



**NEAR EAST UNIVERSITY  
INSTITUTE OF GRADUATE STUDIES  
DEPARTMENT OF BUSINESS ADMINISTRATION**

**MODE OF COLLABORATION BETWEEN THE PHARMACEUTICAL  
FIRMS AND PHARMACISTS: AN EMPIRICAL INVESTIGATION OF  
SOCIAL MEDIA MARKETING ACTIVITIES IN THE JORDANIAN  
PHARMACEUTICAL INDUSTRY**

**PHD THESIS**

**ALA AWAD**

**NICOSIA**

**February,2023**

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**PHD THESIS**

**ALA AWAD**

**Supervisor**

**Assoc.Prof. Dr. AHMET ERTUGAN**

**Nicosia**

**February,2023**

## ACCEPTENCE /APPROVAL

We certify that we have read the thesis submitted by Ala shakeeb awad titled “**MODE OF COLLABORATION BETWEEN THE PHARMACEUTICAL FIRMS AND PHARMACISTS: AN EMPIRICAL INVESTIGATION OF SOCIAL MEDIA MARKETING ACTIVITIES IN THE JORDANIAN PHARMACEUTICAL INDUSTRY**”

and that in our combined opinion it is fully adequate, in scope and in quality, as a thesis for the degree of PhD of business administration.

Examining Committee	Name-Surname	Signature
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Head of the Committee:	Prof.Dr. Mehmet Ağa	
------------------------	---------------------	--

Committee Member*:	Prof. Dr. Şerife Zihni Eyupoglu	
--------------------	---------------------------------	--

	Assoc.Prof. Dr Nesrin Menemenci	
--	---------------------------------	--

	Asst. Prof. Dr. Kemal Çek	
--	---------------------------	--

Supervisor:	Assoc.Prof. Dr. Ahmet Ertugan	
-------------	-------------------------------	--

Approved by the Head of the Department

4/04/2023

Prof. Dr. Şerife Zihni Eyupoğ

Head of Department

Approved by the Institute of Graduate Studies

  
 Prof. Dr. Kemal Hüsnü Can Başer

## **DECLARATION**

I **ALA AWAD**, hereby declare that this dissertation entitled ‘MODE OF COLLABORATION BETWEEN THE PHARMACEUTICAL FIRMS AND PHARMACISTS: AN EMPIRICAL INVESTIGATION OF SOCIAL MEDIA MARKETING ACTIVITIES IN THE JORDANIAN PHARMACEUTICAL INDUSTRY’ has been prepared by myself under the guidance and supervision of **Assoc.Prof. Dr. AHMET ERTUGAN** head of marketing Department in the Near East University, Graduate School of Social Sciences regulations and does not to the best of my knowledge breach Law of Copyrights and has been tested for plagiarism and a copy of the result can be found in the Thesis.

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I am sincerely grateful to Allah the most Merciful and Beneficent, for blessing me with the determination and perserverance to successfully accomplish this PhD thesis.

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To my friends, family members and colleagues, thank you for all your moral support; it has given me the strength to achieve and accomplish this journey.

**ALA AWAD**

**DEDICATION**

This dissertation honors the memory of my mother, father, wife, kids, brothers, and any other family members who helped me on my path and motivated me to keep going.

**Abstract****“MODE OF COLLABORATION BETWEEN THE PHARMACEUTICAL FIRMS AND PHARMACISTS: AN EMPIRICAL INVESTIGATION OF SOCIAL MEDIA MARKETING ACTIVITIES IN THE JORDANIAN PHARMACEUTICAL INDUSTRY”****Awad, Ala****PhD, Department of Business Administration****2023, 156 pages**

The general aim of this study is to justify the precursors of business to business (B2B) customer satisfaction in the Jordanian pharmaceutical industry. Overall, this study explores the central role of social media marketing on the satisfaction of B2B pharmaceutical employees with the use of the Kano model, value creation and transaction efficiency. The method of purposive sampling has been utilized to gather data from a sample of 573 employees in the pharmaceutical industry. The study further utilized structural equation modelling along with regression analysis for the purpose of assessing the validity of the constructed model. The study concluded with results showing that the construct of social media marketing consisted of both direct and indirect influences on the satisfaction of B2B customers. In particular, the Kano model, value creation and the mediating effect of the transactions efficiency on the proposed model were deemed effective in the construction of integrated marketing strategies for B2B pharmaceutical customers.

**Keywords:** social media marketing; kano model; value creation; transaction efficiency; customer satisfaction; pharmaceutical industry

**ÖZ****“İLAÇ FİRMALARI VE ECZACILAR ARASINDAKİ İŞ BİRLİĞİ MODU:  
ÜRDÜN İLAÇ ENDÜSTRİSİNDEKİ SOSYAL MEDYA PAZARLAMA  
FAALİYETLERİNİN AMPİRİK BİR İNCELENMESİ”****Awad, Ala****Doktora, İşletme Bölümü****2023, 156 sayfa**

Bu çalışma, Ürdün'ün ilaç endüstrisinde B2B müşteri memnuniyetinin öncüllerini açıklamayı amaçlamaktadır. Çalışma temel olarak sosyal medya pazarlamasının B2B eczane personeli memnuniyeti üzerindeki doğrudan rolünü Kano modeli, değer yaratma ve işlem verimliliği mercekleme aracılığıyla araştırmaktadır. 573 eczane personelinden veri toplamak için amaçlı örnekleme kullanılmıştır. Oluşturulan modelin geçerliliğini değerlendirmek için yapısal eşitlik modellemesi ve regresyon analizi kullanılmıştır. Çalışmanın sonuçları, sosyal medya pazarlama yapısının B2B müşteri memnuniyeti üzerinde hem doğrudan hem de dolaylı etkileri olduğunu göstermektedir. Spesifik olarak, Kano modeli, değer yaratma ve işlem verimliliğinin oluşturulan model üzerindeki aracılık etkisinin, ilaç endüstrisindeki B2B müşterileri için entegre pazarlama stratejileri oluştururken etkili olduğu bulundu.

**Anahtar Kelimeler:** sosyal medya pazarlaması; Kano modeli; değer oluşturma; işlem verimliliği; Müşteri memnuniyeti; İlaç endüstrisi



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**ABBREVIATIONS**

<b>(SMM) :</b>	social media marketing
<b>(KM) :</b>	kano model
<b>(VC) :</b>	value creation
<b>(CS) :</b>	customer satisfaction
<b>(TE) :</b>	transaction efficiency
<b>(JAPM):</b>	Jordanian Association of Pharmaceutical Manufacturers
<b>(NPD):</b>	new product development
<b>(SM) :</b>	Social Media
<b>(IoT) :</b>	The Internet of Things
<b>(DTCA) :</b>	direct consumer advertising
<b>(CFA) :</b>	Confirmatory factor analysis
<b>(AI) :</b>	artificial intelligence
<b>(CBD) :</b>	cannabidiol
<b>(SOPs) :</b>	Standard Operating Procedures
<b>(GxP) :</b>	guidelines and regulations
<b>(eWOM) :</b>	Electronic Word-of-Mouth

<b>(FDA):</b>	Food and Drug Administration
<b>(FTC) :</b>	Federal Trade Commission
<b>(DI) :</b>	Dissatisfaction Index
<b>(SI) :</b>	Satisfaction Index
<b>(ASC) :</b>	The Average Contentment Coefficient
<b>(AQ) :</b>	Attractive Quality
<b>UX:</b>	(user experience)
<b>UI :</b>	(user interface)
<b>(MBQ) :</b>	Must Be Quality
<b>(IQ) :</b>	Indifferent Quality
<b>(CRM) :</b>	Customer relationship management
<b>(SSBs) :</b>	salesperson service behaviors
<b>(IPA) :</b>	Importance-Performance Analysis
<b>(GDP) :</b>	Gross domestic product
<b>(SEM) :</b>	structural equation modeling
<b>(EFA) :</b>	exploratory factor analysis
<b>(CMB) :</b>	common method bias
<b>(CMV) :</b>	common method variance



- (TLI) :** The Tucker-Lewis index
- (RMSEA) :** root mean square error of approximation
- (FDA) :** Food and Drug Administration
- (PHI) :** pharmaceutical industry
- (SM):** social media

## **CHAPTER I**

### **Introduction**

The chapter examines the overall issue aimed to be assessed by the research as well as the theoretical underpinnings of the investigation. The influence of SM marketing (SMM), the kano model (KM), value creation (VC), and transaction efficiency (TE) on B2B customer satisfaction (CS) in the pharmaceutical business in Jordan are discussed in this chapter. The section also contains information about the study's background. The research provides insights into the pharmaceutical sector in Jordan, followed by the research problem, motives for the study, the significance of the study, objectives of the research, aims of the research, and research questions. Later in the study, the attention is on the scope of the investigation and the organization of the investigation.

### **Research Background**

Jordan's pharmaceutical industry (PHI) has penetrated worldwide markets. It has reached 90 nations in diverse world regions, establishing Jordan as a nationwide industry which expands beyond national borders and across continents. The PHI, which accounts for 2% of the country's GDP, consists of 180 factories divided between pharmaceuticals and medical supplies and distributed throughout the country. There are also 15 factories outside the Kingdom, which has helped establish the industry as a regional and international success story. Due to COVID-19, the industry went through numerous successes, including the production of 5 million masks per day, the development and manufacture of ventilators, the design and construction of three mobile and expandable hospitals that were fully equipped with medical devices, and the production of preventive medical supplies, such as aprons, caps, and facemasks for epidemiological teams, among others.

During the Corona pandemic, according to Mr Fathi Al-Jaghbir, the Jordan Chamber of Industry demonstrated its capabilities in terms of production by providing many basic goods to citizens and various sectors, contributing to the Kingdom's strategic equities, and achieving self-sufficiency, particularly in sterilisers and disinfectants, as well as pharmaceuticals and medical supplies. Furthermore, the

sector's reliance on different administrative and technical levels accounts for more than 96 per cent of the total number of workers. It consists of over 10k employees and is perhaps its most notable attribute. Thus, the industry plays a critical role in lowering unemployment rates and creating long-term work prospects. However, several challenges directly impact the ability of the sector to expand and the increase the rate of investment into the industry. It includes the segregation of the industry from various export subsidies, the limitations within the local market along with the rise of entry barriers into export markets due to the appearance of an industry which reaps benefits from opportunities and protection policies as a segment of support-oriented strategies. Other problems in the pharmaceutical sector include (a) competitiveness with products of import nature, (b) the limitation of Arab and regional markets, that have caused the exchange of products to be restricted along with non-tariff barriers imposed by these countries, (c) the diversity of regulatory requirements, and (d) the overall time it takes to register drugs with regulatory authorities both locally and internationally.

The significant differentiator is CS in the PHI in the form of B2B customers. CS provides the firm with information about how it runs. It also shows the capacity to satisfy the demands of its consumers (Lisinska-Kusnierz and Gsjewska, 2014). Client happiness is often the most important component in determining customer loyalty, and research has demonstrated a significant link among the loyalty and satisfaction of customers. In addition, there is a strong association between CS and profitability in most businesses. Thus, each company strives to be a service industry because, as items grow increasingly identical, sellers are more likely to differentiate themselves by providing greater client services. As a result of the foregoing, many businesses want to improve their distribution skills in order to improve their competitive advantages, which are measured by CS with the service offered.

It is assumed that a company that provides greater distribution service levels would have higher levels of client satisfaction (Daugherty et al., 1998). Many academics have discovered that the importance of the service industry is expanding over time. Moreover, a large number of clients are disappointed with their pharmacists. To comprehend how consumers' opinions of the pharmaceutical companies' quality and how such perceptions convert into CS, both researchers and pharmaceutical providers have shown interest in how customers can be further

understood, in order to examine how quality is perceived in regards to pharmaceutical services provided and the process of which perception is conveyed into satisfaction (Chin et al., 2013). According to Kilibarda and Andrejic (2012), the process of providing pharmaceutical services may be leveraged to generate value for both the client and the provider in the long run. This is because the market share can be enhanced. Customers can provide feedback on the service quality and the overall experience. Customer pleasure and loyalty may be achieved through the provision of pharmaceutical services. From a B2B point of view, customers' happiness was not given much consideration in pharmaceutical studies, which concentrated mostly on inventory levels and distribution centres.

According to Melovic et al. (2015), the firm may retain existing customers while attracting new consumers by providing adequate customer service, which is important in pursuing competitive advantage. It assists the firm in differentiating itself from competitors. It should not be a source of concern for its financial health. As a result, the cost of providing customer care should be considered. In general, customer service provides two forms of satisfaction in order to fulfil the demands of the clients it serves. The first form of satisfaction is related to the goods. The second type is related to the degree of quality of customer service provided, such as the sales staff's expertise and the seller's politeness. According to Meidute-Kavaliauskiene et al. (2014), the connection between a pharmacist and their clients can remain longer if the customer service provided by the provider is in line with the expectations of the consumers to achieve CS. As a result, the acts and deeds of pharmaceutical firms should be centred on the B2B clients. For example, according to Adebayo (2017), from the perspective of business-to-business transactions, CS is not just determined by the quality of the product but also encompasses service-related characteristics.

Any firm is keen to build an effective connection with its suppliers (Jonsson and Zeneldin, 2003). Consequently, the corporation selects suppliers based on certain factors, such as product quality and availability of the products on the market. Several characteristics of this connection, such as the KM, VC, customer happiness, and loyalty, are the result of this relationship. Since disgruntled customers are anticipated to migrate to other suppliers, the relationship strategic approach should be centred on the working relationship in order to keep the client delighted with the company. According to Ganesan (1994), consumers' happiness is extremely

significant in business interactions, and CS raises the level of collaboration between channel members, customers, and suppliers.

According to Sanzo and colleagues (2003, 2003), a relationship in a satisfying condition is one where all facets of the relationship between the client, the identified firm, and one's own organisation have been evaluated and are satisfactory. According to Chowdhury (2012), trust in the business-to-business setting is built via interaction and common interests, whereas commitment is built through a reputation for a commercial partnership. According to Bagdonien and Zilione (2009), a company's survival is dependent on its ability to handle relationships effectively. More and more managers are emphasising the need of developing good working connections with their customers' enterprises. As a result, the focus shifts away from transactions and towards forming trade relationships, which are defined as mutually advantageous connections between customers and sellers where the merchant makes an effort to establish long-term relationships with their consumers (Claycomb and Martin, 2001). Authors who believe that connections are more essential than tangible assets such as structures and products go even farther (Galbreath, 2002). A strategic partnership is a process in which a corporation establishes and strengthens social, service, and technological links with customers over time in order to minimise costs and/or create value for both parties (Ritter et al., 2004; Schurr, 2007).

For the PHI's complicated structure to be managed effectively, several involvement roles are anticipated from a wide range of stakeholders (Zandkarimkhani et al., 2020). It is necessary that enterprises consistently pay special attention to research and development, price, and availability of the products at the appropriate moment for the pharmaceutical supply chain to run smoothly (Franco & Alfonso-Lizarazo, 2020). The fundamental modifications in schemes of health insurance have placed significant pressure on the supply chain and profitability of pharmaceutical companies (Narayana et al., 2014). According to Zahiri et al. (2018), hospitals and pharmacies play a critical role in the proper operation of the PHI's supply chain activities. As a result, pharmaceutical companies are attempting to reduce their operating expenditures through outsourcing in order to improve the service provided to hospitals and pharmacies. On the other hand, the cost management procedure can harm the cooperation between pharmaceutical companies, hospitals, and pharmacies (Nicholson and colleagues, 2004; Panfilova and

colleagues, 2020). It is easily deduced that distributors, pharmacists, and hospitals have the ability to alter the language around pharmaceutical operations as a result of their lack of involvement with these stakeholders.

### **Insights into Pharmaceutical Sector in Jordan**

For example, Jordan was one of the world's earliest makers of branded generics, providing popular drugs offered with Arabic-oriented and generated packaging to clients around the area. The Middle East region along with Northern regions of Africa area have traditionally relied on Jordanian pharmaceuticals to treat disorders affecting the human system as a whole. Jordan's Hikma Pharmaceuticals, one of the region's major pharmaceutical organizations, has generated \$2 billion global sales, making it one of Jordan's majorly profitable domestic businesses.

With a generally educated labor market that includes large numbers of pharmacists and businesspeople who have received excellent business training, Jordan's PHI is well-positioned to thrive. Market research financed by JCP and conducted by health consulting company IQVIA indicates that the industry has been known to export to 87 nations globally, although inefficiently, according to the *Journal of Pharmaceutical Marketing*.

A total of 26,000 Jordanians from around the nation work in the country's primary pharmaceutical production plants surrounding Amman. In Jordan, about 40% of the industry's employee base is female, and two-thirds of those employed are noted to be highly trained, earning high salaries when compared to other industrial sectors in the country.

Pharmacy science, which includes the training program for newly graduated individuals of the pharmaceutical stream, is among the most prominent disciplines of study at Jordanian institutions, according to the Jordanian Higher Education Commission. As stated by the Jordanian Association of Pharmaceutical Manufacturers (JAPM), the pharmaceutical sector has provided around 30 million JDR (about \$42.3 million) to finance R&D to benefit the Kingdom's pharmacy schools. According to the Jordanian Association for the Promotion of Manufacturing (JAPM), the industry is a key generator of employment generation for youth, representing 7% of the industrial GDP.

The increase in exports of pharmaceutical nature has helped Jordan by broadening the country's tax base, creating jobs, and enhancing the economy of the communities where industrial operations are located. With the manufacture of pharmaceuticals in Iraq witnessing a decrease as a result of the ongoing violence in that country, the Kingdom's exports to its neighbour had a critical role in ensuring that Iraqis had access to healthcare products.

Jordan's PHI is leaping towards further expansion into global markets. There are many strong firms in the country, and its commodities continue to be in great demand across the Arab world. In addition, the labour that keeps the country running is among the most highly skilled in the area. To ensure a bright future for the industry, continued collaboration between the JFDA and the private industry, as represented by the JAPM, will be critical in order to create an environment conducive to sustainable growth.

### **Motivations for the Research**

Product development has always been an important aspect for pharmaceutical firms globally (Cooper, 2019; Dong, Liu, & Shen, 2019; Wu, Liu, & Su, 2020). The literature reveals that new product development (NPD) has been explored extensively from the supplier involvement perspective (C. Cheng & Yang, 2019). The major contribution of such exploration is always focused on the NPD and majorly discusses the timing, knowledge, informal interaction, dynamic capabilities, and ideas (Jean, Sinkovics, & Hiebaum, 2014; Xueyuan Liu, Huang, Dou, & Zhao, 2017; Kunttu & Neuvo, 2019; Mikkelsen & Johnsen, 2019; L. Wang, Jin, & Zhou, 2019). According to Aoki and Lennerfors (2013), Toyota's supplier involvement has been a very successful practice due to vertical keiretsu. With the development of IT infrastructure internet speed and social platforms, the supplier's engagement has attained significant importance (Awan, Sroufe, & Kraslawski, 2019; Wohlgezogen, Hofstetter, Brück, & Hamann, 2020). As a result, Social Media (SM) has been encouraged over conventional means for supplier involvement in many industries (Bhimani, Mention, & Barlatier, 2019).

Companies that have a good supply chain can reach greater levels of performance in areas such as customer service, delivery timeliness, and product administration. Profits can also be raised, while expenditures can be lowered in some

cases. Because the success of a supply chain depends on cooperation between the providing firms and the customer's firms, businesses that don't collaborate may see a decline in the performance of their supply chains as a result. Because of the elimination of unfavourable elements between the suppliers and the consumers, the supply chain's participants would be able to improve their mutual advantages (Park et al., 2017). Also, service quality has a significant influence on customer happiness and loyalty, the firm's profitability may be increased by providing efficient service quality and achieving high CS (Kilibarda and Andrejic, 2012). Consumer satisfaction is critical for organisations seeking a competitive edge because if a company fails to meet or exceed customer expectations, it will lose its position in the market to the competitors. Quality is the foundation of any service company, including the PHI. As a result, it is critical to guarantee that the level of quality provided matches or exceeds the expectations of customers (Meidute- Kvaliauskiene et al., 2014). Customer happiness is often recognised as a crucial differentiator as well as a critical component of any successful company strategy. The vast majority of businesses today agree that measuring CS is crucial for the purpose of retaining and attracting customers. Profits and market share will both benefit as a result of these changes (Chin et al., 2013). For personal reasons, the researcher has spent sufficient time in the PHI, and he has shown an interest in deepening his theoretical understanding in this academic area in the future.

### **Research Problem**

Product development has long been a critical component of pharmaceutical companies' operations across the world (Cooper, 2019; Dong, Liu, & Shen, 2019; Wu, Liu, & Su, 2020). According to the literature, new product development (NPD) has been widely investigated from the standpoint of supplier engagement (C. Cheng & Yang, 2019). The most significant contribution to such exploration is always directed at the NPD, with discussions focusing on the time, knowledge, informal engagement, dynamic capacities, and ideas, among other things (Jean, Sinkovics, & Hiebaum, 2014; Xueyuan Liu, Huang, Dou, & Zhao, 2017; Kunttu & Neuvo, 2019; Mikkelsen & Johnsen, 2019; L. Wang, Jin, & Zhou, 2019). Because of vertical keiretsu, according to Aoki and Lennerfors (2013), Toyota's supplier participation has proven to be a very effective approach for the company. Due to the advancement of information technology infrastructure, including internet speed and SM platforms,



the relevance of supplier involvement has increased significantly (Awan, Sroufe, and Kraslawski, 2019; Wohlgezogen, Hofstetter, Brück, and Hamann, 2020). Therefore, in many industries, social media (SM) has been promoted as a viable alternative to traditional methods of supplier engagement (Bhimani, Mention, & Barlatier, 2019).

In the pharmaceutical sector, the supply chain is a long and complicated structure that involves cooperation from a variety of parties (Roshan, Tavakkoli-Moghaddam, & Rahimi, 2019; Franco & Alfonso-Lizarazo, 2020; Zandkarimkhani, Mina, Biuki, & Govindan, 2020). As a result, pharmaceutical companies face constant problems in terms of product development, availability, and distribution of medicine that is of high quality, at a reasonable price, and at the appropriate time (S. K. Singh & Goh, 2019; Viegas, Bond, Vaz, & Bertolo, 2019; Zandkarimkhani et al., 2020). Those responsible for the Narayana et al. (2014) that the tight control exerted by health insurance systems has greatly raised the pressure on pharmaceutical performance and the supply of medicine.

The chain consists of the producers and is strongly reliant on the distribution channels, pharmacies, and hospitals for its success (Zahiri, Jula, & Tavakkoli-Moghaddam, 2018). Additionally, logistics is the most significant area in which pharmaceutical companies attempt to reduce prices by utilising outsourcing services to enhance service while also lowering costs (Nicholson, Vakharia, & Erenguc, 2004; Beaulieu, Roy, & Landry, 2018). However, there is a lack of coordination between the businesses and their different distribution channels, which has a negative impact on performance and raises the firms' costs associated with supply chain operations (Privett & Gonsalvez, 2014; Chakraborty, Chauhan, & Ouhimmou, 2019; Panfilova, Dzenzeliuk, Domnina, Morgunova, & Zatsarinnaya, 2020). The conclusion drawn from the review is that a supplier's involvement in pharmaceutical companies can have a significant impact on the logistic services and operations of the companies. However, from the standpoint of the pharmaceutical sector, there is no evidence of the application of Social Media in supplier interaction for business clients, and this area requires additional development. In this regard, the study is primarily concerned with supplier participation from the standpoint of the business client.

This is only the beginning of the difficulty of engaging the healthcare business, as stated in the problem statement (Zandkarimkhani et al., 2020). The two-pronged routes are intended to fulfil the needs of pharmaceutical makers upstream

and marketing channels downstream, respectively (M.-C. Chen, Hsu, & Lee, 2020). For pharmaceutical companies and pharmacists, this means that supply chain operations must be aware of their client's requirements (Vipaporn, Pakvichap, & Jernsittiparsert, 2019). Furthermore, the research demonstrates that conventional enterprises' logistic distribution from the healthcare industry only has restricted access due to the nature of the industry (Schuhmacher, Gatto, Hinder, Kuss, & Gassmann, 2020). Because of this, issues are amplified in the pharmaceutical business, where supplier interaction channels are not open as they are in other industrial sectors (Kakani, Chernew, & Chandra, 2020). Pharmaceutical companies must also handle the requirements of hospitals, clinics, pharmacies, and home care facilities, as well as the unique features of each facility, such as temperature, distribution, and consistent inventory quality and quantity (Pieriegud, 2019; Hou, Wang, Chen, & Shi, 2020). Customers' approval of pharmaceutical procedures must be earned via constant improvement for the purpose of achieving a competitive advantage in today's dynamic climate (Kianzad, 2019). Furthermore, it is necessary to point out that at a certain point, an investment in high-quality main does not result in a higher return on investment. In order to obtain a competitive edge, pharmaceutical companies must consider customer service and comprehend the requirements of both corporate clients and end customers (Hull & Clancy, 2019; Abedini & Irani, 2020; Chitra & Kumar, 2020). One method of gaining a competitive edge is closely associated with supplier engagement and (SMM) efforts (Edwan, 2019; Patma, Wardana, Wibowo, & Narmaditya, 2020). The research will thus attempt to identify a strategic match between pharmaceutical companies and business clients in order to serve the demands of end consumers while also gaining a competitive advantage inside the supply chain.

The usage of IoT has modified the rules in the commercial world, particularly for top management, policymakers, and sales representatives (A. Sharma, Kaur, & Singh, 2020). Information about goods and services can be collected and shared with the help of the Internet of Things (IoT). (Botcha & Chakravarthy, 2019). When it comes to business, the usage of internet services has done wonders for all of them, and pharmaceutical operations are no different (M. Singh, Sachan, Singh, & Singh, 2020). The Internet of Things (IoT) has revolutionised product distribution and has had a beneficial impact on consumer happiness (Safkhani, Rostampour, Bendavid, &

Bagheri, 2020). Social Media (SM) has played a crucial role in the Internet of Things (IoT) through online marketing (Bhatnagar & Kumra, 2020; Munnia, Nicotra, & Romano, 2020). Businesses and individuals used social media platforms to grow their businesses and increase their fan following (Kilkki, 2019; Lebid, 2020; Shen, Luong, Ho, & Djailani, 2020). Despite this, the majority of the previous literature has been directed toward the use of SM (Ebrahim, 2020) (Ibrahim, Aljarah, and Ababneh, 2020) and less attention has been paid to SM activities (Tiwari & Raut, 2019; C. C. Cheng & Shiu, 2020; Mishra & Sanghvi, 2020; Rahman, Rodrigues-Serrano, & Lambkin, 2020; H and, in particular, in pharmaceutical companies that deal with commercial clients

The authors of Mukherjee, Limbu, and Wanasika (2013) state that direct consumer advertising (DTCA) is becoming more well-known and employs classic and developing media, as well as internet and SM platforms. Pfizer alone expended \$1.4 billion in DTCA expenditures in 2014, representing an 18 percent increase over the previous year (Koons, 2015). As a result, DTCA has developed at a quick pace and has offered the immense potential to SM platforms such as Facebook, Instagram, Twitter, and others (Mackey, Cuomo, & Liang, 2015; Mackey & Liang, 2015). However, as a result of drug administration regulations and recommendations, pharmaceutical companies must significantly enhance their information sharing (SHRESTHA, PALAIAN, SHRESTHA, SANTOSH, & KHANAL, 2019). The majority of DTCA is centred on the end customer, and business customers have not been widely examined under SMM in pharmaceutical companies. As a result, only business clients of pharmaceutical companies will be included in the research to study the impact of SMM operations.

In pharmaceutical marketing, both in conventional and SM, there is also a debate over ethical considerations. Due to violations of emotional appeals, moral hazards, artificial demand rise, and conflicts of interest, pharmaceutical marketers have come under fire. They are also being investigated (Parker & Pettijohn, 2003; Main, Argo, & Huhmann, 2004; Mullner, Cunningham, & Iyer, 2005; Waite, 2012). Whereas pharmaceutical organizations, are working hard to enhance their relationships with both business and health consumers (Y. Lee, Fong, Barney, & Hawk, 2019). The strengthening of ties aids in the reduction of costs and the improvement of the performance of pharmaceutical companies in the face of

devastating competition (Raskovic, Ferligoj, Brencic, & Fransoo, 2013). In the same way, as B2C peers spend extensively on promotional activities, the industry is spending heavily on B2B to differentiate brands and enhance sales (Rahman et al., 2020). However, pharmaceutical organizations spend small sums of money on B2B advertising, and there is an increasing need to discover the best way to market to B2B customers who may act as an intermediate between pharmaceutical companies and end-users (Rahman et al., 2020). Therefore, the study will analyse B2B clients as well as pharmaceutical companies from the standpoint of SMM by using the organised questions provided.

### **Research Questions and Objectives**

The study aims to answer the following research questions:

- How can SMM activities affect that B2B CS in the Jordanian PHI?
- What is the role of VC for SMM activities for pharmacists and pharmaceutical firms?
- How can TE be used to improve business CS in the PHI?
- Why is quality from a two-dimensional perspective important in SMM activities and CS from a Jordanian PHI perspective?

The study proposes the objective reality through the establishment of the given below objectives:

- To analyse the SMM activities that can affect that B2B CS in the Jordanian PHI?
- To investigate VC as serial mediation for SMM activities and business CS in the Jordanian PHI?
- To critically appraise the TE as serial mediation to improve business CS in the PHI?
- To examine the KM as a mediator for measuring quality from two perspectives in SMM activities and CS in the Jordanian PHI?

### **Significance of Research**

The study is important for the Jordanian domestic PHI because it applies the two-dimensional model of quality. Moreover, the study uses a serial mediation model to test SMM activities' effectiveness from the B2B CS perspective. Hence, the study contributes to the theory by finding the most effective SMM activities for the PHI

while engaging B2B customers. The study also has practical value for the industry because it explains the mechanism of improving operational efficiency and improving business relationships with the b2b customers through SMM. Moreover, the study contributes to the policy by attracting enough attention from regulatory authorities and business models to revamp the electronic world's policies to ensure the quality and minimise the ethical challenges that can affect the end customers in the health care industry. Thus, the study helps develop a mechanism of improved operations in the PHI for the pharmacist to maintain inventory, manage quality, ensure the quick provision of medicine, and lower the PHI's operational cost.

### **Research Structure**

A total of five chapters comprise this study. In Chapter One, the reader better understands the overall study project. It consists of problem statement for study, the questions for research, the study goal, and the research goals, among other elements. This chapter explains the study in detail. Also included are discussions of the research's introduction, motives for the investigation, and the study's overall relevance.

The second chapter is devoted to the research's literature review. It is divided into five portions, which are as follows: business CS is explained in the first section for the PHI. The second section goes into great detail about SMM activities.

The third chapter discusses the KM for the PHI and the relationship with CS. The fourth section details the VC in the PHI. The last section examines the quality of the connection that exists between TE and business CS

Study methods are covered in Chapter 3. This chapter describes the research method and associated difficulties using research philosophy as a guide. The research design, as well as the data collection procedure, are well explained in this document. In addition, the chapter discusses additional topics such as the sampling process and ethical implications for participants.

The analysis of data for this study is discussed and highlighted in the 4<sup>th</sup> Chapter. Using surveys, the key information is gathered. Data from original data sources were presented as tables and figures in these presentations.

The discussion and analysis of the findings are presented in Chapter 5. While the chapter is mostly concerned with contrasting and contrasting, it also includes a

section on the literature review. This chapter discusses the results and recommendations for the study in detail. The study's purpose and objectives have been handled to a sufficient degree. Also, it comprises the study's limits, potential future investigations, the study's theoretical contribution, suggestions and management ramifications of the findings.

### **Summary**

The chapter has comprised theoretical roots. B2B CS was discussed in detail, as it was the outcome of SMM activities in the Jordanian economy and the ideas that underpin it. The study underpins the role of the KM within the pharmaceutical sector. The study problem and the reasons for doing the study were introduced in this chapter. Also included were descriptions of the study's relevance, the goal and goals of the research, and the methodology used in the investigation. The study has been comprised five chapters. The first chapter is explained in six sub-sections to establish the study's research problem, objectives, and significance. The literature review chapter has been sub-categorised into eight sections to explain the Jordanian domestic PHI, SMM activities, KM, VC, TE and CS. Chapter 3 contains ontological and methodological assumptions for the study and explains the reality through objective realism and systematic stratified random sampling. The methodology chapter has been further segmented into ten sections.

Chapter 4 is based upon the data analysis and involves Confirmatory factor analysis (CFA), demographic information, and multiple regression interpretations. The last chapter, i.e. Conclusion, has been interpreted using the lenses of literature review, reliability, validity and research contribution for theory, practice, and policy.

## **CHAPTER II**

### **Literature Review**

In this chapter, a review of the prior literature was conducted, covering the several facets of the influence of SM utilization in the Jordanian PHI. This chapter holds a prominent position in the research work since the review of the literature provides the academic and practical foundation for the study's findings and is essential for validating its findings. The overview of the research investigation is covered in the literature review. To show how it relates to the PHI and how SMM, the KM, and other minimal marketing factors play a role in B2B businesses in the PHI, we will first tackle the main objectives by breaking it down and explaining each factor individually.

#### **Overview of Social Media Effect in Jordan PHI**

Even within the medical and pharmaceutical industries, marketing has grown to become the core of all businesses in recent years. Although the pharmaceutical sector creates medicines that save lives, marketing is also an important topic to research in the sector (Anamul, 2011). Additionally, the pharmaceutical sector has drawn the interest of marketing scholars and has developed into an example of company-to-company marketing and industry to consumer marketing (Joseph et al., 2004). The practice also demonstrates that achieving CS is the primary objective for pharmaceutical companies (Charles et al., 2012). Additionally, every developed and fiercely competitive "pharmaceutical sector" demands CS as a measure of customer retention (Oliver, 1999; Pizam & Ellis, 1999). Because it serves as the cornerstone for a pharmaceutical company's marketing strategy and VC program, CS is a critical factor in marketing strategy that cannot be ignored (Yang and Peterson, 2004).

Pharmaceutical companies should concentrate all their marketing efforts in a competitive environment to satisfy clients to the greatest extent possible (Anita Mishra, 2009;). Additionally, empirical investigations revealed that if the goal of marketing is to satisfy consumers, marketing needs to give consumer satisfaction more consideration (Prashant et al., 2012). Therefore, one of the most crucial difficulties for many pharmaceutical manufacturers is distinguishing between

marketing and achieving adequate amounts of CS. The main goal of this study is to address these concerns by elaborating on the use of SM and KM in the Jordanian PHI.

Although Jordan's PHI is deemed as a core business in the economy and has a strong influence on the country's economy and labor market. Recently, Jordan's pharmaceutical business has been dealing with several issues that must be resolved by regional pharmaceutical firms to satisfy customers' expectations. The only significant issue the national pharmaceutical makers are dealing with is competition (Mahmud et al., 2012). According to the Ministry of Health's 2011 report, the Jordanian market has opened to foreign pharmaceutical businesses, and many of these organizations penetrated the market with well-known brands and a relationship-building strategy. In this type of organization, customer happiness is essential. To create a satisfaction model, that presents an extra challenge.

Additionally, Jordanians have an ingrained attitude that foreign things are admirable and deserving of praise, and they have a bad opinion of locally produced goods like medicines (Khalid, 2010). These problems could prevent local pharmaceutical producers from continuing to play a significant role in the economy (Hani et al., 2012). Marketing therefore exists because of unmet consumer demands and desires in the industry (Kotler, 2005). Companies should intensify their efforts to satisfy customers and meet customer needs in a competitive environment (Jain, 2000; Cant et al., 2006).

### **Business Customer Satisfaction**

CS has many different components; hence it has been given many different meanings (Lodenus, 2011). CS, according to Tracey (1996), has been described as the extent to which customers believe that the services and products they received were worth more than the money they paid for them. (Zhang et al., 2003). Consumer satisfaction, as defined by Tracey (1996), is the response of the customer to the value acquired from using the service. Both the targeted value and the perceived value of the competing offering will have an impact on that response (Barve, 2011). According to Patricks et al., (2020), in the case that the expectations of consumers for a particular product or service meets or exceeds their real experience of consumption, the state of satisfaction is then reached. CS, according to Anderson and



Sullivan, depends on the quality of the services provided. Additionally, other research investigated how using SM impacted consumer satisfaction (Ancillai et al. 2019; Rossmann and Stei 2015). To name a few, in a study by Agnihotri et al. (2016), the authors investigated the way in which B2B salespeople's utilization of SM influences CS.

Therefore, according to the meanings presented above, CS can be understood and assessed before, during, and after the process of purchasing a good or receiving a service to determine how satisfied customers are. After determining whether the experience with the product/service have been positive or satisfying, consumers typically determine whether to purchase or continue purchasing. Existing research has shown that the possibility of making a purchase increase with purchase intention, thus a business looking to make money will need to work to draw customers and keep them happy (Bapat, 2017; Sreejesh et al., 2018). CS is subjective because only individuals who utilize a product can gauge their level of satisfaction with it. It is made up of a customer's views, perceptions and assessments, of experience with the product or service (Benoit et al., 2020). Since the PHI is a part of the health economy, maintaining CS is crucial for businesses in this industry to stay competitive (Cheng et al., 2019).

Additionally, there are two categories of client happiness: transaction-specific satisfaction and total cumulative satisfaction (Deng et al., 2010; Zhang et al., 2005). An evaluation of a customer's satisfaction with a transaction is done following the experience of purchasing a good or service (Jaiswal and Niraj, 2007; Deng et al., 2010). Overall or cumulative satisfaction refers to the whole experience with a product/ throughout a given period (Daugherty et al., 1998). The sum of all prior transaction-specific satisfactions allows us to interpret overall satisfactions in this way (Jones and Suh, 2000). Slack (1987) and Zhang et al. (2003), highlighted five factors that affect consumer satisfaction, including retention, the price-to-value ratio, product reputation, quality, and customer loyalty.

Nevertheless, by offering better services and creating new value, most industries try to please their consumers. As a result, in the digital age, the value of a corporation has rapidly transformed. SMM opens new possibilities for VC and CS. Most transactions are now feasible, as opposed to being impossible in the past,

mostly because firms are focusing their emphasis on luring youthful customers. The rapid attention millennials pay to possible purchases is the cause of this. The ease with which creative solutions can be developed to please customers on online platforms inspires many firms. According to Haleem et al., academics should concentrate more on pharmaceutical business practices to create a strategic fit between theory and practice. The same way that pharmaceutical companies have historically paid less attention to business clients in favor of developing a quick procedure that leads to positive intentions or quick purchases and promotes consumer pleasure. The researcher cautiously concludes that further research on the pharmacists' perspective as B2B clients in the Jordanian PHI is required.

In conclusion, whether a product or service performs as expected by the customer will determine whether the customer is satisfied. Customers' feelings of happiness after using goods or services are often referred to as satisfaction, which is different from the performance that was anticipated. Understanding customer expectations and perceptions of service quality can be used as a foundation to improve service, boost customer retention, and raise customer propensity to recommend the business to others.

### **Social Media Marketing Activities**

The use of SMM has been seen to expand throughout most industries, and the PHI is no different. To underline the importance of SM marketing activities from the perspective of luxury brands, Kim and Ko identified five SMM constructs. The results and findings of their study demonstrated that SMM campaigns aid in the shaping of individuals' purchasing patterns and intentions. This confirms the idea that SMM structures can be used to measure a factor that affects a company's actions and marketing action plans. Pharmaceutical companies are starting to see the possibilities of this novel customer connection channel. However, pharmaceutical businesses must considerably improve information exchange through digital platforms because of drug administration rules and recommendations.

As said by Al-Essa et al. (2015), it is now apparent that SM content is crucial in today's environment of intensified competitiveness. It is a technology that promotes e-communication in order to increase user connection, cooperation, and content exchange. People have surmounted obstacles and gained access to

knowledge with the aid of SM. The increased usage of SM is assisting in raising people's awareness of the contributions and outcomes of the community (Al-Essa et al., 2015). The audience utilizes SM platforms most frequently due to the prevalence of internet access. They play a crucial role in promoting the use of media platforms for business, which helps to increase brand recognition and keep customers. Social networking have made it easier to engage with more individuals and to reach a larger audience. Consequently, SM has developed into a resourceful and convenient medium (Downey, 2012).

Due to the extensive usage of SM platforms, companies can use a variety of SM platforms, tactics, tools, techniques, and channels to connect with a larger audience and attract a lot of new clients. SM platforms also improve the flow of information between companies and their customers. This improves the feedback mechanism's efficacy, which in turn improves the efficiency and performance of the customer engagement. (Guffey and Loewy, 2014).

Kommers et al. (2014) studied the business and commercial utilization of SM in a range of industries, which includes but is not limited to the PHI (2014). This research provided reliable and valid data on the prevalence and impact of SM. The report highlights the significance of ongoing SM research in expanding SM's use and success across sectors. According to a recent study (Kommers, Isaias, & Issa, 2014), the answer is yes. The same format is used to explain how SM optimization has evolved over time. Brand, product, and service recognition are all boosted by the aggressive and broad use of SM channels for promotion and publicity. It aids by attracting customers' focus and heightening their awareness, both of which are crucial in boosting the brand's loyalty and reputation (Shreves, 2015).

According to Kommers et al. (2014), the integration of existing media technologies into domains including marketing, healthcare, pharmaceuticals, education, and the service industry is a daunting challenge but essential to the growth and development of SM's areas of application. Ding et al. (2013) made a similar point regarding the expanding SM utilization as a marketing tool in the PHI. The authors concluded that the pharmaceutical business might profit from SMM since it is a more reliable platform for customer involvement and communication about the product, the firm, and the brand. In this way, the company is able to interact with

influential people online, get useful data, and better meet the needs of its clientele (Ding et al., 2013). According to the published research, The ubiquitous effect of SM has now reached the healthcare and pharmaceutical sectors. A rising number of medical professionals are exploring this tool's potential for improving communication, information sharing, and problem solving in clinical and managerial settings. Patients are also actively using SM to take charge of their health education (Ding et al., 2013).

To see if pharmaceutical companies were using SM along with other types of technology to improve their decision-making processes, Yang and Wu (2009) conducted an investigation (Yang and Wu, 2009). Ding et al., (2013) went on to note, however, that many pharmaceutical companies maintain corporate Facebook profiles and also exist on Twitter, YouTube, and company blogs.

Pharmaceutical organizations consider that the optimal approach to create social impact or network value is through word-of-mouth marketing (Ding et al., 2013; Yang and Wu, 2009). Nonetheless, Shoemaker and Reese's research shows that a small number of pharmaceutical firms are hesitant to utilize SM for marketing and advertising purposes (2013). Reasons for this include apprehension about legal repercussions and an absence of familiarity with the appropriate communication norms to be observed while utilizing SM for promotional purposes. The study's findings are more credible and authentic because of the use of comparative analysis and statistics to back up the claims made in the study. However, Peters (2010) stressed that SM can be advantageous and valuable in making communication easier for companies operating in the PHI, but that doing so needs a significant time investment. Forget about expecting a return on even a minimal SM tool investment. Businesses will not get the most out of this tool unless they are willing to put in the time and money required to make it work (Peters, 2010).

The pharmaceutical business has realized the prospective of SM platforms and has used SM technologies for marketing and advertising, according to a literature review on the subject. On the other hand, it turns out that companies in the PHI don't use SM as a primary channel for marketing and communication due to concerns about security and the need for greater accountability on the part of users.

The literature also discussed the challenges of implementing widespread SM usage in the spectre of business and industry. While SM has risen as a dominant technological platform, Kommers et al. (2014) claim that its widespread adoption has been marred by a number of problems. The root of this misconception is that people can't tell apart helpful technologies from ones that aren't (Kommers et al., 2014). Ziska (2016), on the other hand, noted that marketing on SM can cause serious issues with data security, privacy, and trust (Ziska, 2016).

§According to the literature review conducted for this project, it has been concluded that the establishment of SM regulations and their subsequent enforcement allow for the dissemination of data regarding the risks involved with SM use and serve as a crucial instrument for keeping tabs on content published online and protecting the privacy of users. This kind of knowledge helps increase the reliability and trustworthiness of SM, which in turn encourages its use and implementation by a wide range of stakeholders in the PHI and beyond.

### ***Trendiness***

Due to the proliferation and expansion of marketing channels, marketing methods have evolved substantially. Since there are now more users than the worldwide capacity of 2.77 billion, businesses are redefining how they target their clients. Competitive businesses also make significant investments in adopting new technologies to boost their SM presence. Numerous studies have emphasized the significance of fashion in SMM. The majority of this research have identified "trendiness" as a crucial element for enhancing influence via SMM operations. Thus, trendiness is a key component that is being used to foster cooperation between pharmacy personnel and businesses.

The pharmaceutical business has experienced rapid expansion in recent years, and things are looking up for 2023. By the following year, it is anticipated that the industry will surpass \$1 trillion. A large number of compound which are operating in the last phases of clinical development, along with numerous new medicines whose approvals are projected for 2023 and beyond, are partially to blame for this. This quantity of medicinal products is unusual and hasn't happened in roughly ten years.

Across all fields, the phrase "artificial intelligence" (AI) is gaining popularity. To explain further, it consists of the utilization of computers to conduct operations that in normal cases needs human intelligence. This includes activities like judgment, speech recognition, and vision. Additionally, it makes information translation between many languages possible. Different uses of AI in the pharmaceutical sector are anticipated to grow, including speeding medication research and development. Clinical studies, fraud detection, and the general advancement of drugs are some of the fields that AI will help.

Certain medical professionals undoubtedly resisted joining the medicinal marijuana bandwagon even after it gained wider acceptance. This is beginning to alter, and the tendency will persist in 2023. Simply put, how people view cannabidiol (CBD) as a medicine is evolving. The advantages of taking medicinal marijuana for ailments including pain relief, emotional regulation, digestive health, and vascular health, among others, cannot be denied by many medical specialists who previously considered it difficult to embrace. Pharmaceutical firms afterwards realize the enormous prospects that are available.

Personalized medicine is explained as when the individual diagnosis of a patient is utilized to generate a treatment. The overall aim is to generate medication that is specifically tailored for the optimal results of that particular patient. Precision medication has proven to be more effective than other forms of treatments. The problem of manufacturers is that there are multiple treatment variances because a lower amount of medication is produced. Particularly, facilities that manufacture precision-type medicine are generally smaller than conventional manufacturers. Although it has caused issues for the makers, it is anticipated that this tendency will persist as the techniques are improved. The number of investors that support precision medicine has exceeded expectations.

Organizations operating in the PHI have begun to look for ways to employ blockchain technology as it has become more prevalent in the finance sector. Blockchain technology's main goal is to make transactions simpler while maximizing security and transparency without the need for a middleman. Blockchain technology has the ability to aid pharmaceutical

businesses increase efficiency by streamlining operations. This is relevant to deals revolving around hospital organizations, small clinics, agencies of governmental sorts, along with other agents. Additionally, it can enhance the effects of research and development.

Digital process implementation is nothing new. It is something that will, nevertheless, pick up steam in the pharmaceutical sector. There are manual procedures in use today merely because they have established themselves as standard over time. For instance, a lot of paper-based operations have been replaced with digital alternatives, which has increased operational effectiveness and made it simpler to comply to A Standard Operating Procedures (SOPs). There will be more of this trend. Additionally, it will encourage regulatory compliance. The use of digital processes is welcomed by many pharmaceutical companies since the advantages exceed the drawbacks. Additionally, it increases transparency and may lessen data loss.

As indicated, compared to the required needs of mass production of medicines, precision medicine calls for the use of smaller manufacturing facilities. There will consequently be a rise in small manufacturing facilities. These smaller-sized facilities are further a result of a preference for creating fewer, higher-quality pharmaceuticals as opposed to many, lower-quality ones. Medications will treat fewer patients if they are produced in less quantities. Notably, one of the difficulties with this strategy is that it must produce goods quickly to meet demand while still ensuring maximum profits.

The cloud technology is certainly familiar to anybody who uses a computer at home or at business. It has received support from the pharmaceutical sector, and this tendency will persist. Pharmaceutical businesses can conduct business deals in the form of effective collaborations with numerous stakeholders attributing the success to cloud technologies. Enhancing data integrity is another benefit of employing cloud technologies to implement a solid infrastructure. Applications used in the cloud have enhanced the level of compliance with the good practice quality guidelines and regulations (GxP). This technology will help the pharmaceutical sector flourish, just as it is increasing throughout all other industries.

The cost of medications will occasionally become headline news, particularly when there is indignation over the exorbitant cost of life-saving treatments. Governmental organizations like the Department of Health and Human Services will enhance discounts and refunds as part of a continuing effort to lower the cost of pharmaceuticals. Market-focused tactics have been utilized in the past, but more of these initiatives are anticipated. Examining medicine costs and maintaining inspection to spot irregularities will both continue in 2023.

From an operational standpoint, using digital training to make sure the correct and effective use of deployed technology is one of the trends that will grow in 2023. This is also done to comply with regulations. Pharmaceutical businesses and pharmacy staff need to be well-versed in rules, just like any other industry, and be able to maneuver through the many systems put in place in a way that complies with regulations. To sustain high productivity and overall efficiency, knowledge building is another concern. Because you can provide on-demand training to employees throughout the week and at any time of day, using digital platforms for training is also economical.

The importance of medicines is being emphasized more and more. Pharmaceutical firms are therefore more concerned than ever to make sure that research and development reaches the intended audience. To better serve patient needs and safeguard the bottom line, there are efforts being made to increase efficacy and efficiency. For instance, there is research being done to find medicines that can genuinely enhance patients' experiences and quality of life. Because of this, pharmaceutical businesses now need to check that their research and development procedures are streamlined and targeted.

These major changes are transforming the pharmaceutical sector in profound ways that will probably have both short- and long-term effects. The level of innovation present in the sector is likely to produce enormous value. In addition to the trends mentioned, the pharmaceutical business is the subject of intriguing statistics.

### ***E-WoM***

According to Seo and Park, client relationship methods are still concealed by the SMM boom. eWoM was also acknowledged as a crucial



category for recognizing SMM activity. Few research, however, directly address the SMM eWoM and the pharmaceutical perspective. EWOM can be thought of as a particular kind of WOM. eWOM is defined as an unnamed act performed through the internet by a current or potential consumer who provides his or her evaluation of a product or service without any financial interests, in contrast to the direct spoken communication of WOM (Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004). underlying the fact that written communication predominates over oral communication (Xia & Bechwati, 2008). According to van Doorn, Lemon, Mittal, Nass, Pick, Priner, and Verhoef (2010), WOM and eWOM are both examples of consumer engagement behaviors.

It is reasonable to believe that there is a direct correlation between the valence of the service experience, namely the level of pleasure with the encounter, and the positivity or negativity of WOM or a review, that is, their valence. Indeed, according to a number of studies, CS has a significant impact on word-of-mouth (WOM) (Choi, Cho, Lee, Lee, and Kim, 2004; Brown, Barry, Dacin, & Gunst, 2005; Heckman & Guskey, 1998; Heitmann, Lehmann, & Herrmann, 2007; Hennig-Thurau et al., 2004; Mittal, Huppertz, & Khare, 2008). In the meantime, Matos and Rossi (2008) demonstrate that the value of a review is mostly decided by loyalty to and satisfaction with a service, in addition to the service quality. High levels of satisfaction produce favorable evaluations, but high levels of unhappiness produce unfavorable ratings. Reviews typically fall into one of two extremes: very positive or very negative (Anderson, 1998; Chevalier & Mayzlin, 2006; Duan, Gu, & Whinston, 2008; Mazzarol, Sweeney, & Soutar, 2007; Sweeney, Soutar, & Mazzarol, 2005; Zeelenberg & Pieters, 2004). As a result, the distribution does not at all follow the standard normal. Extreme service experiences—both positive and negative—are more likely to elicit high impulses for participating in eWOM, which may explain this occurrence.

The study by Hennig-Thurau et al. (2004) is one of the most significant pieces of research on the motivations for participating in eWOM and is based on the works of Dichter (1966) as well as Sundaram, Mitra, and Webster (1998). Users of an online platform were questioned via an online

poll about the reasons for their online reviews. The motivations are based on a theory developed by Balasubramanian and Mahajan (2001), which claims that members of virtual communities' profit from social engagement in three different ways (all immaterial). These include focus-related utilities (when a member of the community adds value through their contributions), consumption utilities (when a member of the community directly consumes another member's contribution), and approval utilities (when another member of the community consumes and approves a member's own contribution). Homeostasis utility is added to this framework by Hennig-Thurau et al. (2004). (Desire for balance in their lives). They thus represent eight unique motivations, including platform assistance, expressing unpleasant emotions, caring about other customers, extraversion or positive self-enhancement, social advantages, financial incentives, 6 supporting the company, and advice seeking. According to their findings, consumers' demand for social connection, their need for financial incentives, their concern for other customers, and the possibility to boost their own self-worth are the primary drivers of eWOM activity, including site visit frequency and comment posting.

The motivations behind people's writing greatly vary depending on the valence of the consumer experience (Sundaram et al., 1998). Positive eWOM is driven by engagement, self-improvement, and support for the business. In the event of a poor experience, motives may include retaliation, anxiety reduction, advice seeking, and aiding others by forewarning them (Grégoire et al., 2010; Hennig-Thurau et al., 2004). To help others with their purchasing decision (or provider choice), warning others is a focus-related value that can be categorized as an altruistic purpose. Thus, warning others is the opposite of helping others, which is beneficial. By endorsing and promoting it in this situation, the reviewer may be hoping to assist either the service provider or future clients. Both equity theory and altruism can be used to explain this behavior (Oliver & Swan, 1989). Wetzer, Zeelenberg, and Pieters (2007) make the assumption that the reasons for writing a review may differ in their level of affectivity and may be influenced by the feelings evoked by the service experience. Negative eWOM tends to be highly self-

centered and driven by the need to exact revenge and let off steam (van Doorn et al. 2010). It's possible that the underlying service encounter is linked to angry emotions. However, when it comes to the service experience, disappointment and regret are linked to an increased message recipient emphasis (otherfocused message), with the intention of forewarning others and averting them from a similar experience.

Reviews might differ not only in valence but also in other qualities. These could include the reviewer's level of affectivity, the review's content, length, and point of view (Goyette, Ricard, Bergeron, & Marticotte, 2010). Personal, emotive descriptions and a dearth of impersonal judgments that would be helpful to other users are traits of an effective communication. The level of affectivity has only ever been voluntarily altered in experimental settings before in order to study how it affects review readers (Huang, Chou, & Lan, 2007). As a result, it is demonstrated that objective instrumental communications are seen as more believable than emotive messages. Analysis of the degree of affectivity of authored online reviews has not been done in research. The same is true for the level of differentiation, which up until now has only been used to adjust a review's reliability or quality (Cheung, Luo, Sia, & Chen, 2009). (Park, Lee, & Han, 2007). Medical service providers, meanwhile, frequently express concerns that reviews lack precise information and are overly emotional, non-generalizable, undifferentiated, and non-generalizable. There has not yet been an empirical evaluation of the valence of online reviews, the level of affectivity, and the level of differentiation. As a result, the research on review qualities for eWOM about medical services is still lacking.

Throughout literature, a wide range of research has been conducted on WOM behavior in the healthcare industry (Ferguson et al., 2010; Klinkenberg et al., 2011); however, only one conceptual article on eWOM in the healthcare industry has been published (Trigg 2011). Trigg (2011) talks on the evaluation of the quality of medical care in relation to the quality of service-experience reviews. The article also provides a summary of the topic's importance from a variety of angles, consisting of those of the reviewer, the reader, and the overall healthcare system. In conclusion,

research on eWOM in the context of health care is still in its early stages, although WOM has been thoroughly examined. Research on patients' reasons for leaving reviews, the traits of the reviews, and their contents is lacking while the practical usefulness of online platforms for rating hospital stays as a service experience increases.

### ***Customization***

For businesses, SMM is essential. The businesses use several strategies to greatly improve the consumer-brand relationship. To increase customer happiness, businesses must carefully implement their strategies. Given the potential of "customization," it is essential to employ it as a strategy in SMM campaigns to improve collaboration across a range of industries. According to recent studies, tailored strategies should work in tandem with SMM in the pharmaceutical sector.

A consumer who customized their own user experience is more likely to respond favorably since they controlled what they saw. Customization lets marketers showcase campaigns directly to individuals who are more inclined to acquire an item.

The art of mass customization entails designing products that organically adapt to their surroundings or using packaging, marketing, or cosmetics to best match the needs of each unique buyer. Customers have been known to be more responsive and have shown preference to mass customizations, that further encompasses businesses with the flexibility and integration required to manufacture personalized products at lowered prices for mass production.

Forms of innovative-type production techniques and technologies, more commonly referred to as made-to-order or built-to-order, were developed for the purpose of allowing organizations to manufacture interchangeable parts that customers are free to choose from. A sectional couch or sofa, for instance, might be offered by a furniture maker with a variety of configuration options and options for legs, fabrics, and colors so that a buyer can tailor it to their living area.

While retaining the advantages of mass production's cheaper costs, mass customization promotes strong product sales and high CS ratings.

## *Entertainment*

The goal of SMM is to establish perceived client expectations based on enjoyable and amusing activities. Games, exchange of audio-visual content, and contests can all encourage users to enjoy the experience. The consumer's intimacy and intent to buy can thus be influenced by entertainment. Marketers must therefore develop enjoyable, humorous, and intriguing offers. Multinational corporations frequently utilize websites like Facebook, YouTube, and Twitter to entice clients with images, videos, and competitions. As a result, the researcher is attempting to evaluate the contribution of entertainment to SMM from the viewpoint of the pharmacy staff to leverage business client relationships.

Marketing that is optimized for situations and media that are specifically related to entertainment. Campaigns that appear in mainstream media are a good example. It centers on collaborations between brands from various industries and entertainment producers/organizations, who frequently cross-promote one another.

Pharmaceutical businesses have recently concentrated their marketing efforts on digital advertising and engagement strategies to interact with patients and develop connections. Pharmaceutical firms are now utilizing digital data analytics to create target audience profiles and direct-to-consumer marketing plans that adopt a holistic approach and take into account patients' whole lifestyle choices and their well-being, not just the medical diagnosis. The relationship marketing initiatives being made by pharmaceutical companies to engage with patients and understand their preferences are described in this new area of concentration. Relationship marketing aims to encourage client loyalty and long-term retention by drawing on the discipline of public relations.

It is considered risky for to use paid SM influencers in direct-to-consumer pharmaceutical marketing for several reasons, including navigating FDA and FTC regulations, worries about authenticity, and managing consumer engagement. Pharmaceutical marketers have shifted their focus away from celebrity influencers and toward patient advocates and experts in the health and medical fields. Patient advocates are typically SM users who

actively promote health awareness and are regarded as micro- or nano-influencers. Compared to famous influencers, these influencers tend to have fewer followers but create more niche groups, leading to higher engagement rates and more solid stakeholder relationships. Pharmaceutical companies are starting to choose micro- and nano-influencers with highly targeted audiences who may be ready to hear about health issues. The importance of patients to pharmaceutical marketers in creating brands was discussed in a recent Vox article. Patient influencers are merely commercializing their lived health experience because it is something that patients share with one another and cannot be duplicated. By sharing carefully selected and strategically placed bits of their experience with illness and disease, patient influencers are used in this way to try to establish an emotional connection with followers.

Pharmaceutical companies spent well over \$20 billion (almost 70% of their promotional spending) on marketing to healthcare professionals in 2016, according to a recent thorough assessment of medical marketing expenditures in the US. Prescriber profiling, free samples, direct physician payments, and illness education are some of these marketing strategies. Sponsoring influential people receives a large amount of direct money. Providing keynote addresses and lectures at educational conferences, as well as acting as brand ambassadors or product endorsers for pharmaceutical corporations, is how doctors have historically influenced other doctors. In addition, the industry now seeks out physicians who are digital opinion leaders, i.e., medical professionals with a strong SM following who are leaders among their peers but may differ from more established key opinion leaders. This kind of thought leader is referred to as an influencer by pharmaceutical marketers. Lists of the top medical influencers on SM are compiled by online marketing agencies like Klear.

### ***Interaction***

The two-way exchange of information is the core of interaction. By enabling customers to share suggestions, businesses frequently use SMM platforms to improve their products. It may be argued that it is much more effective than traditional media. Consumers are drawn into the discussion by the pertinent contents. Posting relevant content for the targeted consumers

strengthens the bond with them. Thus, the interaction supports the efforts made by SMM campaigns to persuade and motivate people to engage in conversation, provide product recommendations, and collaborate on new ideas. In a study focusing on the businesses and pharmacy personnel, the pharmaceutical sector realized the necessity for "interaction" building.

SM platforms enable the sharing of health-related information concerning symptoms, potential diagnoses, therapies, harmful side effects, and scientific data, as well as opinions about past interactions with healthcare professionals. More, due to gaps in consumer health literacy, this information may influence bad judgments.

The patient side and the provider side of the healthcare system are the two sides that interact with one another through shared platforms. Healthcare professionals, pharmaceutical companies, medical technology companies, managers, supervisors, executives, and other professional bodies that are equipped with the ability to access patient data and further have the ability to exert influence on the healthcare systems are all gathered on the provider side. The patient-side incorporates the individuals seeking healthcare information or support, as well as the individuals seeking that support informally. Digital platforms are necessary to connect the two sides, such as appointments between doctors and patients, health services offered by hospitals and communities, institutions acting as funding sources (such as Medicare), and other forms of interactions between patients and equipment/treatment providers. Many of these digital platforms connect healthcare practitioners and patients and are important in gatekeeping and mediation procedures in addition to supporting internal communication and information access.

The relevance of co-creation with limited academic breakthroughs has been challenged by Cheung, Pires, Rosenberger, and others. Although SMM activities have been achieved, further research is needed to determine how they relate to VC, co-creation, and consumer happiness. Online communities have been shown by Chamakiotis et al. to be crucial in helping people create social value. They categorize VC as a byproduct of online activism that produces satisfied customers. Thus, it becomes clear that consumer pleasure is highly related to SMM operations. Additionally, SMM can be leveraged to

reach a wider range of B2B clients. The study's usage of pharmacy employees as B2B clients led to the following hypothesis being proposed.

SM platforms for patients are developing into significant information hubs for collecting health data from sources other than medical experts. However, there are other reasons present for the utilization of channels of communication observing how medical experts make decisions, looking for alternative therapies, anticipating the outcomes or side effects of treatments, and even self-diagnosing minor illnesses.

### **SM Effect on Business CS**

External stakeholders in the PHI, as argued by Quaddus and Woodside (2015), must make a number of important decisions based on available data. They mostly consist of employees, stockholders, users, and investors. Each shareholder has a different level of influence on the company's operations, strategy, and research and development depending on the size of their financial investment. Consumers, users, and rivals are examples of external stakeholders that do not actively participate in decision-making. However, they may have an impact on the decision-making process by providing necessary information and requirements (Quaddus and Woodside, 2015).

The emergence of SM as a platform for advocacy on behalf of external stakeholders is a recent example of the usefulness of cutting-edge technology. SM has grown in many different ways, including the development of related disciplines such as advanced analytics, digital marketing, SM optimization, virtual customer relationship marketing, media platforms policy, and media platforms crowdsourcing (Al-Essa et al., 2015). Similarly, Zarrella (2009) argued that SMM is the newest tool for attracting a substantial amount of traffic to and recognition for official websites or SM accounts of companies. This enhances brand loyalty, consumer retention, and image. It is a technologically advanced effort to draw in and keep new consumers, to keep hold of the ones already there, and for the prospective and long-term growth of the company (Zarrella, 2009).

Zarrella (2009) argued that investors and customers in the PHI require extensive knowledge about the company and its goods in order to make informed decisions about product consumption and investment. His findings indicate that if



these individuals are given the means to use SM, they will be better able to stay abreast of developments in these fields. This can help them make decisions that can be justified (Zarrella, 2009; Hoffmann and Lutz, 2014). These findings are supported by Waters et al. (2009), who note that SM has been shown to be an efficient medium for disseminating pertinent information to stakeholders, allowing for more educated decision-making. Stakeholders can utilize this information to organize their marketing and investment efforts, product usage, investigation of current PHI research, and education on healthy lifestyle choices (Waters et al., 2009).

Stressing the value of SM as a platform for information gathering and sharing, which influences crucial aspects of decision-making in the pharmaceutical sector. By outlining traits that could influence how people who care about drugs make decisions, Antheunis, Tates, and Neiboer (2013) emphasized the fact that SM delivers information to develop knowledge. As a result of providing users with all relevant information and data at the right time and place, SM can also facilitate efficient coordination among those interested in pharmaceuticals (Antheunis et al., 2013; Soliman, 2012). Wienstein, Sadman, and Blalock (2008) found similar results, arguing that a SM approach enhances the efficacy of the channels for communication between consumers and pharmaceutical companies.

Whereas Lau et al. (2012) suggested that as the information is offered by the public, it may be trusted by other clients or PHI when making marketing-related decisions., which lacks the required medical credentials as well as the understanding to adequately provide information concerning the usefulness, quality, and suitability of the drugs. They argued that this is because the public does not have the credentials necessary to adequately provide information.

Accordingly, it is not only risky for the health of customers to rely on and use such information, but it can also lead to erroneous outcomes for pharmaceutical enterprises (Lau et al., 2012). Tyranwski and DeAndrea (2015) contended that questions concerning drug effectiveness are among the most frequently asked on SM, and that it is worrisome because the majority of statements about drug effectiveness and quality are made by non-expert sources or the general population. Rather than giving balanced or helpful information, most of the sources only focus on the benefits of the medications. This poll found that one in five internet users looks for

pharmaceutical evaluations online, and that SM users often have just partial information. Concerns have been raised about the veracity of some posts on SM platforms since links to illegal pharmacies frequently appear in search engine results. The content of these illegal pharmacies' SM accounts needs to be closely regulated because of the considerable exposure they receive (Tyranwski and DeAndrea, 2015).

The dominant literature also emphasizes how SM is playing a growing role in the pharmaceutical sector. According to a study by Alkhateeb et al. (2010), SM use by pharmacists is on the rise and presents new time, professional, and ethical difficulties. The study also discovered that SM facilitates decision-making by facilitating effective communication across various divisions of the pharmaceutical companies. Blogs, YouTube, Wikipedia, and Facebook are the SM platforms that pharmacists use the most frequently. In contrast, pharmacists rarely utilize websites like Bebo, Flickr, and Friendster (Alkhateeb et al., 2010).

However, Basset, Stuart, and Silber (2012) countered these findings by arguing that despite the rise in popularity of SM as a marketing tool, many pharmaceutical companies still focus on push marketing rather than educating consumers about the issues they face. They also claimed that it was difficult to acquire useful feedback on the drugs from the market because information on different websites is often out of date and unidirectional (Basset, Stuart and Silber, 2012). Doctors and other medical practitioners may view social networking as useful for information management, but they may be cautious of the reliability of the material they obtain there, as suggested by research by Davison (2011). Practitioners worry about the concerns brought on by technology issues, such as poor connectivity and accessibility in remote locations, and believe that there is a high chance of information being misinterpreted (Davison, 2011).

In a similar vein, Katsanis' (2015) research showed that physicians worried about the authenticity of content shared via SM since it could lead patients to self-medicate unsuccessfully or irrationally, with potentially harmful effects on their health (Katsanis, 2015). It was also made apparent in the literature that most of the content found on social networks is created by users and that the platforms themselves are not governed by any local laws.

The lack of a dedicated moderator to address the dispersion of false information on various SM platforms is brought into sharp relief by this. The literature stressed the importance of pharmaceutical businesses adopting the correct procedures to prevent the misuse of information in order to remedy the observed shortcomings. Studies show that you should regularly update your SM profiles (Katsanis, 2015).

Grajales et al. (2014) state that the general population from higher and middle income groups has a high rate of penetration on SM since it is a dynamic and participatory tool for communication mediated by technology. Pharmaceutical companies, however, rarely employ such methods. Studies have indicated that many people in the pharmaceutical sector are still unaware of SM's benefits, potential uses, inherent risks, and preventative measures (Grajales et al., 2014).

To maintain and improve the clinic-to-patient and peer-to-peer relationship, familiarity with SM and web-based applications is crucial. It can improve PHI communication and brand identity at the institutional level (Grajales et al., 2014; Antheunis et al. 2013). Taking care of oneself and others is facilitated by the usage of SM, as research by Grindrod et al. (2014) demonstrates. If pharmacy schools are serious about incorporating SM into their curricula, they must ensure that their students understand the importance of student involvement, e-professionalism, and boundaries. To further improve the quality and efficacy of pharmaceuticals, SM has emerged as a crucial venue for collecting patient experiences and medical reviews of medications (Grindrod et al., 2014).

Reviewing the relevant literature allowed us to objectively evaluate the efficiency of the channels of contact between clients and pharmaceutical companies. Additionally, it is noted in the literature sources that internet platforms play a key part in raising the caliber of medical services as well as the caliber and efficacy of pharmaceuticals. People can get information about patients' experiences and doctors' opinions about a certain drug through SM platforms, which raises user knowledge of its use. However, it is being looked into whether the existence of illicit pharmacies calls into doubt the veracity and accuracy of the information shared on SM.

The limitations of using SM have also been made clear by the analysis of the literature. In this regard, Akhtar et al. (2015) thought that in addition to benefits,

some pharmaceutical companies' usage of SM is also accompanied by drawbacks like privacy concerns. As a result, they limit the use of SM to private rather than business-related activities. Nee (2016) supported this viewpoint and claimed that privacy is a key barrier to pharmaceutical businesses using SM because so many cybercrimes including data theft, copyright, and identity theft have been documented. Some pharmaceutical businesses now have a poor opinion of SM because of this. People are discouraged from using SM because of potential risks, such as identity fraud, profiling risk, scamming, and incorrect product information, according to a study conducted by Sattikar and Kulkarni (2011). Malagi Angadi and Gull (2013) argue that rather than being purely technology problems, social networking site security and privacy concerns are fundamental behavioural ones. There is a persistent risk that as one provides more information, he becomes more open to being compromised by people with bad motives (Malagi Angadi and Gull., 2013).

Despite the obvious benefits of SM platforms for disseminating news and facilitating informed debate, considerable barriers remain in the way of their widespread adoption by stakeholders in the PHI. The widespread presence of privacy and theft hazards are two examples of these challenges. Despite the abundance of studies on the dangers of SM use, the pharmaceutical business has been mostly ignored. The potential effects of this research on any one industry have been ignored in the pursuit of a better understanding of these threats. As a result, it's clear that greater research into the risks of using SM in the PHI and the obstacles that limit its acceptance by stakeholders is urgently required. Therefore, the PHI has no choice but to implement robust safety measures to guard patients' private information.

Moreover, the examination of the current SM usage shows that the PHI requires SM to develop and evolve because of new problems being encountered in the industry. According to Ding, Elishberg, and Stremersch (2013), pharmaceutical companies have no other means of strategic development but to make use of SM. Lack of outlets for communicating with the public and other stakeholders has been linked to a decline in pharmaceutical businesses' performance and public awareness. Thus, Touray et al. (2013) stressed the importance of providing sufficient training to an organization's workers so that they are aware of the benefits of incorporating SM as a new piece of technology. Furthermore, personal SM users should be encouraged to share their thoughts on the workplace's overall SM strategy (Touray, Salminen,

and Mursu, 2013). Staff members' self-assurance and enthusiasm for promoting the business via SM will rise as a result. SM officers could be employed as a means of monitoring and controlling employee activity on SM (Touray, Salminen, and Mursu, 2013).

According to Palmer (2012), a number of pharmaceutical organizations' bottom lines have taken a hit due to public perceptions that they prioritized money over patients' needs and safety in the healthcare system. This will let the company leverage SM to distinguish itself in the health care market. In addition to helping pharmaceutical companies connect with their customers and reach a wider audience, SM platforms provide a cost-effective way to expand their reach and improve their corporate social responsibility. People will feel more confident in the brand as a result of this (Barnes, 2015). As a result, it's safe to say that the PHI can benefit from the usage of SM to increase its brand value and reputation. For this reason, the study posits the H1:

### **Hypothesis 1 (H1): SMM Activities affect Business CS in the PHI**

#### **KANO MODEL (KM)**

The KM is considered to be a vital tool for the achievement of CS. The KM's primary measurement of the link between performance and satisfaction is nonlinearity. It is based on four qualities: (a) must-have quality, which is directly related to the presence of the desired characteristics in the good or service; (b) one-dimensional quality, which contributes to greater CS; (c) attractive quality, which helps to meet customer needs through unexpectedly unusual characteristics; and (d) indifferent quality, which has little bearing on how well the customer perceives the performance of the product. The KM largely uses pair questions to discern between the functional and dysfunctional variants of the marketing plan. The KM is utilized in this study to look at how employees of pharmaceutical companies perceive how SMM has changed their B2B business models. There isn't a lot of consensus in the literature as to how to assess Kano's point of view the best way. This research deviates from the norm since it employs the Kano perspective as a filter through which to read the statistical analysis. The purpose of this research is to provide the B2B pharmaceutical business with a content map that can be used as a guide for

formulating new goods and implementing new corporate marketing strategies. The following hypotheses are a direct result of this consideration.

The study uses the Kano model to ascertain the pharmacist expectations from a patient perspective to connect them with the pharmaceutical firms in the B2B business model.

Many researchers have tried to apply various Kano model forms to develop the empirical comparisons (Nilsson-Witell & Fundin, 2005; Oey, Paramitha, & Novita, 2020; H. Park, Lee, & Back, 2020a; Tseng, 2020). However, the literature does not clearly support a common consensus into applying the most appropriate approach (Mikulić & Prebežac, 2011b). Hence, the present study is trying to build up an empirical approach of the Kano model than can be widely used by the managers and researchers to develop significant need-based results in the pharmaceutical industry.

Nevertheless, the must-have, one-dimensional, attractive, indifferent, and reverse criteria categories are included in the KM, which was created by Professor Noriaki Kano (or features). Understanding these product quality characteristics will help with product development and quality improvement (Zhu et.al. 2010). Information is captured before a user ever touches the product (Proynova and Paech 2013). To determine customer demands and how product traits or features affect customer happiness, many researchers have used the KM (Gupta and Srivastava 2011).

The KM aids in finding and differentiating product needs or attributes that have a significant impact on consumer satisfaction. It is possible to prioritize product development by categorizing product requirements into must-have, desirable, one-dimensional, neutral, and reverse. For example, it is considered to be less useful for investing in enhancing required needs that are at the level of satisfaction; instead, it is preferable to improve desirable and/or one-dimensional requirements because they have a larger impact on the perceived product quality and consequently on the customer (Gupta and Srivastava 2011). However, the categorization of requirements according to the KM is qualitative in nature and has little to no application to quantitative evaluation (Hussain et.al. 2015).

Engaging the users in the requirements elicitation process is insufficient without additionally recording their thoughts. Among the several models, the two-dimensional KM is particularly effective in this regard. As was already mentioned, Noriaki Kano suggested this strategy. Based on the future fulfillment or non-fulfillment of the requirements, he divides user requirements into many categories with varied levels of impact on users' happiness (Li-Li et al. 2011, Fredrick Hertzberg Two Factor Theory). It is presumable that system capabilities directly correlate with users' happiness (Lubinski and Oppitz 2012). The KM makes a distinction between criteria or qualities that increase satisfaction and those that have little relationship with it. It assists in determining the specifications of a proposed product that users or buyers will find most appealing (Nascimento et.al. 2012; Li-Li et.al. 2011; Miyuan et.al. 2011; Lubinski and Oppitz 2012; Bi and Wang 2013).

The KM is very helpful in determining which products may be used to achieve high levels of customer happiness. It also highlights traits that are essential in the eyes of users or consumers as well as those that have a substantial impact on their satisfaction (Matzler et.al. 1996). The model specifies five main groups of specifications or product characteristics. The perceived quality of suggested products is determined by these need kinds. The following categories of KM requirements: Must-have conditions: These requirements represent the fundamental standards for a good or the fundamental wants and demands of potential buyers or consumers. They are the fundamental elements that users and buyers look for . They are benchmark demands. If these requirements are not satisfied or incorporated into the product design, the user or consumer will be very unhappy. Customers, however, consider these demands to be standard, thus meeting them won't make them happier. Meeting necessary prerequisites only results in the beginning of becoming satisfied. Customers consider must-have criteria to be pre-requisites; as a result, they implicitly expect them and do not explicitly request them. Despite this, must-have needs are a crucial element of competition. The user or consumer will not be at all interested in the product if they are not met (Hussain et.al. 2015; Matzler et.al. 1996).

Needs that have only one dimension: These requirements can be satisfied. These conditions are linear. CS in relation to these requirements is inversely correlated with the degree of requirement or feature fulfillment. The customer is happier and vice versa the more fulfillment there is. Users and customers typically

make clear demands for this set of needs (Hussain et.al. 2015; Matzler et.al. 1996). desirable conditions: The product requirements that have the biggest influence on how satisfied a user or customer will be with a given product are attractive requirements. They are delighters or excitement needs. Users or customers do not openly express or anticipate this type of request. So, satisfying these prerequisites results in satisfaction that is more than proportionate. The user or consumer, however, will feel unsatisfied if these conditions are not met (Hussain et.al. 2015; Matzler et. al. 1996). Indifference necessary: It is implied that the user or client has no preference for the requirement or feature because it is a no preference requirement. Whether the trait is present or not is immaterial to him or her. Users are not particularly interested in this feature. This feature has neither a positive nor a bad side, and it does not make users or customers happy or unhappy. No matter if this need is present or not, customers remain unconcerned. Reverse expectation: In this case, the user or customer expects the feature in the opposite sequence from what is required. Users would prefer that the criteria not be taken into consideration. These are the features and requirements that users do not anticipate. More consumers and customers will be disappointed when these features are met. Because no two users are the same, high achievement requirements lead to frustration. The satisfaction of the consumer or user will suffer because of this demand. This requirement alludes to a high standard of performance that is unsatisfactory. There is never any satisfaction as a result (Hussain et.al. 2015; Matzler et.al. 1996).

The KM is significant and illuminating, but it only demonstrates the degree to which users or customers are satisfied or dissatisfied in the case that features are met or not; it does not demonstrate the significance in terms of the value that users or customers assign to the product features. Importance and satisfaction are not the same. While relevance (in the context of this study) has to do with the predicted perceived worth of the requirements, satisfaction deals with how the requirements performed. In this study, the importance of requirements is compared with CS (specifically, the KM CS coefficient/scores) (particularly, users self-stated requirement importance).

In addition, Berger et al. as cited in (Zhu et al. 2010) extended the KM for the calculation of CS coefficients because of the model's qualitative nature of and its present limitation of being ineffective in the quantitative evaluation of CS (Hussain



et al. 2015). There are two components to the customer happiness coefficient: Dissatisfaction Index (DI) describes the general dissatisfaction degree which customers are to experience in the case that product features have not been met or implemented in the product. I Satisfaction Index (SI) explains the extent of satisfaction users or customers will derive from a product if the product requirements are met or implemented in the design of the product. Both SI and DI are metrics for measuring how well a set of requirements have performed. The Average Contentment Coefficient (ASC), which quantifies the level of users' or customers' satisfaction with a product need or feature and establishes the importance value of such quality attributes, was also defined by Park et al. (as in, in 2012) to indicate the efficiency with which a program operates. In the literature, certain attempts have been made to determine the relationship between satisfaction and needs importance, for example (Zhu et.al. 2010; Yang 2005). However, no research has been done to date on empirically establishing the link between self-reported/stated importance of the requirements or features of proposed products and CS coefficient scores of the KM. This study tries to investigate this relationship and discuss any implications it may have, particularly in the context of e-health awareness.

To record requirements, a unique Kano questionnaire is employed. A functional (good) and dysfunctional (bad) inquiry is posed for each requirement or characteristic, with five different possible answers/options for each. The results of this questionnaire may be used to determine the perceived level of user satisfaction for a certain demand (Nascimento et.al. 2012). Based on the classification of each feature or requirement and the combination of the responses to the functional and dysfunctional questions, a Kano matrix is produced. These many categories represent each requirement's priority as well (Nascimento et.al. 2012). The Kano questionnaire examines the psychology of potential users and consumers by listening to their voices and minds. Its use contributes to improving the quality of the requirements by removing those that won't meet users' needs or have no value to users. Users can be asked what they really want from a product using the KM. Using this model, suggested aspects that most excite people are captured, enabling the creation of a distinctive and lean product that includes the necessary functionality and simultaneously delights and astounds users (Nascimento et.al. 2012; Li-Li et.al. 2011; Miyuan et.al. 2011). Using the KM, we can calculate the percentage of users and

customers who are pleased with the requirements and the percentage who are not by calculating the CS coefficient. The coefficient is used to determine how the needs and features will affect how satisfied the potential users of the system will be (Li-Li et.al. 2011; Miyuan et.al. 2011; Lubinski and Oppitz 2012; Bi and Wang 2013).

### ***Attractive Quality (AQ)***

A desirable feature that is not essential but would be nice to have, such as the ability for video streaming sites like YouTube to automatically translate the audio of foreign-language videos. There is no issue without automated translation as long as the original quality of watching movies stress-free is met, but it can offer a high level of satisfaction for individuals who are interested in language acquisition.

According to the principle of attractive quality, the relationship between an attribute's objective performance and CS with it depends on how consumers view a particular good or service. The approach that the theory of attractive quality uses to categorize and comprehend the effects of various quality qualities is one of its fundamental features. Since the idea of appealing quality and the Kano strategy for implementing the theory are so intrinsically linked, it is critical to have a thorough grasp of quality on the attribute level from the consumer's perspective. Since its appearance in various literature, the theory of attractive quality has drawn growing attention, and many businesses have adopted the Kano methodology to comprehend client wants. When new approaches proposed by researchers failed to provide outcomes comparable to those of earlier ways in practice, managers have run into discrepancies and issues. For instance, there are various phrasing possibilities, assessment tables, and classification systems, and managers may be unsure of which alternatives to select in a development project. How can researchers help managers by educating them on the notion of attractive quality and guiding them in the proper application of the Kano methodology? This is the question facing the research community.

Kano's model is used to categorize product quality attributes into appealing quality elements, one-dimensional quality elements, must-be quality elements, indifferent quality elements, and reverse quality elements based on various types of relationships between quality attributes and CS. Attractive quality feature: full functioning will undoubtedly result in consumer happiness; but absence of functionality won't be felt as discontent.

A corporation must make every effort to deliver appealing quality aspects in new items and remove potential flaws on essential quality elements if it wants to improve CS and decrease consumer dissatisfaction. Because the evaluation of desirable qualities is very subjective, it is implicit knowledge that is ingrained in the minds of buyers. Researchers also noted that while attractive quality features are typically hidden or implicit, must-have quality elements are typically less so. As a result, it is preferable for a business to use the hypothesis-testing approach to research the market. In order to uncover all of the implicit consumer information and turn it into explicit customer knowledge that can be turned into a successful product, a company's most crucial responsibility is to survey customers in the market.

A strategy that seeks to increase value is attractive quality. In fact, pursuing such "I don't mind if I don't have it, but it would be wonderful to have it" qualities is a huge step toward developing a more trusted relationship with clients as a business partner. In the area of offshore development, for instance, if your clients view you as "a partner who produces easy-to-use systems and applications with strong UI and UX," you are likely to be viewed favorably.

In any event, consumers would highly respect you as a development provider that guarantees Attractive Quality if you can offer such added business value. It is vital to evaluate your relationship with the consumer in order to propose the next change while being considerate of the difficulties your customers may be experiencing. In other words, it's crucial to forge closer ties with clients to serve not just as a development provider but also as a business partner.

By making such efforts, you will be able to achieve Attractive Quality and get closer to the standard of quality that your clients desire. However, it goes without saying that if Must-be Quality and One-dimensional Quality are ignored, it is impossible to develop a solid connection of trust with clients.

### ***One Dimensional Quality (ODQ)***

A desirable quality characteristic that, if absent, may cause discontent. This is relevant, for instance, to a product's usability. Customer happiness will rise if the software is reliable and simple to use. Even if there are no issues, however, poor design and usability will result in a poorer UX (user experience) and UI (user interface), which will inevitably lead to greater user unhappiness.

Think about One-dimensional Quality for a moment. One-dimensional quality is frequently used to describe a product's functionality, including its specifications and design. Customer happiness is inversely correlated with how well its function is performed. It is a typical need of client demands that the more functionally sound the product, the higher the level of customer happiness will be. For instance, most customers will be pleased if a smartphone's storage capacity doubles from the previous model, yet the pricing stays the same. The same is true if you can attract customers with better specifications, such as "50% improved battery life" when compared to smartphone devices from other competitors.

In a mobile banking application, for instance, users would prefer a simpler authentication process that only requires a few taps to complete transactions than a complex authentication system that requires multiple password entries, even if it can accomplish the same fundamental goals as payment or money transfer. It is a quality component of which we ought to be conscious. However, because it differs from sector to industry and firm to company, it is challenging to say what may be improved in products and services to boost CS within a constrained budget and conditions.

One-dimensional quality is an effort to go above and beyond what the client expects by attempting to make enhancements that are superior in terms of usefulness and design.

### ***Must Be Quality (MBQ)***

When a quality element is present, it is accepted as a given (satisfied), but when it is absent, it is viewed as inadequate (unsatisfied). For instance, in the development of software, quality refers to the software's ability to function as it should. The intended functionality must be flawless, though, or people will become dissatisfied. Customer takes its full functionality for granted; failure to do so unquestionably results in considerable customer unhappiness, but its existence has no positive impact on satisfaction.

When creating new products and offering them to clients, must-be quality is the one that should be guaranteed at the very least. This is true for any product development, including software development. On the other side, if we are unable to deliver the level of quality that our clients demand, it could damage both our reputation and their faith in our goods.

### ***Indifferent Quality (IQ)***

A feature whose presence or absence has no impact on the level of consumer satisfaction. This includes situations where the application developer modifies design criteria that are unimportant to the user, for instance. Noting that such service enhancements in areas unrelated to the interests of the client will eventually be a waste of time and effort and have no impact on CS. Whether it is working or not has no bearing on the customer.

### **KM Effect on Social Media And CS**

Since there is a demand for information and knowledge sharing among various parties, SM has become more significant as the number of healthcare institutions, professional organizations, and companies has increased (Benetoli, Chen and Aslani, 2015). To promote business growth, it is also necessary to put product information in front of clients on the market. SM has the ability to be utilized by pharmacists to disperse data about new products entering the market as well as to access client information. Pharmaceutical companies have benefited greatly from monitoring SM for insights about drug demand, consumer satisfaction, and other key metrics (Benetoli, Chen and Aslani, 2015).

Tyrawski and DeAndrea (2015) claim that these sites mislead users on how to enhance their health through behavioral and dietary changes. Unofficial healthcare websites, blogs, and message boards raise doubts about the reliability of the information they provide because they are not maintained by a reputable organization. There are currently no established SM forums dedicated to educating and advising the public on drugs, medicines, and related products. This shows a lack of trustworthy SM platforms where users may discuss health-related topics, get guidance on how to utilize medications, and use the knowledge to make health-related decisions. These sources are unreliable and untrustworthy for the general public as well as for pharmacists and doctors (Tyrawski and DeAndrea, 2015).

Aitken (2014) countered this assumption by arguing that SM provides access to information about the internal workings of pharmaceutical companies. With the use of SM, consumers may more easily connect with experts who can improve the quality of medicines and other items, and this can lead to the sustainable growth of businesses. The study also highlighted the importance of developing appropriate

models that may aid in facilitating effective SM use (Aitken, 2014). However, these researches do not offer a comprehensive understanding of how SM technology and applications could be useful for the PHI.

Pharmacists' SM usage warrants extensive study (Tyrawski and DeAndrea, 2015). The findings point to a gap in understanding that necessitates further research into the factors that influence the SM behavior of stakeholders in the pharmaceutical business. Additionally, according to Griffiths (2012), one of the new uses for SM is for learning about the medications used in the pharmaceutical sector. His research showed that the user's decision to take and consume drugs can be greatly influenced by drug information. But most people who are not connected to the PHI put such information online. It is supported by reports of pharmacological effectiveness and by individual testimonies. This component highlights the potential threat to consumers' health from such information (Griffiths, 2012).

A theory explaining how SM use impacts interpersonal interaction and communication has also been highlighted in the research. According to Reddick (2010), the gratification hypothesis suggests that a firm can easily accomplish its objectives by using SM since users of these platforms are more focused on communication and actively engage in that process. Furthermore, this concept proposes that SM users are provided with an additional option to satisfy their wants and needs for products and services (Reddick, 2010).

The literature claims that there was a rise in SM utilization for healthcare, and that many websites have been built to deal with fundamental health concerns, lifestyle concerns, fitness, diet, and exercise. It is underlined that the gratification theory can help pharmaceutical companies engage with their clients and form lasting relationships with their target audiences.

One of the most significant factors in a business's success is the feedback it receives from its consumers about the quality of its products or services. Consequently, organizations place a premium on CS in order to improve service quality, grow, and remain in business. Despite its widespread usage to elicit customers' service quality requirements and increase customer happiness, the KM's application in the healthcare industry is still in its infancy, and consumers' demands in relation to healthcare services are ambiguous. This paper includes a review of the

literature on implementing the KM in healthcare by a comprehensive search of databases related to the improvement of service quality in the healthcare business.

Furthermore, the KM's use and integration with other quality approaches to determine customer requirements and raise the standard of healthcare services. Based on the findings of this meta-analysis, it is clear that the quality of care received and the services offered by healthcare professionals have a significant impact on the needs and preferences of patients. Professionals in the healthcare industry can use the findings of the study to better understand client expectations for service quality and formulate strategies for sustained growth. The goal of this essay is to stimulate additional study on the healthcare sector's efforts to improve service quality. User or customer happiness for a particular software product depends on meeting their requirements and expectations, and often even going above and beyond those expectations.

When these requirements are satisfied, users or customers are delighted, and this delight encourages them to utilize the product and remain devoted users or customers of it. As a result, the software company's profitability and return on investment are improved. According to Oliver's (1977) expectancy disconfirmation theory, satisfaction is a measure of the interplay between a customer's pre-purchase expectation and post-purchase evaluation, where satisfaction is a result of perceived results that are better than expected. It is called positive disconfirmation when a product does better than expected and negative disconfirmation when it does worse (Oliver 1977) According to Oliver (1977), customers are more likely to be pleased if their expectations are met than if they are disappointed (Oliver 1977).

To evaluate the quality of a product or service, Parasuraman et al. (1985) compared the consumers' perceived value with their expectations based on the five dimensions of dependability, tangibility, empathy, responsiveness, and assurance (Parasuraman et.al. 1985). Customers frequently perceive items as a group of characteristics, each of which contributes differently to the user's or customer's happiness. According to Taplin (2012), happiness is based on excelling in a number of different characteristics. Therefore, it is likely that increased performance of traits with higher performance will lead to higher levels of pleasure in general (Taplin 2012).

Maintaining a high level of CS is crucial to the success of any software company (Hussain et.al. 2015). The difference between performance and expectations has also been used to gauge satisfaction (Brady et al.; Wang et al. as quoted in Taplin (2012)). However, there have been some concerns raised about this satisfaction evaluation [Tian-Cole et al. ; Spreng et al., as mentioned in Taplin (2012)]. KM measures customer happiness from a unique perspective. It captures how customers feel when a suggested feature or set of qualities is present in a product as well as how they feel when they aren't. Prior to the customer even experiencing the product, it gains their satisfaction (Zhu et.al. 2010; Matzler et.al. 1996).

The KM is constrained since it measures consumer happiness qualitatively, as was already mentioned. This restriction makes it impossible to determine the degree of CS in terms of whether standards are met or not. The original KM has undergone several revisions to include a quantitative assessment of CS.

The study has tried to positively explain effective communication between firms and pharmacies to bridge the knowledge gap. The researcher is proposing the second hypothesis by realising the need for KM through SMM:

**Hypothesis 2a (H2a): SMM Activities Affect KM in the Jordanian PHI**

**Hypothesis 2b (H2b): Kano Affects CS in the Jordanian PHI**

**VC (VC)**

The definition of customer perceived value is stated as the variance amongst the potential customer's judgment of all benefits and costs of a given product/service and the perceived alternatives. Customer value was deemed a notion that comprises numerous heterogeneous components (Deng et al., 2010). (Kotler, 2000). In other words, a comparison of weighted "get" traits and "give" features determines customer perceived value (Heskett et al., 1994). The five dimensions of value described by Newman and Gross are: functional, social, conditional, emotional, and epistemic value. Customers typically seek out the best deals on goods and services. However, perceptions of the finest item or service and the lowest cost might differ greatly by market or sector (Lodeni, 2011).



Currently, each company is there to add value. Most model frameworks emphasize one-way flow to provide client value. According to Freudenreich et al., stakeholders take part in the value-creation process as co-creators and beneficiaries. When building value, it is permissible to assume any factors and drivers that enhance the firm's overall value. According to Garrido-Moreno et al., SMM has a significant impact on value generation.

The literature acknowledged that as technology developed, value production might change considerably. How customers and businesses engage with one another has altered because of SMM tools. Customer relationship management is already well acknowledged in the literature as being significantly facilitated by SMM. SMM that is done in partnership with customers engages them and benefits both sides. Due to the fact that much past research framed SMM efforts from the perspective of non-business customers, the internal antecedents for B2B clients have received very little attention. The present investigation focuses on SMM campaigns for Jordan's PHI.

The core structure of the KM qualities shows that each company's main objective is to enhance customer health. Additionally, Park et al. showed how wellness aspects link enterprises to CS. The KM enables clients to add value in terms of CS as a result. The next theories were developed on this basis.

Value generation and CS go hand in hand. The literature claims that VC has an impact on client expectations, which ultimately leads to client contentment. The happiness of interaction is also increased through enhancing value generation through enjoyable interactions. As a result, customers gradually get more immersed. Additionally, SMM is looked at from the standpoint of a B2B brand and has a positive effect on VC. The next theories were developed on this basis.

The KM might provide one solution to the need for better tools for collecting consumer value. When providing the so-called keep, push, and pull components, which were first mentioned in Pen's dissertation in 2002, Appel-Meulenbroek (2008) drew on the model's concepts. The model has not been utilized frequently in the built environment sector despite the findings, but it has in other areas. According to Löfgren and Witel (2008), the model's concepts have been applied to a variety of services, including PHI.

The KM was presented by Löfgren and Witell (2008) using five quality factors based on both CS and attribute performance. Construction organizations can better grasp which characteristics of a product or service they should invest in and which ones they should pay less attention to thanks to the model's dimensions (Matzler et al. 1996). (Kano et al. 1984; Löfgren and Witel 2008) The dimensions are described as being enticing, one-dimensional, reverse, must-be, and indifferent.

Attractive qualities cannot lead to unhappiness because the client is unaware of them and does not anticipate them. However, they have the potential to produce high levels of client satisfaction when fully fulfilled. The more of a particular quality there is, the better. Therefore, one-dimensional qualities are sometimes known as the more-the-better attributes. The opposite is true for reverse attributes: the more of them there are, the more unhappy the customer will be. The minimal standard of quality for a good or service is defined by the must-have characteristics. The customer will be unhappy if the quality is not met. Indifferent attributes are those characteristics of a good or service that do not affect buying decisions. Sometimes a lot of work is put into things that could be ignored. Instead of wasting resources, they might be used to provide attractive, one-dimensional features that will benefit customers. The dimensions of the traits can change at any time because they are not constant. For instance, a feature that buyers may initially find attractive might later become a must-have feature. The five-dimensional KM divides the value qualities into five categories using a pair of questions and five possible answers. The figure (1) below shows an example of the questions, responses, and how they were evaluated.

**Figure 1.**

*example of the questions, responses, and how they were evaluated.*

A. How would it look, if the nursing home had been built on one floor?	1. I like it that way 2. I am expecting it to be that way 3. I am neutral. 4. I can accept it to be that way 5. I dislike it that way.
B. How would it look, if the nursing home had not been built on one floor?	1. I like it that way 2. I am expecting it to be that way 3. I am neutral. 4. I can accept it to be that way 5. I dislike it that way.

A. question		B. question					A = Attractive attributes Q = One-dimensional attributes M = Must-be attributes I = Indifferent attributes R = Reverse attributes
	1	Q	A	A	A	O	
	2	R	I	I	I	M	
	3	R	I	I	I	M	
	4	R	I	I	I	M	
	5	R	R	R	R	Q	

In accordance to literature in B2B fields, social networking can benefit both customers and salespeople (Agnihotri et al. 2012; Agnihotri et al. 2017). Agnihotri et al. (2012) suggested a theoretical framework to clarify the mechanisms by which salespeople's use of SM operates to produce value and suggested a strategic approach to SM use to accomplish competitive goals. The study develops a SM strategy for business-to-business sales companies with relational selling objectives by drawing on the body of knowledge regarding relationship marketing, task-technology fit theory, and sales service behavior. The suggested framework outlines the service behaviors (information sharing, customer service, and trust-building) that salespeople might engage in to help create value.

After the transaction, some studies investigated the salesperson's role in VC. Agnihotri et al. (2017) examined the direct effects of sales-based Customer relationship management (CRM) technology on the behaviour of post-sale service delivery, provision of information, empathy, and sportsmanship utilizing salesperson-customer data in a business-to-business setting. The study also looks at how SM and sales-based CRM technology interact to affect these behaviors. According to the findings, salespeople who use sales-based CRM systems in conjunction with SM are more likely to display higher levels of salesperson service behaviors (SSBs) than their peers who use SM less frequently. Data were gathered from 162 Indian salesmen. The data were analyzed with SmartPLS.

Another series of studies looked into how SM affected consumer buy intent and sales volume (Ancillai et al. 2019; Itani et al. 2017; Salo 2017; Hsiao et al. 2020; Mahrous 2013). For instance, Itani et al. (2017) developed a model that tests the

factors affecting the usage of SM by salesman and its impact using the idea of reasoned actions. It was discovered through data collection from 120 salespeople from various industries and data analysis using SmartPLS that attitudes on the value of SM had no bearing on the use of SM. It was discovered that SM use had a favorable impact on gathering competition intelligence and adaptive selling behavior, both of which have an impact on sales performance. Ancillai et al(2019) 's in-depth interviews with social selling experts were employed in another study. The results indicate that SM use enhances relationship and customer performance (trust, CS, and customer referrals), as well as organizational performance (organisational selling performance and brand performance).

SM was found to have a favorable impact on purchasing intention (Hsiao et al. 2020; Mahrous 2013). For instance, Mahrous (2013) came to the conclusion that SM has a major impact on consumer purchasing behavior after studying the research on B2B and B2C organizations.

**Hypothesis 3a (H3a): KM is Related to the VC for B2B Customers**

**Hypothesis 3b (H3b): KM Mediates Between the SMM Activities and VCs in the Jordanian PHI**

**Hypothesis 4 (H4): VC has a Significant impact on B2B CS in the Jordanian PHI**

**Hypothesis 5a (H5a): VC Mediates Between the KM and CS in the Jordanian PHI.**

**Hypothesis 5b (H5b): VC Serially Mediates Between the SMM and CS in the Jordanian PHI.**

**TE (TE)**

The foundation of a commercial partnership is communication. The more effectively the vendor and buyer communicate, the better the transaction process becomes. To increase the effectiveness and efficiency of the transaction process, it is crucial that marketing and sales teams utilize cutting-edge solutions. SMM can connect a new business process that positively affects the transaction process to the firm's values. As a result, businesses must adopt creative approaches to meet customer needs. When clients are receptive to change and innovation, it is also

simple to connect technology and enterprises. According to the literature, SMM platforms are crucial for the digital economy's goal of increasing corporate productivity.

SMM was linked by Yang and Che to the use of social ties to further commercial interests. They made it clear that good social connections boost the frequency of purchases and repeat purchases. As a result, SMM either worsens or strengthens the relationship with customers. SMM, which was initially intended to promote communication among close friends, has evolved into a tool to profit from and promote sales. On this foundation, the ensuing theories were put out.

**Hypothesis 6 (H6): KM Affects the TE of the Pharmaceutical Firms in B2B Customers**

**Hypothesis 7 (H7): TE Significantly Impacts the B2B CS in the Jordanian PHI.**

**KM Effect on Social Media And TE**

According to Kommers, Isaias, and Issa (2014), the integration of current media technologies into businesses including marketing, healthcare, pharmaceuticals, education, and the service sector is difficult yet necessary for the growth of SM applications. Ding, Eliashberg, and Stremersch (2013) made a similar point about the expanding use of SM as a marketing tool in the PHI. The authors concluded that the pharmaceutical business might profit from SMM since it is a more reliable platform for customer involvement and communication about the product, the firm, and the brand.

In this way, the company is able to interact with influential people online, get useful data, and better meet the needs of its clientele (Ding et al., 2013). According to the published research, the healthcare and pharmaceutical industries are no longer immune to the pervasive influence of SM. A rising number of medical professionals are exploring this tool's potential for improving communication, information sharing, and problem solving in clinical and managerial settings. Patients are also actively using SM to take charge of their health education (Ding et al., 2013).

To see if pharmaceutical companies were using SM and other forms of technology to improve their decision-making processes, Yang and Wu (2009) conducted an investigation (Yang and Wu, 2009). Ding, Eliashberg, and Stremersch

(2013) went on to note, however, that many pharmaceutical companies maintain corporate Facebook profiles and are also present on Twitter, YouTube, and company blogs. Pharmaceutical companies believe that the best approach to create social impact or network value is through word-of-mouth marketing (Ding et al. 2013; Yang and Wu, 2009). Nonetheless, Shoemaker and Reese's research shows that some pharmaceutical firms are reluctant to use SM for marketing and advertising purposes (2013). Reasons for this include apprehension about legal repercussions and an absence of familiarity with the appropriate communication norms to be observed while using SM for promotional purposes. The study's findings are more credible and authentic because of the use of comparative analysis and statistics to back up the claims made in the study.

The pharmaceutical business has realized the potential of SM platforms and has used SM technologies for marketing and advertising, according to a literature review on the subject. On the other hand, it turns out that companies in the PHI don't use SM as a primary channel for marketing and communication due to concerns about security and the need for greater accountability on the part of users.

According to the research, there are many positive outcomes for patients, the general public, and healthcare providers when using SM for health communication (Khan et al., 2015; Barry and Pearson, 2015). However, there is a lack of both access to health information and knowledge of the technology used in SM. It is possible to discern the behavioral intentions of stakeholders in the PHI if one has this information. According to the research, the lack of accessible and credible health information is one of the biggest barriers to SM use (Khan, Saleh and Nivarthi, 2015). Research shows that consumers are skeptical of using any single piece of data to make decisions about their health. Users' concerns about the reliability of the information they find online stem from their lack of faith in its correctness and authenticity. Though the accuracy of SM information has been briefly studied, the role of religion and without a complete analysis of its greater relevance in influencing the desire to employ SM in the pharmaceutical business (Barry and Pearson, 2015).

The literature suggests that many people believe health-related content on the internet to be false, harmful, inadequate, or based on too little evidence. Because of

this, it's important to carefully weigh the internet's reputation and reliability before making any decisions based on it. On top of that, studies have indicated that health-related information accuracy is prioritized by more seasoned internet users compared to less seasoned users (Phichitchaisopa and Naenna, 2013). These results demonstrate that SM users who are already active are similarly worried about the credibility of the content they find while searching for health-related information. The vast majority of internet users, according to studies, are concerned about the reliability of online health and pharmaceutical information (Phichitchaisopa and Naenna, 2013). In 2012, Fischhoff voiced concern over the lack of consistency in coverage of controversial topics including euthanasia, medicinal marijuana, and cutting-edge alternative medicines, and the lack of reliance on scientific data to back up claims made about these topics.

Literature also suggested that not all prior studies had concluded that there was an abundance of inaccurate or misleading information online. In this regard, Coskuncay (2013) suggested that the internet does not suffer from error and inaccuracy, unlike other conventional information sources of health-related information including pamphlets, popular press articles, and friends and family. Not all studies of online information quality, Cline and Hynes (2001) emphasized, have prompted doubts about its veracity. Their research revealed that, with the exception of information supplied by online chat forums, information found online about 10 frequently encountered themes in pediatric neurosurgery was reliable. In a similar vein, studies conducted on the accuracy of information provided by several websites specializing in prescription pharmaceuticals have shown results in the range of 98%. There was inconsistent coverage of available pharmaceutical information among the websites we visited (Cline and Hynes, 2001).

There is mounting evidence that healthcare professionals and industry experts utilize SM to develop online communities in order to share information about healthcare through enhancing contact with patients and key stakeholders (Rolls et al., 2016). Several trust-related behaviors still impact the use of SM and similar technology to build virtual communities, which limits the spread of knowledge. Rolls et al findings 's in this area suggested the need for a more in-depth examination of the behavioral intentions towards the utilization of SM for knowledge dissemination by stakeholders in the PHI if they want to boost the flow of information.

The literature review proves SM has emerged and has great potential to help pharmaceutical business stakeholders make decisions regarding healthcare (Benetoli, Chen and Aslani, 2015; Reddick, 2010; Aitken, 2014). However, more research is needed to determine the best strategies to utilize various forms of SM in the context of healthcare decision-making. Research shows that SM can aid in the dissemination of valuable, time-efficient data regarding customer needs, preferences, and marketing trends, all of which can guide business decisions regarding product marketing and development. Nonetheless, it has been argued in the literature that there is too much data at our disposal, rendering it irrelevant and unable to provide clear cut answers for making decisions (Bertino and Matei, 2014; Wyrwoll, 2014; Lau et al., 2012). Problems with intellectual property, unbalanced target groups, and a lack of confidentiality further diminish the usefulness of SM data for organizational decision making. There's also the possibility that adverse consumer reviews of a brand's products and services expressed on SM will have lasting consequences on the company's growth, viability, and ability to keep customers (Peters, 2010; Ziska, 2016; Greener and Rospigliosi, 2014). These findings highlight the doubts about the usefulness and reliability of SM information in making decisions.

It's also possible that some companies are spreading invented, manipulated, or incorrect information on the internet about the benefits of their products or services. It's because of this that people are less inclined to use SM to make decisions about their health when seeking advice from the community. This highlights the need for more dependability research. Literature also notes that information about pharmaceuticals and pharmaceutical products is often published on SM by non-experts and consumers who lack the medical background or competence essential to deliver reliable information (Tyranwski and DeAndrea, 2015; Davison, 2011; Katsanis, 2015). There is thus a need for more study to identify how dependability and trust affect stakeholders' behavioral intents to use SM for effective decision-making, given the limited accuracy and dependability of such information.

New users and early adopters of SM aren't the only ones who worry about the reliability and accuracy of the content they find there, as this review demonstrates (Hanson et al., 2014; Wu, 2016). That people still use the internet to get health-related information and take steps to verify its accuracy before acting on it is more evidence that people recognize the internet's limitations when it comes to providing



trustworthy health-related data (Abubakar and Ahmad, 2014; Kim et al., 2011). This highlights the importance of conducting further study in this area and suggests that trust and dependability might be considered as separate hurdles to the desire to use SM for making health-related decisions.

It has been determined that no health-related content available online can be trusted. It has brought to light numerous studies that demonstrate the reliability and precision of online health and pharmaceutical resources. These results hold true for any and all online resources; however, the conclusions on the credibility of information in SM's chat rooms and online support groups are still up for debate and further research is warranted.

Kano's model has been shown to be capable of handling both linear and nonlinear influences on quality metrics. The study considers Kano's proposal to modify the IPA's decision-making procedure. The study's initial analysis will focus on the influence of asymmetric and nonlinear interactions on improving decision making by looking at the instance of order-winners and qualifiers. The traditional method for enhancing quality attributes is first identifying the IPA model-based quality attributes that require improvement, and then performing the enhanced work. However, it is more likely to make subpar improvement assessments when the quality traits have a nonlinear relationship with customer contentment. For instance: However, Kano's model states that customers perceive the brand name attribute as an attractive quality (A), and in the case that the brand name is enhanced, CS will present a nonlinear increase; that is, brand name is quite important to enhance CS, thus the importance of customer self-stability. Because brand name is in the IPA matrix's Low Priority quadrant (L), an organization won't prioritize allocating resources to improve the brand name.

According to Kano's model, when a quality attribute improves and aids in boosting CS, the improvement can be interpreted as signaling the attribute's importance; in other words, the higher the IR of CS is improved, the more significant the attribute's importance will be, and vice versa. As a result, the study uses the improvement coefficient, or IR, as the evaluation value for correcting customer self-stated importance when quality characteristics have a nonlinear influence.

**Hypothesis 8 (H8): KM Mediates Between the SMM Activities and TE in the Jordanian PHI.**

**Hypothesis 9a (H9a): TE Mediates Between the KM and CS in the Jordanian PHI.**

**Hypothesis 9b (H9b): TE Serially Mediates Between the SMM and CS in the Jordanian PHI.**

### **Overview of Jordanian PHI**

The pharmaceutical business in Jordan has developed since its founding in 1962 to become one of the most important industrial strategic sectors that supports the nation's economy by making contributions to Gross domestic product (GDP) and total exports. This sector came in second in terms of its share of all Jordanian exports in 2012. (Department of Jordanian General Statistics, 2013). Jordan is now the only country in its region to export more medicine than it imports as a result (Jordan Chamber of Industry, 2013). As a result, this sector is regarded as one of the best sectors. It began making products at the beginning of the 1960s and kept expanding until it became an industry leader in the nation.

Most of the local pharmaceutical enterprises' output is exported to the Middle East and Arab nations due to its high quality and adherence to the strictest international norms and regulations. The market's openness and competition, with no restrictions on foreign ownership or capital transfers, are what make Jordan unique. Jordan is also one of several countries that must protect intellectual property rights, which is essential for this area of the economy. Additionally, one of the biggest advantages for this sector is the accessibility of competent personnel and successful professionals.

Over the past 50 years, there has been a substantial change in both the PHI and the market for pharmaceutical products. This study aims to establish whether Jordan's PHI has a healthy amount of competition or whether a small number of firms control the whole market. In what ways have these issues evolved over time? What are the main characteristics of the structure of this industry?

As a result, the goal of this essay is to investigate and assess Jordan's PHI. The history of Jordan's PHI's expansion will be briefly covered in the next section.

Following is an examination of the elements influencing the Jordanian PHI. The three key components of the structure of the Jordanian PHI—concentration, entry barriers, and product differentiation—are next examined. In the concluding section, conclusions and recommendations are made.

Jordan's pharmaceutical sector has expanded significantly since the establishment of the nation's first facility in 1962. By the end of 2012, Jordan had 17 companies for human pharmaceuticals in addition to seven research consultancy firms that supported pharmaceutical factories (JAPM. 2013).

Jordan's first pharmaceutical manufacturer, Al-Arabiya Company for Pharmaceutical Products, was established in 1962 and, until the middle of the 1970s, served as the nation's sole pharmaceutical representative. Al-Hikma Pharmaceuticals, Dar Al Dawa'a for Development and Investment, and the Jordanian Company to produce Drugs were all established before the Jordanian Company for the Development of Investment in 1978. While Amman Company and United Company were both established in 1989, the Arab Center for Pharmaceutical Industries was established in the 1980s in 1983. In the 1990s, the PHI saw significant growth, and eight new businesses were established, including Ram Company for the PHI in 1992 and Philadelphia and the Middle East Company in 1993. All of the following companies were established in 1994: Hayat Company, International Company for Drug, Jordan Swedish Company, Al-kindy Company, Jordan River Company, and International Company for Drug. TREMFARMA, also known as Al-Techania for Pharmaceutical Industries, was established in 2003. "IFADA" for Pharmaceutical Industries was founded in 2005.

Although the Jordanian PHI has been successful in entering other markets through its exports, which make up approximately 71% of its production, the industry's share of the local market is still quite small, accounting for only about 29% of its total sales. (Jordanian Chamber of Industry, 2013), a rather small percentage.

Many Arab and non-Arab countries have formed markets for this industry, and about 65 countries on the continents of Asia, Africa, Europe, and North America have rated Jordanian medicine as matching international standards (Jordanian General Statistics department, 2013).

The PHI should be aware that, in addition to export markets, the local market also has unmet needs, and that, to succeed in achieving this objective, it must be able to produce pharmaceutical products to fit those demands. This shows that to meet the expectations of the regional market, Jordan's PHI should provide a diversity of products. Even though Jordan's pharmaceutical exports are worth more than its imports, the country still relies on imports for most of its medication needs. This suggests a significant mismatch between the supply and demand on the local market, which offers a great opportunity to increase the share of Jordanian medicine on the market by enacting import substitution strategy.

In several Arab and African countries, Jordan has established itself as one of the qualified exporting nations that can provide technical support for the pharmaceutical sector. Compared to regional and emerging country standards, the Jordanian PHI has a high degree of knowledge and skill. It's crucial to remember that more than half of current pharmaceutical manufacturing plants have been developed and fully equipped with cutting-edge industrial equipment, offering fantastic output potential (JAPM, 2010). Inefficient use of the PHI's access to this level of technical and technological knowledge, on the other hand, would lead to a reduction in production capacity.

Following Jordan's PHI reveals that the needs for scientific research and development are still unfulfilled. Most pharmaceuticals produced by Jordanian firms are imitations of real foreign pharmaceuticals, which are created with the consent of multinational businesses. This is a clear indication that Jordan's drug manufacturing laws do not foster academic inquiry.

The pharmaceutical sector spent about 4% of total revenues in 2011 on research and development, although only about 5% of the industry's workforce is expected to work in this field (JAPM, 2010).

In this regard, it is significant to note that the Committee of Economic Consultation, which was presided over by the Jordanian Minister of Industry and Commerce, recommended in 2011 that the PHI exports needed to be strengthened by increasing the competitiveness of the Jordanian PHI and fostering research and development in this area.

Between 2010 and 2012, energy and oil derivative prices climbed steadily in Jordan, driving up production costs and eroding producer profit margins. High energy prices are a major impediment to the PHI's expansion and competitiveness, which is especially important as an export sector.

Entry barriers are the second aspect of the market structure. It encompasses all the obstacles and factors that prevent or limit the entry of new enterprises into a given industry. Higher obstacles will result in fewer companies in a sector, which will lead to greater concentration and monopolistic power. Michael (1998) includes the following list of the most major entry barriers: The presence of governmental or regulatory barriers to the entry of new enterprises into the market is one of them. There are no legal limits on new entrants into the business or market in Jordan's pharmaceutical sector because the government does not provide any benefits to pharmaceutical enterprises.

High production volumes are a characteristic of several industries, especially those that manufacture heavy goods, to reach the ideal size that has the lowest average cost. Several enterprises, including Dar Al Dawa'a and the Jordanian corporation, whose respective market shares in 2012 were 47.6% and 32.5% of the total sales of the pharmaceutical companies listed on the Amman Stock Exchange, have seen a surge in production volume in Jordan's PHI. This means that just two businesses make up about 80% of total industry sales, which could make it difficult for new businesses to compete. As previously mentioned, Al-Hikma and Al-Arabiya, two globally listed organizations that, when unlisted companies are considered, are noteworthy for dominating the pharmaceutical sector, together gained approximately 74% of the PHI in 2008.

The average cost of production for existing enterprises is lower than that of potential new competitors because of some advantages. This might be because of a variety of things, such as the following: first, the old firms' possession of patents; second, their ability to acquire production-related inputs (like land and raw materials) at a lower cost than the new firms; and third, their ease in obtaining financing at a lower cost than the new firms due to their financial stability and experience.

Although there isn't any concrete proof that these factors exist in the Jordanian PHI, the absence of new enterprises since the start of 2000 raises the possibility that there are barriers blocking their admission.

Some well-established industrial enterprises want to lower the price of their products to deter new competitors from entering the market. The price could be set at or below the average cost per unit using a predatory pricing method. In fact, they could be prepared to suffer a temporary loss to keep new businesses out. There is no pharmaceutical company involvement in the pricing of medications in Jordan because the Food and Drug institution sets the prices of pharmaceutical goods based on defined criteria.

As a result of the monopoly power held by a small number of pharmaceutical corporations, there are some barriers to entering the pharmaceutical sector in Jordan. These companies stand out because of their huge market shares and robust production capabilities, which allow them to produce items at average costs that are lower than those of new potential competitors.

The third feature of the industrial structure is the level of product differentiation, which prohibits goods sold in the same market from being utter substitutes. Product differentiation may consequently result in some businesses acquiring monopolistic power since consumers are attached to aspects of their products that other rivals do not supply. It is significant to note that pharmaceutical firms in Jordan specialize in producing various sorts of medicines. As a result, rather than serving as a substitute for other locally produced items, the commodities made by one pharmaceutical company are an alternative to foreign goods. It follows that the Jordanian PHI demonstrates a high level of product differentiation, which is both one of the industry's entry barriers and one of its most distinctive structural features.

### **Literature Review Summary**

Numerous past and current literature has identified the growing importance of SM as an important platform and tool for facilitating content sharing, collaboration, and user interaction, thereby making it a potent resource for gathering and disseminating knowledge. It was found that SM is not only used for entertainment

purposes, but may also be applied to boost productivity in the workplace (Downey, 2012; Guffey and Loewy, 2014). By allowing businesses to more effectively and economically reach a wider audience, attract consumers, engage with them and other stakeholders, and collect market data and customer feedback, the tools and applications of SM have contributed to the success of enterprises.

The widespread proliferation of SM's applications has made it a potent resource for trade and commerce in a wide range of sectors. SM has been lauded in the academic literature as a powerful method for firms to increase customer loyalty, responsiveness, and satisfaction (Al-Essa et al., 2015; Kommers et al., 2014; Isaias and Issa, 2014). The literature has highlighted a number of important benefits of SM for enterprises and organizations in the PHI, but it has also called attention to the risks and drawbacks associated with its use. Concerns and risks related to SM use have been investigated. Topics covered include public attitudes about SM use, the effect of SM on civic life, and privacy concerns (Kommers et al., 2014; Mousavi and Demirkan, 2013; Amerland, 2015).

Sharing relevant information routinely among all stakeholders is facilitated by SM. It facilitates regular communication between the general population and pharmaceutical companies (Grindrod et al., 2014; Snyder et al., 2011; Soliman, 2012). It has enabled rational, realistic, and well-informed choices to be taken regarding the PHI's future growth. Pharma businesses can't ignore SM's significance. The frequency and quality of interactions between customers and companies can be improved through the usage of platforms as channels of communication. Using SM effectively is essential for any business since it helps to ensure long-term growth and financial success (Lipschultz, 2014).

Numerous advantages of SM use by pharmaceutical sector stakeholders were recognized in the literature. The literature supports the conclusion that it is an efficient and very valuable platform for gathering a wealth of knowledge on the markets, pharmaceutical items, and cutting-edge healthcare research. SM is therefore helpful for enhancing public healthcare. However, the current literature failed to highlight the relevance of SM's benefits in advancing public health (Grajales et al., 2014; Antheunis, Tates and Neiboer, 2013).

Consequently, it might be argued that the usage of SM in the PHI helps to align the public's skills, competencies, and opinions and provides knowledge that can be used to make educated, timely, rational, and successful decisions (Wienstein et al., 2008; Bridges et al., 2011; Touray et al., 2013). A dearth of focused research on the benefits of SM in addressing healthcare-related concerns and the stakeholders in the pharmaceutical business was discovered through a survey of the relevant literature. Although many studies have looked at the rising role and significance of SM as a means of communication and interaction with organizational stakeholders, there has been little in-depth research on the use and application of SM for the PHI and tackling societal healthcare issues (Antheunis, Tates and Neiboer, 2013; Snyder et al., 2011; Soliman, 2012). This indicates a major information gap, which the present research attempts to address by providing a comprehensive evaluation of SM's role in the PHI. This study will be useful in this regard because it will analyze the elements that motivate or dissuade stakeholders in the pharmaceutical sector to use SM to discuss health issues and ultimately improve the health of the population as a whole (Grindrod et al., 2014; Snyder et al., 2011; Soliman, 2012).

In addition, the literature suggests that some pharmacists continue to be apprehensive to use SM for professional purposes. Businesses can benefit from increased product awareness brought about by SM. That people are hesitant to join in is another evidence that the PHI's SM strategies are flawed (Kukreja, Sheehan and Riggins, 2011; Jiang and Chen, 2015).

The literature analysis indicates that the PHI has a lot to gain from utilizing SM platforms in order to improve its communication, marketing, brand management, identity, and overall market standing. This leads to the conclusion that while it is important and valuable for the expansion and development of the pharmaceutical sector, there are some relevant problems, obstacles, and challenges that prevent its full implementation.

Since these risks linked with SM have only been studied in general terms, and no industry-specific repercussions have been established, there is a gap in the existing body of information. Additionally, SM is a significant requirement for the pharmaceutical sector, according to the available literature, and it may be used to resolve problems with identity, marketing, and communications.



There has been a rise in the PHI's usage of SM, but it is still in its infancy because most pharmaceutical businesses still fail to see the benefits and reliability of this medium for spreading information about their products (Benetoli, Chen and Aslani, 2015; Reddick, 2010; Aitken, 2014). Pharma companies aren't interested in SM because they still see it as an unreliable information source for their clients. Consumers also don't put much stock in recommendations for how to use pharmaceutical products they find on SM (Grindrod et al., 2014; Moorhead et al., 2013; Nair, Ibrahim and Celentano, 2013). Companies in the PHI in Jordan are just beginning to investigate the potential benefits of SM for expanding their operations in the country's growing consumer market. The PHI in Jordan could benefit from using SM to reach a wider audience (Grindrod et al., 2014; Moorhead et al., 2013).

Pharmaceutical companies, like any other business, can benefit greatly from increased use of SM for marketing and customer service purposes. Some of the trust problems may be solved if companies improved the accuracy and reliability of the content they provided on SM, which would ultimately win over customers. Nonetheless, the current research does not draw any glaring conclusions or consequences in this direction (Nair, Ibrahim and Celentano, 2013; Moorhead et al., 2013; Aitken, 2014).

The literature review found that while there are many benefits to utilizing SM, there are also certain negatives that have a negative effect on customers and hence restrict the usage of SM by pharmaceutical companies. One of the most significant points brought up in the study is the widespread belief that SM is a dishonest means of contact. While it has been noted that the PHI is beginning to recognize the potential benefits of SM for product marketing and customer communication, the efficacy of these strategies has yet to be demonstrated.

Also, there is no significant research on the consequences of the problems associated with SM on the growth of the pharmaceutical sector, despite the fact that the literature now in circulation highlights the drawbacks associated with SM. Lacking such research, our comprehension of the attributes which have an influence pharmaceutical professionals' SM usage is limited. Therefore, a comprehensive study of the topic is necessary to understand the factors that influence SM usage in this setting. Findings from this literature study concisely demonstrate the emergence of

SM and its huge potential to aid stakeholders in the pharmaceutical business in making decisions regarding healthcare (Benetoli et al., 2015; Aitken, 2014).

However, more research is needed to determine the best strategies to utilize various forms of SM in the context of healthcare decision-making. Research shows that SM can aid in the dissemination of valuable, time-efficient data regarding customer needs, preferences, and marketing trends, all of which can guide business decisions regarding product marketing and development. Nonetheless, it has been argued in the literature that there is too much data at our disposal, rendering it irrelevant and unable to provide clear cut answers for making decisions (Bertino and Matei, 2014; Wyrwoll, 2014; Lau et al., 2012). Problems with intellectual property, unbalanced target groups, and a lack of confidentiality further diminish the usefulness of SM data for organizational decision making. There's also the possibility that adverse consumer reviews of a brand's products and services expressed on SM will have lasting consequences on the company's growth, viability, and ability to keep customers (Peters, 2010; Ziska, 2016; Greener and Rospigliosi, 2014). These results highlight the risks associated with using SM content as a decision-making tool due to the lack of control over its accuracy and completeness.

It's also possible that some companies are spreading invented, manipulated, or incorrect information on the internet about the benefits of their products or services. It's because of this that people are less inclined to use SM to make decisions about their health when seeking advice from the community. This highlights the need for more dependability research. It has also been noted in the literature that information about pharmaceuticals and pharmaceutical items posted on SM is often provided by non-experts and consumers who lack the necessary medical background or expertise to deliver correct information (Tyranwski and DeAndrea, 2015; Davison, 2011; Katsanis, 2016). Therefore, the accuracy and dependability of such information is low, suggesting the need for further study to ascertain how dependability and trust affect stakeholders' behavioral intents to utilize SM for effective decision-making.

New users and early adopters of SM aren't the only ones who worry about the reliability and accuracy of the content they find there, as this review demonstrates

(Hanson et al., 2014; Wu, 2016; Phichitchaisopa and Naenna, 2013). That people still use the internet to get health-related information and take steps to verify its accuracy before acting on it is more evidence that people recognize the internet's limitations when it comes to providing trustworthy health-related data (Abubakar and Ahmad, 2014; Payne et al., 2015; Kim, Shim and Ahn, 2011). This highlights the importance of conducting further study in this area and suggests that trust and dependability might be considered as separate hurdles to the desire to use SM for making health-related decisions.

It has been determined that no health-related content available online can be trusted. It has brought to light numerous studies that demonstrate the reliability and precision of online health and pharmaceutical resources. These results hold true for any and all online resources; however, the conclusions on the credibility of information in SM's chat rooms and online support groups are still up for debate and further research is warranted.

According to the findings, an individual's goal to change their behavior is a significant predictor of how they will adopt and use technology. Different factors that influence behavioral intention have been identified in this line of research. Some examples are one's brand orientation, performance expectations, and quality orientation, as well as one's perception of risk and its relative reward, one's own efficiency and usefulness, and the quality of the services they receive (Payne et al., 2015; Kim, Shim and Ahn, 2011; Rader et al., 2014).

People's actions in relation to their use of SM and technology are greatly influenced by factors such as income, occupation, perception of usefulness, perception of ease of use, and degree of education, as was discovered in the discussion (Abubakar and Ahmad, 2014; Payne et al., 2015; Kim, Shim and Ahn, 2011). While gender differences in the will to act were not readily apparent, a negative correlation between price and action was found. McGowan et al. (2012) emphasized the importance of a variety of factors in determining the frequency with which SM is used for healthcare-related decision-making. These factors include a positive attitude toward the use of technology, the perceived usefulness of the technology to attain improved performance outcomes, and the perceived ease of use of the technology. Furthermore, these factors are the most influential in the public's

usage of SM to make decisions about their health care, according to the literature (McGowan et al., 2012). SM and other internet-based communication platforms, on the other hand, do not correlate with demographic characteristics like age, gender, or level of education (George, Rovniak, and Kraschnewski, 2013; Cline and Hynes, 2001; Rolls et al., 2016). According to the findings, several factors affecting stakeholders' views and attitudes affect their behavioral intentions while adopting technology. More research is needed to determine the positive, negative, and relative importance of the mentioned variables in shaping behavioral intention.

While there has been some study into the factors that influence the actions of stakeholders in the PHI when utilizing SM and IT, a review of the existing literature shows that more work needs to be done (Abubakar and Ahmad, 2014; Mousavi and Demirkan, 2013). Organizational preparedness, the ability to tackle tough problems, technological progress, and external influences are all considered when assessing the PHI's behavior intentions. Additional facets include communication, deliberation, adjustment of lifestyle, and research into health issues (Mardikyan, Besiroglu and Uzmaya, 2012; Payne et al., 2015; Kim, Shim and Ahn, 2011). Research shows that underprivileged primary care patients are increasingly embracing SM, which has improved their access to and interaction with healthcare providers (Weinstein and Sandman, 1992; Wimmer et al., 2013; Mousavi and Demirkan, 2013).

The study also revealed that the PHI has numerous major barriers that impede it from adopting and accepting SM. People aren't able to fully benefit from information sharing on SM due to a lack of awareness of disclosure and privacy rules (Mousavi and Demirkan, 2013; Phichitchaisopa and Naenna, 2013). One reason people don't use technology is that they're afraid of the consequences that could arise from doing so. These include the possibility of a breach of confidentiality or privacy, the availability of misleading or inaccurate information, a phobia of the unknown, and a resistance to change (Hanson et al., 2014; Wu, 2016; Phichitchaisopa and Naenna, 2013).

These factors influence the intentions and actions of persons in the PHI, limiting the full potential of SM in healthcare. Thus, more study into the ways in which technology influences the business practices of pharmaceutical companies is necessary if they are to reap the full benefits of SM (Hanson et al., 2014; Wu, 2016;

Wimmer et al., 2013). A review of the literature revealed a dearth of investigations into the factors influencing the PHI's stakeholders' behavioral intention to use SM.

Many studies have examined the factors that influence the adoption and intention to use new technologies, but few have provided a comprehensive and in-depth explanation of the elements that influence the behavioral intention to use SM, especially in the PHI. Even though the pharmaceutical business can only benefit to a small extent from the models previously employed to determine these features (Phichitchaisopa and Naenna, 2013; Coskuncay, 2013; Cline and Hynes, 2001). This highlights the need for further research into the precise elements affecting the use of SM in the pharmaceutical sector. Recent research has focused on the factors most strongly associated with people's intentions to utilize technology, such as performance expectations, social influence, and trust. The pharmaceutical sector increasingly relies on SM for decision-making, yet there is a lack of high-quality research assessing the importance of these factors (Barry and Pearson, 2015; Phichitchaisopa and Naenna, 2013). Therefore, research in this area is necessary to examine these concerns.

Whether or whether stakeholders use SM to their advantage depends on their goals. There are a lot of factors that can affect this. From what we can tell from a review of the literature, there are a number of factors that can affect an individual's conduct, and these vary from scenario to situation (Kim et al., 2016; Khan, Saleh and Nivarthi, 2015; Barry and Pearson, 2015). The factors that influence stakeholders' behavioral intentions to use SM have been the subject of a great deal of research. Achievement value, trust, attitude, and gender are the key factors that can affect the actions of SM users (Khan, Saleh and Nivarthi, 2015; Barry and Pearson, 2015; Edwin et al., 2005).

It is important for pharmaceutical companies to evaluate the industry factors associated with behavioral intention to use SM (Abubakar and Ahmad, 2014; Payne et al. Rolls et al., 2016, Agrawal and Kaur, 2015; et al.). This has raised the question of how to evaluate the business considerations that factor into an individual's choice to utilize SM for commercial purposes. According to the study gap addressing the factors influencing behavioral intention, there is a need for an inquiry into the elements that can alter the relationship between dependent variables and behavioral

intention to use SM within the PHI. There is a lack of research into the role that SM and the information and knowledge exchanged on it play in the decision-making process involved in making key business decisions in the PHI.

## CHAPTER III

### Theoretical Framework and Research Methodology

The study conducted firstly an in-depth literature review to provide a solid theoretical foundation and depth analysis of the most recent studies which addressed the effects of SM on business-to-business organizations and the implementation of the KM in the Jordanian PHI. The study also selected couples of the recent and most common frameworks for assessing actors in the PHI which are based on the behavioral intention to use SM on business motives that affect the usage of SM by external stakeholders. The study assessed the plethora of relevant literature that has provided crucial disagreements and issues as well reveal some crucial research gaps in the current research topic (i.e Hanson et al., 2014; Wu, 2016; Phichitchaisopa and Naenna, 2013). In the pharmaceutical industries, it is also necessary to assess additional aspects that may affect dependent variables and external stakeholders' use of SM (Abubakar and Ahmad, 2014; Payne et al., 2015; Rolls et al., 2016).

The current chapter also presents the research methods justifications, reasoning, and data collection and analysis approaches to achieve the research's stated objectives within a logical, objective, and relevant way (Bolt, 2014). The study further discussed the approach of data collection and analysis, and presents the tools and methods that used to collect data in this study, as well the most important assumptions and explanations for using them. Chesnay (2014) defined research methodology as "a plan of action, the strategy, design, or procedure done to evaluate particular approaches by selecting and proving a relation between the use and choice of the methodologies to acquire appropriate results." Therefore, the focus of research methodology is on the most important assumptions and justifications in this work, as well as the most important tools, methods and procedures used in the research. This makes it easier to track down and examine data that is relevant to the research's objectives and the questions (Flick, 2011).

This chapter is outlined with different sections. The introduction is presented in the first section. Study framework design is defined and discussed in the second section. The relevance, justification, and applications of the research philosophy are covered in detail in the third section. The fourth section describes the research design and provides specifics on the methods used for data collecting and the research strategy. The research population employed for the various data gathering methods is

explained and supported in the fifth section. Data collection methods and resources following the pilot research are outlined in Section 6, and Data Analysis Methods for Measuring Device Data are outlined in Section 7. The final section summarized the whole chapter by presenting a genuine and reliable research investigation. The eighth chapter looks at the research data's validity and trustworthiness via the lens of the research methodology's data analysis procedure.

### **Methodology**

This study's objective is singular-based reality. The researcher uses SMM activities with the lenses of the Kano Model as mediation; since the positivism view involves a cultural environment with alternative explanations, the researcher's complex model is substantiating support for CS problems. Thirteen hypotheses have been proposed to develop a careful commitment, reduce the artificial truncating, and describe pharmaceutical pharmacy Staff' natural experiences. The researcher predicts CS with two lenses of mediation to determine the impact of SMM activities in the healthcare industry. The researcher focuses on construct relationships through the deductive method to lineages as indicated by Johnson and Onwuegbuzie (2004). By limiting assumptions about the external world and use the deductive technique, the study aims to explain how established variables are related (Ghauri et al., 2020). On other hand, the study concerns with using the correlational design with positivism (Mitchell, 1985; Thompson et al., 2005; Blair et al., 2019). Similarly, as Anderson et al. (2019) noted, altering variables is challenging in such designs. According to Martin et al. (2019), the correlational research desing can be predicted by sets of explanatory variables. The study also applys a quantitative research through a cross-sectional design without paired comparison analysis (Nabors, 2019).

Additionally, the study collects primary data from the pharmaceutical pharmacy Staff living in Jordan through the 7-Point Likert questionnaire method. Prime data is more reliable and suitable to generalise the findings from the b2b customers. The study is using the HCO and LOC two-step approach of SEM (CFA) (Nguyen & Nagase, 2019; Sarstedt et al., 2019). For descriptive analysis and instrument validity, the researcher is using SPSS 25. The SEM analysis is being performed through SmartPLS 3.3.3.



The study selected and used SPSS 25 to conduct the key analyses include descriptive analysis and instrument validity, this tool provides great test that is importantly used in the social studies. The study has adapted and adopted survey items from relevant cited sources. For example 5 items which are created, covering topics like Entertainment (SMME, 4 questions), customization (SMMC, 4 questions), interaction (SMMI, 4 questions), trendiness (SMMT, 3 questions), and EWoM. (SMMW, 3 questions). Using the (a) indifferent quality (ID, 10 questions), (b) must be Quality (MBQ, 24 questions), and (c) one dimensional quality, the KM has been modified with 38 questions (Chen et al., 2020). (ODQ, 4 questions). Five questions have been added to valuation creation (VC) (Wijaya et al., 2020). The three questions used to measure TE are an adaptation from Wijaya et al. (2020). Finally, the four questions are modified to measure CS (CS) (Wijaya et al., 2020).

### **Study Framework**

Businesses can now improve their efficiency and output thanks to the tools made available by SM. Multiple academics and researchers have previously addressed the topic of SM adoption by external stakeholders in the PHI by putting forward several models. This allows researchers to analyze the PHI's adoption, usage, and reception of SM. Kim, Shim, and Ahn (2011) and Payne et al. (2015) both report that the PHI makes extensive use of SM in the course of its professional duties. They went on to comment on the reasons that influence this behavior. The literature has emphasized the use of the KM in this regard. In order to analyze the benefits and drawbacks of the KM in B2B transactions in the PHI, pharmaceutical organizations use the KM to observe key factors and client expectations.

The literature was reviewed for further analysis of the importance and efficacy of the KM. To paraphrase what was said by Mardikyan, Besiroglu, and Uzmaya (2012), who explored the factors that influence the KM, the gender of the user and the form of payment have minimal affect on the way that outside participants in the sector use SM. However, the external stakeholders' SM use behaviors are significantly influenced by their degree of education. They found that those with higher levels of education were more likely to use SM and incorporate it into their daily lives. Differences in SM habits across demographics can also be shown by looking at things like people's jobs (Mardikyan, Besiroglu and Uzmaya, 2012). These findings show that there is considerable and fruitful research on the use

of the KM to determine the factors driving SM usage. These findings highlight the limitations of the studies in question, namely that they provide only broad descriptions of the factors that influence people's actions on SM.

These findings also revealed that no investigation was conducted to determine the elements that influence behavioral intentions to use SM in the healthcare industry. No substantial studies have used the KM to analyze the factors affecting intent to use SM in the healthcare or pharmaceutical sectors (Li, 2010). Schnall and Bakken (2011) claim that the KM's indication of both objective and subjective components demonstrates its increased relevance and importance in identifying the factors influencing intention to utilize SM in the healthcare and pharmaceutical industries. The study also emphasized the research's emphasis on the KM's usefulness in examining the variables impacting SM use in the PHI (Schnall and Bakken, 2011).

### **Research Philosophy**

The research philosophy is the theoretical framework for conducting studies that is based on a consensus of previously established facts, ideas, and methods (Johnson and Christensen, 2010). Maxwell (2005) defined a research philosophy as an overarching theory that unifies a study's guiding principles, hypotheses, concepts, issues, and variables. In this sense, a research philosophy can be thought of as a template, the overall outline of a system of principles upon which scientific theories and practices are built (Maxwell, 2005). It is the initial phase in research since it establishes the study's parameters, validates its theoretical foundations, and provides a roadmap for monitoring and making sense of a social phenomenon (Johnson and Christensen, 2010).

This outlook makes it possible to test a wide range of hypotheses on the nature, extent, and drivers of SM usage in the business-to-business (B2B) pharmaceutical trade in Jordan. The KM is useful for analyzing the PHI's use of SM and the behavioral intentions of external stakeholders to use SM in making healthcare-related decisions (Saunders, Lewis, and Thornhill, 2007); Farquhar, 2012).

Human behavior is assumed to be obedient to predetermined rules. Evidence-based and non-subjective research techniques are put to use in the KM to uncover and present the truth and the state of the art. The study's fundamentals are drawn

from information gathered using the KM, which was used to examine how SM affects business-to-business (B2B) interactions in the pharmaceutical sector. The study contributes and benefits through a further discussion could be provided to test the research hypothesis that has been formed following an analysis of the most widely held ideas and findings (Levers, 2013). The KM systemsatizes the creation of knowledge for the research using scientific methodologies and procedures. To accomplish this, the obtained data is quantified to describe the parameters and their interactions.

The study philosophy gives a focus on KM, use of SM, consumer attitudes toward SM in the the pharmaceutical industry with alignment of scientific methodologies and approaches (Krauss, 2005). These aspects of the study's setup were all just what the doctor ordered for the current inquiry. The research hypotheses are tested using the KM, that allow to achieve the study objectives and empirically examined to draw the findings.

The literature suggests that further research into the relationship between industry-specific features and the intention to use SM in the PHI is warranted. The study used KM as a scientific method for testing the inductive reasoning and determine if a hypothesis is correct (Klenke, Martin and Wallace, 2015). To put it another way, this idea has been very helpful for this study because it has allowed us to examine the research hypothesis in a more systematic manner. The study results are analyzed critically to draw reasonable and relevant inferences from the study's findings (Howell, 2012). Furthermore, this paradigm is suitable for the study since it permitted some expansions of the widely used KM to evaluate the characteristics like trust that were crucial to the behavioral intention of external stakeholders to use SM discussion forums for health-related decision-making (Bacon, 2014).

The solid groundwork provided by the implementation of the research philosophy allows the study to avoid side tracked discussions of irrelevant issues and instead focus on the subject at hand (Johnson and Clark, 2006; Gava and Stern, 2015). This has allowed us to finally find solutions to the issues raised by the study's research questions. It has laid the groundwork for future studies by facilitating the evaluation of competing theoretical perspectives and providing quantitative interpretations to back up qualitative findings (Ihuah and Eaton, 2013).

## **Research Design**

The study aims to study the impact of SM on business-to-business transactions in Jordan's pharmaceutical sector. It is developed and analyzed using the KM which has critical factors can benefit the existed body of literature in this topic. The study also examines how the pharmaceutical companies and customers use SM. There are three different study types: mixed methods, qualitative, and quantitative; the study interested with the quantitative approach more than the other two. The claims made of selecting a quantitative research strategy are based on many interpretations of the separate experiences or perceptions to form a hypothesis or pattern. On othe hand, the qualitative research methods like phenomenology, ethnography, and grounded theory studies are employed to organize and synthesize raw data to answer the study issue (Maxwell, 2012).

Utilizing a quantitative approach, consumers and pharmacists were involved. The study population are 700 pharmacists in the group, and 573 of them completed the survey in Jordan. An example of the sample size and population for the procedure in the next chapter (research population): The study used a quantitative data that dissected in great detail to reveal insights into its stated research objectives (Rubin and Rubin, 2011). By using the purposive sample technique to analyze survey data, the research goal of identifying industry-related characteristics and their impact on SM was achieved.

To find and identify the data relevant to the research study's topic, in-depth surveys with appropriate population were undertaken (Bazeley and Jackson, 2013). The central ideas of this investigation centered on overarching ideas that were connected to the subject of the study. These overarching ideas included performance targets, information quality, predicted effort, media influence, facilitating conditions, traditions, power distance, personal decision, social confidence and doubts, trust, security and absence of risk, and health condition. All of these variables affect the PHI, thus businesses must take them into account in how they utilize SM.

## **Research Population**

The pharmacies saff in Jordan's PHI was chosen as the study's B2B customers. There are 7200 pharmacists in Jordan, according to the Jordan Pharmacists

Association. Staff at pharmacies are viewed as a crucial link between pharmaceutical companies and patients as clients. However, it is difficult to implement SMM initiatives due to the complexity of B2B partnerships. For the purpose of gathering data, the study used a convenience sampling approach. On the basis of this method, the pharmacies staff who participated in pharmaceutical companies' purchasing decisions were included in the study. The researcher uses his judgment to build a representative sample and select a smaller sample that represents the community based on particular criteria in a non-probability sampling technique called "purposeful sampling." As a result, a convenience sample of 700 pharmacy employees was chosen as a representative sample for the study as part of a purposive selection technique. This is in line with the chart Sekaran and Bougie created to determine the appropriate sample size, in which 364 samples were recommended for a population of 7000. As a consequence, 573 people filled out the questionnaire in order to answer.

### **Data Collection**

To collect the required data for answering the study questions, the study used a data collection technique with sets of procedures used in this purpose with reliable research results. Data collection is an important step that provides the theoretical and empirical foundations upon which the study's objectives can be built (Sapsford and Jupp, 2006). The study used both of primary data and secondary data methods to enrich the study findings. First-time data of a specific type is captured, analyzed, and interpreted with the use of math or objective criteria utilizing primary data collecting methods. The primary data collection methods are employed to get answers from the people being studied (Wetcher- Hendricks, 2011). For this reason, a survey of pharmacists working in the pharmaceutical sector was distributed to the target sample. On the other hand, the secondary data refers to kind of data that has already been existed and collected for different purposes, but can be applied to the current inquiry because of its relevance. This data also can provide the views and convictions of numerous scholars and academicians on the topic under investigation. As part of the secondary data collection process, this study has employed a number of different research approaches (Vartanian, 2010). The first part of the research is quantitative, and it consists of an exhaustive survey.

An extensive study of the literature was conducted as part of the research's first phase to look at how SM are used and adopted in the pharmaceutical sector. The goal of this literature study was to better understand the SM applications now employed by the pharmaceutical sector, the behavioral aspirations to use SM for efficient health-related decision-making, and the interplay between the moderators and components of the KM.

The purpose of this process is to determine where the largest gaps in the existing literature are and what questions needed to be investigated further. Various ideas were explored and critically assessed to ascertain their relevance to the research and to identify any gaps in the available literature. The KM was selected among different theories to serve as the basis for the study's overarching framework because it elucidates the critical components that contribute to the widespread adoption of SM by the PHI's major players. The findings from the literature study served as a springboard for the extensive questionnaire survey, which in turn allowed for a comprehensive investigation of all relevant areas of the sector.

An objective is aims to be covered at this stage; it determines to identify set of factors that influence the SM behavior intention of pharmaceutical stakeholders include pharmacists, consumers, and patients. However, this phase only offered a broad overview of the variables. Therefore, a second phase is required so that the pharmaceutical sector could assess the applicability of the determined parameters.

The study in this stage offers a thorough and all-encompassing assessment of the elements specific to the industry that affect stakeholders in the pharmaceutical sector's behavioral intention to utilize SM. However, a more thorough assessment of the applicability of the KM's elements was required. The concepts used in the discussion boards and the variables influencing its utilization needed to be better understood. In order to determine the KM's moderators and variables' relevance to the pharmaceutical sector, the study also establish their relationship to fulfill the first and second research objectives.

Another objective in this regards is to discover a set of characteristics that affected behavioral intention to utilize SM among stakeholders in the pharmaceutical business (consumers and customers). Some of the parties involved were patients, medical professionals, and pharmacists. The study's secondary objective is to identify

the impact of these independent variables on the relationship between behavioral intention to utilize SM as a means of communication and a repository of knowledge. The study as stated previously created survey questionnaire to achieve this process to gather the key data from 700 pharmacists in the PHI in Jordan.

Based on the questionnaire responses, it is determined that sample demographics such as age, medical conditions, education level, knowledge, and gender are the primary demographics that may affect the behavioral intent of the pharmaceutical company stakeholders while using digital platforms for making health-related decisions. Further validation of the link between the dimensions and behavioral intention was required, as it is an examination of the moderators' effects on the relationship. This was the study's secondary objective. Confirming the relationship between the constructs and the moderators was also necessary to reach the third purpose of the study, which was to develop a model of the current practice of behavioral intention for the adoption and use of SM by stakeholders in the health industry.

Self-administered surveys were distributed in the form of questionnaires and collected from employees of pharmacies. In order to encourage the participants to complete the survey, the objectives and purpose of the study were presented to the participants, with an emphasis on the fact will be participating voluntarily and that the personal information of employees will not be disclosed in any way to third parties. The information you provided will be used for research purposes only, for example at the university in which the researcher is studying (Near East University) and it can be presented in scientific meetings or conferences, with the assurance that the confidentiality of the information provided will also be guaranteed.

### **Sampling**

The population of the current study is made up of employees of pharmaceutical pharmacies who are also paying clients. The majority of the time, pharmacy staff is seen as a key link between patients and pharmaceutical companies. It is challenging to get in touch with them as potential business clients for enhancing SMM efforts. The challenge is exacerbated by the fact that pharmaceutical companies are reluctant to disclose the trade secrets and clientele of their competitors. Second, it can have an impact on the pharmacy staff's right to privacy. Therefore, it is difficult to reach the

current population in order to create the theoretical framework. Additionally, because the demographic is difficult to reach, the researcher must use industrial connections to aid in the study. The pharmaceutical pharmacy staff who actively participate in purchasing decisions with the pharmaceutical enterprises have been included in the study using the theoretical sampling method (Ghauri et al., 2020).

The studies carefully evaluate sample size in order to generalize their results. A large sample size may result in saturation of the results, whereas a small number may compromise the validity of the results. The study employed a suggested sample of 700 pharmacy employees to determine the sample size. In comparison to the research findings of Krejcie and Morgan (1970), McQuitty (2004), Barrett and Kline (1981), Walker (2005), and Cochran, the sample size is somewhat larger (2007). The structural equation modeling through partial least squares (SEM-PLS) analysis is used with good response rate for results generalizability in the Jordanian pharmaceutical sector. The studies carefully evaluate sample size to achieve this purpose and generalize the results. A large sample size may result in saturation of the results, whereas a small number may compromise the validity of the results. The study employed a suggested sample of 700 pharmacy employees to determine the sample size.

### **Measurement Instrument**

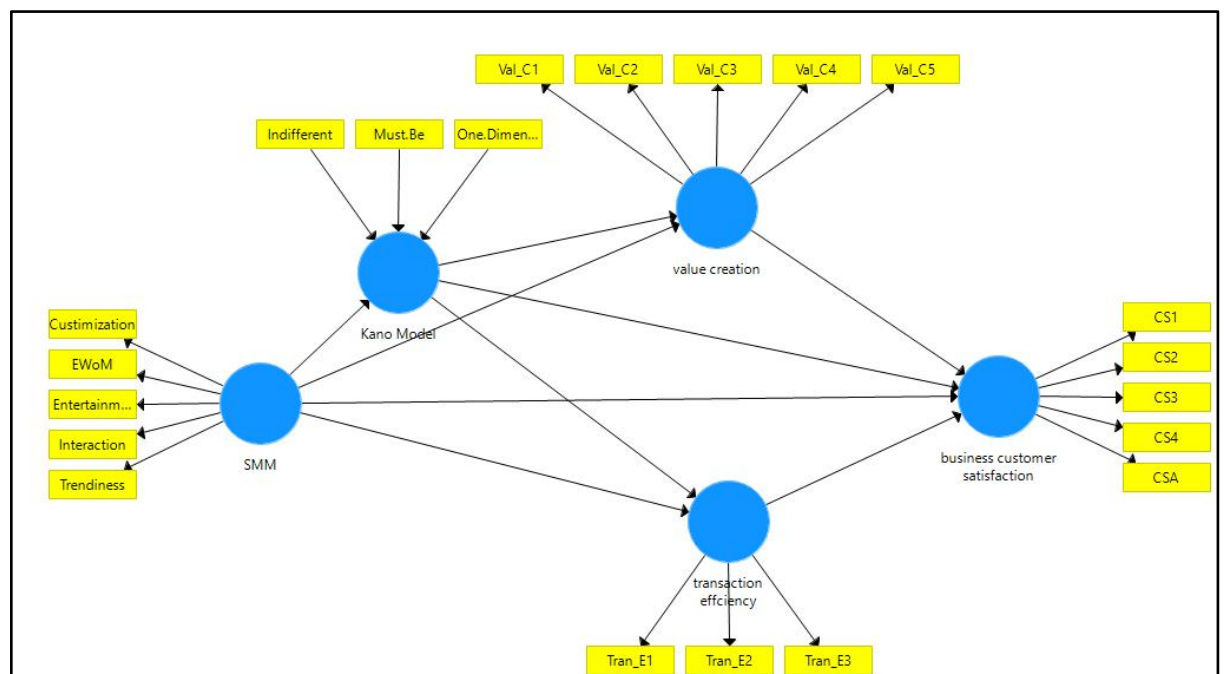
The study scales were modified from earlier studies. The study validated the study measurements through asking a panel of academics and professionals in the study topic to give their feedback about these measurements. A modification was considered of some items such as rewrite some items and make changes in the order of items. The important of this step comes from ensuring the content validity of the measurements to meet study aims and objectives. For example Ma et al (2019) 18-items scale was used to gauge the effectiveness of SMM. "Is it possible to look for tailored information on Pharma firms on SM platforms" is an example question ( $\alpha = 0.76$ ). Three components of a thirty-eight-item scale modified from Chen et al. were used to score the KM questions. "Service personnel on social pages (i.e., order and delivery personnel) have professional training and a specific level of expertise of drugs" ( $\alpha = 0.78$ ) is an example item.



A five-item scale created by Wijaya et al (2020) served as the basis for the value generation model. "There is a new customer value created in terms of the transaction" is an example item with a value of 0.80. The three-item scale created by Wijaya et al (2020) served as the basis for TE. "The transaction method benefits the pharmacists when operating a pharmacy business" ( $\alpha = 0.85$ ) is an example item. Last but not least, the four-item scale created by Wijaya et al (2020) was modified to measure CS. "I am better benefited due of the transaction process' speed" ( $\alpha = 0.81$ ) is an example item.

**Figure 2.**

*research conceptual framework*



## Data Analysis

The data collection method was a cross-sectional survey approach. The study hypotheses were measured using a 7-point Likert scale questionnaire. Two parts are made up of the questionnaire: the first includes demographics information of the sample, the second had five elements. In the first section, there were questions about SMM that dealt with trends, entertainment, customization, engagement, and eWOM. The KM's indifferent quality, must-be quality, and one-dimensional quality concerns were included in the second section. Questions about VC, TE, and CS scales were included in parts three, four, and five.

The staff working in the PHI or managing pharmacies were asked to rate the impact of SMM applications on B2B outcomes, the KM, VC, TE, and CS levels and, as a result, record the marketing strategies that were rated as successful to attract B2B clients. Also a mediation analysis using SEM approach was conducted in this regard.

For descriptive analysis and instrument validity, the researcher is using SPSS 25. The SEM analysis is being performed through SmartPLS 3.3.3. The theoretical model is a reflective-formative model, and the study uses to construct and discriminant validity to establish a significant model through SmartPLS 3.3.3.

### **Summary**

This section has covered the research methods used in the study. The quantitative and descriptive study design was selected to meet study objectives because it was thought to be the most appropriate for answering the study's research questions and accomplishing the study's aims. Also, both primary and secondary sources were used to conduct this research work. Secondary data was gathered through research, and primary data was also gathered using survey questionnaires. Industry-specific characteristics were studied in relation to SM usage intent. Patients, pharmacists, and doctors were polled via questionnaires on their SM usage and experiences.

The strategies and research methods of the practical approach can be classified. Secondary data was compiled through a survey, independent study, and analysis (questionnaire). For the study project to have a firm theoretical foundation, it was required to look into relevant past investigations. This strategy relied on a comprehensive literature examination of scholarly works such as books, journals, and papers to unearth the relevant secondary data. Further quantitative data was gathered through the use of survey questions. This has shown to be of great importance and benefit to the investigation. There were pharmacists involved in the survey. Therefore, in order to give a thorough analysis of the research problem, this study gradually and uniformly employed quantitative method.

## **CHAPTER IV**

### **RESULTS**

In this section, we'll look at the steps taken in an exploratory factor analysis study and the findings from the primary data gathered. A comparison of the results to the hypotheses is offered for further examination. This chapter is divided into four parts: establishing the reliability of the study, analyzing the results of the research, interpreting the results of multiple regression, and doing a canonical factor analysis.

#### **Reality Validity**

Reliability is also used and conducted in this study which this measure aims to assess how the measurements including in the model is reliable while measuring the study variables. The most common measure used in this test is the internal reliability which measured by the value called Cronbach Alpha (Vaske, Beaman, & Sponarski, 2017). This value ensure a good reliable questionnaire coefficient before running the key analysis and check the validity of the items before distribute the questionnaire to the sample. The reliability of the study instrument is often estimated by using Cronbach's alpha. The value of reliability coefficients of items is ranged between 0 to 1. There are different debates that discuss this test and show the value of reliability coefficients received in any study. However, according to Sekaran and Bougie (2019) the higher of coefficient value the higher degree of reliability. In addition, Hair et al (2009) suggest the minimum acceptable of this test is 0.70 and above, and the Cronbach's alpha value up of 0.6 would be good reliability

Validity and dependability are the two crucial factors that this research must value. The legitimacy of the research must be supported with regard to the dissemination of trustworthy, useful, and broadly applicable facts and information (Baumgarten, 2013). In this study, singular based reality was employed to evaluate

the reliability and validity of the questionnaires that were used to collect quantitative data (Cargan, 2007).

The study scales were modified from earlier studies. Ma et al 18-item . 's scale was used to gauge the effectiveness of SMM. "Is it possible to look for tailored information on Pharma firms on SM platforms?" is an example question. ( $\alpha = 0.76$ ). Three components of a thirty-eight-item scale modified from Chen et al. were used to score the KM questions. "Service personnel on social pages (i.e., order and delivery personnel) have professional training and a specific level of expertise of drugs" ( $\alpha = 0.78$ ) is an example item. A five-item scale created by Wijaya et al. served as the basis for the value generation model. "There is a new customer value created in terms of the transaction" is an example item with a value of 0.80. The three-item scale created by Wijaya et al. served as the basis for TE. "The transaction method benefits the pharmacists when operating a pharmacy business" ( $\alpha = 0.85$ ) is an example item. Last but not least, the four-item scale created by Wijaya et al. was modified to measure CS. "I am better benefited due of the transaction process' speed" ( $\alpha = 0.81$ ) is an example item.

### Demographic Information

573 Jordanian pharmacy employees in all completed the survey. The reported response rate was 81%. In addition, table 1 and figure 3 show 65% of responders were female and 35% were male.

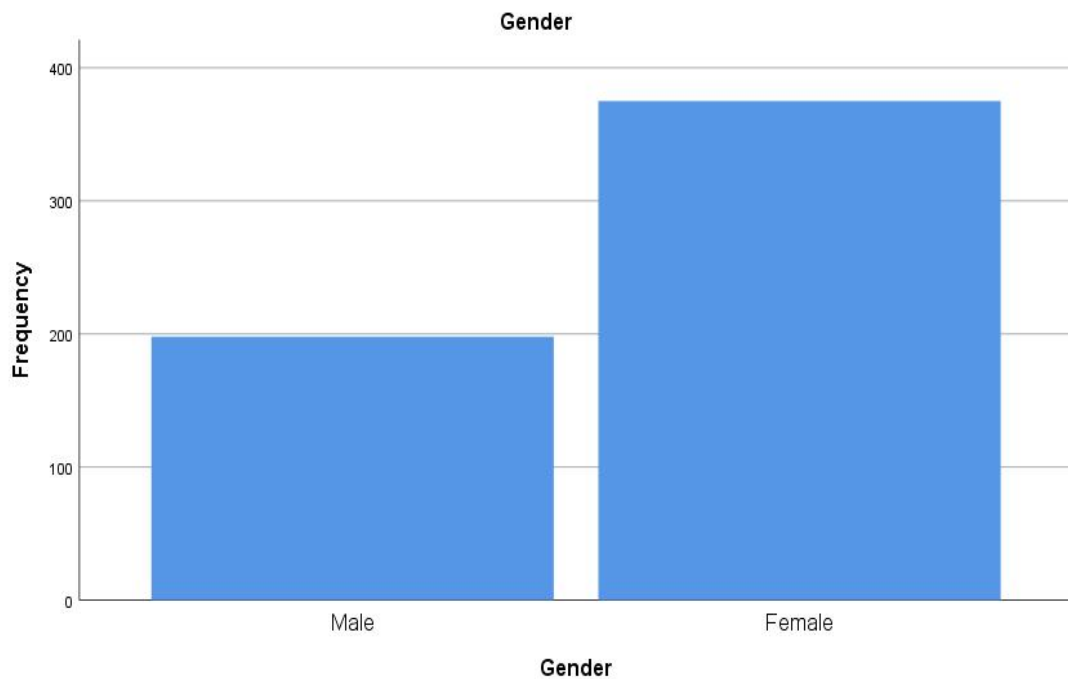
**Table 1.**

Distribution of the sample according to gender

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	198	34.6	34.6	34.6
	Female	375	65.4	65.4	100.0
	Total	573	100.0	100.0	

**Figure 3.**

*Distribution of the sample according to gender*



In addition , the table 2 and figure 4 shows 73% of the participants were between the ages of 25 and 30, 2.1% were older than 40, 11.2% were between the ages of 15 and 24, and 13.6% were between the ages of 31 and 40.

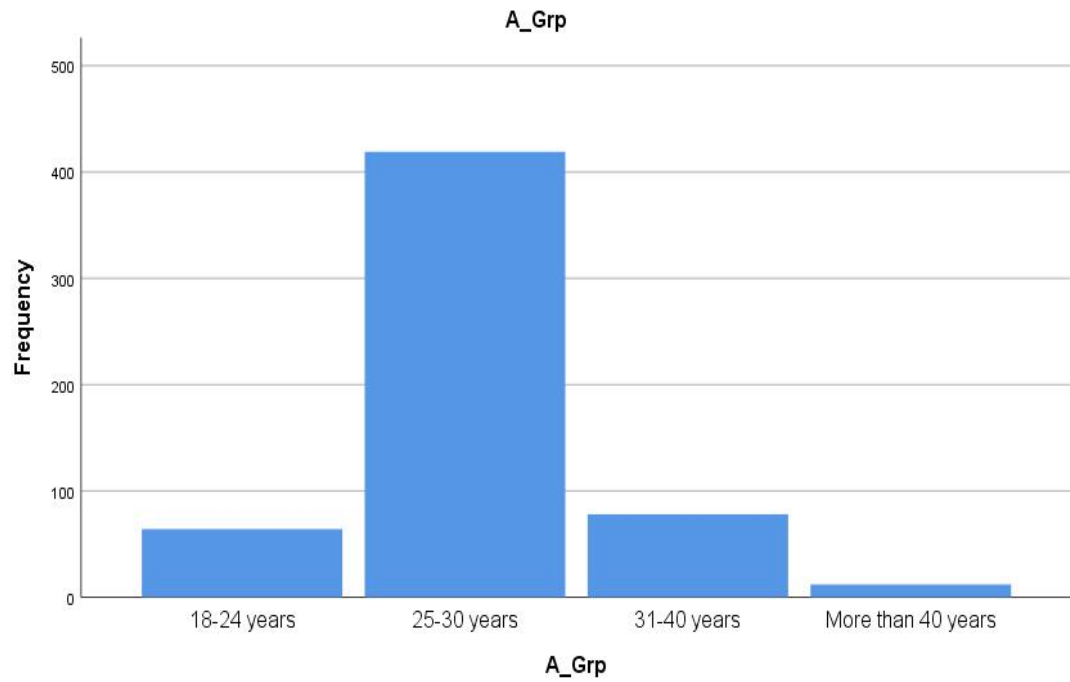
**Table 2.**

*Sample distribution according to age*

		A_Grp			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-24 years	64	11.2	11.2	11.2
	25-30 years	419	73.1	73.1	84.3
	31-40 years	78	13.6	13.6	97.9
	More than 40 years	12	2.1	2.1	100.0
	Total	573	100.0	100.0	

**Figure 4.**

*Sample distribution according to age*



In addition , table 3 and figure 5 shows All of the data has been contributed by pharmacists.

**Table 3.**

*Distribution of the sample by profession*

**A\_Pharm**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	1	.2	.2	.2
	Yes	572	99.8	99.8	100.0
	Total	573	100.0	100.0	

**Figure 5.**

*Distribution of the sample by profession*

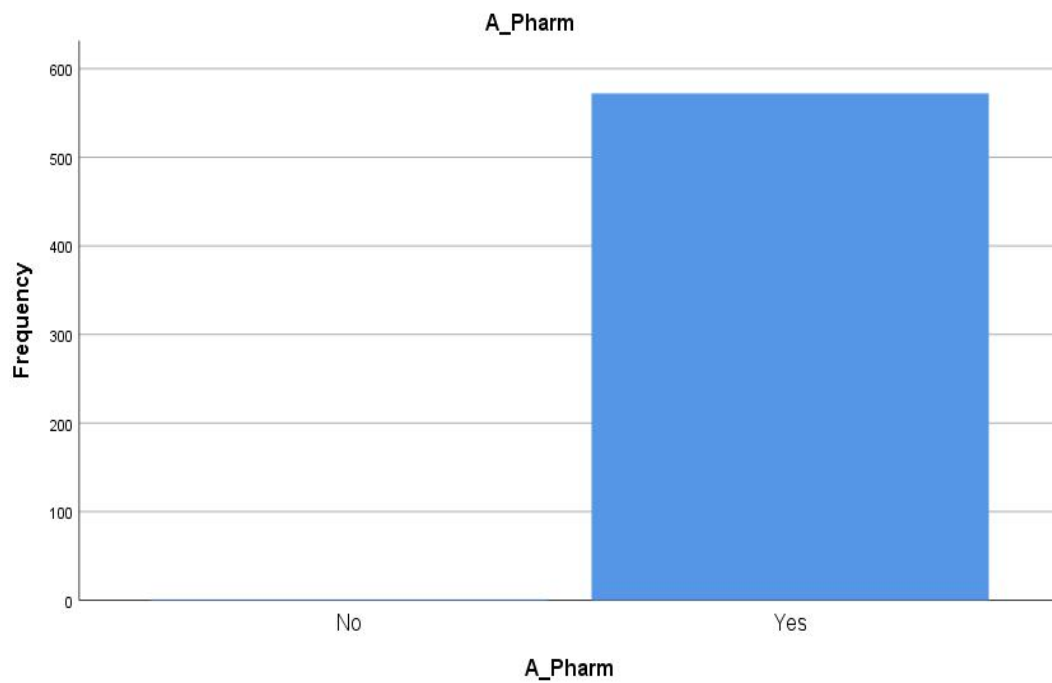
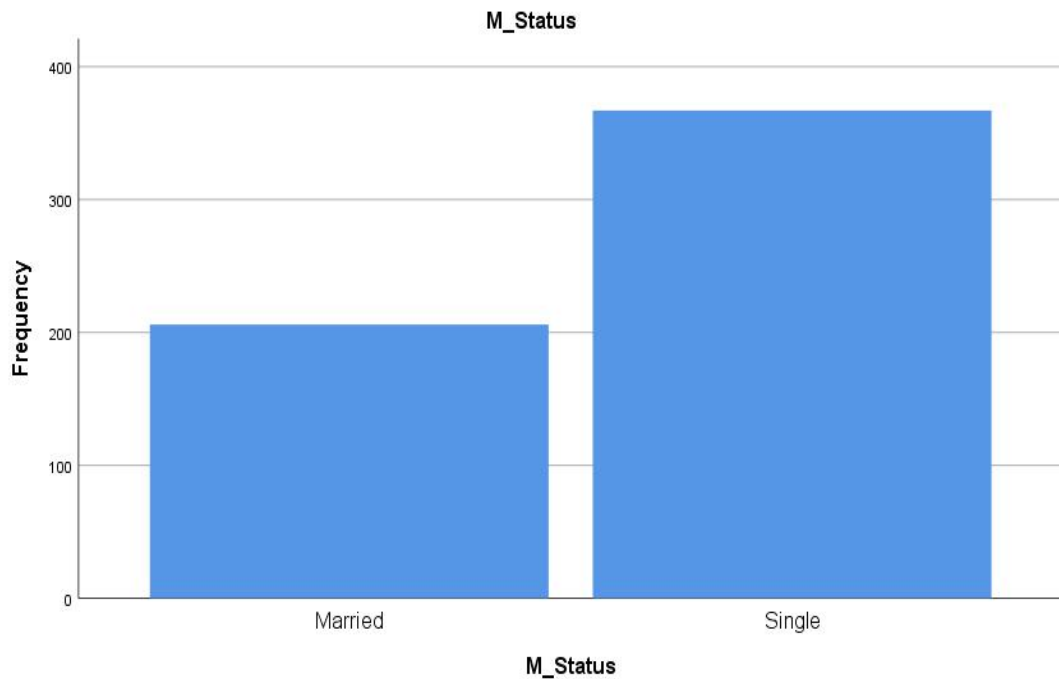


Table 5 and figure 6 show Compared to married respondents (36%), a higher percentage of respondents (64%) were single.

**Table 4.**

*Distribution of the sample according to marital status*

	M_Status			
	Frequency	Percent	Valid Percent	Cumulative Percent
Married	206	36.0	36.0	36.0
Single	367	64.0	64.0	100.0
Total	573	100.0	100.0	

**Figure 6.***Distribution of the sample according to marital status*

In addition, the table 6 and figure 7 shows 0.2% of respondents made less than 100 Dinar per month, 63.5% made between 500 and 1000, 16.8% made between 1000 and 2000, and 2.6% made more than 2000 Dinar per month. Many respondents reported having an annual income between 500 and 1000 Jordanian Dinars.

**Table 5.***Distribution of the sample according to income level*

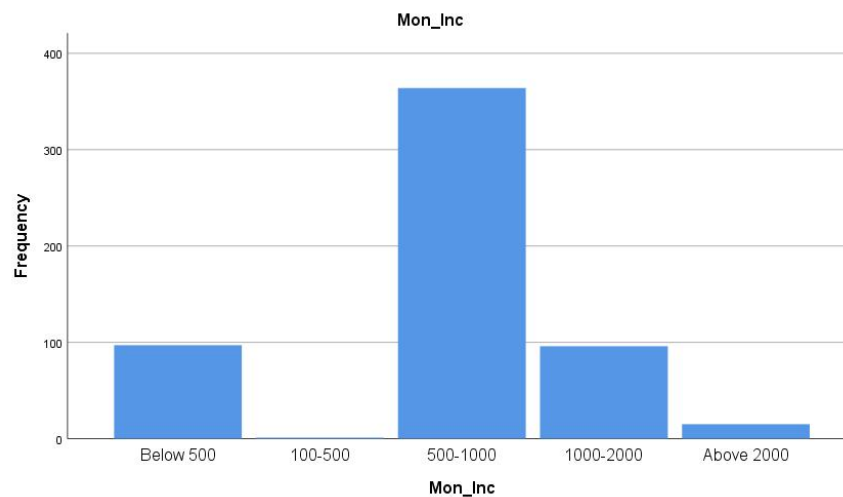
		Mon_Inc			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 500	97	16.9	16.9	16.9
	100-500	1	.2	.2	17.1
	500-1000	364	63.5	63.5	80.6
	1000-2000	96	16.8	16.8	97.4



Above 2000	15	2.6	2.6	100.0
Total	573	100.0	100.0	

**Figure 7.**

*Distribution of the sample according to income level*



### Descriptive Statistics

Table 6 displays the correlations, means, and standard deviations for the study's variables. The KM ( $r = 0.80$ ,  $p 0.01$ ), VC ( $r = 0.33$ ,  $p 0.01$ ), TE ( $r = 0.25$ ,  $p 0.01$ ), and customer happiness ( $r = 0.39$ ,  $p 0.01$ ) were all favorably connected with SMM. Customer happiness ( $r = 0.08$ ,  $p 0.01$ ), VC ( $r = 0.19$ ,  $p 0.01$ ), TE ( $r = 0.14$ ,  $p 0.01$ ), and SMM ( $r = 0.48$ ,  $p 0.01$ ) all showed favorable correlations with the KM. SMM ( $r = 0.34$ ,  $p 0.01$ ), the KM ( $r = 0.19$ ,  $p 0.01$ ), TE ( $r = 0.41$ ,  $p 0.01$ ), and customer happiness ( $r = 0.31$ ,  $p 0.01$ ) were all positively connected with value generation. The KM ( $r = 0.14$ ,  $p 0.01$ ), VC ( $r = 0.41$ ,  $p 0.01$ ), SMM ( $r = 0.25$ ,  $p 0.01$ ), and customer happiness ( $r = 0.22$ ,  $p 0.01$ ) all showed favorable correlations with TE. The KM ( $r = 0.08$ ,  $p 0.01$ ), VC ( $r = 0.31$ ,  $p 0.01$ ), SMM ( $r = 0.39$ ,  $p 0.01$ ), and TE ( $r = 0.22$ ,  $p 0.01$ ) all had favorable correlations with CS.

**Table 6.***Correlations, means, standard deviations.*

Scale	1	2	3	4	5	M	SD
SMM	1	0.80 **	0.337 **	0.249 **	0.386 **	3.21	0.44
KM	0.480 **	1	0.185 **	0.137 **	0.082 *	3.26	0.34
VC	0.337 **	0.185 **	1	0.413 **	0.312 **	3.49	0.71
TE	0.249 **	0.137 **	0.413 **	1	0.215 **	3.70	0.78
CS	0.386 **	0.082 *	0.312 **	0.215 **	1	2.54	0.70

\*  $p < 0.05$ , \*\*  $p < 0.01$  (Two-tailed test), N = 573.

The study conducted descriptive statistics of the all variables with their respective items. The results are given in this section which include the most common outputs in this analysis namely mean and standard deviation. The mean score of the variable of social media activities SMM with all dimensions and items are given in the respective table which show how the items dispersion about the central mean of the responses. Although there is no good or bad of mean or standard deviation, but the studies conducted this analysis to present the responses of the items are not far away about their center. And this only provide the consistency about these responses. The results showed all items of these variables were ranged from (2.16 - 3.61) nearly close to each other with no worry about their dispersions. And the standard deviation also found no violation of extreme deviation of the mean score. The highest mean score was for the item coded Ent3 (3.61) with a standard deviation (0.85), meanwhile the lowest mean score was for the item coded Inter3 (2.16) with a standard deviation (1.08). And the mean score of SMM dimensions ranged between (2.94 - 3.45) with a standard deviation range between (0.64 – 0.92).

**Table 7.***SMM dimension and items means & standard deviations.*

	Mean	Std. Deviation
	Statistic	Statistic
Ent1	2.49	0.940

Ent2	3.10	0.949
Ent3	3.61	0.851
Ent4	3.29	0.811
Cust1	3.22	0.904
Cust2	3.42	0.846
Cust3	3.13	0.858
Cust4	3.23	1.052
Inter1	3.17	1.119
Inter2	3.36	1.037
Inter3	2.16	1.088
Inter4	3.10	1.066
Trend1	3.39	1.053
Trend2	3.52	1.023
EWoM1	3.45	1.024
EWoM2	3.48	1.054
EWoM3	3.40	1.020
Entertainment	3.12	0.65
Custimization	3.24	0.66
Interaction	2.94	0.64
Trendiness	3.45	0.92
EWoM	3.44	0.78
SMM	3.21	0.44

The results of descriptive statistics including mean and standard deviation of the variable of Kano Model KM with all items are given in the respective table which show how the items dispersion about the central mean of the responses. The results showed all items of this variable were ranged from (2.02 - 4.07). And the standard deviation also found no violation of extreme deviation of the mean score. The highest mean score was for the item coded Ind\_Q2 (4.07) with a standard deviation (0.82), meanwhile the lowest mean score was for the item coded Must\_Q12 (2.02) with a standard deviation (0.98). And the mean score of KM dimensions ranged between (3.18 - 3.49) with a standard deviation ranged between (0.38 – 0.92).

**Table 8.**

*KM dimension and items means & standard deviations*

Ind_Q1	3.44	.892
Ind_Q2	4.07	.826
Ind_Q3	3.57	.901

Ind_Q4	3.38	.987
Ind_Q5	3.76	.916
Ind_Q6	3.76	.846
Ind_Q7	3.73	.862
Ind_Q8	2.49	.850
Ind_Q9	2.37	.802
Ind_Q10	2.61	.822
Must_Q1	2.58	.877
Must_Q2	2.57	.930
Must_Q3	3.14	.978
Must_Q4	3.58	.808
Must_Q5	3.28	.767
Must_Q6	3.23	.837
Must_Q7	3.38	.852
Must_Q8	3.13	.818
Must_Q9	3.21	1.053
Must_Q10	3.08	1.053
Must_Q11	3.31	1.039
Must_Q12	2.02	.982
Must_Q13	3.13	1.013
Must_Q14	3.18	.974
Must_Q15	3.31	1.026
Must_Q16	3.50	1.055
Must_Q17	3.26	1.032
Must_Q18	3.31	1.049
Must_Q19	3.47	1.009
Must_Q20	3.21	.924
Must_Q21	3.84	.952
Must_Q22	3.35	.949
Must_Q23	3.09	1.040
Must_Q24	3.32	1.040
One_Q1	3.50	1.015
One_Q2	3.64	1.005
One_Q3	3.42	1.022
One_Q4	3.43	1.075
Indifferent	3.31	0.52
Must Be	3.18	0.38
One Dimenstion	3.49	0.92
KM	3.26	0.34

The results of descriptive statistics including mean and standard deviation o the variable of value creation with all items are given in the respective table which show how the items dispersion about the central mean of the resposnes. The results showed all items of this variable were ranged from (3.29 - 4.01). And the standard deviation also found no violation of extreme deviation of the mean score. The highest mean score was for the item coded Val\_C3 (4.01) with a standard deviation (0.89), meanwhile the lowest mean score was for the item coded Val\_C5 (3.29) with a standard deviation (0.97). And the mean score of value creation variable was (3.49) with a standard deviation (0.34).

**Table 9.**

*Value creation items means & standard deviations*

Val_C1	3.37	0.995
Val_C2	3.32	0.946
Val_C3	4.01	0.892
Val_C4	3.47	0.958
Val_C5	3.29	0.973
VC	3.49	0.71

The results of descriptive statistics including mean and standard deviation o the variable of transaction efficiency with all items are given in the respective table. The results showed all items of this variable were ranged from (3.67 - 3.76). And the standard deviation also found no violation of extreme deviation of the mean score. The highest mean score was for the item coded Tran\_E2 (3.67) with a standard deviation (0.86), meanwhile the lowest mean score was for the item coded Tran\_E1 (3.67) with a standard deviation (0.97). And the mean score of value creation variable was (3.70) with a standard deviation (0.78).

**Table 10.**

*transaction efficiency items means & standard deviations*

Tran_E1	3.67	0.976
Tran_E2	3.76	0.860
Tran_E3	3.69	0.869
TE	3.70	0.78

The results of descriptive statistics including mean and standard deviation of the variable of business customer satisfaction with all items are given in the respective table. The results showed all items of this variable were ranged from (2.35 - 2.68). And the standard deviation also found no violation of extreme deviation of the mean score. The highest mean score was for the item coded CS4 (2.68) with a standard deviation (0.91), meanwhile the lowest mean score was for the item coded CS1 (2.35) with a standard deviation (0.86). And the mean score of business customer satisfaction variable was (2.54) with a standard deviation (0.70).

**Table 11.**

*business customer satisfaction items means & standard deviations*

CS1	2.47	0.850
CS2	2.35	0.867
CS3	2.64	0.898
CS4	2.68	0.911
CSA	2.53	0.704
CS	2.54	0.70

The study conducted normal distribution of the data of the all variables with their respective items. The results are given in this section which include the most common outputs in this analysis namely skewness and kurtosis. The results of all study variables with all dimensions and items are given in the respective table which show how the items and dimensions normally distributed with no large dispersion of the responses. Although the acceptable values of this analysis is not agreed and has several debates, the current study used the assumptions stated by (Brown and Robinson, 2002) of the acceptable values of the skewness and kurtosis between  $-2$  and  $+2$  when using the approach of SEM. The results showed all items were ranged from (0.013 - 0.86) of the skewness, and (0.019 - 0.87) of the kurtosis. Accordingly, based on this result the study concluded normal distributed of the data used in this analysis with no extreme dispersion of the data and this confirmed parametric analysis procedures rather non-parametric analysis.

**Table 12.**

*descriptive statistics of normality*

	Skewness	Kurtosis
--	----------	----------

	Statistic	Std. Error	Statistic	Std. Error
Ent1	.569	.102	.053	.204
Ent2	.034	.102	-.213	.204
Ent3	-.676	.102	.581	.204
Ent4	-.165	.102	.362	.204
Cust1	-.055	.102	-.257	.204
Cust2	-.465	.102	.109	.204
Cust3	.045	.102	.096	.204
Cust4	-.115	.102	-.638	.204
Inter1	-.090	.102	-.722	.204
Inter2	-.216	.102	-.473	.204
Inter3	.642	.102	-.873	.204
Inter4	-.057	.102	-.511	.204
Trend1	-.157	.102	-.551	.204
Trend2	-.290	.102	-.483	.204
EWoM1	-.194	.102	-.400	.204
EWoM2	-.271	.102	-.433	.204
EWoM3	-.406	.102	-.411	.204
SMA	-.105	.102	-.048	.204
Ind_Q1	-.156	.102	-.062	.204
Ind_Q2	-.855	.102	.857	.204
Ind_Q3	-.211	.102	.048	.204
Ind_Q4	-.135	.102	-.333	.204
Ind_Q5	-.555	.102	.113	.204
Ind_Q6	-.517	.102	.373	.204
Ind_Q7	-.385	.102	.033	.204
Ind_Q8	.415	.102	.069	.204
Ind_Q9	.515	.102	.223	.204
Ind_Q10	.217	.102	-.305	.204
Ind_QA	-.037	.102	.071	.204
Must_Q1	.308	.102	-.179	.204
Must_Q2	.438	.102	-.206	.204
Must_Q3	-.140	.102	-.526	.204
Must_Q4	-.548	.102	.508	.204
Must_Q5	-.016	.102	.327	.204
Must_Q6	-.074	.102	-.247	.204
Must_Q7	-.207	.102	-.219	.204
Must_Q8	-.203	.102	.218	.204
Must_Q9	-.202	.102	-.554	.204
Must_Q10	-.060	.102	-.530	.204
Must_Q11	-.252	.102	-.395	.204
Must_Q12	.869	.102	-.177	.204

Must_Q13	-.072	.102	-.342	.204
Must_Q14	-.074	.102	-.283	.204
Must_Q15	-.223	.102	-.433	.204
Must_Q16	-.378	.102	-.486	.204
Must_Q17	-.074	.102	-.415	.204
Must_Q18	-.144	.102	-.502	.204
Must_Q19	-.386	.102	-.312	.204
Must_Q20	.002	.102	-.154	.204
Must_Q21	-.757	.102	.358	.204
Must_Q22	-.094	.102	-.264	.204
Must_Q23	.002	.102	-.452	.204
Must_Q24	-.135	.102	-.613	.204
One_Q1	-.224	.102	-.461	.204
One_Q2	-.477	.102	-.252	.204
One_Q3	-.115	.102	-.478	.204
One_Q4	-.262	.102	-.480	.204
kanA	-.158	.102	.100	.204
Val_C1	-.252	.102	-.453	.204
Val_C2	-.133	.102	-.284	.204
Val_C3	-.812	.102	.418	.204
Val_C4	-.184	.102	-.212	.204
Val_C5	-.004	.102	-.440	.204
Val_CA	-.242	.102	.086	.204
Tran_E1	-.456	.102	-.167	.204
Tran_E2	-.526	.102	.372	.204
Tran_E3	-.383	.102	-.019	.204
Tran_EA	-.409	.102	.408	.204
CS1	.334	.102	.246	.204
CS2	.687	.102	.641	.204
CS3	.316	.102	-.254	.204
CS4	.354	.102	-.338	.204
CSA	.601	.102	.792	.204
Entertainment	-.013	.102	.146	.204
Custimization	-.211	.102	.154	.204
Interaction	-.099	.102	-.254	.204
Trendiness	-.226	.102	-.354	.204
EWoM	-.296	.102	-.103	.204
SMM	-.386	.102	-.213	.204
Indifferent	-.037	.102	.071	.204
Must Be	-.166	.102	.048	.204
One Dimenstion	-.302	.102	-.281	.204
KM	-.226	.102	-.153	.204



Value creation	-.242	.102	.086	.204
Customer satisfaction	.601	.102	.792	.204

### Multiple Regression Interpretations

The study has conducted the regression analysis as a statistical technique in order to evaluate the typical connection between both dependent and independent variables (Arguinis, 2004). A "dependent variable" is one that is affected by external causes, whereas the "independent variables" are ones that can't be controlled by the "dependent variable." The effect of SM on business-to-business (B2B) firms in the PHI is the dependent variable, with performance expectations, effort expectations, social influence, industrial support for credibility, trust, and other characteristics as the independent factors. The goal is to dissect the relationship between independent and dependent factors (Seber and Lee, 2003). The following are the findings from the study, which made use of the Statistical Package for Social Sciences SPSS.

The study concerns with displaying the results of the linear overlap between the dimensions of the independent variable, which aims to explore the extent to which these dimensions overlap with each other and their ability to measure different and not similar factor. To test the multiple linear relationship between the independent variables of the study, the current study used one of the important statistical methods that are recommended in order to verify the extent of linear overlap between the independent variables to ensure the difference of each concept from the other. The variance inflation factor VIF and tolerance of the variables of this study were extracted, as the results showed that the tolerance of the variables was less than (1), while the values and results of the VIF less than (5.0). , which indicates that there is no high correlation between the independent variables (Alin, 2010).

### Table 13.

#### *Multicollinerity analysis*

Variable	Tolerance	VIF
Entertainment	0.469	2.134
Custimization	0.475	2.107
Interaction	0.785	1.274
Trendiness	0.478	2.091
EWoM	0.434	2.302
SMM	0.334	2.442
Indifferent	0.369	2.707
Must Be	0.674	1.484

One dimension	0.534	1.290
KM	0.333	3.004
Value creation	0.627	1.595

Dependent Variable: customer satisfaction

### Confirmatory Factor Analysis

The research data were examined using SPSS, version 25 of. Furthermore, structural equation modeling was carried out using exploratory factor analysis (EFA) on the five major variables to validate the construct validity of the variables. Common method bias CMB may provide a challenge in research that use a single survey questionnaire to collect data on both the dependent and independent variables (Kock, N.; Lynn, G.S.). A single factor, which contained all research variables, was extracted using EFA to perform Harman's single-factor test.

Verifying Factor Analysis through the Standardized Root Mean Squared Residual (SRMR) used in this analysis to assess model fit in Structural Equation and Normed Fit Index (NFI) (Kock, N.; Lynn, G.S.). The findings revealed a satisfactory match for the study fit model (SRMR = 0.06, NFI = 0.91). The index of SRMR is accepted if ranges of 0 to 0.08. The elements of the SRMR formulation are the mean square errors of the estimated and observed correlation. The value of NFI ranges from 0 to 1, the closer to 1 the greater fit. The result that are the chosen model's discriminant validity were satisfactory. The factor loadings FL of the study items were also significant  $> 0.50$  ( $p > 0.01$ ), and both of average variance extracted AVE and composite reliability CR to assess the convergent validity requirements were adequately met ( $>0.60$  and  $0.70$ ) respectively.

**Table 14.**

*measurement model results*

Constructs	Items	FL	CR	AVE
Entertainment	Ent1	0.81	0.80	0.69
	Ent2	0.77		
	Ent3	0.78		
	Ent4	0.75		
Custimization	Cust1	0.87		

	Cust2	0.81	0.79	0.66
	Cust3	0.86		
	Cust4	0.73		
Interaction	Inter1	0.82	0.79	0.63
	Inter2	0.71		
	Inter3	0.80		
	Inter4	0.74		
Trendiness	Trend1	0.79	0.81	0.68
	Trend2	0.83		
EWoM	EWoM1	0.82	0.83	0.70
	EWoM2	0.81		
	EWoM3	0.86		
Indifferent	Ind_Q1	0.89	0.86	0.71
	Ind_Q2	0.87		
	Ind_Q3	0.87		
	Ind_Q4	0.82		
	Ind_Q5	0.76		
	Ind_Q6	0.88		
	Ind_Q7	0.82		
	Ind_Q8	0.80		
	Ind_Q9	0.82		
	Ind_Q10	0.73		
	Ind_QA	0.79		
Must Be	Must_Q1	0.79	0.82	0.62
	Must_Q2	0.78		
	Must_Q3	0.71		
	Must_Q4	0.66		
	Must_Q5	0.65		
	Must_Q6	0.64		
	Must_Q7	0.71		
	Must_Q8	0.72		
	Must_Q9	0.64		
	Must_Q10	0.89		
	Must_Q11	0.62		
	Must_Q12	0.75		
	Must_Q13	0.73		
	Must_Q14	0.71		
	Must_Q15	0.70		
	Must_Q16	0.70		
	Must_Q17	0.79		
	Must_Q18	0.81		
	Must_Q19	0.80		

	Must_Q20	0.78		
	Must_Q21	0.77		
	Must_Q22	0.71		
	Must_Q23	0.80		
	Must_Q24	0.73		
Value creation	Val_C1	0.84	0.83	0.70
	Val_C2	0.85		
	Val_C3	0.91		
	Val_C4	0.88		
	Val_C5	0.87		
Transaction efficiency	Tran_E1	0.84	0.79	0.64
	Tran_E2	0.82		
	Tran_E3	0.80		
	Tran_EA	0.79		
Customer satisfaction	CS1	0.71	0.78	0.66
	CS2	0.70		
	CS3	0.80		
	CS4	0.81		
	CSA	0.82		

## Hypotheses Testing

The study hypothesized a model includes various important research hypotheses needed to be tests. The hypothesis stated “SMM Activities affect Business CS in the PHI Kano Model (KM)” is the first current study hypothesis which aims to be analyzed using the regression analysis through SPSS. The results of this analysis are given in the following tables which present the key outputs of corresponding t-value and p-value as well the standardized beta coefficient. The findings of this hypothesis showed a significant and positive effect ( $\beta = 0.605$ ,  $t = 9.99$ ,  $p < 0.05$ ) of SMM activities to business CS in the PHI Kano Model. Thus, the this study hypothesis is accepted.

**Table 15.**

*Hypotheses Testing H1*

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42,258	1	42,258	99,963	,000 <sup>b</sup>
	Residual	241,383	571	,423		

Total	283,642	572			
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a. Dependent Variable: CSA

b. Predictors: (Constant), SMA

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,597	,196		3,051	,002
	SMA	,605	,060	,386	9,998	,000

The study hypothesis concerns with examining the effect of SMM activities on KM in the Jordanian PHI. So, the study has a sub-hypothesis states as “SMM Activities Affect KM in the Jordanian PHI” that has been analyzed using the regression analysis through SPSS. The results of this analysis are given in the following tables which present the key outputs of corresponding t-value and p-value as well the standardized beta coefficient. The findings of this hypothesis showed a significant and positive effect ( $\beta = 3.66$ ,  $t = 13.08$ ,  $p < 0.05$ ). Thus, this hypothesis is accepted.

**Table 16.**

*Hypotheses Testing H2A*

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15,454	1	15,454	171,089	,000 <sup>b</sup>
	Residual	51,577	571	,090		
	Total	67,031	572			

a. Dependent Variable: kanA

b. Predictors: (Constant), SMA

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,083	,090		23,021	,000
	SMA	,366	,028	,480	13,080	,000

a. Dependent Variable: kanA

The study hypothesis concerns with examining the effect of SMM activities on KM in the Jordanian PHI. So, the study has a sub-hypothesis states as “Kano Affects CS in the Jordanian PHI” that has been analyzed using the regression analysis through SPSS. The results of this analysis are given in the following tables which present the key outputs of corresponding t-value and p-value as well the standardized beta coefficient. The findings of this hypothesis showed a significant and positive effect ( $\beta = 0.169$ ,  $t = 1.97$ ,  $p > 0.05$ ). Thus, this hypothesis is accepted.

**Table 17.***Hypotheses Testing H2B***ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,913	1	1,913	3,876	,049 <sup>b</sup>
	Residual	281,729	571	,493		
	Total	283,642	572			

a. Dependent Variable: CSA

b. Predictors: (Constant), kanA

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,986	,281		7,071	,000
	kanA	,169	,086	,082	1,969	,049

a. Dependent Variable: CSA

The study hypothesis concerns with examining the KM is related to the VC for B2B Customers. So, the study has a sub-hypothesis states as “KM is Related to the VC for B2B Customers” that has been analyzed using the regression analysis through SPSS. The results of this analysis are given in the following tables which present the key outputs of corresponding t-value and p-value as well the standardized beta coefficient. The findings of this hypothesis showed a significant and positive effect ( $\beta = 0.38$ ,  $t = 4.49$ ,  $p < 0.05$ ). Thus, this hypothesis is accepted.

**Table 18.**

*Hypotheses Testing H3A*

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9,903	1	9,903	20,195	,000 <sup>b</sup>
	Residual	279,998	571	,490		
	Total	289,901	572			

a. Dependent Variable: Val\_CA

b. Predictors: (Constant), kanA

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,238	,280		7,992	,000
	kanA	,384	,086	,185	4,494	,000

a. Dependent Variable: Val\_CA

The study hypothesis concerns with examining the mediation effect of KM between the SMM Activities and VCs in the Jordanian PHI. The study has a sub-hypothesis states as “KM Mediates Between the SMM Activities and VCs in the Jordanian PHI” that has been analyzed using the regression analysis through SmartPLS3. The mediation occurs when a particular mediator factor intervenes

between two related variables. Testing the mediation effect of a variable in a model requires run sets of series of analysis. The first step relates to examine the significance of the indirect effect through the mediator. If this effect is not significant means no mediating effect (Hair et al., 2016). The mediating effect of SMM Activities supposes firstly a positive and significant relationship with VCs ( $p < 0.05$ ). Consequently, the analysis followed the approach of mediation analysis and test the hypothesis of the mediating effect. Accordingly, the mediating effect confirms that the indirect effect should be significant and the confidence interval should have no zero. The study applied the approach of bootstrapping through SmartPLS3 software in order to calculate the specific indirect effects. The results of this analysis found the specific indirect effects of KM is significant and the confidence intervals does not contain zero. Also, the specific indirect effect of SMM Activities is significant at  $p < 0.05$ . Thus, KM mediates relationship between between the SMM Activities and VCs in the Jordanian PHI. Thus, H3B is supported.

The study also used the formula of variance accounted for (VAF) to measure the strength of mediation as follow  $VAF = \text{indirect effect} / (\text{total effect (direct + indirect)})$   $VAF = (0.546 \times 0.606) / (\text{total effect} = (0.546 \times 0.606) + (0.331))$   $VAF = 0.330 / 0.661 = 0.499$ . The value of VAF ranged between 0.20 and 0.80 which indicates a partial mediation (Hair et al., 2016). Since this study states a mediator of (KM) has been hypothesized between SMM and VCs, the significant indirect effect indicates that KM mediates the relationship between SMM and VCs (Hypothesis H3B is supported).

**Table 19.**

*Hypotheses Testing H3B*

	Original sample	Sample mean	Standard deviation	T-statistics	P-value	Confidence interval	
						2.5 %	97.5 %
	0.331	0.337	0.027	12.262	0.000	0.268	0.379
	Construct		Equation 1 KM	Equation 2 VCs	Equation 3		
Direct	Predictor	SMM	$\beta$ (0.546)				



effects			t-value (17.628)				
		KM		$\beta$ (0.606) t-value (19.166)			
Indirect effect	SMM→KM→ VCs				$\beta$ (0.331) t-value (12.262)		

The study hypothesis concerns with examining the effect of VC on B2B CS in the Jordanian PHI. So, the study hypothesized this as “VC has a Significant impact on B2B CS in the Jordanian PHI” that has been analyzed using the regression analysis through SPSS. The results of this analysis are given in the following tables which present the key outputs of corresponding t-value and p-value as well the standardized beta coefficient. The findings of this hypothesis showed a significant and positive effect ( $\beta = 0.309$ ,  $t = 7.85$ ,  $p < 0.05$ ). Thus, this hypothesis is accepted.

**Table 20.**

*Hypotheses Testing H4*

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27,647	1	27,647	61,666	,000 <sup>b</sup>
	Residual	255,995	571	,448		
	Total	283,642	572			

a. Dependent Variable: CSA

b. Predictors: (Constant), Val\_CA

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,458	,140		10,414	,000
	Val_CA	,309	,039	,312	7,853	,000

a. Dependent Variable: CSA

The study hypothesis concerns with examining the mediation effect of VC between the KM and CS in the Jordanian PHI. The study has a sub-hypothesis states as “VC Mediates Between the KM and CS in the Jordanian PHI” that has been analyzed using the regression analysis through SmartPLS3. As stated previously the mediation occurs when a particular mediator factor intervenes between two related variables. It should firstly examine the significance of the indirect effect through the mediator. If this effect is not significant indicates no mediating effect (Hair et al., 2016). The mediating effect of VC supposes firstly a positive and significant relationship with CS ( $p < 0.05$ ). The study applied the approach of bootstrapping through SmartPLS3 software to calculate the specific indirect effects. The results revealed the specific indirect effects of VC is significant and the confidence intervals does not contain zero. Also, the specific indirect effect of KM is significant at  $p < 0.05$ . Thus, VC mediates relationship between between the KM and CS in the Jordanian PHI. Thus, H5A is supported.

VAF is also used to measure the strength of mediation.  $VAF = \text{indirect effect} / (\text{total effect (direct effect + indirect effect)})$   $VAF = (0.606 \times 0.267) / ((0.606 \times 0.267) + (0.162))$   $VAF = 0.161 / 0.323 = 0.498$ . The value of VAF ranged between 0.20 and 0.80 which indicates a partial mediation (Hair et al., 2016). Since this study states a mediator of (VC) has been hypothesized between the KM and CS, the significant indirect effect indicates that VC mediates the relationship between the KM and CS (Hypothesis H5A is supported).

**Table 21.**

*Hypotheses Testing H5A*

	Original sample	Sample mean	Standard deviation	T-statistics	P-value	Confidence interval	
						2.5%	97.5%
	0.162	0.165	0.027	6.062	0.000	0.108	0.211
	Construct		Equation1 VC	Equation2 CS	Equation3		
Direct effects	Predicator	KM	$\beta$ (0.606) t-value (19.166)				

		VC		$\beta$ (0.267) t-value (6.792)			
Indirect effect	KM $\rightarrow$ VC $\rightarrow$ CS				$\beta$ (0.162) t-value (6.062)		

The study hypothesis concerns with examining the mediation effect of VC between the SMM and CS in the Jordanian PHI. The study has a sub-hypothesis states as “VC Serially mediates between the SMM and CS in the Jordanian PHI” that has been analyzed using the regression analysis through SmartPLS3. The mediating effect of VC supposes firstly a positive and significant relationship with CS ( $p < 0.05$ ). The study applied the approach of bootstrapping through SmartPLS3 softwar to calculate the specific indirect effects. The results revealed the specific indirect effects of VC is significant and the confidence intervals does not contain zero. Also, the specific indirect effect of SMM is significant at  $p < 0.05$ . Thus, VC mediates relationship between between SMM and CS in the Jordanian PHI. Thus, H5B is supported.

VAF is also used to measure the strength of mediation.  $VAF = \text{indirect effect} / (\text{total effect (direct effect + indirect effect)})$   $VAF = (0.342 \times 0.422) / ((0.342 \times 0.422) + (0.121))$   $VAF = 0.144 / 0.265 = 0.289$ . The value of VAF ranged between 0.20 and 0.80 which indicates a partial mediation (Hair et al., 2016). Since this study states a mediator of (VC) has been hypothesized between SMM and CS, the significant indirect effect indicates that VC mediates the relationship between SMM and CS (Hypothesis H5B is supported).

**Table 22.**

*Hypotheses Testing H5B*

	Original sample	Sample mean	Standard deviation	T-statistics	P-value	Confidence interval	
						2.5%	97.5%
	0.132	0.172	0.038	4.062	0.000	0.103	0.198
	Construct		Equation1 VC	Equation2 CS	Equation3		
Direct effects	Predicator	SMM	$\beta$ (0.342) t-value (2.300)				

		VC		$\beta$ (0.422) t-value (3.342)			
Indirect effect	SMM $\rightarrow$ VC $\rightarrow$ CS				$\beta$ (0.121) t-value (3.543)		

The study hypothesis concerns with examining the effect of KM on TE of the Jordanian PHI. So, the study hypothesized this as “KM Affects the TE of the Pharmaceutical Firms in B2B Customers” that has been analyzed using the regression analysis through SPSS. The results of this analysis are given in the following tables which present the key outputs of corresponding t-value and p-value as well the standardized beta coefficient. The findings of this hypothesis showed a significant and positive effect ( $\beta = 0.317$ ,  $t = 3.31$ ,  $p < 0.05$ ). Thus, this hypothesis is accepted.

**Table 23.**

*Hypotheses Testing H6*

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6,734	1	6,734	10,979	,001 <sup>b</sup>
	Residual	350,231	571	,613		
	Total	356,966	572			

a. Dependent Variable: Tran\_EA

b. Predictors: (Constant), kanA

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,675	,313		8,542	,000
	kanA	,317	,096	,137	3,313	,001

a. Dependent Variable: Tran\_EA

The study hypothesis concerns with examining the effect of TE on B2B CS in the Jordanian PHI. So, the study hypothesized this as “TE Significantly Impacts the B2B CS in the Jordanian PHI” that has been analyzed using the regression analysis through SPSS. The results of this analysis are given in the following tables which present the key outputs of corresponding t-value and p-value as well the standardized beta coefficient. The findings of this hypothesis showed a significant and positive effect ( $\beta = 0.191$ ,  $t = 5.25$ ,  $p < 0.05$ ). Thus, this hypothesis is accepted.

**Table 24.**

*Hypotheses Testing H7*

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13,053	1	13,053	27,545	,000 <sup>b</sup>
	Residual	270,589	571	,474		
	Total	283,642	572			

a. Dependent Variable: CSA

b. Predictors: (Constant), Tran\_EA

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,827	,138		13,230	,000
	Tran_EA	,191	,036	,215	5,248	,000

a. Dependent Variable: CSA

The study hypothesis concerns with examining the mediation effect of KM between the SMM and TE in the Jordanian PHI. The study has a sub-hypothesis states as “KM Mediates Between the SMM Activities and TE in the Jordanian PHI” that has been analyzed using the regression analysis through SmartPLS3. The mediating effect of KM supposes firstly a positive and significant relationship with TE ( $p < 0.05$ ). The study applied the approach of bootstrapping through SmartPLS3 softwar

to calculate the specific indirect effects. The results revealed the specific indirect effects of KM is significant and the confidence intervals does not contain zero. Also, the specific indirect effect of TE is significant at  $p < 0.05$ . Thus, KM mediates relationship between between SMM and TE in the Jordanian PHI. Thus, H8 is supported.

VAF is also used to measure the strength of mediation.  $VAF = \text{indirect effect} / (\text{total effect (direct effect + indirect effect)})$   $VAF = (0.546 \times 0.314) / ((0.546 \times 0.314) + (0.171))$   $VAF = 0.171 / 0.342 = 0.500$ . The value of VAF ranged between 0.20 and 0.80 which indicates a partial mediation (Hair et al., 2016). Since this study states a mediator of (KM) has been hypothesized between SMM and TE, the significant indirect effect indicates that KM mediates the relationship between SMM and TE (Hypothesis H8 is supported).

**Table 25.**

*Hypotheses Testing H8*

	Original sample	Sample mean	Standard deviation	T-statistics	P-value	Confidence interval	
						2.5%	97.5%
	0.546	0.558	0.031	17.628	0.000	0.453	0.587
	Construct		Equation1 KM	Equation2 TE	Equation3		
Direct effects	Predicator	SMM	$\beta$ (0.546) t-value (17.628)				
		KM		$\beta$ (0.314) t-value (7.393)			
Indirect effect	SMM $\rightarrow$ KM $\rightarrow$ TE				$\beta$ (0.171) t-value (6.215)		

The study hypothesis concerns with examining the mediation effect of TE between KM and CS in the Jordanian PHI. The study has a sub-hypothesis states as “TE Mediates Between the KM and CS in the Jordanian PHI” that has been analyzed using the regression analysis through SmartPLS3. The mediating effect of TE supposes firstly a positive and significant relationship with CS ( $p < 0.05$ ). The study

applied the approach of bootstrapping through SmartPLS3 softwar to calculate the specific indirect effects. The results revealed the specific indirect effects of TE is significant and the confidence intervals does not contain zero. Also, the specific indirect effect of TE is significant at  $p < 0.05$ . Thus, TE mediates relationship between between KM and CS in the Jordanian PHI. Thus, H9A is supported.

VAF is also used to measure the strength of mediation.  $VAF = \text{indirect effect} / (\text{total effect (direct effect + indirect effect)})$   $VAF = (0.314 \times 0.104) / ((0.314 \times 0.104) + (0.033))$   $VAF = 0.032 / 0.065 = 0.492$ . The value of VAF ranged between 0.20 and 0.80 which indicates a partial mediation (Hair et al., 2016). Since this study states a mediator of (TE) has been hypothesized between KM and CS, the significant indirect effect indicates that TE mediates the relationship between KM and CS (Hypothesis H9A is supported).

**Table 26.**

*Hypotheses Testing H9A*

	Original sample	Sample mean	Standard deviation	T-statistics	P-value	Confidence interval	
						2.5%	97.5%
	0.123	0.558	0.024	8.032	0.000	0.213	0.434
	Construct		Equation1 TE	Equation2 CS	Equation3		
Direct effects	Predicator	KM	$\beta$ (0.314) t-value (7.393)				
		TE		$\beta$ (0.104) t-value (2.197)			
Indirect effect	KM $\rightarrow$ TE $\rightarrow$ CS				$\beta$ (0.033) t-value (2.068)		

The study hypothesis concerns with examining the mediation effect of TE between SMM and CS in the Jordanian PHI. The study has a sub-hypothesis states as “TE Serially Mediates Between the SMM and CS in the Jordanian PHI.” that has been analyzed using the regression analysis through SmartPLS3. The mediating effect of TE supposes firstly a positive and significant relationship with CS ( $p < 0.05$ ). The

study applied the approach of bootstrapping through SmartPLS3 softwar to calculate the specific indirect effects. The results revealed the specific indirect effects of TE is significant and the confidence intervals does not contain zero. Also, the specific indirect effect of TE is significant at  $p < 0.05$ . Thus, TE mediates relationship between between SMM and CS in the Jordanian PHI. Thus, H9B is supported.

VAF is also used to measure the strength of mediation.  $VAF = \text{indirect effect} / (\text{total effect (direct effect + indirect effect)})$   $VAF = (0.201 \times 0.104) / ((0.201 \times 0.104) + (0.018))$   $VAF = 0.038 / 0.058 = 0.655$ . The value of VAF ranged between 0.20 and 0.80 which indicates a partial mediation (Hair et al., 2016). Since this study states a mediator of (TE) has been hypothesized between SMM and CS, the significant indirect effect indicates that TE mediates the relationship between SMM and CS (Hypothesis H9B is supported).

**Table 27.**

*Hypotheses Testing H9B*

	Original sample	Sample mean	Standard deviation	T-statistics	P-value	Confidence interval	
						2.5%	97.5%
	0.546	0.558	0.031	11.092	0.000	0.453	0.587
	Construct		Equation1 TE	Equation2 CS	Equation3		
Direct effects	Predicator	SMM	$\beta$ (0.201) t-value (3.091)				
		TE		$\beta$ (0.104) t-value (2.197)			
Indirect effect	SMM $\rightarrow$ TE $\rightarrow$ CS				$\beta$ (0.018) t-value (1.982)		

**Table 28.**

*summary of direct hypotheses*

Hypotheses	Path	T-statistics	P-value	Result
H1	SMM $\rightarrow$ CS	9.99	0.000	Accepted
H2A	SMM $\rightarrow$ KM	13.08	0.000	Accepted



H2B	KM → CS	1.96	0.049	Accepted
H3A	KM → VC	4.49	0.000	Accepted
H4	VC → CS	7.85	0.000	Accepted
H6	KM → TE	3.31	0.001	Accepted
H7	TE → CS	5.24	0.000	Accepted

**Table 29.**

*summary of indirect hypotheses*

Hypotheses	Path	T-statistics	P-value	Result
H3B	SMM → KM→VC	12.26	0.000	Accepted
H5A	KM → VC→CS	6.062	0.000	Accepted
H5B	SMM → VC→CS	4.062	0.000	Accepted
H8	SMM → KM→TE	17.628	0.000	Accepted
H9A	KM → TE→CS	8.032	0.000	Accepted
H9B	SMM → TE→CS	11.092	0.000	Accepted

## CHAPTER V

### Discussion and Conclusion

The use of SM in Jordanian B2B PHI enterprises forms the basis of this study. This research will analyze industry-specific characteristics and how they affect CS and VC to learn whether pharmaceutical consumers accept and use SM platforms to aid in decision making and how pharmaceutical businesses use SM to efficiently serve customers.

In order to answer the first study question, we looked at the unique characteristics (constructs) of the PHI that affect consumers' openness to using SM in their decision-making processes (customers and consumers). The study concludes that SM is a reliable and effective medium for disseminating information that assists consumers in making well-informed choices. Essential and helpful data on medications, their applications, and consequences can be made available to them. So it has a significant bearing on how individuals decide which pharmaceuticals to purchase or which businesses to fund. These results provide credence to the hypothesis that SM analysis has the potential to greatly impact the actions of PHI insiders and outsiders alike. Research into this conclusion, however, also shown that the behavioral purpose of using SM for the pharmaceutical industries and the decision-making process of pharmacists is influenced by a number of industry-specific traits (constructs) and moderators.

The second research question investigated what influences customers' and pharmacists' interest in using SM for health-related reasons, with a focus on the determinants and moderators unique to the pharmaceutical sector. There is strong evidence that four characteristics predict consumer health-related behavior. These four factors are confidence, social influence, expectations of effort, and performance. In recent years, "trust" has emerged as one of the industry-specific features identified as influencing customers' propensities to use SM platforms. The results also showed that five moderators, in addition to the aforementioned four, significantly influenced the association between the variables and the planned behavior. Age, gender, education, experience, and health are the other four moderators. Age, gender, and years of experience are three moderators; education and health are two moderators unique to the business world. The findings suggest that performance expectations, social influence, effort expectations, and trust are the primary constructs, and that age, health, education, experience, and gender are the primary moderators that significantly affect behavioral intentions and the relationships between the constructs.

According to the results, one's level of experience directly affects how one's performance expectations and intention interact when seeking medical data. However, if the contact was negative, the effect on intention will be reduced, because people will be less willing to utilize forums if they have had previous negative encounters. The results also demonstrate that people need practice using SM to find health-related information, and that having a series of positive encounters with health forums considerably contributes to people's developing faith in the dependability of such forums.

Inexperienced internet users are wary of using these discussion boards because they question the validity of the health advice offered there. The fact that people using health forums report feeling more confident and optimistic as a result of their conversations is more evidence that people benefit from more positive relationships. It was also discovered that additional reliable medical information sources were consulted by patients, doctors, and pharmacists. You can find information from experts in the field, such as doctors and pharmacists, as well as from reputable medical publications and websites. Furthermore, people are more inclined to use such forums if the authenticity and credibility of the medical information provided on them has been verified. Trust, certainty, and the propensity to participate in health forums are all increased by positive prior experiences.

Furthermore, SM is an accessible and practical method for individuals and the PHI to gain knowledge on how to improve their professional and general health. They gain confidence in online medical communities and confidence in their own abilities as a result. People's confidence and ability to utilize SM technology effectively and appropriately, to collect the essential information, and to judge the truth and correctness of that information all rise with increased positive experience.

Patients, doctors, and pharmacists all use SM in different ways, and one of the primary moderators has been shown to be users' gender. Researchers found that men were more likely to frequent health forums, while women were less likely to do the same. Males and women both lauded the Internet's ability to quickly amass information, but an in-depth examination of the numbers revealed that women were more cautious than men when it came to using health discussion boards.

According to the results, when it comes to matters concerning their health, clients will only trust information from really reliable sources. This investigation shows that people would rather not rely entirely on internet forums to learn about important health issues, but rather would rather follow a more authentic and credible source of information to help them. However, many people turn to online health communities to learn more about the latest treatments, prescription brands, basic symptoms, and side effects of an illness. Insight gained from these online communities can help readers become more educated patients. As a result, the results suggest that consumers' health status acts as a moderator between their trust in and plans to use SM in making healthcare decisions.

This isn't always the case, though, because people seeking help with serious, uncommon, or life-threatening health concerns may look to cutting-edge drugs, trustworthy doctors, or other medical specialists mentioned or suggested on forums. Learning about the uses and benefits of SM platforms can help people both gain trust in them and change their behavior with the goal of making more positive use of them.

Customers and consumers' usage of SM to address health issues is significantly impacted by the users' ages, research has discovered. It was demonstrated that as people age, they want stronger arguments and assurances in order to assuage their doubts and learn something new. SM users, especially those under the age of 30, have a higher propensity to rely heavily on these sites as a primary source for health information. People may rely less on SM and more on trusted sources for health information as they get older. It was also discovered that while younger generations are more willing to take risks, older generations are less inclined to utilize health forums due to concerns about security, the safety of their treatment plan, and their limited access to the technical components of SM.

Preliminary research findings show the influence of SM on the PHI, including the perspectives of customers and pharmacists, validating the study's aims. The literature backs up the findings, showing that improving CS and VC within the organization is the best approach for pharmaceutical companies to improve network value or social effect (Ding, Elishberg and Stremersch, 2013; Yang and Wu, 2009). Decisions made by pharmaceutical corporations may also benefit from this data (Ding, Elishberg, and Stremersch, 2013). According to the findings, SM can be a useful resource for disseminating important information that can help consumers

make more informed choices as they get ready to make purchases or use services. Better corporate decision-making is another benefit of SM's increased internal communication inside pharmaceutical companies.

These results show that consumers' and customers' trust and confidence in the information offered by SM played a significant role in molding their perceptions of the PHI's usage and adoption of SM in decision-making. Customers and pharmacists in Jordan were found to be active users of SM, according to the survey's findings. Customers can use it to learn about the pros and cons of any medication, and pharmacists can use it to get the latest information about healthcare items.

The analysis of the research study demonstrates that the anticipated effort of using SM greatly affects the behavioral intention of pharmacists and the pharmaceutical business. The key element influencing whether pharmacists will use SM to disseminate health care information is the pharmacist's willingness to put in the effort. In their literature review, Kaba and Toure (2014) defined effort expectancy as the conviction that an individual's or group's efforts will yield the desired results. There is a lot of weight placed on the effort expectancy theory in countries like Jordan's pharmaceutical sector (Kaba and Toure, 2014). There were moderators for demographics including age and gender as well as socioeconomic status and years of experience at the community pharmacy, but performance expectancy emerged as the overarching influence.

The association between B2B enterprises' performance expectations and their use of SM platforms to acquire information in the PHI was shown to be significantly moderated by the respondents' level of education. It was also theorized that the level of education of the forum moderators had a substantial impact on users' intentions to participate in the forums for the purpose of gaining knowledge about pharmaceutical products. These findings are surprising because the elderly often wield the most influence in society. The findings of this study lend credence to the idea that a medical expert's intentions and actions could differ from those of a person with a more fundamental education in the field (Ding, Elishberg and Stremersch, 2013).

Overall, the results of the study suggest that customers' behavior and intentions regarding the usage of SM platforms within the PHI are significantly

influenced by factors such as experience, education, gender, physical and mental health, and age. When it comes to B2B enterprises in the PHI using SM, growth and authenticity are influenced by factors including CS, VC, validity, and reliability. Moderators with backgrounds in health and education can be found working in the pharmaceutical business.

All parties involved will benefit from the study, including the pharmaceutical sector, and it should encourage businesses and consumers to exercise greater caution when sharing information online. In order to build such discussion forums as trustworthy and well-liked sources of information, they should be aware of the need to supply more trustworthy and dependable information. The need for pharmacists, doctors, and patients to verify the accuracy of information found on SM should also be emphasized. As a result, more people will be encouraged to utilize SM in a responsible manner while deciding how to handle their health.

Health decision-makers who want to use SM for this purpose have thus been shown to benefit from this study. Understanding the potential of the hypothesis that explains why various players in the PHI want to use SM in health-related decision-making is now possible.

## **Discussion**

the study succeeded to capture the attention of pharmacists in Jordan and posits new debates for SMM (Ebrahim, 2020). additionally the SMM influences the communication channels with trendiness and EWOM (Kim & Ko, 2012; Gautam & Sharma, 2017) activities (Park et al., 2020c; Bravo et al., 2021; Monfared et al., 2021; Sánchez-Fernández & Jiménez-Castillo, 2021; Zhang et al., 2021), also other aspects of SMM are efficient for capturing the b2b customers in the Jordanian pharmaceutical industry. additionally, The significant Role of the SMM construct is not in line with the findings of Cheung et al. (2020b) for scant academic developments.

The study also supports the notion of Bowen et al. (2021) to promote social media (SM) as a B2B application in the pharmaceutical industry. The accepted hypotheses relevant to the direct and indirect impact of the Kano Model on customer satisfaction are in harmony with the desired structural changes for operational

performance (Nicholson et al., 2004; Narayana et al., 2014; Franco & Alfonso-Lizarazo, 2020; Panfilova et al., 2020; Zandkarimkhani et al., 2020).

The results showed the communication process is important for the improved supply chain in the Jordan pharmaceutical industry, and the wide application of SM as part of IT infrastructure is observed for B2B customers. Contrary to what they said (Bhimani et al., 2019; Chen et al., 2019; Tiwari & Raut, 2019; Wang et al., 2019; Chen et al., 2020; Rahman et al., 2020). More specifically, the KM and business customer happiness were favorably correlated with SMM. CS and value generation in company were favorably correlated with the KM. Customer happiness was significantly influenced by VC, and the KM had a favorable impact on B2B customers' TE. Finally, B2B customer happiness was positively correlated with TE. The findings supported the hypotheses that were put out and focused on the function of SMM in creating B2B business partnerships by emphasizing the necessity for integration techniques that include company privacy, dependability, and educational laws.

According to the results of the study, B2B CS was influenced by SMM in both direct and indirect ways. Specifically, it was discovered that developing integrated marketing strategies for B2B clients in the PHI that utilized the KM, VC, and TE was beneficial. On a strategic level, the findings of this study may have a significant impact on creating partnerships that are functional in terms of CS between the pharmaceutical businesses and business intermediates involved. Additionally, in a real-world situation, the KM's supporting function, VC, and TE might make PHI business processes simpler. This can be accomplished by outlining the business's privacy, dependability, and informational policies in detail before implementing SMM methods. We also increase CS and B2B SMM applications by promoting the KM and its primary categories as securing aspects while constructing strategy content-beneficial variables.

More specifically, the KM and business customer happiness were favorably correlated with SMM. CS and value generation in company were favorably correlated with the KM. Customer happiness was significantly influenced by VC, and the KM had a favorable impact on B2B customers' TE. Finally, B2B customer happiness was positively correlated with TE. The findings supported the hypotheses that were put out and focused on the function of SMM in creating B2B business

partnerships by emphasizing the necessity for integration techniques that include company privacy, dependability, and educational laws.

The association between SMM activities and value generation as well as the relationship between SMM and TE was also discovered to be mediated by the KM. Additionally, VC acted as a mediator in the relationships between SMM and CS as well as the KM and consumer satisfaction. The association between the KM and CS in the pharmaceutical business and the relationship between SMM and CS was finally mediated by TE. To manage the business-customer VC process as part of post-supporting the pertinent business context applications, which in turn builds B2B loyalty and customer behaviors in the PHI, these predictors are required for the context of this research.

The goal of the study has been validated by the preliminary research findings that demonstrate the impact of SM on the pharmaceutical sector, including those of customers and pharmacists. The literature backs up the findings, showing that improving CS and VC within the organization is the best approach for pharmaceutical companies to improve network value or social effect (Ding, Elishberg and Stremersch, 2013; Yang and Wu, 2009). Decisions made by pharmaceutical corporations may also benefit from this data (Ding, Elishberg, and Stremersch, 2013). According to the findings, SM can be a useful resource for disseminating important information that can help consumers make more informed choices as they get ready to make purchases or use services. Better corporate decision-making is another benefit of SM's increased internal communication inside pharmaceutical companies.

These results show that consumers' and customers' trust and confidence in the information offered by SM played a significant role in molding their perceptions of the PHI's usage and adoption of SM in decision-making. Customers and pharmacists in Jordan were found to be active users of SM, according to the survey's findings. Customers can use it to learn about the pros and cons of any medication, and pharmacists can use it to get the latest information about healthcare items.

The analysis of the research study demonstrates that the anticipated effort of using SM greatly affects the behavioral intention of pharmacists and the pharmaceutical business. The key element influencing whether pharmacists will use



SM to disseminate health care information is the pharmacist's willingness to put in the effort. In their literature review, Kaba and Toure (2014) defined effort expectancy as the conviction that an individual's or group's efforts will yield the desired results. There is a lot of weight placed on the effort expectancy theory in countries like Jordan's pharmaceutical sector (Kaba and Toure, 2014). There were moderators for demographics including age and gender as well as socioeconomic status and years of experience at the community pharmacy, but performance expectancy emerged as the overarching influence.

The association between B2B enterprises' performance expectations and their use of SM platforms to acquire information in the PHI was shown to be significantly moderated by the respondents' level of education. It was also theorized that the level of education of the forum moderators had a substantial impact on users' intentions to participate in the forums for the purpose of gaining knowledge about pharmaceutical products. These findings are surprising because the elderly often wield the most influence in society. The findings of this study lend credence to the idea that a medical expert's intentions and actions could differ from those of a person with a more fundamental education in the field (Ding, Elishberg and Stremersch, 2013).

### **Theoretical Implications**

SMM was discovered to be favorably correlated with B2B CS as well as other model variables. Integrated SM initiatives improve business-client relationships by facilitating communication between distributors, manufacturers, and pharmacies. Additionally, the KM's mediating role in VC, TE, and product supply management suggests that pharmacists are aware of the necessity of developing flexible relationships to link product supply management with VC and TE among B2B partners.

There are three ways in which this research can contribute to the existing literature. It is necessary to first examine the role of SMM in the PHI. Researchers are invited to delve more into the topic of SMM's relationship-building potential in the PHI and the B2B CS areas. As a second point, the incorporation of business CS into the KM underlines the importance of developing one's SMM abilities in B2B marketplaces. To do this, the necessary alterations in structure can be integrated into the functioning of the SM platforms themselves. Last but not least, these strategies

may enhance B2B operational performance if they are included into the communication process alongside technical explanations and privacy information.

The findings of this study have shown the value of SM posts on the pharmaceutical sector and healthcare. Interactions between medications, adverse effects, and other medical procedures have traditionally been the responsibility of the PHI. It is accountable for keeping tabs on any untoward reactions to drugs and any new pharmaceuticals and healthcare goods that enter the market. Patients' health is safeguarded when multiple reporting strategies are used to provide an accurate and objective evaluation of medical data. However, little study has been done on the topic of SM as a method of news gathering until recently. Therefore, the benefits of SM for professionals in the PHI are highlighted in this study. For instance, SM sites can be mined to uncover dangers related with both new and existing pharmaceutical goods and services, and to provide a detailed and trustworthy account of any adverse medication reactions experienced by stakeholders in the pharmaceutical business (Nikfarjam et al, 2015). This further emphasizes the importance of the study's findings in expanding our understanding of the benefits of SM as a medium for newsgathering.

This research has improved our understanding of how stakeholders in the PHI use and react to online discussion forums. Exploratory qualitative data were examined first, and then a quantitative survey of 573 pharmacy workers in Jordan was examined and analyzed. This research has increased the pharmaceutical sector's understanding of the ways in which SM can be put to use, as well as the risks and opportunities associated with doing so. The results of the study shed light on the fundamental ideas of performance expectations, effort expectations, and social impact. The novel idea of trust has also been found to affect the ways in which customers and buyers plan to utilize SM.

Stakeholders' (customers' and consumers') intentions to use SM platforms are influenced by a number of factors, including gender, age, and level of experience, as well as the relatively new moderators of educational attainment and health status that are specific to the industry. By critically examining the prevalent models and ideas, this investigation has also improved our knowledge of the factors that influence people's openness to new forms of technology. According to studies conducted with a focus on the PHI in Jordan, the current models of technology acceptance include

the constructs of performance expectancy, effort expectancy, and social influence, all of which are relevant to the use and acceptance of SM forums in the PHI. Trust has also been studied as a sector-specific factor in the PHI.

### **Practical Implications**

This study has some useful ramifications. First, the conclusions are crucial for legislators who want to encourage SMM in the pharmaceutical sector. To achieve customer happiness and lessen obstacles to operational efficiency and brand credibility, managers must play a critical role in advancing digitalization and its technical adoption for the pharmaceutical business. From the standpoint of the stakeholders, the study offers policy recommendations to manage the intricate pharmaceutical sector structure for KM sustainable marketing. The study is also useful for strategic marketing communication operations in the PHI and pharmacies. In the PHI, SM applications may act as a supporting agent by delivering the carefully selected strategic pieces of the KM .

The results of this study can be used by pharmacists, doctors, patients, and the public at large. It contributes significantly to three fields. It has first identified the assumptions and roadblocks that prevent customers and clients in the pharmaceutical business from making informed healthcare decisions while utilizing SM. The finding of these factors may be useful for pharmaceutical businesses in underdeveloped nations that are attempting to use SM. They will have a better grasp of the advantages and disadvantages of using and deploying SM, as well as the barriers to its acceptance by stakeholders. Human rights with regards to utilizing SM to receive accurate and relevant information on safety and healthcare is vital to understand in order to address the concerns and challenges that limit individuals from using SM as a trustworthy information source. If we want people to use and embrace SM for healthcare decision-making, we need to raise awareness of SM abuses, as well as the legal constraints and moral responsibility associated with the information offered on SM. Second, this study has significantly contributed to the body of knowledge by suggesting a revised model for SM forum acceptance and promoting its use among the stakeholders (customers and consumers) of the pharmaceutical sector in Jordan. Using this methodology, pharmaceutical firms in developing nations will be able to better understand their customers' and clients' motivations for engaging in particular SM and health-related behaviors. This approach will help the pharmaceutical sector

by determining what motivates consumers to adopt and use SM. There's a chance that this will encourage stakeholders to increase their SM activity. The PHI will have better access to relevant data, which can be vital for making decisions regarding company operations and marketing as more stakeholders use healthcare forums based on SM (Attuquayefio and Addo, 2014).

As a third major contribution, this study offers valuable recommendations for the PHI's four primary stakeholders: patients as consumers, the government, pharmacists, and physicians as clients. Here, pharmaceutical firms may promote the usage and applicability of information offered by social networking sites if these sites develop credibility, allowing stakeholders to make more informed decisions based on the data presented there. According to the results of this research, while SM can be a useful tool for fostering communication between patients and doctors, expanding the reach of inexpensive research, and facilitating knowledge sharing, its credibility needs to be bolstered before it can be widely adopted by the PHI's key players (Belbey, 2016). Accordingly, trust is a fundamental behavioural predictor of the intention to utilize SM for health-related decision-making.

While adhering to industry standards, the pharmaceutical and device sectors can use SM to inform, advertise, and facilitate communication between customers, patients, and physicians. The pharmaceutical sector must safeguard the integrity of SM by following all regulations and guidelines that apply to online interactions (Belbey, 2016).

Finally, utilizing digital technology and increasing CS may help pharmacists transition from a strictly technical function to one that acts as a mediator between customers and manufacturers in the pharmaceutical sector.

### **Limitation**

Due to sample size and population inferences, the majority of research in the literature have narrow scopes. First off, the longitudinal effect of the research model for B2B consumers is not taken into account in the current cross-sectional study. Second, the study's breadth was constrained by the use of purposive sampling with personal ties to gather data from the pharmacy personnel. Future research may concentrate on contrasting two or more countries or businesses. It is also advised that future research evaluate the pre- and post-effects of B2B SM applications.

Even though certain jurisdictions have legislation in place for SM monitoring and the prevention of SM misuse in the marketing of medical products, the study's findings suggest that none of the pharmaceutical industries are concentrating on monitoring, reporting, or publicizing this issue. In addition, the Food and Drug Administration (FDA) has struggled to effectively enforce laws and regulations in this area, even in countries like the United States. The Food and Drug Administration has made no effort to restrict or limit online advertising for health care products. This highlights a gap in the research and highlights the need for additional study into the gaps in the current legislation regarding the appropriate use and misuse of SM in the pharmaceutical sector. Therefore, it may be worthwhile for researchers to look into ways to refine the regulations so that stakeholders in decision-making can have more faith in SM. Based on the results of this research, it appears that SM could make a sizable contribution to the reporting procedure for pharma-vigilance needs. One caveat of this study is that there hasn't been much prior research in this area.

## **Conclusion**

Out of 13 hypotheses, all of them accepted, at a 5% confidence level. SMM have significant impact on KM, VC, TE and BCS. TE and VC mediate between the KM and BCS for the pharmaceutical industry in Jordan. The study's findings confirm

that pharmaceutical pharmacy Staff as b2b customers prefer business operations through the SMM. The possible reasons for not adopting the SMM are business privacy, reliability and information-related concerns in Pharmaceutical Industry. Hence, the study directs towards the debate of promoting SMM for pharmaceutical pharmacy Staff in Jordan for future usage for sustainability.

Contact with customers, as indicated by studies of the industry-specific qualities related to the adoption and use of SM for effective marketing, is a major component in determining the extent to which customers embrace and integrate technology into their daily lives. Perceived risk, self-efficiency, perceived relative advantage, perceived utility, brand orientation, quality orientation, performance expectancy, and service quality are just a few of the other characteristics that were highlighted as having an impact on how a business uses SM to communicate with customers. According to the analysis of these results, there are no unique characteristics in the currently accepted literature that affect consumers' use of SM in the pharmaceutical industries. This research employed the KM to assess the primary organizational aspects that impacted B2B firms' (business-to-business) utilization of SM and their consumers' participation therein in Jordan.

However, the results showed that physicians are not encouraged to use and adopt SM due to the lack of accurate information, the accuracy of information, and the issues connected with privacy, in contrast to the attitudes of pharmacists and clients of the pharmaceutical sector. These results also suggested that customers' decision to utilize and adopt SM platforms in the pharmaceutical business was heavily influenced by trust. Overall, these results suggest that trust is one of the key industry-related criteria impacting the PHI's inclination to utilize and adopt SM platforms.

However, studies of real-world situations have shown that certain pharmaceutical firms misrepresent unapproved drugs to customers in order to sell them on internet marketplaces. Therefore, stringent regulations are needed to limit this kind of conduct and put an end to the abuse of SM and other online forums.

The major goal of this study was to identify the drivers of SM usage among pharmaceutical B2B enterprises. Based on what was discovered in the reviewed literature, it is clear that customers are better able to weigh the pros and cons of the

goods given by pharmaceutical companies thanks to the use of SM. The results show that SM is a useful resource for disseminating knowledge that can aid in rational decision-making in the PHI. Better business decisions can be made thanks to the increased public engagement made possible by SM's streamlined communication channels between patients and the pharmaceutical sector. The findings, which included a literature review and quantitative data analysis, were used to the KM in order to inquire into the factors that will allow B2B enterprises in the PHI to succeed in using SM to satisfy customers and bring value to the sector.

Doctors were asked to fill out a survey so researchers could acquire more information for their study. The results proved that there is a strong impact from SM performance expectations. The most important aspect in whether or not doctors would use SM to convey information about medical items and patient care is the expectation of their performance. Benefits of performance expectancy, such as increased productivity and medical self-promotion, have a large effect on influence in SM. The impact of performance expectancy has been substantiated by an examination of the literature, which revealed that many individuals and organizations engage in a wide range of actions and operations to meet the needs and expectations of their consumers (Miner, 2015). Thus, doctors' actions in the PHI to meet patients' expectations would be strongly influenced by performance expectancy.

Chapter 4 presented the findings from the quantitative data used to examine the influence of SM on business-to-business firms in the PHI, which was the study's stated objective. The results of this chapter showed that independent variables including effort expectation, performance expectation, and social influence affect SM usage in the industry. These factors have the greatest impact on the intentions to utilize SM among both internal and external stakeholders in the pharmaceutical sector. Analysis of the KM's sub-models revealed its centrality to comprehending the role of SM as a medium of communication in the decision-making process. Independent variables like as gender, age, experience, and education level operate as moderators to significantly affect performance expectations.

The study's use of the KM provided the necessary conclusion for the growth of modern SM practices. This was taken into consideration in Chapter 5 where the results of the quantitative data analysis were provided. According to the results of this research, some industry-specific characteristics have a significant impact on B2B

enterprises operating in the PHI. There are a number of moving parts, such as physicists and customers, trust and consumer delight, value generation, and inaccurate information. The usage of SM in B2B transactions in the PHI is influenced by all of these aspects. The results of the study make it crystal clear that there are major benefits and drawbacks to using SM for commercial purposes. The negative effects can be mitigated, but they will always be present. The benefits are vast, and they'll boost the PHI overall, but especially in emerging markets like Jordan, where multinational corporations are the main competition for independent drugstores. Value and customer happiness can be increased through better customer interactions and the delivery of the finest possible products by firms using SM. The quantitative data analysis performed and recorded demonstrates the benefits of SM by employing the KM. This research analyzed current and future SM habits of pharmaceutical buyers and consumers and offered empirical support for these assertions.



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## **APPENDIX A / QUESTIONNAIRE**

**Questionnaire**

**MODE OF COLLABORATION BETWEEN THE  
PHARMACEUTICAL FIRMS AND PHARMACISTS  
AN EMPIRICAL INVESTIGATION OF SOCIAL MEDIA  
MARKETING ACTIVITIES IN THE JORDANIAN  
PHARMACEUTICAL INDUSTRY**

**Researchers**

**ALA AWAD (PhD student)**

**Department of Business Administration**

**Near East University**

**Lefkosa, North Cyprus**

**Email : [alash121@gmail.com](mailto:alash121@gmail.com)**

**DR. AHMET ERTUGAN (supervisor)**

**Department of Business Administration**

**Near East University**

**Lefkosa, North Cyprus**

**Email : [ahmet.ertugan@neu.edu.tr](mailto:ahmet.ertugan@neu.edu.tr)**

**Dear Respondent,**

This study seeks information about **MODE OF COLLABORATION BETWEEN THE PHARMACEUTICAL FIRMS AND PHARMACISTS AN EMPIRICAL INVESTIGATION OF SOCIAL MEDIA MARKETING ACTIVITIES IN THE JORDANIAN PHARMACEUTICAL INDUSTRY.**

We are inviting your participation in this study, which will involve a questionnaire survey. The survey is confidential and is for scientific purposes only and will be kept confidential. Your participation is voluntary, and you may stop taking part at any time. The survey should take about 10 minutes to complete. There are no right or wrong answers. Candid responses based on your personal thoughts are greatly appreciated. If you have any questions concerning the research study, please feel free to contact us using the information stated above.

**Thank you in advance for your cooperation and assistance.**

## (ACADEMIC PURPOSE ONLY)

## Section – I

		<i>Name</i>			
<b>Gender</b>		1. Man		2. Woman	3. Others
<b>Age Group</b>		18-24 years	25-30 years	31-40 years	More than 40 years
<b>Are you a Pharmacist</b>		Yes		No	
<b>Relationship Status:</b>		1. Single		2. Married	3. Divorced
<b>Monthly Income (Dinar)</b>		<input type="radio"/> Below 2,000	<input type="radio"/> 2000-40000	<input type="radio"/> 4000-6000	<input type="radio"/> Above 6000

## Section – II

Please Tick a single option at the front of each question to show your level of agreement or disagreement.

1. Strongly Disagree 2. Disagree 3. More or less Disagree 4. Undecided 5. More or less agree 6. Agree 7. Strongly Agree

Sr. #	Question Statement	1	2	3	4	5	6	7
<b>Entertainment (Cheung Man, Pires, &amp; Rosenberger Philip, 2020)</b>								
1.	Are the content of pharmaceutical firms interesting on social media platforms							
2.	Are the Pharma firms' pages on social media platforms exciting?							
3.	Is it fun to collect information about Pharmaceutical firms on social media platforms?							
4.	Is it easy to spend time through Pharma firms' social page							
<b>Customisation (Cheung Man et al., 2020)</b>								
5.	Is it possible to search for customized information about Pharma firms on social media platforms?							
6.	Are Pharma firms' pages on social media provide customized services?							
7.	Are Pharma firms provide lively feed information I am interested in on social media platforms?							
8.	Is it easy to use Pharma firms' social pages?							
<b>Interaction (Cheung Man et al., 2020)</b>								

Sr. #	Question Statement	1	2	3	4	5	6	7
9.	Is it easy to express your opinion through Pharma firms' Social pages?							
10.	Is it easy to convey your conversation or opinion to SM's other users on the Pharma firms 'pages'?							
11.	Is it likely to establish a two-way interaction through Pharma firms' pages SM platforms?							
12.	Is it probable to share information on Pharma firms' SM pages with other customers?							
<b>Trendiness (Cheung Man et al., 2020)</b>								
13.	Do you find the content of Pharma firms on social media platforms up to date?							
14.	Are Pharma firms' using the trends on social media platforms?							
15.	Is the content of Pharma firms on social media platforms are the newest information?							
<b>Electronic Word of Mouth (Cheung Man et al., 2020)</b>								
16.	Is it possible to share information with other users through Pharma firms' pages on social media platforms?							
17.	Would you pass information about Pharma firms' pages on social media to your friends?							
18.	Would you upload content about Pharma firms' pages on social media platforms?							
<b>Indifferent Quality (Chen, Hsu, &amp; Lee, 2020)</b>								
19.	Customers are notified of product shipment one day prior through social media							
20.	Service personnel on social pages (i.e., order and delivery personnel) have professional training and a certain degree of understanding about drugs							
21.	Customized logistics processing and packaging services are available on social pages							
22.	There is no limit on order time on social pages							
23.	Customers can place online orders using the electronic platform/Online orders are accepted							
24.	Delivery services are available on weekends and holidays if reached through social pages							
25.	Customers receive order-processing status on social pages							
26.	Information on materials related to healthcare medicines and procurement advice are provided on social pages							
27.	Services such as medical waste recycling, waste disposal, and autoclaving are available on social pages							
28.	Escrow inventory services are provided on social pages							
<b>Must be Quality (Chen et al., 2020)</b>								
29.	Pharma firms have good word-of-mouth, reputation, and popularity							
30.	Processes including order content (items and quantities) and bill of lading documents are correctly executed through social pages							
31.	Processes for batch numbers and validity period management are strictly implemented; i.e., drugs with a validity period of less than 6 months are not displayed on social pages							
32.	The rate and extent of damage received are disclosed/low on social pages							

Sr. #	Question Statement	1	2	3	4	5	6	7
33.	Logistics equipment and distribution vehicles related temperature requirements of drugs can be shared easily on Social Pages							
34.	Goods are delivered on time to customers booked through social pages							
35.	The order (i.e., item and quantity) delivery rate is accurate through social media pages							
36.	Customer enquiries are answered within the promised period discussed on social pages							
37.	Return and exchange processes are prompt and appropriate through social media pages							
38.	Service personnel (i.e., order and delivery personnel) quickly address delivery errors on social pages							
39.	Customers are notified of delayed shipment on social pages							
40.	Service staff (i.e., order and delivery staff) are kind and courteous on social pages							
41.	Customers are notified of out-of-stock products on social pages							
42.	Customers are notified of product packaging changes in advance on social pages							
43.	Out-of-stock orders are promptly processed on social pages							
44.	Customer complaints are immediately addressed and resolved on social pages							
45.	Shipment of damaged goods or incorrect invoices and bills of voucher are promptly corrected on social pages							
46.	Social media customer service staff provides professional and satisfactory answers on social pages							
47.	The social pages of Pharma firms are accurate and error free							
48.	Pharma Firms have advanced equipment (e.g., warehouses, pickup systems, shelves)							
49.	Deliveries are made as per time specified by customers on social pages							
50.	There are channels for customer complaints on social pages							
51.	Inventory location or shelf service is designated as per customer needs on social pages							
52.	Batch number and validity period requirements specified by the customer are met on social pages							
<b>One Dimensional Quality (Chen et al., 2020)</b>								
53.	Urgent orders are accepted through social pages and processed with timely delivery							
54.	Deliveries are completed every other day after receiving the order on social media							
55.	Information technology (RFID and barcode) offers information on drug history and temperature control on social pages							
56.	There is a limit on the minimum order amount on social pages							
<b>Value Creation (Wijaya, Bernarto, &amp; Purwanto, 2020)</b>								
57.	There is a new customer value created in terms of transaction efficiency when using the Social Media Marketing Activities (SMMA)							
58.	There is a time-efficiency benefits when choosing to use the SMMA							



Sr. #	Question Statement	1	2	3	4	5	6	7
59.	There is an energy-efficiency benefits when choosing to use the SMMA							
60.	SMMA provides a various payment options that benefits the Pharmacists							
61.	SMMA provides a various delivery options that benefits the Pharmacists when purchasing products							
<b>Transaction Efficiency (Wijaya et al., 2020)</b>								
62.	The transaction process benefits the pharmacists when running a pharmacy business							
63.	Pharmacists are being benefited by the SMMA because it gives a wide range of delivery options							
64.	The adaptation process is much easier because the SMMA features are easy to be learned.							
<b>Customer Satisfaction (Wijaya et al., 2020)</b>								
65.	I am more benefited because of the quickness of transaction process							
66.	I am more benefited because of the wide range of products that being offered							
67.	I am more benefited because of better price point compared to the conventional firms							
68.	I am more benefited because of the quickness when processing personal data							

## APPENDIX B / PLAGIARISM REPORT

MODE OF COLLABORATION BETWEEN THE PHARMACEUTICAL FIRMS AND PHARMACISTS: AN EMPIRICAL INVESTIGATION OF SOCIAL MEDIA MARKETING ACTIVITIES IN THE JORDANIAN PHARMACEUTICAL INDUSTRY by Ala Shakeeb

### ORIGINALITY REPORT

<b>13%</b>	<b>12%</b>	<b>6%</b>	<b>%</b>
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

### PRIMARY SOURCES

<b>1</b>	<b><a href="http://bura.brunel.ac.uk">bura.brunel.ac.uk</a></b> Internet Source	<b>5%</b>
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<b>4</b>	<b><a href="http://econstor.eu">econstor.eu</a></b> Internet Source	<b>1%</b>
<b>5</b>	<b>Mohamed Errassafi, Hassan Abbar, Zahra Benabbou. "The mediating effect of internal integration on the relationship between supply chain integration and operational performance: Evidence from Moroccan manufacturing companies", Journal of Industrial Engineering and Management, 2019</b> Publication	<b>1%</b>
<b>6</b>	<b><a href="http://scialert.net">scialert.net</a></b> Internet Source	

## APPENDEX C / ETHICS COMMITTEE APPROVAL



YAKIN DOĞU ÜNİVERSİTESİ

BİLİMSEL ARAŞTIRMALAR ETİK

KURULU

15.04.2021

Dear Ala Shakeeb Khalaf Awad

Your application titled **“Mode of Collaboration Between the Pharmaceutical Firms and Pharmacists: An Empirical Investigation of Social Media Marketing Activities in the Jordanian Pharmaceutical Industry”** with the application number NEU/SS/2021/971 has been evaluated by the Scientific Research Ethics Committee and granted approval. You can start your research on the condition that you will abide by the information provided in your application form.

Assoc. Prof. Dr. Direnç Kanol

Rapporteur of the Scientific Research Ethics Committee

*Direnç Kanol*

## C.V

Mobil:- 0795400902  
 Email: [alash121@gmail.com](mailto:alash121@gmail.com)

## ALA SH. AWAD

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### Personal Information

Nationality : Jordanian  
 Resident : Jordan - Amman  
 Birth date : 15 AUG,1986  
 Gender : male  
 Marital Status : Married



### Education

**Master degree:**  
 Specialty: Health Service Management from Yarmouk University,2016-2018with Excellent cumulative grade average.

**Bachelor degree:**  
 Specialty: PHYSICAL THERAPY FROM JUST, .2004– 2008.

### Professional experience

**2008 -2012**

**SHARAYA DRUG STORE**

**[SALES MAN]**

- Acts in a professional manner, reflecting the mission of the SHARAYA DRUG STORE and demonstrates compliance with all policy, procedures.
- Demonstrates ongoing service excellenceskills.
- Demonstrates ongoing understanding of corporate compliance policy.
- Participates in meetings, conferences, and demonstrates genuine desire to develop strategies for improved and increase sales.

**2012-2016**

**SHARAYA DRUG STORE**

**[Sales Supervisor]**

- Follow up on achieving the goals
- Communicate with customers through direct visits and learn about their problems
- Financial control and control of customer movement and inventory control
- Follow up daily reports from the market, analyze them and send them to the department

**2016-AT NOW**

**SHARAYA DRUG STORE**

**[Head of Training department]**

- Prepare the annual training plan
- The job description is prepared for all functions to enhance institutional work Implement and develop modern and distinguished management systems that support the work of the institution
- Supervising the preparation of reports on levels and achievements in the department and submitting them to the Director