
Social Commerce and Its Role in Women's Empowerment and Innovation in Crises

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This study examines the determinants of social commerce adoption among women during crises, focusing on the potential impact of hedonic and utilitarian motivations, self-efficacy, and social support. It also examines the impact of social commerce adoption on women's empowerment and innovation. To achieve these aims, an online questionnaire was used to gather data from women who use social media platforms to produce and/or sell goods, services, and information to make a profit. Smart PLS, version 3, was used to estimate the research model and test hypotheses. The results confirmed that women's hedonic motivations, utilitarian motivations, self-efficacy, and social support significantly impact social commerce adoption among women. The findings also reveal that social commerce business has a significant role in women's empowerment and innovation during crises. This study provides novel contributions to the literature on social commerce, women's empowerment, and women's innovation in a crisis setting. Furthermore, it enhances the knowledge of policymakers and women business sponsoring organizations, and other organizations support women about the role of social commerce in women's empowerment and innovation.

1. Introduction

One of the most prominent features of COVID-19 was the widespread use of digital solutions in all aspects of human activities. The pandemic waves have augmented people's usage and engagement with social media by 61% over usual rates (Puriwat & Tripopsakul, 2021). These social computing platforms have introduced pervasive and substantial changes to interaction and collaboration between businesses, communities, and customers. Social media has transformed the landscape of electronic commerce, enabling people to effectively utilize these platforms for social communication and buying and selling products and services in the context of social commerce. This new paradigm of commerce enables consumers to benefit from social support and access information, advice, and suggestions of other consumers and experts, which support their paying decisions. In this regard, online referrals, forums, recommendations, and reviews represent the mechanisms that support and reinforce reliability and trustworthiness and, eventually, the spread of social commerce (Tajvidi et al., 2021; Zhang & Benyoucef, 2016).

The social, economic, and public health challenges and difficult living conditions that COVID-19 caused have increased pressure on women to assume more responsibility for their families and society, where creating employment opportunities has become a more imperious than ever in an environment with high unemployment rates. The literature emphasized that Information Technology (IT) advances have transformed women's social, economic, and political lives and enabled them to participate in bridging many socio-economic gaps by reshaping and creating new opportunities for growth and development of their role in society, facilitating women's empowerment (Shata & Seelig, 2021; Shukla et al., 2021). Digital platforms have been credited with providing a woman with novel employment prospects, self-employment opportunities, and further social development on the individual and communal levels, transforming women's self-efficacy and mobilizing social support (Alsmadi et al., 2022). Social commerce has provided unprecedented opportunities to empower a wide range of society members, including women, to independently exaggerate online business and engage in commercial activities via social media platforms to make an innovative difference in their societies. Social commerce has

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offered a great opportunity for women to self-employment and launch their online businesses while conducting their traditional roles and duties and striking a healthy work-family balance, empowering themselves and their families and communities.

Social media tools have become indispensable platforms for businesses to promote novel entrepreneurial ideas. They have enabled women to access available resources and funding opportunities, collaborate, and share information and knowledge with different stakeholders, contributing to further women empowerment (Beninger et al., 2016; Cesaroni et al., 2017). While the pandemic has involved a storm of challenges, social media has provided novel opportunities for entrepreneurial women to express their capabilities in creating new businesses and achieving positive innovative impacts in their lives and societies.

Investigating motivations and reasons behind women's adoption of social commerce is a crucial starting point for understanding the role of these platforms in women's empowerment and innovation. Literature has long studied why women pursue empowerment. The study of women's empowerment spans multiple research fields, such as woman's rights, economics, psychology, sociology, politics, business, and entrepreneurship. Across these fields, scholars have discussed many determinants and motivations that empower women and challenges against realizing their potential to initiate businesses in different contexts. In general, the literature includes many theories and frameworks that examine the drivers of IT adoption. Many scholars have attributed drivers of IT use to hedonic and utilitarian motivations. On the other hand, a woman believes in her capacity to make her own decisions and employ the necessary resources needed in a particular situation in terms of self-efficacy has been considered a critical construct to understanding the connection between IT use and women empowerment (Crittenden et al., 2019; Mackey & Petrucka, 2021). Furthermore, social support providing entrepreneurial women with a feeling of self-determination and accepted members of their community with the right to determine their own business has been widely investigated as an enabler of women's empowerment and entrepreneurship (Tahir & Raharja, 2021; Uddin, 2021).

Recently, the opportunities, constraints, and determinants of adopting IT for women have become an important area of research. The extant literature lacks sufficient details and depth on social commerce adoption among women. While many studies exist about women in business, e-commerce, and social media there is an absence of empirical studies on the role of social commerce in fostering women's empowerment. Unleashing women's innovation potential via social commerce has not yet been researched. The literature implies a lack of understanding of the determinants that enforce or impede women's adoption of social commerce. More specifically, the literature reveals a lack of empirical studies on the potential role of women's hedonic and utilitarian motivations, self-efficacy, and social support in adopting social commerce. Furthermore, no prior research has empirically explored the impact of social commerce on women's empowerment and innovation in crises.

Drawing on the aforementioned literature gaps, this study explores the determinants of social commerce adoption among women, focusing on the potential impact of hedonic and utilitarian motivations, social efficiency, and social support. It also examines the role of social commerce adoption in women's empowerment and expressing or developing the capabilities of women's innovation.

2. Theoretical Framework

Women's development and empowerment have become a priority socio-economic development trend (Bastian et al., 2019). The UN's 2030 agenda for sustainable development has considered women empowerment as one of the 17 sustainable development goals. Women empowerment describes the individual capability of women to increase their self-reliance, organize themselves, support their rights to transform personal interests and choices into desired outcomes, and control resources to eliminate their subordination (Keller & Mbewe, 1991; Mosedale, 2005). This empowerment is not only represented in an economic context but also as an ability of women to mobilize and organize separately and collectively for social changes in communities and society. This view has inspired many scholars to study the relationship between women's empowerment and entrepreneurship (Crittenden et al., 2019; Kushwah & Singh, 2021; P. Y. Ng et al., 2022). However, different issues on women's empowerment during the COVID-19 crisis have attracted many scholars (Cameron et al., 2021; Chatterjee et al., 2020; Kumari & Eguruze, 2022).

Women's empowerment tools and mechanisms have attracted considerable attention in previous studies. The literature emphasizes the role of the advancement in IT applications, networks, and devices in fostering women's empowerment (Shukla et al., 2021; Sultan & Sharmin, 2020). The literature reveals an increasing interest in the role of e-business and e-commerce in women's empowerment (Ghosh & Pandita, 2022; T. Hossain, 2018; Shukla et al., 2021). Most of these studies have linked e-business and women's empowerment through entrepreneurship. With the development and widespread of social computing platforms, scholars have intended to explore the role of social media in women's empowerment focusing on different social and gender issues (Cesaroni et al., 2017; Gangwani et al., 2021; Shata & Seelig, 2021).

Prior research that has placed more emphasis on the role of social media in women's empowerment in the context of business is very limited. For example, Paoloni et al. (2019) investigated the role of social media in overcoming the obstacles and challenges of women entrepreneurs by providing empowering business environments. Sultan and Sharmin (2020) examined the impact of Facebook live marketing on women entrepreneurs' empowerment. Cesaroni et al. (2017) discussed how the flexibility and attributes of social media have encouraged and opened up new business opportunities for female entrepreneurs. Furthermore, Maryam et al. (2021) explored the effect of fashion and beauty industry marketing via social media on women's empowerment. However, prior studies have confirmed the need for further research on how social media can empower

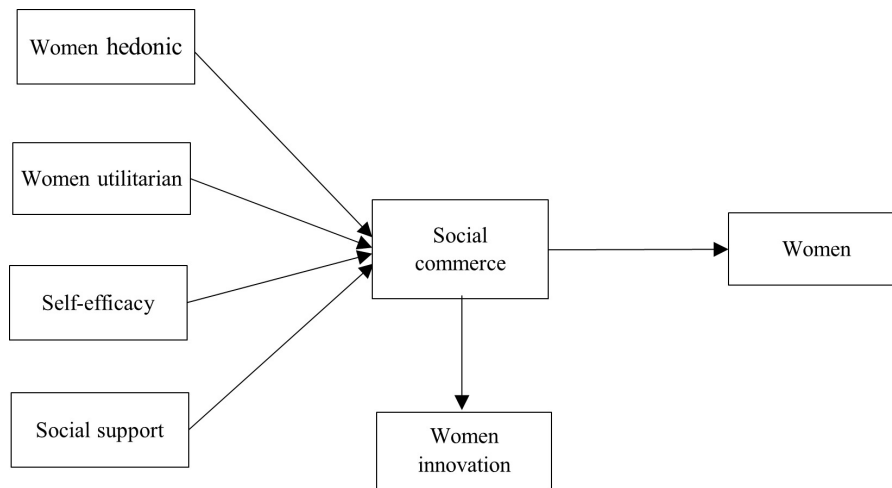


Figure 1. Research Model

women entrepreneurs to improve their productivity and profitability (Maryam et al., 2021; Paoloni et al., 2019).

Social media applications have become popular channels for expanding e-commerce practices and penetrating societies widely through sharing, promoting, and selling products and services from business to consumer as well as from consumer to consumer. The potential capabilities of Web 2.0 technologies have created novel innovative platforms for spreading e-commerce by making it social (Alsmadi et al., 2023; Zhou et al., 2022). According to Liang et al. (2011), social commerce is the employment of social media environment, mostly by using Web 2.0 tools and social networks to deliver e-commerce transactions and activities. The integration of practicing e-commerce and socializing via social media tools has led to the emergence of social commerce (Zhang & Benyoucef, 2016). However, the earlier works of this new diagram of commerce have intended to provide initial frameworks exploring the development of social commerce theory and practices, concentrating on technology, people, and business dimensions (Liang et al., 2011; Stephen & Toubia, 2010; C. Wang & Zhang, 2012). Consumer behavior and intention have also acquired substantial attention among social commerce scholars (Gao et al., 2022; Hajli, 2015; Zhang & Benyoucef, 2016).

While many scholars have focused on examining different groups of drivers of social commerce adoption from a business or consumer perspective, there is an absence of examining the drivers of women's adoption of social commerce and its role in fostering their empowerment. Hence, no prior empirical studies have explored the potential role of hedonic and utilitarian motivations, self-efficacy, and social support in adopting social commerce among women. Also, no prior studies have examined the impact of women's adoption of social commerce on their empowerment. Furthermore, the literature lacks empirical research on the impact of social commerce on women's innovation. E-commerce has received a large share of research in the COVID-19 crisis (Bhatti et al., 2020; Sharma, 2021). Although it gained momentum before the COVID-19 crisis, the scholarly interest in social commerce during the

pandemic was less than expected. Special attention has been devoted to understanding how social media affects consumer behavior and purchase intention during the crisis (Alhubaishy & Aljuhani, 2021; Ali Taha et al., 2021; Prase-tyo et al., 2020).

Drawing on the literature gaps, this study proposes that social commerce has a significant role in women's empowerment and innovation. It also posits that hedonic and utilitarian motivations, self-efficiency, and social support significantly impact social commerce adoption among women. See [Figure 1](#).

Furthermore, the research model of this study proposes a significant role of social support in social commerce adoption and women's empowerment. These proposed relationships and related hypotheses are discussed below.

2.1. The Role of Women's Hedonic and Utilitarian Motivations

Utilitarian and hedonic motivations are widely considered robust determinants in understanding attitudes and behavioral intentions in the context of IT adoption (Lim, 2014; Sütütemiz & Saygılı, 2020; Zheng et al., 2019). Venkatesh and Brown (2001) emphasized that whereas hedonic values represent intrinsic motivations, utilitarian values represent extrinsic motivations. However, scholars have used hedonic and utilitarian motivations to explain behavior, purchase intention, and engagement in social commerce practices, focusing on consumers' perspectives (Winarko et al., 2022; Zhang & Benyoucef, 2016). They confirmed that social commerce contains both business and social outcomes, which provides a reasonable basis to examine the impact of utilitarian and hedonic motivations on women's adoption of this new form of e-commerce.

The hedonic motivations concept describes satisfaction in terms of happiness, enjoyment, fantasy, awakening, sensuality, and emotional experience (Hirschman & Holbrook, 1982). The literature has mentioned many hedonic motivations for engagement in social media and online marketing, including role-playing, status, self-gratification, learning new trends, curiosity, adventure, stimulation, and diversion

(Sütütemiz & Saygılı, 2020; To & Sung, 2014). Hedonic-oriented seller seeks pleasant experiences, emotional connections, enjoyment in helping others, and information sharing, representing the social side of social commerce.

Offline limitations of women inspire them to explore online alternatives in developing their businesses (Cesaroni et al., 2017). Camacho and Barrios (2021) confirm that gender equality and the need for women to confirm real participation and gain equal opportunities for business and economic leadership have motivated them to adopt social commerce. Bulanova et al. (2016) also emphasized that some non-financial reasons, such as excitement and joy motivate women entrepreneurs to launch their businesses. This implies that a woman with a hedonic orientation can benefit from social, emotional, and experiential dimensions of social commerce. Social commerce provides women with a new opportunity to meet new people, as offline social contacts are limited and close to their family members. According to Jin and Ryu (2020), women adopt social commerce to increase self-esteem and redefine their role at home, in the business world, and society.

Crises effects are never gender-neutral (Liu et al., 2021). Adams-Prassel et al. (2020) believed that women have borne the brunt of the social and economic effects of the COVID crisis. The COVID-19 pandemic has challenged the social responsibilities and sense of community of women business owners and their ability to transcend socially accepted behavior in response to the unique context of COVID-19 (Jaim, 2021; Liu et al., 2021). Social commerce has enabled women during the crisis to overcome distinct gender-specific problems. These social-business platforms have provided the opportunity for gender equality that women have always demanded in business, which has been reinforced by the need for all society members' efforts to combat the epidemic effects. Consequently, it can hypothesize:

H1: Women's hedonic motivations have significantly impacted social commerce adoption during the COVID-19 crisis.

Utilitarian motivations focus on rational and goal-oriented motives and focus primarily on instrumental value to complete a mission or task (Hirschman & Holbrook, 1982). The outcome is evaluated drawing on whether or not benefits are acquired or tasks completed efficiently from adoption (Zhang & Benyoucef, 2016). This kind of motivation focuses on gaining tangible rewards or avoiding bad or unpleasant situations. Utilitarianism captures the perception of utility resulting from adopting social commerce (Doha et al., 2019). Scholars found that social commerce adoption is primarily driven by pursuing utilitarian values (Winarko et al., 2022; Zhang & Benyoucef, 2016). Perceived ease of use and perceived usefulness have been widely used as primary utilitarian determinants to predict user acceptance, attitude, and intention toward social commerce (Al-Dwairi, 2017; Doha et al., 2019).

The development of new businesses for themselves is an intentional and conscious choice for women in terms of new income-generating opportunities, overcoming financial difficulties, economic independence, and flexibility and

compatibility with family needs (Chatterjee et al., 2020; Kumari & Eguruze, 2022). Scholars confirmed that e-business has a novel impact on women's income (Chaudhry & Paquibut, 2021; Ghosh & Pandita, 2022; T. Hossain, 2018). According to Camacho and Barrios (2021), social commerce enables women to invest in economic exchanges compatible with their classical role and family responsibilities, achieving a work-family balance. Ge et al. (2022) affirmed that innovative technologies have enabled entrepreneurial women to contribute to the family income and improve their households' welfare status during the COVID-19 outbreak. Social commerce has enabled women to exploit new business opportunities from home in response to the crisis pressures. It has contributed to liberating women from restrictions of participating with men in socioeconomic activities and undertaking a business endeavor that can enhance their living standards and support family resilience during the crisis. Therefore, the following hypothesis is proposed:

H2: Women's utilitarian motivations have significantly impacted social commerce adoption during the COVID-19 crisis.

2.2. The Impact of Self-efficacy

Self-efficacy is one of the most used factors in studying the internal determinants of entrepreneurs' adoption of social commerce business (Abed, 2020). It is described as the individual's belief in their capacities to provide and employ the necessary resources required to achieve a specific objective and accomplish related tasks to achieve a successful new venture (Bandura, 1997). The empirical research signifies that personality characteristics are pivotal determinants of self-employment and entrepreneurship (Drnovšek et al., 2010; Yaseen et al., 2022; Zhao & Seibert, 2006). However, Sardar et al. (2021) found that individuals' self-efficacy directly affects the functionality and outcome of innovative technology adoption and use during the COVID-19 crisis. Furthermore, scholars have been interested in exploring how self-efficacy influences the acceptance of social commerce from a customer perspective (Al-Gasaymeh et al., 2023; Xinmin et al., 2017; Zhou et al., 2022).

Self-efficacy enables women to recognize their business capabilities (Crittenden et al., 2019). Entrepreneurial self-efficacy is critical for women as it determines their capabilities and readiness to become successful social commerce entrepreneurs. The IT gender self-efficacy gap has reduced over the years, and women have started to perceive and use social computing in entrepreneurial ways (Diaz Andrade & Doolin, 2016; Crittenden et al., 2019). According to Camacho & Barrios (2021), attaining the expected benefits of social commerce depends on women's ability to use social media features. Poggesi et al. (2016) affirmed that low self-efficacy reduces women's ability to exploit entrepreneurial business opportunities. Studies reveal that women on social media platforms hold interaction and communication styles characterized by more personal, emotional, and social contributions than men (Herring & Kapidzic, 2015; Park et al., 2016). These social capabilities can enable them to utilize their online relationships in starting a business

without conflicting with their daily lives and responsibilities (Camacho & Barrios, 2021). The negative perception of women's abilities in terms of time and effort constraints imposed by family responsibilities restrict their business inspiration. In addition, entrepreneurial women experience more difficulty getting the appropriate financing level than men (Dy et al., 2017; Marlow & Patton, 2005). Camacho and Barrios (2021) demonstrated that the limitations of women's usage of economic and social capital and the negative perception of their abilities had constrained their social commerce business opportunities. Whereas prior research showed that uncertain and risky situations influence entrepreneurial activities are influenced by uncertain and risky situations, start-up self-efficacy has been an important driver of greater confidence to engage in entrepreneurial business ventures during crises (Doanh et al., 2021; Sardar et al., 2021). The literature implies that self-efficacy was a strong determinant of women's self-belief in their ability to cope with COVID-19 and exploit the opportunities of social commerce business. Therefore, this study hypothesizes:

H3: Self-efficacy has significantly impacted social commerce adoption among women during the COVID-19 crisis.

2.3. The Impact of Social Support

Social support is an outcome of people willing to interact with others for direct and indirect mutual assistance and support in different contexts. It includes emotional, informational, instrumental, and appraisal support as well as sharing knowledge in the form of ideas, advice, guidance, and recommendations (M. A. Hossain et al., 2020). Social support is a major social value that social media provides for users and attracts members to online communities. According to Huang et al. (2020), providing social support is conjured as a mechanism to form social capital, which activates members of online communities toward purposeful actions. Scholars have confirmed that accumulated social supports the desire to engage in social commerce (Liang et al., 2011; Y. Wang & Yu, 2017). The brand value in the social commerce environment is determined by online consumer tendencies and behavior co-created by buyer-seller interactions (Zhou et al., 2022). As a form of social support, electronic word of mouth (eWOM) can create cohesion affecting the diffusion of viral marketing (Chang et al., 2015). WOM which is shared and disseminated among the social media public is considered one of the most influential drivers of the evolution and growth of social commerce (C. S.-P. Ng, 2013; Y. Wang & Yu, 2017). Tajvidi et al. (2021) argued that the more consumers share information about social commerce vendors and products, the higher the social support will be achieved. However, the role that social support plays through WOM was investigated broadly in social commerce literature.

Social support, including informational and emotional support, has been found to be a strong predictor of social commerce adoption and buyer-seller relationship quality (Hajli, 2014; M. A. Hossain et al., 2020). The entrepreneur-

ial woman needs more social support to prop her success in launching and running businesses. Scholars have confirmed that access to social support enhances the entrepreneurial woman's inspiration, enthusiasm, and innovation for her business-related aspirations (Tahir & Raharja, 2021). Social support provides entrepreneurial women with a sense of society's acceptance of their self-determination and the right to determine their business scope and goals (Crittenden et al., 2019). Empowering women to invest in social commerce business is embedded in social interactions. Feeling that people in online society provide substantial support can encourage women to adopt social commerce. Social support, combined with the flow of resources, information, knowledge, ideas, and advice, can intensify the feeling of task competence and power needed to empower women's adoption of social commerce. According to Uddin (2021), social support for working women from family, friends, and other members of society was a vital protective and resilience factor during the COVID-19 crisis. Prabawanti and Rusli (2022) concluded that such support has become crucial in helping a woman improve her business performance and reduce the dual role conflicts as a business actor, mother, and wife. Consistent with this logic, the social commerce business model has enabled women during the COVID-19 crisis to balance family and business responsibilities, attracting more social support and eventually sustaining their business success. Therefore, this study hypothesizes:

H4: Social support has significantly impacted social commerce adoption among women during the COVID-19 crisis.

2.4. Social Commerce Adoption and Women's Empowerment

The high unemployment levels and barriers to leaving home for work have motivated women to go into digital business solutions, especially in developing countries where poverty is widespread. The growing use of social media in business is associated with its ease of use and effectiveness in connecting with a wide number of people with little effort and costs, which is considered a direct determinant of women's intention to adopt social commerce activities. Beninger et al. (2016) confirm the role of increased reach and use of social media in enhancing the social capital of women entrepreneurs. Social media has enabled entrepreneurial women to gain broader information and knowledge in detecting novel business opportunities. Paoloni et al. (2019) and Shata, and Seelig (2021) emphasized the role of social media in women's empowerment and overcoming obstacles by creating novel business environments for them. Social media has helped women overcome the constraints of initiating or expanding their businesses. Social media has facilitated greater access to customers, which has long been considered one of the biggest challenges facing women small business owners (Beninger et al., 2016). It has enabled women to enhance their business productivity and profitability, which added

new value for women's empowerment (Olsson & Bernhard, 2020).

The social media business has changed and reshaped processes leading to opportunities for women's development and growth in terms of improving self-efficacy and developing social capital embedded in social networks, which are critical determinants to force empowerment (Crittenden et al., 2019). Social commerce provides women with a feeling of self-determination and the right to determine their business directions and goals. It has inspired women's empowerment by improving their contribution to economic activities and quality of life. Social commerce affords a platform for personal development, learning, growth, and business initiation (Hajli, 2014; Huang et al., 2020), which are essential to women's empowerment. With low barriers to entry, the social commerce business enables women to become their own bosses and engage in self-employment. It provides women with a low-risk opportunity to become entrepreneurs, secures a higher income, and become independent. Under the COVID-19 pressures, maintaining the household's standard of living and women's traditional roles and responsibilities was very difficult to achieve, which opened new horizons to the importance of empowering women. The prior discussion implies that social commerce-based social media platforms have promoted women's empowerment in these challenging circumstances. Therefore, it can be proposed that:

H5: Social commerce has played a significant role in women's empowerment during the COVID-19 crisis.

2.5. Social Commerce and Women's Innovation

Social media capabilities have been employed in many diverse contexts, empowering individuals and organizations to innovate and manage their activities in novel ways (Lam et al., 2016). Social media enables co-creation activities in which a business encourages external contributions to internal development in the context of open innovation (de Zubielqui et al., 2019). Social commerce has changed the role of consumers and other stockholders, enabling new forms of interaction and collaboration in developing co-creation activities and open innovations (Esmaeili & Hashemi G., 2019). It has enabled business innovation by facilitating access to knowledge and talent outside the organizational boundaries (Alsmadi & Alzoubi, 2022; Hitchen et al., 2017). Emerging markets reveal many novel business innovations created through social commerce enterprises to satisfy customers' desired and unfulfilled needs (Davies et al., 2019). According to Ram and Liu (2018), social commerce platforms play an innovative role in providing businesses with new ideas, solutions, viewpoints, suggestions, experiences, and ways of seeing and doing work. These contributions help social commerce adopters to innovate new business models, products, services, processes, marketing strategies, distribution channel management, and customer engagement strategies (Ram & Liu, 2018; Tajvidi et al., 2021).

Digitalization has encouraged women to act as digital entrepreneurs, outcoming new innovative business forms

(Olsson & Bernhard, 2020). Many scholars have confirmed that social computing platforms have enabled business women to be more innovative through sharing and creating new knowledge with others (Cesaroni et al., 2017; Shata & Seelig, 2021; Sultan & Sharmin, 2020). Chatterjee et al. (2020) stated that social media had fueled women's innovation and entrepreneurial orientation and it has enabled new innovative categories of women entrepreneurs in many business fields. Social commerce has provided women equality with men with the required resources and opportunities to innovate their online businesses. These social computing platforms have provided women with adequate information, knowledge, ideas, training, skills, and support to fully understand the business potential of social media, lowering the barriers to the innovative adoption of social commerce business. The COVID-19 crisis and accompanying lockdowns and restrictions have inspired women to create innovative solutions to support the resilience of themselves, their families, and societies (Kumari & Eguruze, 2022; Sardar et al., 2021). According to Ge et al. (2022), the pressures of the COVID-19 pandemic have compelled women to think, start taking risks, innovate, and initiate business enterprises, using innovative technologies to contribute to household income. Social commerce has provided women with the needed platform for such innovations, overcoming the traditional challenges of the pandemic they have faced in a physical business environment. Therefore, it can hypothesize:

H6: Social commerce has significantly influenced women's innovation during the COVID-19 crisis.

3. Research Methodology

3.1. Research Instrument Development

A quantitative research method using an online questionnaire was employed to implement the empirical part of this study and gather data. Measurement scale items of constructs were adopted from prior studies of social commerce, women's empowerment, and determinants of technology adoption and acceptance. See [Table 1](#).

A pilot pre-test with ten women owners of social commerce businesses was performed to examine whether the questionnaire had understandable, logical, and relevant items. However, as shown in [Table 2](#), the survey instrument included 36 items to measure research constructs.

3.2. Sampling and Data Collection

The online questionnaire involved a mix of demographic and items measuring the latent variables. The demographic questions likely asked about the commerce area and participants' age, education, and prior experience with social commerce. A convenient non-probability sampling method that involves selecting accessible or available participants was used for gathering data. The study targeted women who used social media platforms to produce and/or sell goods, services, and information to make a profit. Therefore, the sample included women who create and sell social media content, home cooking, sweets, clothes, accessories,

Table 1. Sources of Measurement Items

Constructs	Items	References
Women's hedonic motivations	4	To & Sung, 2014; Zheng et al., 2019.
Women's utilitarian motivations	4	
Social support	6	M. A. Hossain et al., 2020; Huang et al., 2020.
Social commerce adoption	4	Abed, 2020; Al-Dwairi, 2017.
Women's empowerment	8	T. Hossain, 2018; Kushwah & Singh, 2021.

handicrafts, marketing and advertising, printing and posters, retailing, and various home services.

One major challenge the study faced was the lack of online social commerce communities or directories. This challenge prompted the authors to search on various social networking platforms, especially the business pages on Facebook initiated by women, as it is the most widespread platform in Jordan, where the study was conducted. They also benefited from their social networks to reach out to potential participants. The data collection process contained distributing the questionnaire link to target women, using messenger, WhatsApp, e-mail, and a telephone survey. Participants were encouraged to share the survey link with other owners of businesses on social media platforms using the snowball technique. These channels enabled the collection of 192 responses ready for analysis over a period of 45 days from 12 June to 26 July 2022. [Table 3](#) presents the profile of the participants.

4. Data Analysis and Results

Smart PLS software, version 4, was employed to assess the measurement and test the structural model and hypothesized relationships.

4.1. The Measurement Model

The present study employed a set of statistical tests, including item loadings, Cronbach's α , Composite Reliability (CR), Average Variance Extracted (AVE), and discriminant validity to assess the reliability and validity of the measurement model. This study considered a loading value of 0.60 as a cutoff point of a distinct factor structure for item retention (Hair et al., 2014). The factor loading of all items was > 0.60 on their constructs, except one item of each of social support (SC5), women empowerment (WE6), and Women innovation (WI4); these three items were removed from the scale.

Cronbach's α and CR were employed to assess the scale reliability. [Table 4](#) demonstrates that the resulting values of those two tests for all constructs were > 0.80 , affirming adequate internal consistency and reliability. It also revealed satisfactory convergence validity, where AVE exceeded 0.5 for all constructs of the research model.

The discriminant validity of latent constructs was estimated based on the Fornell-Larcker criterion. According to Fornell and Larcker (1981), discriminant validity is examined by comparing the inter-correlations of the constructs to the square root of AVE. [Table 5](#) shows that none of the

inter-correlations of variables exceeded the AVE of any latent variable; thus, all latent constructs demonstrated discriminant validity.

4.2. The Structural Model

PLS path analysis ([Figure 2](#)) assesses the hypothesized relationships among the latent constructs in the research model.

[Table 6](#) shows that women's hedonic motivations (H1), utilitarian motivations (H2), self-efficacy (H3), and social support (H4) significantly impacted their adoption of social commerce businesses. The results also indicated the significant impact of social commerce adoption on women's empowerment (H5) and women's innovation (H6).

5. Discussion

The results of this study revealed that women's hedonic motivations significantly impacted their adoption of social commerce business during the COVID-19 crisis. These results agree with prior research confirming that hedonic motivations for engagement in social media and online marketing (Sütütemiz & Saygılı, 2020; To & Sung, 2014). Prior research emphasized that women with a hedonic orientation can benefit from social, emotional, and experiential dimensions of social commerce (Bulanova et al., 2016; Jin & Ryu, 2020). These findings also agreed with studies on non-financial drivers of adopting online business among women, such as self-esteem, gender equality, a sense of community, and gaining equal opportunities for business and economic leadership (Camacho & Barrios, 2021; Liu et al., 2021).

The finding that women's utilitarian motivations significantly impacted their adoption of social commerce agrees with prior research (e.g., Doha et al., 2019; Winarko et al., 2022) emphasizing that social commerce adoption is primarily driven by pursuing utilitarian values. These results are consistent with conscious choice for women in exploiting novel income-generating opportunities, overcoming financial difficulties, attaining economic independence, and flexibility in achieving a work-family balance (Chatterjee et al., 2020; Kumari & Eguruze, 2022). However, scholars have revealed a novel impact of e-business models on women's income and their households' welfare status compatible with their classical role and family responsibilities (Chaudhry & Paquibut, 2021; Ghosh & Pandita, 2022).

This study found that the self-efficacy of a woman significantly impacted social commerce adoption during the

Table 2. Questionnaire Items

Constructs	Code	Items
Women's hedonic motivations	<i>To what extent do you agree with the following statements:</i>	
	WHM1	Social commerce business is truly enjoyable.
	WHM2	Social commerce support gender equality in business.
	WHM3	Social commerce business presents me in a positive way in my society.
	WHM4	Creating new things in my social commerce project promotes self-esteem and redefines the role of women in society.
Women's utilitarian motivations	WUM1	Social commerce differentiated my business and enhanced my competitiveness during the COVID-19 crisis.
	WUM2	Social commerce enabled me to respond more quickly to customers' needs during crises.
	WUM3	Social commerce helps me increase my return on investment.
	WUM4	Social commerce increased my productivity.
Self-efficacy	S-E1	My understanding and knowledge of social commerce business were substantially improved with time and training programs.
	S-E2	I have the basic abilities in managing social commerce enterprises.
	S-E3	If I cannot do some tasks of my social commerce business, I keep trying until I can.
	S-E4	I could complete new tasks and transactions of social commerce without any assistance.
	S-E5	I know how to access the resources required to run my social commerce enterprise.
Social support	<i>To what extent do your family, friends, and other social members</i>	
	SS1	Provide me with a sense of society's acceptance of my business activities.
	SS2	Provide substantial support and encourage me to continue in my online business.
	SS3	Provide me with knowledge, ideas, advice, and guidance to help me overcome the problems of my social commerce enterprise.
	SS4	Share, disseminate, and recommend others to buy from my social commerce site.
	SS5	Interest and concern for my social commerce business well-being.
Social commerce adoption	<i>To what extent do you agree with the following statements:</i>	
	SCA1	Conducting business using social media platforms is an intelligent idea.
	SCA2	I will continue to adopt social commerce business in the future.
	SCA3	I encourage others to adopt social commerce business.
	SCA4	Social commerce business is the future of business, especially during crises.
Women's empowerment	During the COVID-19 crisis, to what extent has your social commerce business empowered you to:	
	WE1	Increase self-independency.
	WE2	Have the authority to engage in business in the way you see best.
	WE3	Have the freedom to decide how to run your business.
	WE4	Control over what happens in your business and social life.
	WE5	Sponsor and support other women who might need the social commerce business.
	WE6	Increase your decision-making participation in different spheres.
	WE7	Boost the feeling of ownership and leadership.
	WE8	Contribute to the family income and improve their households' welfare status.
Women innovation	<i>During the COVID-19 crisis, to what extent has social commerce business enabled you to:</i>	
	WI1	Improve existing products, services, or/and operations.
	WI2	Introduce new services, products, or/and practices to your business.
	WI3	Reinforce innovative business solutions in responding to the changing needs of society.
	WI4	Adopt novel social media business solutions.
	WI5	Play a leading role in exploiting new business opportunities to deal with restrictions and countermeasures.
	WI6	Gain new knowledge.

Table 3. The Profile of the Participants

<i>The commerce area</i>	No.	%	Age	No.	%
Content creator	11	0.06	< 25	52	0.27
Home cooking	23	0.12	25-40	113	0.59
Sweets	15	0.08	> 40	27	0.14
Clothes	9	0.05	<i>Education</i>		
Accessories	10	0.05	Diploma or less	52	0.27
Various handicrafts	28	0.15	Bachelor	96	0.50
Marketing & advertising	20	0.10	Postgraduate	44	0.23
Printing and posters	8	0.04	<i>Experience</i>		
Retailing	32	0.17	< 2	56	0.29
Home services	27	0.14	2-4	93	0.48
Other	9	0.05	> 4	43	0.22
<i>Total</i>	<i>192</i>	<i>100</i>	<i>Total</i>	<i>192</i>	<i>100</i>

Table 4. The Results of Testing Validity and Reliability

Constructs	Cronbach's α	CR	AVE
Women's hedonic motivations	0.804	0.872	0.631
Women's utilitarian motivations	0.817	0.879	0.648
Social support	0.735	0.830	0.551
Social commerce adoption	0.760	0.847	0.581
Women empowerment	0.891	0.900	0.565

Table 5. Discriminant Validity

No.	Constructs	1	2	3	4	5	6	7
1	Women's hedonic motivations	0.794						
2	Women's utilitarian motivations	0.305	0.805					
3	Self-efficacy	0.361	0.440	0.724				
4	Social support	0.372	0.355	0.618	0.742			
5	Social commerce adoption	0.526	0.652	0.610	0.595	0.762		
6	Women empowerment	0.334	0.268	0.515	0.440	0.512	0.751	
7	Women innovation	0.606	0.328	0.440	0.407	0.462	0.472	0.812

COVID-19 crisis. This agrees with earlier studies (e.g., Drnovšek et al., 2010; Zhao & Seibert, 2006) on the pivotal role of self-efficacy in self-employment and entrepreneurship. Scholars have confirmed the impact of self-efficacy on social commerce adoption (Xinmin et al., 2017; Zhou et al., 2022). Furthermore, recent studies have emphasized the effect of start-up self-efficacy on gaining greater confidence to engage in entrepreneurial business ventures during crises (Doanh et al., 2021; Sardar et al., 2021). These results also accord with findings of prior studies on the role of self-efficacy in enabling women to perceive and use social media platforms in entrepreneurial ways without conflicting with their daily lives and responsibilities (Camacho & Barrios, 2021; Crittenden et al., 2019).

The findings provide evidence of the role of social support in social commerce adoption among women during the COVID-19 crisis. These findings agree with scholars such as Uddin (2021) and Prabawanti and Rusli (2022) about the role of social support from family, friends, and other members of society in protective and resilience of working women and improving their business performance during the COVID-19 crisis. These findings also agree with prior findings on the link between social support and engagement in social commerce (Huang et al., 2020; Y. Wang & Yu, 2017). They are also in line with prior research (e.g., Crittenden et al., 2019; Tahir & Raharja, 2021) confirming the impact of social support on enhancing the entrepreneurial women's inspiration and enthusiasm to launch and run their businesses.

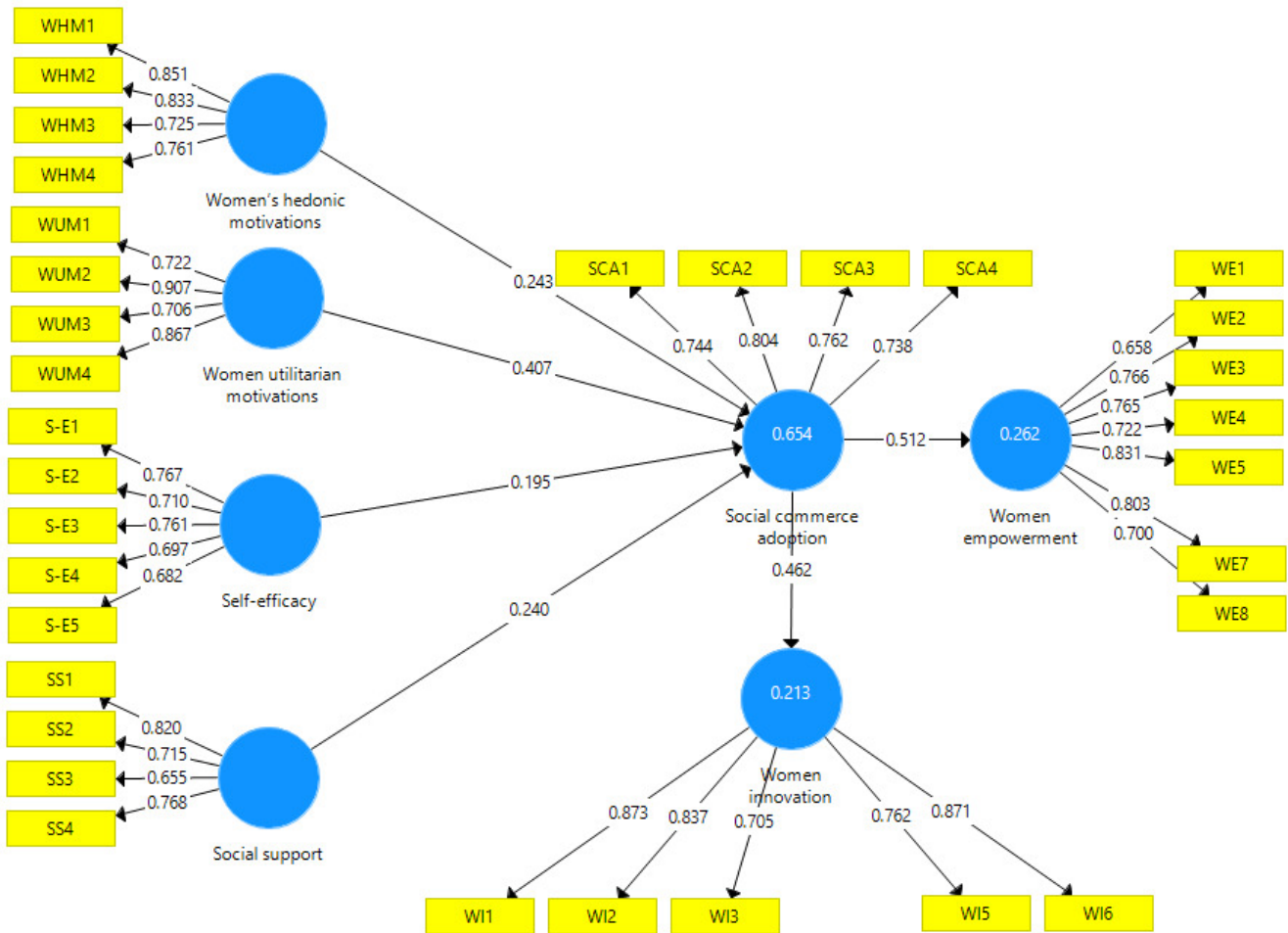


Figure 2. Path Coefficient Analysis

Table 6. Testing Hypotheses.

H	β value	T value	P-value	Results
1	0.243	4.075	0.000	Accepted
2	0.407	5.252	0.000	Accepted
3	0.195	2.490	0.003	Accepted
4	0.240	3.356	0.001	Accepted
5	0.512	11.377	0.000	Accepted

The finding that social commerce had a significant role in women's empowerment during the COVID-19 crisis is consistent with studies (Paoloni et al., 2019; Shata & Seelig, 2021) that confirmed the role of social media in women's empowerment and overcoming the constraints of initiating or expanding their businesses. Scholars have investigated how social media has created unprecedented opportunities for women's development and growth in terms of determining their business directions and goals and developing their social capital embedded in social networks, which are essential to women's empowerment (Gangwani et al., 2021; Shukla et al., 2021). Furthermore, scholars (e.g., Hajli, 2014; Huang et al., 2020) have confirmed the role of social commerce in affording a platform for personal

development, learning, growth, and business initiation, which can enhance women's empowerment.

Finally, the findings reveal that social commerce had a significant impact on women's innovation during the COVID-19 crisis. This agrees with earlier studies on the role of social commerce in creating innovative business models, new ideas, solutions, experiences, and ways of seeing and doing business (Davies et al., 2019; Ram & Liu, 2018). The findings also support those from prior empirical studies on the role of social media capabilities in enabling new forms of open innovations (de Zubielqui et al., 2019; Esmaeili & Hashemi G., 2019). Furthermore, previous studies have confirmed the role of social media platforms in enabling business women to be more innovative through

sharing and creating new knowledge with others (Shata & Seelig, 2021; Sultan & Sharmin, 2020).

6. Implications and Future Research

6.1. Theoretical Implications

This empirical study provides novel insights into the literature and theories of social commerce, women empowerment, and women's innovation during crises. The findings provide new lessons on motivations for adopting social commerce business in crises enforcing and encouraging the digitalization of products, services, operations, and relationships, and providing novel insights into the gratification theory in the social commerce setting. This study contributes significantly to the growing discussions about the role of social media in empowering women, especially during unprecedented crises. It releases new research horizons to the antecedent and outcome of women's adoption of social commerce business. It also offers valuable theoretical insights into the role of social commerce businesses in displaying and enhancing women's innovation capabilities and providing them with new business opportunities compatible with their classical roles and family responsibilities. Furthermore, this study reveals how society and social support, including emotional, informational, instrumental, appraisal support, and knowledge sharing, can enable women's empowerment and innovation by engaging in the evolution of social commerce businesses.

With the limitation studies that have investigated different issues on social commerce adoption during the COVID-19 crisis, no empirical studies have explored the drivers of women's adoption of social commerce. Nor had prior research examined how social commerce adoption contributes to women's empowerment. Furthermore, the literature lacks empirical research on the impact of social commerce on women's innovation. Therefore, this study adds to social commerce and women empowerment research by revealing that women's hedonic and utilitarian motivations, self-efficacy, and social support significantly impact their adoption of social commerce business in response to crises. Furthermore, this study revealed that social commerce businesses significantly contribute to women's empowerment and innovation.

6.2. Practical Implications

The present study contributes to the knowledge of practitioners and experts in several ways. The drivers examined in the integrative framework of this study, including women's hedonic and utilitarian motivations, self-efficacy, and social support, are likely to help women exploit the power of social commerce to enhance their empowerment. This study provides guidance for women in developing social commerce businesses by improving their knowledge and understanding of the requirements for the success of their efforts. Women need to define their objectives that will serve as motivations for launching their social commerce projects. They also need to develop their knowledge, skills, and competencies socially and professionally as how to develop and use social media features, digital marketing

skills, and social commerce enterprise management to promote their success. Furthermore, women must carefully consider social support utilizing social networks and WOM, which is shared and disseminated among the social media public to boost launching, running, and sustaining their social commerce businesses.

This study provides knowledge and strategic guidance to governments, women business sponsoring organizations, credit institutions, and other organizations seeking to lend support to women's empowerment and entrepreneurship. The study's findings enhance the policymakers' knowledge in these organizations of social commerce's role in empowering women, unleashing their innovative capabilities, and solving the growing problem of unemployment among women. Understanding the women's drivers of adopting social commerce business enables them to redefine their strategies, policies, and plans to attract and encourage more women to adopt this novel e-business paradigm. Government policies need to be revised to support women with entrepreneurial orientation to start their social commerce ventures, especially in rural areas. One of the most important tools for implementing these policies is to develop training programs and provide women with the required competencies. Monitoring women's progress regularly and providing them with knowledge, ideas, advice, and guidance will support their success and overcome any problems that may hinder their social commerce enterprise.

6.3. Limitations and Future Research

Despite its contributions, this study is not free of limitations, which can hopefully motivate further research in the future. Data were obtained from women in Jordan, which has a highly masculine culture. Furthermore, although many rural areas are scattered around the main Jordanian cities, this study did not consider the different conditions of technology availability and women's empowerment between urban and rural areas. Future research needs to consider that rural areas need more developed models to study the causal relationships between social commerce adoption and women empowerment and different additional variables, such as facilitating conditions, training programs, geographical barriers and access to markets, financial independence, cultural values, and social influence. Although many rural areas are scattered around the main Jordanian cities, this study did not consider the different conditions of technology availability and women's empowerment between urban and rural areas. Future research needs to take into consideration that rural areas need more developed models to study the causal relationships between social commerce adoption and women empowerment and different additional variables, such as facilitating conditions, training programs, geographical barriers and access to markets, financial independence, cultural values, and social influence. Nevertheless, the results of this study be most applicable in urban areas of other developing countries with similar economic circumstances and cultures.

Although women use different social media platforms to conduct their business and engage in commercial social activities, this study has been implemented only on women

who use Facebook. Future studies should explore how other popular social media or instant messaging platforms may help women exploit the power of social commerce to enhance their empowerment. This study used a quantitative approach to explore the determinants and role of social commerce in woman's empowerment and innovation. The quantitative results can be further extended with a qualitative methodology to obtain a deeper understanding of the interaction between woman empowerment and innovation and social commerce businesses. Furthermore, this study has focused on linking women's empowerment to social commerce within the COVID-19 crisis setting without taking into account the changes that may occur after the crisis. Accordingly, longitudinal studies can provide helpful insights into the dynamics of determinants and the role of social commerce in women's empowerment and innovation in new normal stable conditions.

7. Conclusions

Women's empowerment has become a priority socio-economic development trend. This empowerment is not only represented in an economic context but also as an ability of women to mobilize and organize separately and collectively for social changes in communities and society. The difficult living conditions caused by COVID-19 have increased pressure on women to assume more responsibility for their families and society, where creating employment opportunities has become a more imperious issue than ever in an environment with high unemployment rates. Social commerce has provided unprecedented opportunities to empower women to independently exaggerate online business and engage in commercial activities via social media platforms while conducting their traditional roles and duties.

Recently, the opportunities, constraints, and determinants of adopting IT for women have become an important area of research. Investigating motivations and reasons behind women's adoption of social commerce is a crucial starting point for understanding the role of these platforms in women's empowerment and innovation. A literature review implies an absence of empirical studies on the determinants that enforce or impede social commerce adoption among women and its role in fostering women's empowerment and innovation. This substantial gap in the literature motivated this study to examine the potential role of women's hedonic and utilitarian motivations, self-effi-

cacy, and social support in adopting social commerce. It also intended to empirically explore social commerce's impact on women's empowerment and innovation in crises and women's empowerment and innovation.

The results confirmed that women's hedonic motivations, including enjoyment, supporting gender equality, enhancing self-esteem, and redefining the role of women in society, significantly impacted their adoption of social commerce business during the crisis. The finding that women's utilitarian motivations, in terms of enhancing competitiveness, responding quickly to customers' needs, increasing return on investment, and productivity, significantly impacted their adoption of social commerce agrees with prior research. This study also found that the self-efficacy of a woman significantly impacts social commerce adoption during the COVID-19 crisis, and it provides evidence of the role of social support in social commerce adoption among women. Finally, the finding is that social commerce had a significant role in women's empowerment and innovation during the COVID-19 crisis.

This study provides novel contributions to the literature on social commerce, women's empowerment, and women's innovation. It provides new insights into drivers of social commerce adoption in a crisis setting. The findings reveal how social commerce contributes to women's empowerment and innovation. They also improve women's knowledge and understanding of the requirements and guidance for the success of their efforts. Furthermore, this study enhances knowledge of governments, women business sponsoring organizations, and other organizations sponsoring and supporting women's empowerment and innovation on the role of social commerce in this trend. It enhances the policymakers' knowledge about social commerce in empowering women, unleashing their innovative capabilities, and solving the growing unemployment problem among women.

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