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INVESTIGATING THE ADOPTION OF SOCIAL COMMERCE: A CASE STUDY OF SMEs IN JORDAN

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ABSTRACT

Aim/Purpose	Social commerce is an emergent topic widely used for product and service sourcing. It helps companies to have frequent interaction with their customers and strive to achieve a competitive advantage. Yet there is only little empirical evidence focusing on social commerce and its adoption in SMEs to date. This study investigates the key factors affecting social commerce adoption in SMEs. This research designed a theoretical model using the Technology, Organization, and Environment (TOE) Model
Background	Despite its rapid growth and usage, social commerce is still in its evolution phase and its current conception is vague and restricted. Therefore, considering the benefits of social commerce for consumers and businesses, it is important to explore the concept of social commerce.

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Investigating the Adoption of social Commerce by SMEs

Methodology	The research floated a self-administered questionnaire and surveyed 218 Jordanian SME businesses. The data was analyzed using smart PLS and the results were drawn that covers the detail of the characteristics of respondents, study descriptive, results of regressions assumptions, e.g., data normality, reliability, validity, common method biases, and description of the measurement model, followed by the findings of hypothesis analysis.
Contribution	This study has many significant contributions to the existing studies on firms' adoption of social commerce. It indicates that organizational readiness from the organizational perspective and consumer pressure from the environmental dimension of the TOE model are significant influential elements in the adoption of social commerce in business, followed by high-level management support and trading partner pressure, respectively. This shows that organizational readiness to adopt social commerce and consumer pressure has a vital role in Jordanian SMEs' adopting social commerce.
Findings	The results were drawn from a survey of 218 Jordanian SMEs, indicating that organizational readiness from an organizational dimension and consumer pressure environmental perspective, followed by top management's support and trading partner pressure, significantly predicts the adoption intentions of social commerce. However, perceived usefulness and security concerns from a technological context do not significantly impact behavioral intentions to utilize social commerce.
Recommendations for Practitioners	Lack of awareness about new technology and its potential benefits are not well diffused in the Jordanian context. In short, both organizational and environmental dimensions of the TOE framework significantly influence the behavioral intentions for social commerce adoption in the Jordanian context whereas the third-dimension technological factors do not affect the behavioral intentions of SMEs to adopt social commerce. In the technological context, SMEs need to invest in technology and must spread awareness among Jordanian consumers about the potential benefits of technology and must encourage them to use social commerce platforms to interact because of the high significance of social commerce for businesses as it facilitates the quick completion of tasks, enhances the productivity, and improves the chances of high profitability.
Recommendations for Researchers	First, the study is limited in scope as it discusses the direct links between the TOE framework, behavioral intentions to use social commerce, and the actual usage of social commerce in the Jordanian context rather than testing the mediation, and moderation. Future research may examine the mediators and moderators in the conceptual model. Second, the research examined the behavioral intentions of SMEs rather than consumers to adopt social commerce. Further research might consider the consumer perspective on social commerce.
Impact on Society	This research aims to identify the key factor that impact the behavioral intentions of SME businesses to practice social commerce. The theoretical underpinning of the study lies in the TOE model, as using its basic assumptions the conceptual grounds and hypothesis of the study are developed.
Future Research	The study findings are not generalizable in different contexts as it was specifically conducted by gathering data from the Jordanian population. However future studies may consider different contexts, sectors, cultures, or countries to

examine the model. Lastly, the research collected data using convenience sampling from 218 SMEs in Jordan, which may create difficulty in the generalizability of the research, so needs to examine a larger sample in future studies.

Keywords perceived usefulness; security concerns; organizational readiness; consumer pressure; top management support; trading partner pressure; social commerce

INTRODUCTION

Social media is recognized as contributing to the improvement of small- and medium-sized enterprises (SMEs) in multiple ways. Technology not only assists organizations to communicate new products and services but also enables SMEs to gather intelligence on consumer insight to enhance client satisfaction (Lashgari et al., 2018). According to Zaid (2021), of the 6.84 million internet users in Jordan, as of 2021, 6.30 million use social media which represents 61.5% of the entire population. Therefore, Jordanians are highly active on social media. According to Linaker (2016), Jordanians are typically present on almost every social media platform. However, Facebook has the highest penetration rate of 39.2%, which translates to approximately 2.7 million Jordanians using the network. Twitter and LinkedIn have 88,000 and 29,000 Jordanian users, respectively (Linaker, 2016). These facts emphasize the importance of social networks for businesses to interact with consumers.

The survival of SMEs is important for the growth of any economy (Rana et al., 2019). SMEs play an important role in the Jordanian economy because 52% of the country's workforce is part of the informal economy, and 95% of private sector organizations are SMEs (Tamimi & Jaradat, 2019). According to Trawnih et al. (2021), SMEs contribute 40% of the gross domestic product of Jordan. However, the COVID-19 pandemic has placed the survival of SMEs and thus the Jordanian economy at risk. The pandemic has necessitated the adoption of a social media platform for every organization, including SMEs (Trawnih et al., 2021). SMEs tend to be more vulnerable than large organizations to external environmental shocks. Several factors, such as the absence of monetary capabilities, weak management of IT (Cerchione & Esposito, 2017), absence of expertise (Casidy et al., 2020), and availability of resources (Senarathna et al., 2018), make SMEs defenseless against external environmental shocks.

Social commerce is defined by Aladwani (2018) as a "socially-driven interaction process pertinent to purchasing a product or service using quality of social media" (p. 2). Social commerce may be implemented in one of two ways (Tajvidi et al., 2020): either by merging standard e-commerce platforms with social network elements to enable users to discuss and share their buying experiences, or by introducing commercial functions to social networking sites (the focus of this study). Social commerce is an emerging critical means of sourcing a wide variety of products for individuals and businesses. It is an important strategy to support firms in connecting and communicating with customers effectively to achieve a competitive advantage (Vongsrualuang & Bhatiasevi, 2017). Social commerce has great potential for small business growth. Companies that use social commerce globally have gained numerous benefits. The existing literature highlights numerous benefits of social commerce for companies, such as providing them with a direct platform on which to interact with their consumers and providing wider access to the market. Reduced adoption costs and minimal IT-related skills required for implementation are also positive aspects of social commerce (Abed, 2020; Maia et al., 2018). However, despite having the greatest potential for economic growth, SMEs are reported to lack the possibility to reap the full benefits due to having fewer financial resources, minimal access to expert knowledge, minimal information management systems, and a lack of access to needed resources. Prior research has shown that SMEs are also falling behind large firms regarding IT adoption (Abed, 2020; U. Ali et al., 2019; Chatterjee & Kar, 2020). However, even in the presence of these limitations, the effective utilization of social commerce offers numerous opportunities to SMEs for improving their business, helping to bridge the gap between SMEs and their customers. Specifically, it is helpful for online customer interaction and relevant marketing activities, e.g., making product comparisons,

making buying and selling decisions, and customer support (Chatterjee & Kar, 2020). Social commerce enables SMEs to market their products and services, identify and build niche markets, collect marketing intelligence, facilitate trust building, allow for management of the firm's reputation, and enhance customer loyalty (Abed, 2020). X. Lin et al. (2019) have viewed social commerce as an important business strategy for SMEs, specifically useful for commercial events, aiding customers in evaluating the product before purchasing, making the purchase decision, and the post-purchase responses. Therefore, SMEs should keep a regular check on their social commerce activities, as these involve high complexity, risk, and expense, and require technical expertise and continuous customer service (Dahnil et al., 2014). For implementing social commerce, firms should be equipped with financial resources, IT tools and equipment, and support from high-level management and human resources.

The current study contributes to the prior research in many ways. First, it presents a unique framework to understand and implement social commerce in organizations. Han et al. (2018) have stressed the importance of continuing research in the domain of social commerce, as it is a new field and the prevailing models, frameworks, and theories are still lacking in providing sufficient and accurate information on the complexity involved. The authors have further suggested designing a new framework that describes social commerce as a business model and describes the process for implementing social commerce in business (Han et al., 2018). Second, Sugandini et al. (2022) have recommended studying organizational readiness to shape the organizational context and consumer pressure to manage environmental concerns. Therefore, this study examines both variables. Third, as Abed (2020) has applied the technology, organization, and environment (TOE) framework to many populations and cultures, this research explores the TOE framework in another context: Jordan. Fourth, as Abed (2020) have also recommended exploring the actual usage of social commerce, this study examines the influence of behavioral intentions on actual usage behavior in the social commerce context. The following section highlights the significance of this study. Then, the literature review is presented followed by the theoretical foundation and hypotheses development. Next, the results are presented and discussed. Finally, the paper ends by introducing the research implications, conclusion, and limitations.

SIGNIFICANCE OF THE STUDY

SMEs are increasingly adopting social commerce as a way to reach new customers, improve customer engagement, and boost sales. However, there are also potential risks and challenges associated with using social media for commerce. One of the main benefits of social commerce for SMEs is the ability to reach a wider audience. Social media platforms have a large user base and provide businesses with the opportunity to connect with potential customers from around the world (Marolt et al., 2022). This is especially useful for SMEs that may not have the resources to reach customers through traditional marketing channels. Social commerce can facilitate SMEs to promote their products across different markets at a significantly lower cost using social media, helping to build brand communities and providing access to numerous niche markets. Social media helps consumers to make purchase decisions (Sugandini et al., 2022). Social media also helps to spread product information and increase awareness among customers. The increasing usage of social media and e-commerce is generating new shopping trends, which allows both consumers and companies to use social media tools and social networking websites to make online buying and selling transactions effective: this is essentially social commerce (Abed, 2020). Another benefit is the ability to build and maintain customer relationships through social media (Al-Adwan, 2019). Businesses can use social media to interact with customers, respond to inquiries and complaints, and gather feedback (Al-Adwan & Kokash, 2019). This can help to improve customer trust, satisfaction, and loyalty (Al-Adwan & Al-Horani, 2019; Al-Adwan et al., 2020). Social media also provides SMEs with the opportunity to engage with customers in real-time, which can be especially useful during the COVID-19 pandemic when in-person interactions may be limited (Dubbelink et al., 2021). Additionally, social commerce can help

SMEs to reduce marketing and advertising costs. Traditional marketing channels can be expensive, but social media allows businesses to reach a large audience at a low cost.

While there are many benefits to using social media for commerce, there are also potential risks and challenges that SMEs should consider. One risk is the possibility of negative online reviews or comments (Dwivedi et al., 2021). Social media platforms provide a public forum for customers to share their experiences with a business, and negative reviews can damage a company's reputation (Al-Adwan, Al-Debei, & Dwivedi, 2022; Al-Adwan, Alrousan, et al., 2022). Another risk is the potential for fraud and scams. SMEs should be cautious when conducting transactions through social media and ensure that they have proper security measures in place to protect against fraud (Kanani & Glavee-Geo, 2021). In addition to these risks, there are also challenges associated with managing a social media presence. It can be time-consuming to create and maintain a social media presence, and it may be difficult for SMEs to keep up with the constantly changing algorithms and features of different platforms. However, despite its rapid growth and usage, social commerce is still in its evolution phase and its current conception is vague and restricted (J. Wang et al., 2022). Considering the benefits of social commerce for consumers and businesses, it seems important to explore the concept.

SMEs are crucial to the economic development of any nation as they play a crucial part in the majority of global economies and are the biggest sector of businesses (Rana et al., 2019). Consequently, their presence and development have been the main issues for many scholars. Social commerce is viewed as a sustainable development tool for SMEs. Therefore, it is important to investigate social commerce adoption by SMEs. However, insufficient empirical studies have been conducted on the extent to which SMEs have adopted social commerce (Abed, 2020; U. Ali et al., 2019; Alraja et al., 2020; Sharma et al., 2020), particularly in developing countries such as Jordan. To the best of our knowledge, this is among the leading studies to investigate the adoption of social commerce by SMEs in Jordan. The findings of this study are expected to guide the efforts of SMEs in Jordan to successfully adopt social commerce.

LITERATURE REVIEW

SOCIAL COMMERCE IN SMEs

Even though social networks have been recognized as significant for surviving the current global pandemic (e.g., Fabeil et al., 2020; Trawnih et al., 2021), Jordanian SMEs still lack in successfully adopting the process (Trawnih et al., 2022). Al Tawara and Gide (2017) have found that a key reason for the low productivity of SMEs in Jordan is the lack of adoption intentions toward social media. Social media enables SMEs to construct their brand equity and reach different market niches (Guha, 2018). Similarly, scholars such as Chatterjee and Kar (2020) have noted that social media provides SMEs with the chance to attract new customers, create new networks, consider customer voices, and grow client trust and retention through gathering knowledge on customer insight.

Drawing on the findings of W. A. Ali et al.'s (2019) findings, it is evident that the growth of social commerce is being fueled by the rising penetration of its advanced applications. It facilitates purchasing process through social networks. Social commerce involves performing buying and selling activities on an e-commerce forum via social media (Abed et al., 2016). According to X. Lin et al. (2019), social commerce combines societal and commercial activities via the vehicle of social media and the internet, enabling the retailing of products and services in the electronic marketplace.

SOCIAL COMMERCE BENEFITS AND COSTS FOR SMEs

Various studies have evaluated existing knowledge of social commerce in the business world. Ahmad et al. (2019) have studied the determinants that impact social media acceptance by SMEs. He et al. (2015) have investigated why and how SMEs adopt social media in the US and concluded that factors such as resources, return, achievement of goals, and increase in real customers are key aspects that

encourage small firms to adopt social media. Wamba and Carter (2016) have investigated social network acceptance as an instrument of SMEs. Moreover, Karimi and Naghibi (2015) have explored the value that SMEs gain by using social media. Others have investigated the organizational, environmental, and managerial problems that affect social media adoption by small businesses (Wamba & Carter, 2016). Furthermore, McCann and Barlow (2015) have explored the reasons for social media implementation by SMEs and the way they should evaluate the profit of such an investment. Largely, the advantages of social media are emphasized in research, as social media is a well-known tool and widely used for brand-related communication among concerned parties (e.g., Henry & Harte, 2012). This is because the social media tool permits consumers to be brand ambassadors by generating electronic word-of-mouth (Gensler et al., 2013). Moreover, Beier and Wagner (2016) have focused on assessing the causes of the absence of social media usage, concentrating on SMEs in Switzerland. Similarly, Talukder et al. (2020) have reviewed the literature on the determinants of attitudes and implementation of social media by SMEs in Indonesia.

TOE MODEL AND SMEs' INTENTIONS TO ADOPT SOCIAL COMMERCE

Despite a plethora of studies that assess the adoption of social commerce by SMEs, there are insufficient empirical studies in this regard (Beier & Wagner, 2016). Given the interest in the acceptance of social commerce, enhanced by the COVID-19 pandemic, it is important to further explore the subject. Thus, the current study evaluates SMEs' adoption of social commerce in the Jordanian context. To this end, the study begins by critically examining the existing literature on the specific context of SMEs and their adoption of social commerce. Furthermore, a TOE framework is used to further review the literature and develop research hypotheses afterward; the methodology and results of this research are then presented. The critical interpretation of the findings, identification of research contributions, limitations, future directions, and conclusion follow.

Abed (2020) has used the TOE model to explore issues influencing social commerce implementation by SMEs in Saudi Arabia. The analysis of 181 responses collected through a survey identified that trading partner pressure, perceived usefulness, and support from high-level management are factors that most significantly impact the behavioral intentions of Saudi SMEs to use social media commerce. Similarly, Adam et al. (2016) have investigated the potential usage of social media and e-commerce by Malaysian SMEs. The study found that SMEs in Malaysia use social media minimally because they lack entrepreneurs with attitude and self-efficacy. Likewise, a study by Abed et al. (2016) evaluated 60 SMEs to assess issues that affect the adoption of social media. The analysis of the findings reveals that excellence of online information impacts the adoption of social commerce among consumers, that businesses can build trust with customers through social media, that online business tactics impact the perception of customers regarding the vagueness of social commerce, and finally, that innovative businesses encourage innovation in consumers (Almkaneen, 2021).

Effendi et al. (2020) have used the TOE framework to assess how the behavioral intentions of SMEs for adopting social media were affected during the COVID-19 pandemic. This study collected 250 responses from SMEs operating in Indonesia, and the findings reveal that SMEs have a high level of knowledge and intention to adopt the tools of social media. Moreover, the TOE framework has a large influence on building the intentions for adopting social media.

Similarly, the study of Vongsraluang and Bhatiasavi (2017) investigated the key factors affecting the success of the social commerce system in the context of Thailand SMEs by using a survey. They have confirmed the significant impact of consumer satisfaction, good service, system quality, and trust on the success of social commerce systems, as all these elements lead to user satisfaction. Moreover, AlSharji et al. (2018) have explored the drivers of social media adoption among UAE SMEs, with a sample of 1700 randomly selected firms, using a survey questionnaire. The findings reveal that while technological construct does not significantly impact SMEs' intentions to adopt social commerce, organizational and environmental factors have a significant impact.

Ainin et al. (2015) have examined the factors that impact the usage of social media platforms such as Facebook among Malaysian SMEs, considering their financial as well as non-financial performance. The authors have argued that cost efficiency, compatibility, interaction, and trustworthiness relating to Facebook usage were all factors, and revealed they had a consequent influence on organizational performance, with a sample of 259 Malaysian SMEs. They also reported significant influences on both the monetary and nonmonetary performance of SMEs. Alraja, et al. (2020) have highlighted the variables impacting the implementation of Facebook commerce, collecting responses from 342 SMEs in Oman. The study findings reveal that social media advertising has a statistically significant and positive impact on the productivity, suppleness, and receptiveness of SMEs. Furthermore, Wamba and Carter (2016) have conducted a systematic review of the literature, highlighting the contribution of social commerce, social media, and innovation to identifying organizational, managerial, and environmental factors affecting the adoption of the Twitter platform, with a sample of 435 SMEs. The findings confirm these relationships.

Similarly, U. Ali et al. (2019) have investigated the impact of high-tech, trust, and organizational factors on the adoption of social commerce in the context of Malaysian SMEs. Reviewing the literature, and via a pilot study, the authors have proposed factors that impact the acceptance of social media. Taiminen and Karjaluo (2015) have sought to obtain insight into the usage and goals of online marketing by SMEs in Finland, with a particular focus on variables that affect the implementation and usage of new channels of digital marketing. The findings reveal that SMEs in Finland do not utilize digital technologies to their full potential, hence they are unable to benefit from them.

A review of the literature described above indicates that social commerce utilization by SMEs is poorly researched. The extant literature focuses on various countries, such as Saudi Arabia (Abed, 2020), Malaysia (Adam et al., 2016; Ainin et al., 2015), Indonesia (Effendi et al., 2020), UAE (AlSharji et al., 2018), Oman (Alraja et al., 2020), and Finland (Taiminen & Karjaluo, 2015). However, only one study has been conducted in the Jordanian context (Trawnih et al., 2021), and no theory-based and quantitative study has been identified. Therefore, the current study attempts to fill the research gap by conducting a theory-based and quantitative study to assess the adoption of social commerce among SMEs in Jordan.

THEORETICAL FOUNDATION AND DEVELOPMENT OF HYPOTHESES

INTEGRATED TAM AND THE TOE FRAMEWORK

The Technology Acceptance Model (TAM) is a theoretical framework that aims to understand and predict an individual's acceptance and use of technology. It was first proposed by Davis et al. (1989) and has since become one of the most widely studied models in the field of information systems. According to TAM, an individual's intention to use technology is influenced by two key factors: perceived usefulness and perceived ease of use. Perceived usefulness refers to the extent to which an individual believes that using technology will enhance their job performance or personal life. Perceived ease of use, on the other hand, refers to the extent to which an individual believes that using technology is simple and effortless. These two factors are considered to be the primary determinants of an individual's intention to use technology, and ultimately, their actual use of the technology.

TAM has been applied in a variety of contexts, including the adoption of information systems in organizations (Zabadi, 2016), the adoption of mobile technologies (Muflih, 2022), and the adoption of e-learning systems (Al-Adwan, 2020; Al-Adwan, Yaseen, et al., 2022). Researchers have found that TAM is a reliable and valid model for predicting an individual's intention to use technology and that it is able to explain a significant amount of variance in the adoption of technology (Venkatesh et al., 2003). Several extensions to TAM have been proposed in the literature, including additional predictor variables, such as attitude, subjective norm, and perceived risk. These extensions have been developed to address some of the limitations of the original TAM model and to better fit the technology

adoption process in different contexts (Venkatesh & Bala, 2008). However, it is argued that the TAM model ignores organizational and environmental effects when used to investigate the adoption of ICT-based innovations such as social commerce (Qalati et al., 2022). Additionally, it is acknowledged that it is essential to include both human and non-human viewpoints into a single model since it offers more advantages than conventional models (Wong et al., 2020). The current research believes that these external variables of the TAM are rooted in another model – the TOE framework – which consists of three main elements: technology, organization, and environment.

The TOE framework, on the other hand, is a multidimensional model that aims to understand the factors that influence the adoption and diffusion of technology in organizations (Tornatzky et al., 1990). It considers the influence of three key dimensions: technology, organization, and environment. The technology dimension refers to the characteristics and capabilities of the technology itself, while the organization dimension refers to the internal characteristics and processes of the organization. The environment dimension refers to the external factors that influence the adoption and diffusion of technology, such as regulatory policies and competitive pressures. The TOE model considers the elements of technology, organization, and environment, and the many sub-factors that impact the adoption of innovation (El-Haddadeh, 2020). The TOE model has been used for examining a variety of digital technologies, for example, e-business and e-commerce, and organizational readiness to adopt technological innovation (Awa et al., 2016; Yaseen et al., 2022). Additionally, the TOE model is utilized for testing the implementation of technology by SMEs (Sabi et al., 2018). In the current study, the literature review focuses on the TOE framework in the SME context to identify factors that may impact the implementation of social commerce.

Several studies have integrated TAM and the TOE framework to investigate the adoption of social commerce in organizations (Abed, 2020; Tripopsakul, 2018). These studies found that the integration of TAM and the TOE framework was able to explain a significant portion of the variance in the adoption of social commerce in small and medium-sized enterprises. Other studies have also found that the integration of TAM and the TOE framework can provide a more comprehensive understanding of the factors that influence the adoption of social commerce in organizations (e.g., Dang et al., 2020). Overall, the integration of TAM and the TOE framework provides a useful approach for understanding and predicting the adoption of social commerce in organizations. Its insights can inform the design and implementation of social commerce initiatives, and help organizations better understand the factors that influence the success of these initiatives. The following discussion describes the three factors and constructs and the research hypotheses.

THE TECHNOLOGICAL FACTORS

The extant literature has used the TOE framework for assessing technology adoption by SMEs (Ahmad et al., 2019; Effendi et al., 2020; Ndekwa & Katunzi, 2016) and defines the technological context as the IT innovation characteristics that impact the organizational implementation of technology. To this end, this study uses perceived usefulness and security concerns as the technological factors that influence social commerce implementation in the context of Jordanian SMEs.

The perceived usefulness

According to Davis (1989), perceived usefulness is an element of the TAM. Perceived usefulness concerns the degree to which an individual considers that the technology adoption at the workplace will improve their work performance. The TAM contends that perceived usefulness directly influences the behavioral intentions of individuals to adopt technology (Rana et al., 2019). Past studies have found that perceived usefulness significantly positively impacts the adoption of technology among individuals (Jamal & Sharifuddin, 2015). Perceived usefulness has been explored by a variety of studies, for example, in relation to social media marketing, the business-to-business context (Al-Masaeed, 2018; Eid et al., 2019), the banking sector (Alraja & Malkawi, 2015), mobile services (Abbas

& Hamdy, 2015), blogging (W. Y. Wang et al., 2016) and the hospitality industry (Leung et al., 2015). Therefore, the following hypothesis is formulated:

Hypothesis₁: *Perceived usefulness has a significant and positive impact on behavioral intentions to adopt social commerce.*

Security concerns

Insecurity related to the usage of technology to perform a transaction causes security concerns (Saif-ur-Rehman, 2016). Furthermore, the increasing complexity of computer networks raises security risks (Qian et al., 2012). Many past studies have investigated the security risks related to the application of digital technologies (Ho et al., 2017). Additionally, past studies have examined the security risks associated with the implementation of technology among SMEs (Akgül, 2018). The extant literature has found a negative relationship between security concerns and the adoption of technology by organizations (Rugova & Prenaj, 2016). Therefore, security concerns are possible barriers among SMEs to the adoption of social commerce (Salum & Rozan, 2016). Thus, security issues are an important factor in the context of social commerce implementation. Based on the above review of the literature, the following hypothesis is formulated:

Hypothesis₂: *Security concerns significantly negatively impact the adoption of social commerce.*

THE ORGANIZATIONAL CONTEXT

The organizational context of the TOE framework is concerned with organizational features that influence the adoption of technology (Bhattacharya & Wamba, 2018), and the business needs to guarantee that the inter-organizational procedures are ready for technology adoption (W. Y. Wang et al., 2016). The present study evaluates two organizational contexts that impact the adoption of social commerce among SMEs: high-level management support and organizational readiness.

Support by high-level management

High-level management support in the organizational context concerns the degree to which support from higher management is provided to support the adoption of technology (Qalati et al., 2020). Various researchers have scrutinized the cruciality of support by high-level management for the successful adoption of technology by businesses (Abed, 2020; Alrousan et al., 2020). Since those at the top of a hierarchical structure tend to possess ultimate influence in formulating mindsets, standards, and views, often in cooperation with individuals and organizational divisions, high-level management support is essential for influencing the adoption of technology. Thus, it is expected that strong managerial support is necessary for the adoption of technology such as social commerce. Based on the above, the following hypothesis is formulated:

Hypothesis₃: *Support from high-level management significantly and positively contributes to the adoption of social commerce.*

Organizational readiness

Organizational readiness is an element usually explored among the organizational factors of the TOE model and refers to the accessibility of monetary and technical resources to support the adoption of technology (Abeysinghe & Alsobhi, 2013). The extant literature asserts that organizational readiness concerning the availability of financial and technical resources positively influences new technology adoption (AlSharji et al., 2018). Fathian et al. (2008) have studied e-readiness frameworks and identified key factors contributing to the adoption of technology by Iranian SMEs. The e-readiness assessment of Fathian et al. (2008) has identified organizational readiness as a significant predictor of technology adoption among SMEs. Therefore, the current study constructs the following hypothesis:

Hypothesis₄: *Organizational readiness significantly and positively contributes to the adoption of social commerce.*

THE ENVIRONMENTAL CONTEXT

The environmental element of the TOE model considers the business environment as an encouraging or discouraging factor in technology adoption by organizations (Rogers, 2002). The environmental context incorporates various factors in the assessment of organizational adoption of technology, such as industry structures, service providers, accessibility of technology, and dictatorial organizational environment (Awa et al., 2016). Additionally, factors such as the availability of support infrastructure and the existence of skilled consultants, labor, and suppliers of technology are major environmental elements that can influence SMEs' technology acceptance (Baker, 2012). The current research evaluates two environmental aspects that can influence social commerce implementation among SMEs in Jordan: consumer pressure and trading partner pressure.

Consumer pressure

The relationship between organization and consumer plays an important role in the adoption of technologies (Abed, 2020). The consumer–organization relationship characteristics that can affect organizational adoption of technologies include commitment, encouragement, consumer pressure, and trust. As per Wei et al. (2022), the COVID-19 pandemic has accelerated the adoption of online shopping and thus led to a significant shift in consumer behavior, as consumers are now demanding convenience, personalization, and availability of options. Changing consumer behavior means retailers are forced to turn to digital shopping platforms. Additionally, companies are forced to turn to social commerce because it provides consumers with valuable information about the product or service. The virtual shopping environment lacks the physical touch; therefore, social commerce plays a vital role in overcoming uncertainty surrounding online shopping (Li, 2019). Various studies have investigated the role of consumer pressure in forcing organizations to adopt new technologies (Chatzoglou & Chatzoudes, 2016; Kumar et al., 2019; Maduku et al., 2016). Consumer pressure has a positive influence on technology adoption among consumers. Therefore, this study devises the following hypothesis:

Hypothesis₅: *Consumer pressure significantly and positively contributes to the adoption of social commerce.*

Trading partner pressure

Trading partner pressure is key to raising organizational readiness for the adoption of new technologies (Gutierrez et al., 2015). H. F. Lin and Lin (2008) have stated that the organization–trading partner relationship is a key determinant of inter-organizational adoption of new technology. A powerful supplier can force an organization to adopt new technologies (Iacovou et al., 1995). Moreover, the greater the expertise of the supplier and trading partner in handling emerging technologies, the greater the chance of the business engaging in inter-organizational digital transformation (Simatupang & Sridharan, 2005). Therefore, trading partner pressure significantly influences the implementation of new technologies in an organization (Sila, 2013). As such, this study formulates the following hypothesis:

Hypothesis₆: *Trading partner pressure significantly and positively impacts the adoption of social commerce.*

ACTUAL USAGE BEHAVIOR OF SOCIAL COMMERCE

Behavioral intentions encourage people or businesses to use new technologies. In the SME context, the intention to use social commerce indicates the actual usage of social media or social commerce tools for online buying and selling. Many psychological and behavioral models, including the TAM and the TOE framework, confirm the role of behavioral intentions in predicting a customer's behavior (Yu & Ramanathan, 2012). According to the findings of O. Khan et al. (2020), behavioral intentions have a positive link to actual usage behavior in the adoption of mobile phone online banking systems. Furthermore, I. U. Khan et al. (2018) have conducted research involving the adoption of internet-based courses and have reported that users' behavioral intentions to adopt social commerce have a positive connection with usage behavior. Sheikh et al. (2017) have also referred to the positive

impact of behavioral intentions on determining actual usage behavior in the adoption of social commerce by SMEs. Therefore, the below hypothesis is formulated:

Hypothesis₇: *Behavioral intentions to use social commerce significantly and positively impact the actual usage behavior of SMEs.*

The conceptual framework is illustrated in Figure 1.

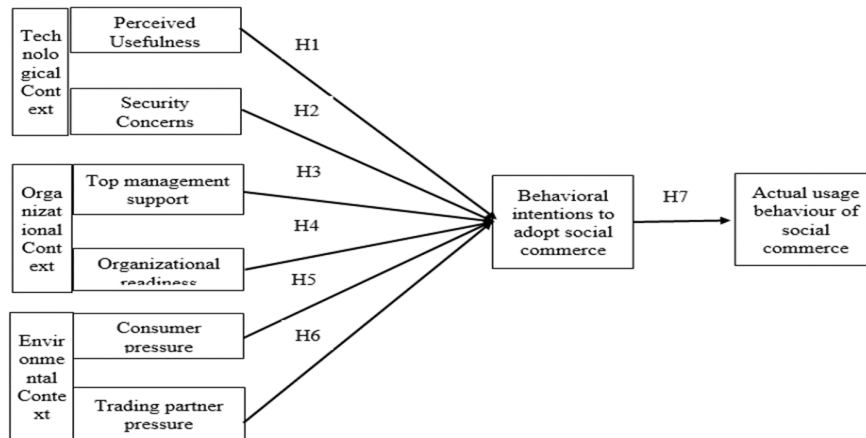


Figure 1. Conceptual framework

METHODOLOGY

The current study employs a quantitative method and gathers data via a self-administered questionnaire for Jordanian SMEs. The questionnaire was designed to measure the constructs of the TOE framework as per the existing literature on technology adoption: technological factors (perceived usefulness and security concerns), organizational factors (high-level management support and organizational readiness), and environmental factors (consumer pressure and trading partner pressure). For all constructs, the study used a Likert scale point questionnaire ranging from 1 to 7, where 1 represents strongly disagree and 7 represents strongly agree. To control for language and cultural barriers, the questionnaire was translated into Arabic (Abed, 2020). To validate the questionnaire in the Jordanian context, the authors conducted a pilot study and received responses from 15 managers or owners of Jordanian SMEs, asking for feedback on any difficulty in understanding or providing answers to the given questions (Hair et al., 2013). All the items in the questionnaire were then checked for appropriateness in terms of clarity, length, and ease of language. The research used a convenience sampling method to collect the data because it involves minimal time and cost (Franzosi, 2004). Convenience sampling allows for easy generalization of the results due to its flexibility, and the authors included SMEs with various natures and characteristics and from various sectors (Franzosi, 2004). An internet-based survey was devised using the questionnaire generated in Google Forms, and its link was emailed to the Jordanian SMEs. The data collection process lasted for almost two months (from 11 May to 8 July 2022). A maximum of three reminders was sent to the respondents. The Google Form indicates the total number of respondents and the percentage of questionnaires completed. A total of 218 completed questionnaires were deemed appropriate for analysis. Table 1 details the scale items used in this study.

MEASUREMENT

The questionnaire form consisted of two main sections. The first section requested the respondents to provide their demographic information (see Table 1). The second section consisted of 31 measurement items to measure the various constructs in the research proposed framework. These items

were adopted from well-established and related research. Specifically, to measure perceived usefulness, this research adopted the four-item scale of Abed (2020) and Venkatesh and Davis (1996). Security concerns were measured using the four items from the studies of Soliman and Janz (2004), and Molla and Licker (2005). The study measured organizational readiness and high-level management support using the five-item scale from the studies of Wu et al. (2003), Abed (2020), and Soliman and Janz (2004). For measuring consumer pressure, the study used the Abed (2020) and Wu et al. (2003) scale, and finally, for pressure from trading partners, the six-item scale from the studies of Wu et al. (2003), H. F. Lin and Lin (2008), Grandon and Pearson (2004), Abed (2020), and Soliman and Janz (2004) were used. The actual usage behavior was measured using the scale of Venkatesh et al. (2003, 2012), examining the usage frequency of social commerce. The questionnaire is shown in the Appendix.

Table 1. The respondents' demographic information

Demographic		Frequency	Percentage
Gender	Male	124	57%
	Female	94	43%
Age	18-23	29	13%
	24-29	49	22%
	30-35	92	42%
	>35	48	22%
Your position in the business	Owner	62	28%
	Manager	73	33%
	Employee	83	38%
Number of employees in the business	2-49	158	72%
	50-200	60	28%
Business sector type	services	72	33%
	Manufacturing	51	23%
	Retailing/sales	80	37%
	Other	15	7%
Does your company have a website?	Yes	143	66%
	No	75	34%

DATA ANALYSIS

The collected data was coded into SPSS 23, for data screening, and SmartPLS, for statistical analysis and correlations. Several justifications for using PLS-SEM to examine similar models have been widely discussed (Hair et al., 2017). The most frequently mentioned reason is its capability to deal with small sample sizes (and its appropriateness for non-normally distributed datasets); however, the current research used PLS-SEM for its estimation capability regarding diverse and interconnected dependent relations among variables and for its allowing the measuring of latent constructs (Hair et al., 2017). Particularly, PLS-SEM has good predictive capabilities and can provide insights into the underlying structure of the data, helping researchers to identify key drivers and relationships. Furthermore, PLS-SEM is well-suited for analyzing data with a high degree of multicollinearity, as it is able to handle correlated predictor variables more effectively than traditional regression models. SmartPLS is a software tool that can be used for structural equation modeling (SEM) and partial least squares (PLS) analysis. SEM is a statistical technique for testing and estimating relationships between variables, and PLS is a variant of SEM that is particularly useful for analyzing data from small sample sizes or when the underlying relationships in the data are not well understood. The Kolmogorov–Smirnov test reveals that the goodness of fit for each measurement item was less than 0.05, indicating that the data in this research were not normally distributed (Massey, 1951). This supports the suitability of PLS-SEM using SmartPLS for analyzing the data of this study.

The data were analyzed using a two-step analytic procedure. First came a measurement model that allows for examining the reliability to confirm the internal consistency and validity of data to confirm its legitimacy. The second step involved a structural model to test the postulated relations among study constructs (Hair et al., 2017).

MEASUREMENT MODEL

The measurement model accesses various measures to examine the robustness of data, including the calculation of convergent validity, composite reliability, average variance extracted (AVE), and factor loadings. Table 2 and Figure 2 present the measurement model outcomes. The results depict the factor loading values above 0.7, as per the Hair et al. (2017) criterion. The Hair et al. (2009) criterion suggests that the AVE must be above 0.5, and Table 2 contains all AVE figures that fall within 0.612 and 0.820, the acceptable range. Likewise, the value of composite reliability falls within the range of 0.863 to 0.948, and the values remained within the range recommended by Hair et al. (2009).

Table 2. Measurement model results

Construct	Items loadings	Cronbach Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)	
Perceived usefulness (PU)	PU1	0.911	0.928	0.909	0.820
	PU2	0.938			
	PU3	0.891			
	PU4	0.881			
Security concern (SC)	SC1	0.872	0.850	0.895	0.681
	SC2	0.789			
	SC3	0.891			
	SC4	0.739			
Organizational readiness (OR)	OR1	0.945	0.939	0.954	0.806
	OR2	0.816			
	OR3	0.918			
	OR4	0.892			
	OR5	0.914			
Support by top management (TMS)	TMS1	0.798	0.906	0.931	0.729
	TMS2	0.792			
	TMS3	0.908			
	TMS4	0.885			
	TMS5	0.879			
Consumer Pressure (CP)	CP1	0.818	0.794	0.863	0.612
	CP2	0.780			
	CP3	0.800			
	CP4	0.727			
Pressure from trading partners (PTP)	PTP1	0.867	0.873	0.948	0.667
	PTP2	0.861			
	PTP3	0.862			
	PTP4	0.725			
	PTP5	0.757			
Social commerce adoption intention	BI1	0.772	0.842	0.905	0.762
	BI2	0.909			
	BI3	0.930			
Actual Usage behavior	AUB-1	-	-	-	-

Furthermore, the study tested discriminant validity using the criteria of Henseler et al. (2015) and Fornell and Larcker (1981). Henseler et al. (2015) have criticized the criterion suggested by Fornell and Larcker and argued that it does not correctly detect the absence of discriminant validity in the scope of general research. The current study tested discriminant validity using the Fornell and Larcker criteria purely for referencing purposes. The values shown in Tables 3 and 4 are satisfactory according to the recommended criterion and confirm the presence of discriminant validity in the data (Fornell & Larcker, 1981), as the values of the square root of AVE shown at the diagonal are above their correlated values presented off-diagonal for all constructs. The discriminant validity was then checked using the heterotrait–monotrait ratio, as per Henseler et al. (2015). Table 4 presents the results of the heterotrait–monotrait correlation ratio, showing that all values are lower than the criterion of 0.85, as per Gold et al. (2001).

Table 3. Fornell and Larcker (1981) criterion

Constructs	CP	BI	OR	PU	PTP	SC	TMS	AUB
Consumer Pressure	0.782							
Social commerce adoption intention	0.200	0.873						
Organizational readiness	0.052	0.371	0.898					
Perceived usefulness	0.351	0.188	0.401	0.906				
Pressure from trading partners	0.040	0.515	0.433	0.174	0.817			
Security concern	0.468	0.147	0.231	0.288	0.020	0.825		
Support by top management	0.135	0.462	0.133	0.147	0.313	0.029	0.854	
Actual use behavior	0.341	0.252	0.311	0.223	0.321	0.15	0.233	1

Table 4. Heterotrait-Monotrait Ratio (HTMT)

Constructs	CP	BI	OR	PU	PTP	SC	TMS	AUB
Consumer Pressure								
Social commerce adoption intention	0.224							
Organizational readiness	0.169	0.395						
Perceived usefulness	0.377	0.297	0.427					
Pressure from trading partners	0.105	0.597	0.478	0.390				
Security concern	0.529	0.216	0.287	0.309	0.179			
Support by top management	0.153	0.535	0.147	0.168	0.352	0.081		
Actual use behavior	0.232	0.344	0.165	0.276	0.347	0.487	0.156	0.000

STRUCTURAL MODEL ASSESSMENT

The groundbreaking research of Hair et al. (2011) has suggested that the R-squared value reflects the goodness of fit for the structural model and the significance levels of the path coefficients. The R-squared value for social commerce adoption intention is 0.423, indicating that 42.3% of the variance of social commerce adoption intention can be explained by consumer pressure, organizational readiness, perceived usefulness, pressure from trading partners, security concerns, and support from high-level management. The R-squared value for actual usage behavior is 0.587, showing that 58.7% of the variance in actual usage behavior of social commerce can be explained by user intentions of using social commerce. In further statistical assessment, the study conducted bootstrapping analysis, and the outcomes are given in Table 5. The results indicate that consumer pressure, organizational readiness, pressure from trading partners, and support by high-level management have a statistically significant effect on adoption intentions for social commerce. Conversely, both perceived usefulness

and security concerns have an insignificant relation to intentions to adopt social commerce; thus, Hypotheses 3, 4, 5, 6, and 7 are supported. Figure 2 shows the validated model.

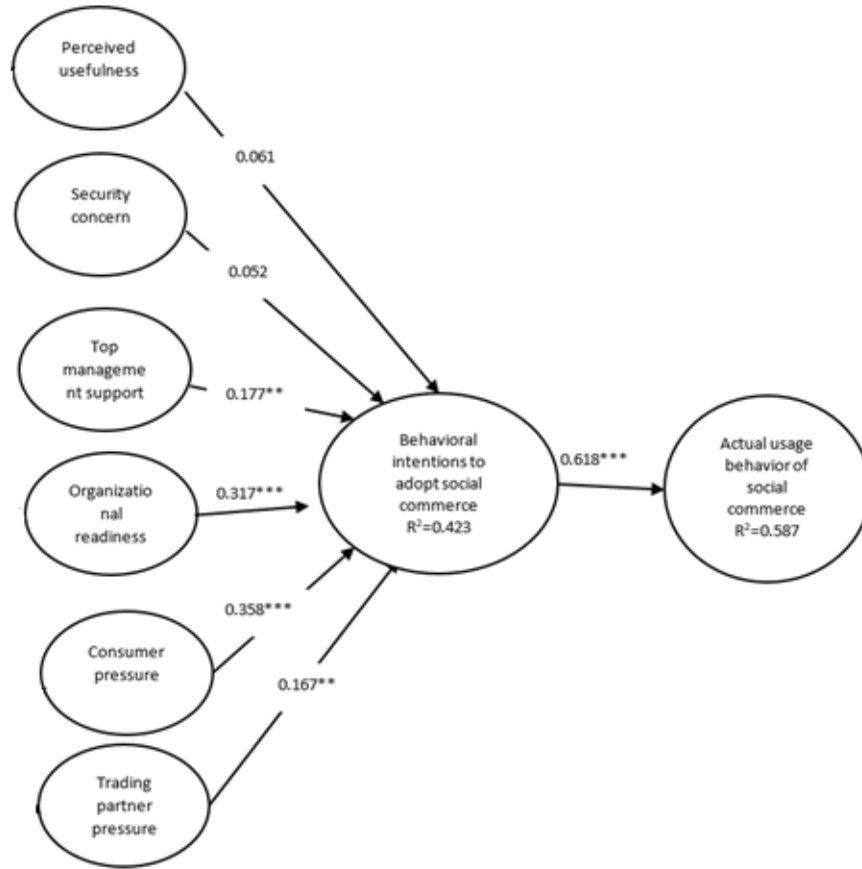


Figure 2. Structural model

Table 5. Results

Hypothesis	Path coefficient	T Statistics	P Value	Results
H1: Perceived usefulness -> behavioral intentions to adopt social commerce	0.061	0.958	0.338	Not supported
H2: Security concern -> behavioral intentions to adopt social commerce	0.052	0.646	0.518	Not Supported
H3: Organizational readiness -> behavioral intentions to adopt social commerce	0.177	2.622	0.009	Supported
H4: Support by top management -> behavioral intentions to adopt social commerce	0.317	5.173	0.000	Supported
H5: Pressure from trading partners -> behavioral intentions to adopt social commerce	0.358	5.342	0.000	Supported
H6: Consumer pressure -> behavioral intentions to adopt social commerce	0.167	2.730	0.007	Supported
H7: Behavioral intentions to adopt social commerce -> Actual usage behavior of social commerce	0.618	7.320	0.000	Supported

DISCUSSION

The current empirical examination measures the user's intentions to adopt social commerce in Jordanian SMEs using the TOE framework. The existing literature supports the use of the theoretical model drawn from the TOE framework. The study examined data using PLS-SEM. The study tested a total of 6 hypotheses, 2 for each of the 3 dimensions: technological, organizational, and environmental. All factors were significant. The technological dimension refers to the first two hypotheses. Hypothesis 1 refers to the influence of perceived usefulness on the behavioral intentions of SMEs to adopt social commerce. According to Davis (1989), perceived usefulness is viewed as a significant antecedent of behavioral intentions to adopt new technology. In alliance with Davis (1989), most of the research (Abbas & Hamdy, 2015; Abed, 2020; Achyar & Gloria, 2021; Elkaseh et al., 2016) supports significant and positive relationships between perceived usefulness and behavioral intentions to use social commerce by SMEs. However, the results of the current research were found to be greatly inconsistent with previous studies, as there is an insignificant association between perceived usefulness and behavioral intentions to adopt social commerce, ($\beta = 0.061, p = 0.338$). Social commerce is still in its evolution stage and is not yet seen as an important and convenient method of contact by either Jordanian firms or consumers. Yan et al. (2009) have conducted a study to measure the relationship between perceived usefulness and behavioral intentions for adopting a mobile paying service and have argued that one of the possible reasons behind the insignificant relation might be the greater emphasis placed on existing payment patterns, such as cash or credit card payments, still considered as more reliable payment methods. Similarly, Jordanian firms rely more on traditional methods for contacting consumers rather than adopting social commerce. Thus, it seems that Jordanian consumers tend to overlook social commerce or are mostly uninformed about the importance of social commerce, as they believe that existing techniques are more useful. Hypothesis 2 examines the influence of security concerns on the behavioral intentions of SMEs to adopt social commerce and finds an insignificant relationship between the two variables ($\beta = 0.052, p = 0.518$). Most scholars of technology adoption have confirmed a positive and significant impact of security concerns on the behavioral intentions of SMEs for adopting social commerce (Abed, 2020; Haddara et al., 2022; Salum & Rozan, 2016). However, the current study found inconsistencies in the Jordanian context, which might be due to cultural differences, as Jordanian firms rely more on traditional ways to interact with customers and have minimal trust in using social commerce to connect with customers due to security concerns.

The organizational factors refer to Hypotheses 3 and 4. Hypothesis 3 examines the effect of high-level management support on the behavioral intentions of SMEs to use social commerce and is supported ($\beta = .177, p = 0.009$). The findings are consistent with the existing literature examining the influence of high-level management support on the behavioral intentions of SMEs to adopt social commerce (Abed, 2020; Gangwar et al., 2015; Low et al., 2011; Torki Biucky et al., 2017). Hypothesis 4 examines the influence of organizational readiness on the behavioral intentions of SMEs to use social commerce, and the results confirm a positive and significant relationship ($\beta = .317, p = 0.000$). The outcomes are similar to those of most prior research on technology adoption (Abed, 2020; Gangwar et al., 2015; Low et al., 2011), with the findings supporting that organizational readiness positively influences the behavioral intentions of SMEs to adopt social commerce.

The environmental perspective refers to the final two hypotheses, with H5 examining the relationship between consumer pressure and SMEs' intentions for using social commerce and confirming a significant relationship ($\beta = .318, p = 0.000$). The results are consistent with those of much of the previous research on technology adoption (Chatzoglou & Chatzoudes, 2016; Kumar et al., 2019; Maduku et al., 2016; Nugroho et al., 2017) and confirm a positive relationship between consumer pressure and SMEs' behavioral intentions for adopting social commerce. Hypothesis 6 investigates the impact of the pressure of trading partners on SMEs' behavioral intentions to adopt social commerce, and the results support the relation ($\beta = .167, p = .007$). The findings are similar to those of many prior studies on technology adoption (Abed, 2020; Gutierrez et al., 2015; Li & Ku, 2018) and

confirm a significant and positive relationship between trading partner pressure and SMEs' behavioral intentions for adopting social commerce. Finally, Hypothesis 7 examines the impact of behavioral intentions for adopting social commerce on actual usage behavior towards social commerce ($\beta = .618, p = .000$). The results confirm the proposed relationship between the two variables. The results are similar to those of existing research (O. Khan et al., 2020; Sheikh et al., 2017; Venkatesh et al., 2012) and confirm the impact of behavioral intentions to adopt social commerce on actual usage behavior.

IMPLICATIONS

This study has many significant contributions to the existing studies on firms' adoption of social commerce. It indicates that organizational readiness from the organizational perspective and consumer pressure from the environmental dimension of the TOE model are significant influential elements in the adoption of social commerce in business, followed by high-level management support and trading partner pressure, respectively. This shows that organizational readiness to adopt social commerce and consumer pressure has a vital role in Jordanian SMEs' adopting social commerce. However, both technological factors (perceived usefulness and security concerns) were found to have insignificant influences on SMEs' adoption of social commerce. This might be due to high cultural rigidity and conservatism in the Jordanian context, as Jordanian firms and consumers prefer traditional methods of interaction to new technological methods, such as social commerce. Moreover, a lack of awareness of new technology and its potential benefits is apparent in the Jordanian context. In short, both the organizational and environmental dimensions of the TOE framework significantly influence behavioral intentions for social commerce adoption in the Jordanian context, whereas technological factors do not affect the behavioral intentions of SMEs to adopt social commerce. In the technological context, SMEs should invest in technology and spread awareness among Jordanian consumers of the potential benefits of technology, encouraging them to use social commerce platforms to interact. This is because there is a high significance of social commerce for businesses, as it facilitates the quick completion of tasks, enhances productivity, and improves the chances of high profitability. Moreover, the owners and managers of SMEs should consider laws relating to the security concerns of consumers, offering a secure platform for making transactions and ensuring privacy, ease of accessibility, and high affordability. From an organizational perspective, the current study shows that although there is high organizational readiness for adopting social commerce, more support from high-level management to successfully launch the required technology and reap its maximum benefits is required. There should be a high willingness of SME proprietors and managers to bear the risks associated with social commerce and its adoption. They should adopt social commerce as one of their firm's key strategies for achieving a competitive advantage. In addition, firms should ensure the accessibility of economic and technology-related resources needed for the adoption of social commerce, for example, high internet connectivity, computers, or mobile devices to interact with consumers. Concerning the environmental context, owners and managers are required to build and practice strong relationships with their consumers, as the results indicate that consumer pressure is an important indicator of social commerce adoption in the Jordanian context; consumers should be a priority, and SMEs should listen to consumers so that they consider the firms as flexible and open to implementing social commerce-related initiatives. Moreover, the managers of SMEs should consider the pressure of trading partners to adopt social commerce, particularly if suppliers or trading partners have already adopted it because social commerce tools (such as e-mail, fax, online forums for collaboration, and social media) are the most frequently used mode of communication among suppliers and trading partners.

CONCLUSION AND LIMITATIONS

This research aims to identify the key factors that impact the behavioral intentions of SME businesses to adopt social commerce. The theoretical underpinning of the study lies in the TOE model, as its basic assumptions help develop the conceptual grounds and hypothesis of the study. The research employed a self-administered questionnaire and surveyed 218 Jordanian SMEs. The data was analyzed using SmartPLS, and the results reflect the characteristics of respondents, study description, results of regression assumptions (e.g., data normality, reliability, validity, common method biases, and description of the measurement model), and findings of the hypothesis analysis. The results show that the first two hypotheses as explored from a technological perspective are rejected, whereas all other hypotheses are accepted. Specifically, organizational readiness from an organizational perspective and consumer pressure from an environmental viewpoint remain significant factors in Jordanian culture that affect the behavioral intentions of SMEs to adopt social commerce, followed by high-level management support and trading partner pressure, respectively.

The current study represents a unique examination of the social commerce context, but it has some limitations. First, the study is limited in scope, as it discusses the direct links between the TOE framework, behavioral intentions to use social commerce, and the actual usage of social commerce in the Jordanian context rather than testing the mediation and moderation. Future research could examine the moderating effects (e.g., business sector type) on the various relationships proposed in the research model in this study. Second, the research examines the behavioral intentions of SMEs rather than consumers to adopt social commerce. Future research could consider the consumer perspective on social commerce. Third, the study findings are not generalizable in different contexts, as data was gathered from the Jordanian population only. However, as recommended by Al-Soud (2018), future studies could consider different contexts, sectors, cultures, or countries to examine the model. Finally, the research involved collecting data using convenience sampling from 218 SMEs in Jordan, which could have created difficulty in the generalizability of the research, so future studies could examine a larger sample.

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APPENDIX. QUESTIONNAIRE

OR1: "Our company has the financial resources to adopt social commerce."

OR2: "Our company has the technological resources to adopt social commerce."

OR3: "We have high connectivity to the Internet."

OR4: "Most of our employees have unrestricted access to computers."

OR5: "Most of our employees are computer literate."

TMS1: "Our top management is willing to take risks involved in the adoption of social commerce."

TMS2: "Our top management is likely to consider the implementation of social commerce applications as strategically important."

TMS3: "According to top managers in our firm, incorporating social commerce practices is a very important way to gain competitive advantage."

TMS4: "Top managers in our firm keep telling employees that they must bring more of their business practices online in order to meet customers' future needs."

TMS5: "Top managers often advise employees to keep track of the latest developments in Internet technologies and Internet-related business practices."

SC1: "We believe that there are effective laws to protect consumer privacy."

SC2: "We believe that there are effective laws to combat cybercrime."

SC3: "Secure electronic transaction and/or secure electronic commerce environment services are easily available and affordable."

SC4: "The nature of the business data regularly exchanged requires a secured communication medium."

PU1: "I would find social commerce useful in my job."

PU2: "Using social commerce enables me to accomplish tasks more quickly."

PU3: "Using social commerce increases my productivity."

PU4: "If I use social commerce, I will increase my chances to raise my income."

CP1: "Many of our customers are keen that we should implement social commerce practices."

CP2: "Our relationship with our major customers would have suffered if we had not implemented social commerce practices."

CP3: "Our customers may consider us as backward if we do not implement social commerce initiatives."

CP4: "A majority of our customers demand that we establish strong relationships with them on social media."

TPP1: "A majority of our trading partners have requested implementation of social commerce."

TPP2: "A majority of our trading partners have recommended implementation of social commerce."

TPP3: "Trading partners are generally very knowledgeable regarding social commerce practices."

TPP4: "A large number of our suppliers and trading partners have already adopted social commerce practices."

TPP5: "Our trading partners and suppliers usually set the mode of communication (e.g., fax, e-mail, online collaboration on forums and social media, etc.)"

BI1: "I intend to use social commerce in the future."

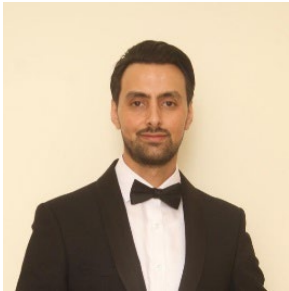
BI2: "I predict that I will use social commerce in the future."

BI3: "I plan to use social commerce in the future."

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