4 – 6 years
   e) 6 – 8 years
   f) 8+ years

3) What Social Media apps are you personally currently active on (if any) Check all that apply:
   ϒ Facebook
   ϒ Instagram
   ϒ Twitter
   ϒ Whatsapp
   ϒ SnapChat
   ϒ TikTok
   ϒ LinkedIn
   Other _____

4) What is Your Highest Level of Education?
   a) Did not graduate High School
   b) High School Diploma
   c) 2 year Diploma
   d) Bachelors
   e) Profession Degree (Medicine, Law, Engineering)
   f) Masters
   g) PhD

5) Do you personally enjoy social media: Yes No

6) How often during a typical day do you spend on social media for yourself

7) Where is your Company located: Kuwait UAE

8) Does your company do business in both countries? Yes No,
   - If Yes, does it mostly focus in Kuwait, UAE, or about equally?

9) How Many Full-time Employees Currently Work for Your Organization?
   a) 0 – 5
   b) 6 – 10
   c) 11 – 20
   d) 21 – 30
   e) 31 – 50
   f) 51 – 100
   g) 101 – 250

10) What is your Company's role in the food and beverage industry supply chain? If more than one apply, please note all the roles, and star the one that fits you the most.
   a) Producer
   b) Wholesaler
   c) Importer
   d) Retailer
   e) Cafe Owner
   f) Other: _____

7) How long has your Company been in this role?

a) Less than 3 years
b) Between 3 to 5 years
c) Between 5 to 10 years
d) Between 10 to 15 years
e) Longer than 15 years

8) What is your role in the Company
   a) Owner
      - do you help with day to day operations? Yes No
      - are you involved with business strategy and decision-making? Yes No
   b) Employee
      - Are you involved with business strategy and decision-making? Yes No
      - How influential is your input in overall decision for the Company? Very Neutral Very little

9) How often do you use social media for your business operations?
   a) Daily
   b) Weekly
   c) Monthly
   d) Rarely
   e) Never

10) What social media platforms do you use for your business operations?
   ϒ Facebook
   ϒ Instagram
   ϒ Twitter
   ϒ Whatsapp
   ϒ SnapChat
   ϒ TikTok
   ϒ LinkedIn
   Other _____

11) How useful do you find social media in enhancing your business performance?
   a) Not useful at all
   b) Slightly useful
   c) Moderately useful
   d) Very useful
   e) Extremely useful

12) How easy is it to use social media for your business operations?
   a) Very difficult
   b) Difficult
   c) Neutral
   d) Easy
   e) Very easy

13) How often do you receive external support for your social media activities?
   a) Never
   b) Rarely
   c) Sometimes
   d) Often
   e) Always

14) How much do you think your competitors are using social media in their business operations?
   a) Not at all
   b) Slightly
   c) Moderately
   d) Very much
   e) Extremely

15) How much do you think social media usage is a trend in the food and beverage industry supply chain?
   a) Not at all
   b) Slightly
   c) Moderately
   d) Very much
   e) Extremely

16) How much does the location of your business influence your social media usage?

a) Not at all
b) Slightly
c) Moderately
d) Very much
e) Extremely

17) How important is it for your business to keep up with technological advancements?

a) Not important at all
b) Slightly important
c) Moderately important
d) Very important
e) Extremely important

18) How does the use of social media align with your business goals?

a) Strongly disagree
b) Disagree
c) Neutral
d) Agree
e) Strongly agree

19) For each of the following, please rate how the use of social media benefits your business:
Rating: From 1 (No benefit) to 3 (neutral) to 5 (very beneficial)

a)	To market new products	1 2 3 4 5 6 7
b)	To connect different clients and users and build community	1 2 3 4 5 6 7
c)	To attract new customers	1 2 3 4 5 6 7
d)	To allow communication along supply chain to identify efficiencies/inefficiencies	1 2 3 4 5 6 7
e)	To build brand identity	1 2 3 4 5 6 7

20) Please rate how strongly you believe in the following about integrating social media within the supply chain

a)	Using online social media will make you more profitable in doing business.	1 2 3 4 5 6 7
b)	Using social media can increase your chances of achieving your business goals.	1 2 3 4 5 6 7
c)	Using social media can help improve the quality of your existing business information	1 2 3 4 5 6 7
d)	Using online social media will allow you to spend less time achieving your business goals.	1 2 3 4 5 6 7

21) Are you interested in participating in a further short interview to explore how social media integration within your supply chain may increase efficiencies, build community, and increase operation capabilities for your company?

ϒ Yes ϒ No

APPENDIX 3: EFA Analysis

6 Factorial Groupings

	1	2	3	4	5		6
BI1	.861						How firmly do you believe integrating SM into SCM will help your business become profitable
BI2	.835						How firmly do you believe integrating SM into SCM will help achieve your business goals
BI4	.746						How firmly do you believe integrating SM into SCM will help your company become more efficient
BI3	.558						How firmly do you believe integrating SM into SCM will help improve your market understanding
PE4	.518						How you feel the use of Social Media will help build your brand
FC3		.657					# of years of Company in this role
FC1		.651					What is your Personal Level of Experience Using Social Media?
HM1		.619					Do you Personally enjoy using Social Media?
H2		.615					How often during a typical day do you spend on social media for yourself?
FC2		.598					# of employees in your Company
H1		.582					# of personal SM apps used
EE4			.822				How does the use of Social Media align with your business goals?
HM2			.698				How important is it for your business to keep up with technological advancements?
PE1			.695				how the use of Social Media benefits your business to mkt new products
SI4			.565				how the use of Social Media benefits your business to build community
SI3				.843			Do you think Social Media usage is a trend in the F&B industry supply chain?
SI2				.812			How often do you think your competitors are using Social Media in their business operations?
EE3				.590			How much does the location of your business influence your Social Media usage?
EE1				.532			How useful do you find Social Media in enhancing your business performance?
PE2					.697		how the use of Social Media benefits your business to attract new customers
PE3					.608		how the use of Social Media benefits your business To allow communication along the Supply chain and identify efficiencies
H3						.702	How often do you use social media for your business operations?
EE2						.449	How easy is it to use Social Media for your business operations?
SI1						.409	How often do you think your competitors are using Social Media in their business operations?

Component Matrix[a]

	Component					
	1	2	3	4	5	6
BI2	.630		-.560	-.144		-.209
BI1	.590		-.578	-.248		-.220
SI4	.582	-.470		.299	-.211	
HM2	.567	-.374	.273		.130	-.291
SI3	.530		.428	-.471		.210
BI4	.528		-.495	-.216		
EE3	.516		.311	-.382	-.170	
PE1	.509	-.408	.148	.487		
BI3	.501		-.369		.184	.220
EE4	.482	-.431	.267	.201		-.408
PE4	.470		-.245	-.216		.195
SI2	.467		.417	-.456		.240
H1	.445	.365	.205	.176		-.175
FC3	.256	.635	.126	.224	.128	
FC2	.310	.577	.145		.126	
FC1	.363	.478			-.226	-.242
H2	.352	.436			-.422	
SI1	.273	.435		.213		.294
HM1	.351	.407	.178	.173	-.364	
EE1	.422		.455			.223
H3	.186			.248	.573	.255
PE2	.289	-.159		.304	-.466	.321
EE2	.276	.196		.244	.406	-.163
PE3	.373	-.264	-.254	.276		.380

Extraction Method: Principal Component Analysis.[a]

a. 6 components extracted.

Rotated Component Matrix[a]

	Component					
	1	2	3	4	5	6
BI1	.861	.123	.159			
BI2	.835	.173	.207			
BI4	.746					
BI3	.558				.257	.295
PE4	.518			.254	.123	
FC3		.657				.335
FC1	.165	.651				
HM1		.619		.126	.306	
H2	.151	.615			.135	-.239
FC2		.598			-.140	.278
H1		.582	.240			.155
EE4			.822	.166		
HM2	.150		.698	.354		
PE1			.695		.431	.145
SI4	.240		.565		.551	
SI3	.130			.843		
SI2				.812		
EE3	.170	.231	.246	.590		-.243
EE1		.143	.214	.532	.169	.254
PE2					.697	-.131
PE3	.287				.608	.166
H3						.702
EE2	.168	.219	.238		-.151	.449
SI1		.404	-.181		.189	.409

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 7 iterations.

Component Transformation Matrix

Component	1	2	3	4	5	6
1	.574	.406	.456	.440	.285	.153
2	-.002	.796	-.494	-.117	-.265	.195
3	-.745	.196	.255	.574	-.099	.048
4	-.315	.194	.359	-.587	.474	.405
5	.117	-.294	.089	.060	-.486	.808
6	-.051	-.196	-.588	.338	.615	.346

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

APPENDIX 4: Thematic Analysis Sample

Summary of Questions 1 and 2

In terms of your F&B SME, and using the examples above, in which ways do you think integrating social media in the supply chain will positively influence/give you the comparative advantage in:				
a) Your Business Operations	5 Positive to integration	2 review and scan partner feedback from customers as well	1 Food Truck	
		2 be responsive to feedback	1 Difficult to do solo	
	4 customer engagement	collaboration allows more output less work		
	4 more fun, engaged visuals	2 build community	1 great solution for small business collaboration enables ease = spreading the	
	4 connect on a more personal level	2 event promotion	1 work	
	4 capability beyond traditional marketing	2 attract more customers		
	4 direct engagement with customer	2 effective promotion of events and collaborations	1 showcases brand commitment and ethos	
	4 Increased Visibility	2 build loyalty	1 awareness to latest trends	
	4 Brand building	2 both we and the customer win	1 enable collaboration with different SMEs	
	4 builds towards recognizable brand	2 new opportunities for new types of	1 help build menus based on customer desires	
	4 innovative collaborations	2 reaching wider audience	1 Give customers BTS look/insight hard to find the right collaborators to work	
		2 make products more responsive to customer needs	1 with	
		2 highlight vendors on supply chain /collaboration		
	3 provide insight into available items	2 communication with suppliers		
		2 will require more training and resources to be dedicated		
		2 transparency		

b)				
Supply Chain Efficiency	5 Positive			
	4 transparency			
	4 real time updates			
		2 allows for more connection with customers		
	provides updates on where to find			
	3 product	2 allows opportunity to educate and raise awareness		
	3 show behind the scenes of sources	2 build trust		
	3 help to streamline operations			
	3 build trust with customers	2 communication with suppliers		
		1 streamline order processing		
	give updates on seasonal			
	3 items/promotions	1 better manage inventory		
	give customers ideas on potential			
	3 choices			
	provide insight on what ingredients			
	3 seem attractive to customers			
	3 provide insight into available items			

APPENDIX 5: Ethical Approval

6 July 2023

Applicant (s): Project Title: Reference:

LETTER OF APPROVAL

APPROVAL HAS BEEN GRANTED FOR THIS STUDY TO BE CARRIED OUT BETWEEN 07/07/2023 AND 30/07/2023

Ms Jenan Aldabous
Social media integrated into supply chain operations in Kuwait and UAE 42663-LR-Jun/2023- 45957-5

Dear Ms Jenan Aldabous
The Research Ethics Committee has considered the above application recently submitted by you.

The Chair, acting under delegated authority has agreed that there is no objection on ethical grounds to the proposed study. Approval is given on the understanding that the conditions of approval set out below are followed:

Update your risk assessment with the following, as previously requested: (i) Answer the question about the current threat level and (ii) add your name at the end as the person completing the form.
On the survey document, as previously requested, amended ">20" to "18-20".
Recruitment – In your invitation message you should introduce yourself as a Brunel student, briefly introduce your project and invite voluntary participation.

On the Participant Information Sheet amend the following questions:

-

- - - - -

"Will my taking part in this study be kept confidential?" All information which is collected about you during the course of the research will be kept strictly confidential. The data will be retained until [.....] after which it will be securely destroyed. Any information about you which leaves the University will have all your identifying information removed. With your permission, anonymised data will be stored and may be used in future research – you can indicate whether or not you give permission for this by way of the Consent Form.

"Will I be recorded, and how will the recording be used?" You need to answer this question and advise your participants whether or not they will be recorded during the interviews.

"Who is organising and funding the research?" State that the research is being organised by yourself [state full name] in conjunction with Brunel University London.

"What are the indemnity arrangements?" Brunel University London provides appropriate insurance cover for research which has received ethical approval.

"Who has reviewed the study?" State that the study has been reviewed by your Supervisor and the College of Business, Arts and Social Sciences Research Ethics Committee.

For Complaints, the contact is the Chair of the College of Business Arts and Social Sciences Research Ethics Committee: Professor David Gallear, cbass-ethics@brunel.ac.uk.

College of Business, Arts and Social Sciences Research Ethics Committee Brunel University London Kingston Lane Uxbridge UB8 3PH United Kingdom

Make
Consent – For online surveys, please refer to the 'Templates' available in the Help menu at the top of the BREO form. Use the text in the " Online Survey Consent Template (Guidance and template for anonymous online questionnaires/surveys only)" at the start of your questionnaire, and adapt it for your project.
Consent - On the full consent form, any text in grey is meant to be modified to suit your project. Please remove the witness statement section.

You should make the changes as listed above before commencing your research. You do not need to resubmit your BREO application. The agreed protocol must be followed. Any changes to the protocol will require prior approval from the Committee by way of an application for an amendment.
Please ensure that you monitor and adhere to all up-to-date local and national Government health advice for the duration of your project.

sure any dates you have put in your Participant Information Sheet are consistent.

Please note that:

Research Participant Information Sheets and (where relevant) flyers, posters, and consent forms should include a clear statement that research ethics approval has been obtained from the relevant Research Ethics Committee.
The Research Participant Information Sheets should include a clear statement that queries should be directed, in the first instance, to the Supervisor (where relevant), or the researcher. Complaints, on the other hand, should be directed, in the first instance, to the Chair of the relevant Research Ethics Committee.

Approval to proceed with the study is granted subject to any conditions that may appear above.
The Research Ethics Committee reserves the right to sample and review documentation, including raw data, relevant to the study.
If your project has been approved to run for a duration longer than 12 months, you will be required to submit an annual progress report to the Research Ethics Committee. You will be contacted about submission of this report before it becomes due.
You may not undertake any research activity if you are not a registered student of Brunel University or if you cease to become registered, including abeyance or temporary withdrawal. As a deregistered student you would not be insured to undertake research activity. Research activity includes the recruitment of participants, undertaking consent procedures and collection of data. Breach of this requirement constitutes research misconduct and is a disciplinary offence.

Professor David Gallear
Chair of the College of Business, Arts and Social Sciences Research Ethics Committee Brunel University London