Determinants of Social Commerce Usage and Online Impulse Purchase: Implications for Business and Digital Revolution

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Since their introduction in the early 2000s, the use of social networking websites has exploded. Many businesses are seeing increased revenue due to their social commerce strategy. Despite the popularity of social commerce websites, some consumers are still hesitate to use them. This study aims to evaluate the factors that influence the adoption of social commerce. A sample of 721 Chinese We Chat users took part in the research. The findings reveal that social capital mediates the positive effect of social commerce adoption and perceived ease of use (PERU) on techno-stress and online impulse purchasing. Likewise, information overloading mediates the positive effect of social commerce adoption and PERU on techno-stress and online impulse purchasing. The findings have implications for both practice and research in understanding social commerce adoption in emerging economies.

Keywords: social commerce usage, social capital, sustainable development, techno-stress, SmartPLS

INTRODUCTION

In the beginning, consumer socialization considerations were more important in social commerce (Nakayama and Wan, 2019). As new technological shifts have occurred in recent years (Fang et al., 2021; Irfan and Ahmad, 2022), social commerce is redesigning itself by incorporating more consumer's behavioral intents. Social commerce has a variety of characteristics. Some of them are associated with community development (Jia et al., 2021), whereas others drive its efficiency from a technical standpoint (Rao et al., 2022). The existing literature has provided various insights while emphasizing social commerce attributes (Chen et al., 2019; Esmaeili et al., 2020; Liao et al., 2021); however, for modern-day retailers or organizations, it is still relatively unknown to use the synchronization of consumers' social buying intentions with these attributes to attract them (Irfan et al., 2020, 2021a,d). To overcome the difficulty of synchronizing social commerce attributes in achieving consumer thought synergy (Tanveer et al., 2021), it is important to talk about how social

business attributes work in tandem (Wongkitrungrueng and Assarut, 2020) and to get a better understanding of how they react to social business models (Akram et al., 2021b).

Social commerce offers a wide range of business opportunities nowadays, and it is expected to reach an annual market value of US$80 billion by 2020 (Zafar et al., 2021). Though Alibaba, Amazon, eBay, Qunar, Ctrip, Taobao, and other companies increase the use of the social platform in e-commerce (Braojos et al., 2019), many others use a strategy that combines the development of online communities with the integration of social technologies into their websites (Leong et al., 2020). These websites have risen to prominence as social and commerce platforms (Hu X. et al., 2019), establishing the concept of social commerce (Yusuf et al., 2018) by including new technological and social elements. According to the previous research, the primary goal of social media is to facilitate the transition from e-commerce to social commerce (Wang and Herrando, 2019) and to find the mediational constructs that are coherent with the behavioral intentions of customers, emphasizing adaptability of social media.

Previous research has highlighted the need for both conceptual and commercial social commerce research (Sun et al., 2019). Web 2.0 has shifted negotiating power from suppliers to customers (Tajvidi et al., 2020) and emphasizes that customers' perceptions of overall service quality are more important than suppliers' management capabilities (Molinillo et al., 2020). For example, it is recommended to use social media to improve the relationship between suppliers and customers (Han et al., 2018), which results in increased sales and customer loyalty. Social commerce is a subcategory of present e-commerce that uses the social platform to advance the whole business experience (Li, 2019), or as a Web 2.0-based commerce entity with distinct collaboration, interactivity, social aspects, and community (Li and Ku, 2018). Although studies have looked into the unique characteristics of social commerce, there is still a lot unclear about the main handlers of its achievement depending on consumer's perceptions (Ali S. et al., 2021; Ahmad et al., 2021).

Consumer's behavioral intentions in social commerce, such as trust (Lăzăroiu et al., 2020), techno-stress, online impulse purchase (Cheng et al., 2019), utilitarian, word-of-mouth intentions (Gibreel et al., 2018), hedonic motivations, and social support, have been the focus of previous research (Irfan and Ahmad, 2021; Irfan et al., 2021b). Social commerce quality facets such as brand, information, and relationship quality were identified in another line of research (Yahia et al., 2018; Sheikh et al., 2019; Wang X. et al., 2019; Anindito and Handarkho, 2021). The previous research provided useful information about consumer's behavior (Lin X. et al., 2019; Molinillo et al., 2021; Yang, 2021) and the quality of social commerce in sustainable business development. These studies (Wu and Li, 2018; Nakayama and Wan, 2019; Akram et al., 2021b; Jia et al., 2021), on the other hand, did not look into the key determinants of social commerce satisfaction using managerial insights and solid overarching theory to develop effective social commerce service improvement and design strategies for sustainable business development.

Academia pays less attention to social commerce design strategies despite the extensive technological improvement in the platform service industry. Practitioners and researchers are constantly challenged to produce earlier acknowledged quality measures of commerce platform services (e.g., hedonic qualities and functional) and attain a systematic social commerce platform policy. As a result, the following questions arise from this research:

(a) How different purposes of social commerce usage affect social capital, techno-stress, online impulse purchase, and information overloading in the setting of social commerce shopping in China?
(b) How can social commerce gain a competitive advantage by implementing efficient management approaches for sustainable business?

The remaining of the study is designed as Section 2 which considers the background and hypothesis development; in Section 3, we present research methodology, data, and sampling design, whereas in Sections 4 and 5, we present analysis and discussion.

LITERATURE AND HYPOTHESES DEVELOPMENT

The United Nations General Assembly stated its intention to utilize the potential of social commerce to advance trade by 2030 in the internationally agreed development goals and sustainable development agenda (Lam et al., 2019). However, it should be noted that it has the potential to accelerate progress on all 17 SDGs (SDGs). Several of these goals are inextricably linked to e-commerce (Jia et al., 2021). Digital commerce and e-commerce have the potential to support decent job creation, productive activities, entrepreneurship, innovation, and creativity for sustainable business (Nakayama and Wan, 2019). They can assist developing-country businesses in formalizing and growing by providing financial services such as Web and mobile payments. Organizations may also find it easier to join value chains and markets as a result of them (for example, by using virtual markets) (Music et al., 2022). Furthermore, e-commerce can assist developing countries in significantly increasing their exports to double their share of global exports. The rapid adoption of e-commerce, on the other hand, has a transformative effect on developing economies, which includes the least developed nations, presenting both opportunities and challenges (Wu and Li, 2018). In terms of possibilities, social commerce can reduce transaction costs and enable the delivery of more goods and services from a distance. Customs declaration automation, for example, has been shown to reduce the time goods spend in transit and customs clearance time (Hew et al., 2019). A vendor from a developing country can use social commerce platforms to reach out to a larger number of possible consumers in both domestic and international markets, acting in a more target market and, in many cases, less costly way than traditional channels (Chen et al., 2019). Suppliers who rely more heavily on e-commerce, especially for electronic content, may see

lower delivery costs. More digital inputs are possible, which make fragmented production networks easier to manage. This has an impact on global value chains.

Social commerce can benefit consumers in a variety of ways (Liao et al., 2021), both financially (Esmaeili et al., 2020) and non-financially. They can compare prices and product features more easily by looking at reviews from other customers using Web browsing, e-mail inquiries, and social media (Leong et al., 2020). They can also shop whenever they want and take advantage of online bargains (Hu X. et al., 2019). Furthermore, when products from far away are still available for ordering, consumers' choices will expand (Yahia et al., 2018). Governments are crucial in creating an environment that encourages the long-term viability of such social commerce opportunities (Anindito and Handarkho, 2021). If social commerce is to be used for long-term development, such policies must be considered. Social commerce policy should be consistent, and its goals should be in line with the goals of the national development agenda (Molinillo et al., 2021). Increased productivity, improved competitiveness, improved information access, increased regulatory transparency, and more inclusive and equitable business development are just a few of the economic and social goals that the social commerce can help with (Djuitaningsih and Arifiyantoro, 2020; Duasa and Zainal, 2020; Wong, 2020; Lei et al., 2021; Li et al., 2022). While governments play an important role in creating an enabling environment, effective dialog among all relevant stakeholders is also essential.

Social Capital and Social Commerce

Despite the fact that the term "social capital" is commonly used, the concept is frequently misunderstood (Munzel et al., 2018; Abdullah et al., 2019; Ali M. et al., 2021). "Civil society" and "social connectedness" are terms used to describe social capital. Many other authors contributed to the current multidisciplinary theory, including (Kaur and Kumar, 2020), who were three key contributors to the modern development of the concept. The store of social norms, trust, and networks which people may utilize to combat common issues is stated as social capital (Lam et al., 2019; Iqbal et al., 2021a; Yumei et al., 2021; Zhang Y. et al., 2021). The concept of social capital marks a watershed moment in interdisciplinary and transdisciplinary theoretical integration, particularly between sociology and economics (Music et al., 2022). The development of social capital has been hailed as a panacea for a number of social issues, including urban poverty and crime, economic underdevelopment, and ineffective government.

Two seminal works (Hu T. et al., 2019; Al-Omoush et al., 2022; Lhuillier, 2022) established the concept of social capital in social science literature, signaling a shift in developmental discourse. It quickly gained economic clout and was recognized as a production factor in development theory. The work of Doha et al. (2019), Kaur and Kumar (2020), and Mesbahi Jahromi et al. (2020), on the other hand, aided policymakers in comprehending this concept. They have brought it to the forefront of current debate. Later in the social sciences, the applications of social capital in economic performance, health and well-being, crime, education, and governance became well known.

Online Impulse Purchasing and Social Commerce

The phrase "impulse buying" states to a strong, sudden, and persistent desire to make a purchase right away (Liu et al., 2013; Akram et al., 2021a; Ming et al., 2021). Customers can easily collect data about services or products on the Internet, which makes it a necessary part of daily life (Khokhar et al., 2020a,b; Iqbal et al., 2021b; Irfan et al., 2021c). When matched to traditional shopping, online purchasing allows for additional impulse purchases (Chan et al., 2017). Social media's viability, in particular, is a method that enables marketing efforts and might play a vital role in affecting consumer's purchase decisions, particularly impulse purchases (Akram et al., 2021b; Li et al., 2021). However, due to the complication of a specific shopping process from numerous perspectives, such as risk and psychological, online impulse purchasing is quite poorly understood (Wu et al., 2020). A variety of analytical methods for identifying the core factors from social media-related data have been proposed in similar studies. Impulse buyers with a higher emotional state are more likely to have spontaneous buying experiences (Akram et al., 2021d). Their shopping lists are not well defined ahead of time compared to impulse buyers with a lower emotional state. For business purposes, it is especially crucial to have a good knowledge of impulse buyers.

An impulse purchase is a hasty, irresistible, and hedonic complex purchasing decision made without considering all relevant information (Carlini et al., 2021). In the short term, impulse purchases benefit e-commerce businesses. Still, they are a long-term problem for both consumers and sellers because they result in unplanned expenses and increased returns (Zhang L. et al., 2021). As an outcome, it is important to address issues related to impulse buying because it gives e-commerce marketers and salespeople valuable insight into customer marketing and sales and provides useful information about the impulsive shopping phenomenon on the consumer side.

Various studies have been conducted on online shoppers' impulse purchases from a variety of perspectives, including business strategies, website features, marketing, advertising, user interactions, and cultural differences (Chen et al., 2016; Wu et al., 2016; Vonkeman et al., 2017; Febrilia and Warokka, 2021). Consumer mindfulness or unmindfulness, in particular, is a psychological trait that could form the basis of e-commerce consumer psychology (Kimiagari and Asadi Malafe, 2021). Unmindfulness and mindfulness have a negative or positive relationship with various perceptions and behaviors, such as paying attention to the esthetic appeal of websites and participating in physical activities (Lam et al., 2019). Understanding the unmindfulness and mindfulness of online shoppers' impulse purchases appears to be an important area of study (Turkyilmaz et al., 2015). People who are unmindful struggle with stability, judgment, reality awareness, and concentration. They act as if their mind and body are disconnected, which has been linked to impulse buying behaviors.

Techno-Stress and Social Commerce

The term "techno-stress" combines the words "technology" and "stress." Lam et al. (2019) came up with the term techno-stress to describe the state that arises when people and organizations fail to adapt to new technology or information technology. Techno-stress, according to Sareen (2019),is a mental and physiological state of arousal that happens when people locate their jobs stimulating but believe that they lack the abilities to deal with technology. Techno-stress, according to Gaudioso et al. (2017), is any negative influence on thoughts, attitudes, behaviors, or body functioning caused directly or indirectly by the use of technology. Techno-stress is a symptom experienced by those who work in the information technology field. It is brought on by the stress of dealing with large amounts of data and the inability to process it, as well as the psychological strain of learning new technology.

Since the after mid of the 20th century, the rapid development of information and communication technology has dramatically altered the environments both inside and outside of businesses. Companies have been utilizing new ICTs as a strategic tool to improve aspects of productivity such as organizational goals, innovation, communication, and environmental change prediction (Ma et al., 2021). In the business world, information is valuable data for decision makers. Incorporating cutting-edge technologies into businesses, such as information system differentiation, boosts productivity and efficiency (Nematollahi et al., 2019). This is a resource-based innovation method for gaining a competitive advantage by dealing with a changing environment. There is a counter-argument that information technology has no positive relationship with increased efficiency and productivity, which implies that businesses should be willing to take the risk of improving performance through new technology implementation.

According to Edwards et al. (1998), person–environment fit theory, the misfit between individuals and the environment in organizations caused by incorporating new or innovative information technology into the manufacturing process can result in negative consequences such as stress or psychological pressure on employes (Alam, 2016). As a result, counterproductive behavior may have no effect even if efforts are made to improve the individual–environment fit (Califf and Brooks, 2020). The term "techno-stress" refers to the negative effects of introducing and using new technologies or information technologies in the manufacturing process. Techno-stress refers to the negative impacts that differing levels of access to and use of technology have on employees. It is a type of stress brought on by the inability to adapt to new information technology. When new technology or information technology is adopted, techno-stress has a negative impact on efficiency and productivity. Workplace stress, low morale, discouragement, information fatigue, motivation loss, and dissatisfaction are all factors that contribute to dissatisfaction. Organizations that do not adopt new information technology will fall behind. According to Ma et al. (2021), technological stress has a negative impact on job satisfaction and productivity. Kaveri and Mohan (2020) coined the term "information technology paradox" to describe the negative effects of new

technology or information technology, and they advocated for more research into the causes and solutions of techno-stress. Both empirical and theoretical aspects of techno-stress have been investigated using academic findings. They used an individualized approach to determine the causes of techno-stress and how to alleviate it. However, there is a scarcity of research on an integrated approach to examine the impact of techno-stress on businesses and their employes and interventions to address the dysfunctions and pathology that result. The objective of this research was to examine the impact of techno-stress, a negative side effect of IT adoption, on counter-productivity, and also the moderating effects of technical support and self-efficacy in the causal relationship between counter-productivity and techno-stress.

Information Overloading and Social Commerce

When the amount of content and sources available increases, the difficulty in selecting relevant information increases as well (Lee et al., 2016). Due to its vast use in our routine life activities, the problem of information overload has gotten a lot of consideration in the previous two decades (Guo et al., 2020). The Internet, electronic mail, World Wide Web, and social media functions have all been identified as potential sources of information overload.

Over the last decade, the information and data landscape to which business enterprises are exposed have changed significantly and rapidly, particularly in terms of customer information related to the business (Breyton et al., 2021). The improved availability of data is paradoxical in kind, as it presents firms with both opportunities and challenges that need researchers' consideration (Matthes et al., 2020). Companies today collect various types of data (e.g., web traffic, social media, clickstream, and location) at various points along the value chain (e.g., R&D, engineering, service operations, manufacturing, and point of sale) and at various frequencies. In terms of quantity, type, and frequency, the availability of data for businesses to surpass in engaging and understanding with customers has improved significantly (Hwang et al., 2020). Finally, it should be noted that the availability of customer's data is increasing exponentially rather than linearly, necessitating additional research. When compared to traditional computer-based communication, the introduction of social media in this context has opened up a slew of new possibilities. Customers can create unrestricted interaction that is not editable by the organization (e.g., a Facebook post) while also gaining distinction to a larger audience using social media (Obamiro and Lee, 2019). At the same time, it enables the company to engage with its customers in a personalized and consistent manner (e.g., *via* comments and tweets on posts). Because the entire communication process is "open" to other competitors and customers, this necessitates harnessing different capabilities in individuals and organizations.

We primarily note two streams of literature in the context of big data. The first stream is more prescriptive and anecdotal

in nature, which emphasizes the benefits of processing large amounts of data to generate unique insights for organizational competitiveness (Bermes, 2021). This stream is primarily concerned with providing advice on managerial skills and organizational capabilities to maximize the benefits of the abundance of available data (Fu et al., 2020). The second stream is more technical in nature, which provide algorithmic and systemic guidelines for developing solutions to make sense of the massive amounts of data available to businesses. However, neither stream provides much empirical evidence on how managers and organizations react to and cope with the onslaught of data they are bombarded with (Ramondt and Ramírez, 2019). This article aims to close the gap by focusing on the phenomenon of information overload in organizations and the coping strategies managers and organizations use to deal with it.

Although the term "information overload" has been widely used, there is no universally accepted definition because it can mean different things to different people (Chen, 2018). The term can be used to describe a situation in which a person's ability to use information effectively in their work is hampered by the amount of relevant and potentially useful information available to them (Swar et al., 2017). It can also be defined as "a subjective experience of not having enough time to make effective use of available information resources in specific situations." Whereas the first definition emphasizes the issue of the amount of information available in relation to an individual's ability to process it, the second definition emphasizes the scarcity of time for processing available data (Ketron et al., 2016). Nonetheless, information overload is typically defined by a sense of being overwhelmed by the sheer amount of data and/or the lack of time.

Social Commerce Adoption and Sustainable Business

The term "social commerce" first emerged on Yahoo in 2005 to describe the practice of sharing product information and netizens' opinions and ratings on products (Yang, 2021). Social commerce has spawned a slew of new business models, including hybrids that combine offline and online operations (Kawasaki et al., 2021). Using business concepts such as social networks and online shopping (Yu et al., 2020), social commerce attaches consumers and sellers across social platforms and websites (Fang and Li, 2020). Social commerce is based not only on commerce but also on online social media and social networking, which can aid in promoting services and goods both offline and online (Cao et al., 2021). Online social media, such as Instagram's product tags and Facebook's collection ads, are used to promote transactions in social commerce. Furthermore, the survey discovered that adding tweets to photographs by less-popular Twitter users can increase the number of reposts by 5–9 times (Usman and Ahmad, 2018; Ali et al., 2020; Raza et al., 2022). Furthermore, the survey reveals that people use online social media in a variety of ways, depending on their purpose, function, and interactive objects, in terms of online social media and commerce. Multiple social media platforms could lead to a plethora of social commerce business opportunities, both offline and online. Social commerce includes platforms such as point-to-point sales (Kanani and

Glavee-Geo, 2021), social network sales (Wang W. et al., 2019), peer recommendation methods, group buying, consumer-led shopping styles, social shopping, and participatory business. Social commerce can take on a variety of forms, each with its own set of characteristics (Wang et al., 2021). WeChat, for example, has features that are similar to those found in peer recommendation methods and peer-to-peer sales platforms.

Quality determinants in social commerce are different several ways from general web-based quality measures (Lin et al., 2020). Online shoppers form a natural form of network community and have completed control over the system. To deal with these changes in network structure and system interactivity, service interface design differs visually between e-commerce and s-commerce. The goals of service providers had to change as a result of the differing expectations of social commerce customers. Recent research (Williams, 2021) has looked into prominent consumer's interactions on social media-based commerce services, indicating the need for a new e-commerce strategy. Hedonic quality has overtaken functional quality as the most important factor. E-commerce platforms can now engage and enhance the participation of social media users thanks to Web 2.0 technological advancements. In addition, the rise of social commerce has enabled various studies to identify consumer or community-driven quality elements such as enjoyment, esthetics, pleasantness, curiosity, trust, and emotions. Because the natural benefits of s-commerce are experiential or hedonic rather than functional or utilitarian, the s-commerce experience should be evaluated as a whole rather than in detail.

The shift from e-commerce to s-commerce is visible in both information systems and service quality management. The main distinction is between Web 1.0 and Web 2.0, which are the only technologies that allow the transition to occur. It claims that the addition of new technological features distinguishes the two environments – Web 1.0 and Web 2.0 – which result in changes in management goals and the extension of relevant service quality elements critical to social commerce success.

Perceived Ease of Use and Social Commerce

Perceived ease of use (PERU) is described as a person's perception of how simple a system is to use. Consumers are more likely to accept an application or new technology if they believe it is simple to use. Consumers' PERU had a positive impact on attitudes toward social networking advertising in the context of social networking advertising. Furthermore, (Yahia et al., 2018; Williams, 2021) study findings suggest that PERU is positively related to consumers' attitudes toward a social commerce site, intent to transact, and intention to return in the context of social commerce. Perceived use of social commerce is linked to how easy or difficult consumers believe that it will be to pay for products in the future. One feature that may have an impact on consumers' PERU is the difficulty of utilizing technology. PERU has been found to positively impact consumers' buying behavior. To buy, install, and use social commerce platforms, consumers must have an understanding of the resources required.

The Mediating Role of Social Capital

Previous literature shows that social capital positively mediates the linkage between social commerce adoption and techno-stress. Similarly, some researchers have advocated the mediating effect of social capital between PERU on techno-stress (Kawasaki et al., 2021). On the other hand, some studies have revealed the mediating role of social capital between the relationship of social commerce adoption and online impulse purchasing and the linkage of PERU and online impulse purchasing (Cao et al., 2021).

The Mediating Role of Information Overloading

Former scholars have revealed that information overloading positively mediates the association between social commerce adoption and techno-stress, whereas some researchers have shown the mediating effect of information overloading between PERU on techno-stress (Breyton et al., 2021). On the flip side, previous literature pinpointed the mediating influence of information overloading between the linkage of social commerce adoption and online impulse purchasing and the association between PERU and online impulse purchasing (Matthes et al., 2020). Based on the above arguments, the following hypotheses have been proposed:

> **H1:** Social commerce adoption positively influences social capital.
> **H2:** Social commerce adoption positively influences information overloading.
> **H3:** PERU positively influence social capital.
> **H4:** PERU positively influences information overloading.
> **H5:** Social capital adoption positively influences techno-stress.
> **H6:** Social capital adoption positively influences online impulse purchasing.
> **H7:** Information overloading positively influences techno-stress.
> **H8:** Information overloading positively influences online impulse purchasing.
> **H9:** Techno-stress positively influences online impulse purchasing.
> **H10:** Social capital mediates the positive effect of social commerce adoption and PERU on techno-stress.
> **H11:** Social capital mediates the positive effect of social commerce adoption and PERU on online impulse purchasing.

TABLE 2 | Descriptive statistics.

Variables	Items	Observations	Coefficient of variation (CV)	Mean	Std. Dev
TECS	4	721	0.173	3.419	0.593
ONIP	4	721	0.561	2.69	1.509
INFO	4	721	0.114	3.102	0.353
SCAP	5	721	0.152	3.797	0.576
SOCA	7	721	0.266	2.481	0.661
PERU	6	721	0.633	2.784	1.763

TECS, techno-stress; ONIP, online impulse purchase; INFO, information overloading; SCAP, social capital; SUSE, social commerce adoption; PERU, perceived ease of use.

> **H12:** Information overloading mediates the positive effect of social commerce adoption and PERU on techno-stress.
> **H13:** Information overloading mediates the positive effect of social commerce adoption and PERU on online impulse purchasing.

RESEARCH METHODOLOGY

In previous studies, the following measuring scales have been used, and now, it has been matched with the study's new content (see **Table 1**). An online survey was used to collect the information. The online survey is ideal for reaching out to a large number of online purchasers and covering a wide geographical area. The elements were assessed using a Likert scale ranging from 1 to 5. At the first end, 1 represents the strongly disagree, and 5 represents strongly agree on another end. A small sample size of 35 respondents for a pretest of elements was used to identify any potential formatting issues, and the purpose was to confirm the questionnaire's content. The result from that small sample size of respondents was revised to ensure that the tools used for this study were clear and properly validated. The questionnaire content was converted from English to Chinese because this study is aimed at Chinese language speakers. In the background, the questionnaire translation was performed to ensure that the content was consistent in both languages.

Data Collection and Sampling Design

In China, social media users over the age of 18 who shop online are included in the study's target demographic. Following previous research, the study was based on WeChat, a popular purchasing website, to reach a larger audience of online shoppers. In China, WeChat is a popular mobile instant messaging

TABLE 1 | The sources of measures.

Research constructs	Reference/s
Social commerce adoption	Turker, 2009; Lin J. et al., 2019; Phang et al., 2019; Tang and Zhang, 2020
Online impulse purchasing	Vonkeman et al., 2017; Febrilia and Warokka, 2021; Kimiagari and Asadi Malafe, 2021
Social capital	de Kervenoael et al., 2009; Huang, 2016; Lins et al., 2017; Doha et al., 2019
Techno-stress	Sareen, 2019; Kaveri and Mohan, 2020
Information overloading	Swar et al., 2017; Chen, 2018; Ramondt and Ramírez, 2019; Fu et al., 2020

application. WeChat user can share their daily lives with friends in the WeChat moment and conduct online transactions through the WeChat store. WeChat store is a typical social commerce platform in which online purchases are made easier through social interaction and recommendations from WeChat friends. A sampling service provided by a professional company was used in this study. Potential WeChat store customers were given a survey link, and then, they provided feedback directly and anonymously through the online survey. The information was gathered in 2018. In the end, 721 valid questionnaires were collected. The majority of those who responded were women (56 percent), between the ages of 20 and 30, and had a university degree 27 and 41%, respectively. WeChat was used by 72.19% of the respondents for more than three years. There was no multicollinearity because the maximum variance inflation factor (VIF) was 2.28. Respondents' sample's demographic information is presented in **Table 2**.

Measures

For data analysis, structural equation modeling (SEM) was implemented. This approach uses regression to test original research models, which includes multiple measures and constructs. SEM is the most developed technique, and it has been used in most behavioral science studies. Some social scientists advocate for the use of SEM, describing it as a "silver bullet." SEM is a powerful method because it does not need a normal distribution sample or large data sample for analysis. There are two aspects of SEM. The first is the measurement model (also known as an outer model), which assesses internal consistency and discriminant and convergent validity. The second is the structural model (or inner model), which depicts the structural associations (paths) that exist between the research model's latent ideas.

The implementation of SEM has been the subject of a heated discussion between opponents and proponents who question its efficacy due to parameter inconsistency and low discriminant validity sensitivity. New research, however, has significantly improved and enriched SEM. The improvement in offsetting is also included when hypotheses are modeled as common elements.

TABLE 3 | The demographic information of the sample.

Sample information	Options	No. of respondents	%
Gender	Female	405	56
	Male	316	44
Age	18–24	278	38
	25–34	194	27
	35–44	155	22
	45 +	94	13
Education	High school or below	98	14
	Diploma	206	29
	Bachelor	298	41
	Postgraduate	119	16
Marital status	Single	441	61
	Unmarried	280	39

ANALYSIS AND DISCUSSION

Measurement Model Results

Table 3 presents the descriptive statics of the studied variables. The interconnectedness of factors was tested using similarity analysis. The analysis discovered a significant relationship between the variables. To test predictive relevance, the regression coefficient of variance explained was used. Convergent validity, internal consistency, and discriminant validity were tested on the measurement model. To select scales and get better their measurement, factor loading analysis was used. Some items

TABLE 4 | Results of reliability and validity estimates.

Variables	Items	Standard loadings	Cronbach's α	CR	AVE
Techno-stress			0.825	0.893	0.678
	TECS 1	0.898			
	TECS 2	0.919			
	TECS 3	0.717			
	TECS 4	0.740			
Online impulse purchasing			0.928	0.807	0.512
	ONIP 1	0.716			
	ONIP 2	0.738			
	ONIP 3	0.706			
	ONIP 4	0.701			
Information overloading			0.922	0.832	0.554
	INFO 1	0.747			
	INFO 2	0.711			
	INFO 3	0.781			
	INFO 4	0.736			
Social capital			0.915	0.925	0.712
	SCAP 1	0.786			
	SCAP 2	0.811			
	SCAP 3	0.898			
	SCAP 4	0.860			
	SCAP 5	0.860			
Social commerce adoption			0.844	0.935	0.674
	SOCA 1	0.723			
	SOCA 2	0.865			
	SOCA 3	0.823			
	SOCA 4	0.882			
	SOCA 5	0.801			
	SOCA 6	0.824			
	SOCA 7	0.819			
Perceived ease of use			0.811	0.915	0.643
	PERU 1	0.816			
	PERU 2	0.740			
	PERU 3	0.746			
	PERU 4	0.885			
	PERU 5	0.904			
	PERU 6	0.699			

Bold values are the square root of AVEs.

had factor loadings on their own constructs that were less than 0.50. That is why they had to be removed from the evaluation. The item loading was low in all cases (at level = 0.05). Internal consistency was measured using composite reliability (CR), Cronbach's alpha, and Rho A. All variables had a value greater than 0.70, which was the proposed cutoff, as shown in **Table 4**. Additionally, all average variance extracted (AVE) values were more than 0.5, which represent convergent validity. To determine discriminant validity, the square root of the AVE was taken for each variable, and the results were compared to the correlation coefficients between the variables used in the research technique. **Table 5** shows the discriminant validity criterion used by Fornell and Larcker.

Factor Analysis

We used AMOS software to perform confirmatory factor analysis (CFA) to see whether the data fit our theoretical model. The results of the above two tests indicated that the data were suitable for analysis at higher levels. Model fit indices, correlation results, AVE, CR, and discriminant validity findings are summarized in **Table 5**. The model fit values produced adequate results to establish that our theoretical model fits the data well. The data fitness was assessed using Bartlett's test of sphericity (BTS) and
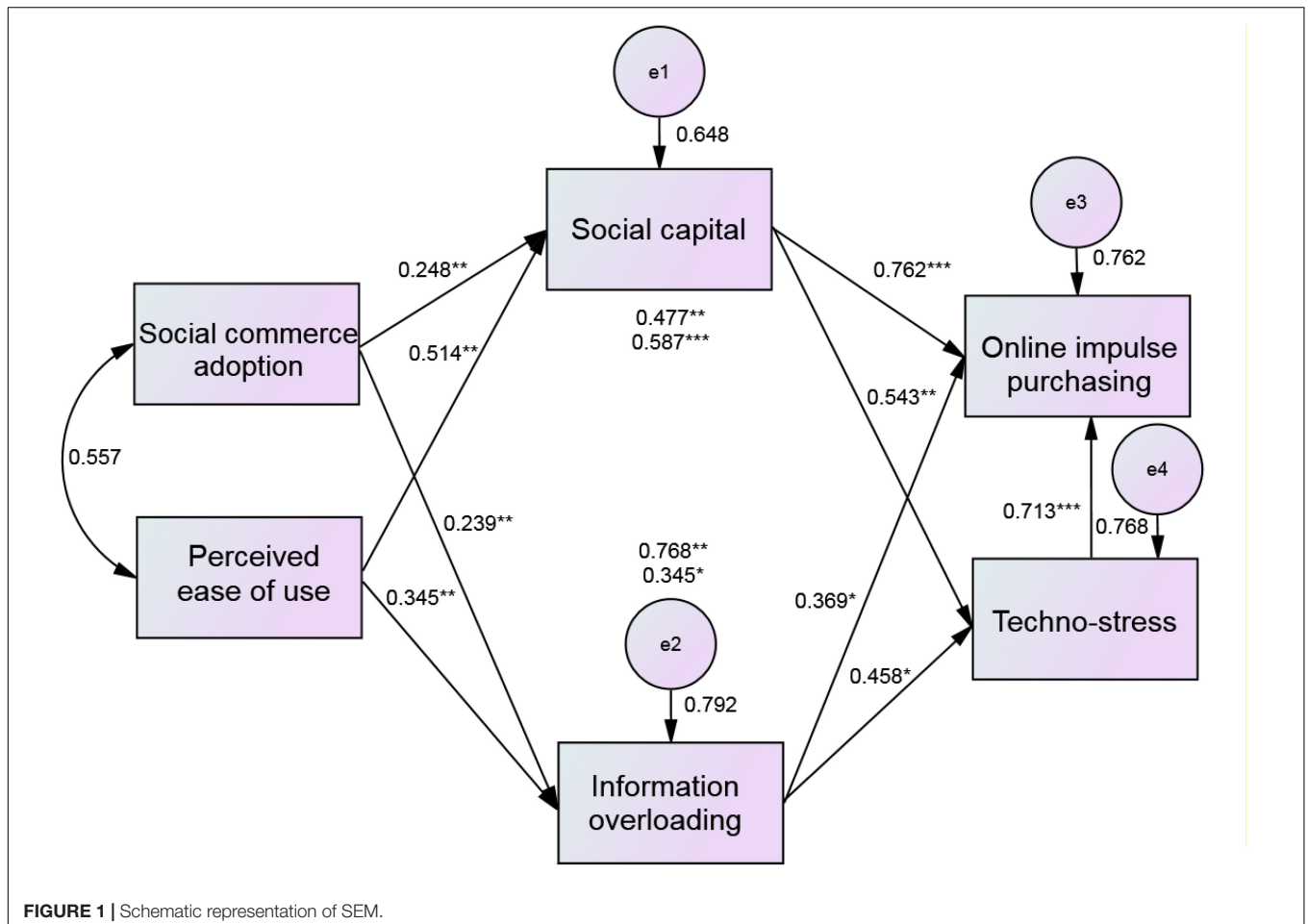
TABLE 5 | The discriminant validity of the Fornell and Larcker.

Variable	ONIP	SOCA	PERU	SCAP	TECS	INFO
ONIP	**0.715**					
SOCA	0.267	**0.821**				
PERU	0.349	0.540	**0.802**			
SCAP	0.304	0.160	0.352	**0.844**		
TECS	0.155	0.354	0.259	0.227	**0.824**	
INFO	0.284	0.493	0.429	0.216	0.667	**0.744**

Kaiser–Meyer–Olkin (KMO) tests. BTS provided a significant value of 6,874.03, which also meets the EFA criteria. Similarly, communalities' outcomes show that almost all factors have a value greater than the standard minimum of 0.4. The Kaiser method revealed six important factors to eigenvalues greater than one, which results in a total combined variability of 64.930%. As a result, each of these points indicates that the data are reliable enough to proceed with further analysis.

Hypotheses Testing

The findings of the SEM analysis are depicted in **Figure 1**, which shows the significant relationships between the constructs in the analysis model. The nine hypotheses were used to test by the

FIGURE 1 | Schematic representation of SEM.

path coefficient tool and for each relationship t-value tested. At p-value = 0.05., a standardized coefficient value is greater than 0.1 and the value of t-value exceeding from 1.96, both results considered significant. The hypothesis testing results are presented in **Table 6**.

DISCUSSION

Results supported hypotheses H1–H19 at various significant levels, as shown in **Table 6**. The findings show that the subjects' SOCA has a significant impact on their CCAP (β = 0.248, $p < 0.05$). Given Chinese consumers' social nature, the actions of family members and friends should have a significant impact on their attitudes. H2 is also supported by the findings, which show a significant, positive relationship between SOCA and INFO (β = 0.239, $p < 0.05$). This finding implies that consumers with advanced technical skills perceive social commerce to be simple to use. As a result, the higher a person's level of technological competency, the more likely they are to find social commerce simple to use. Similarly, other hypotheses, that is, H3–H13, are all significant. In the same vein, the mediating role of social capital and information overloading positively influences techno-stress and online impulse purchasing.

Chinese consumers remain wary of disclosing personal information when trading or purchasing online despite the rise in social commerce usage. Consumers' distrust stems from E-retailer's insecure systems, which hackers can easily exploit, and ambiguity in government regulations, making it difficult for victims of cybercrime to recover their funds. A consumer must first believe that their personal information, such as their e-mail address and payment information, will be secure before engaging in a social commerce transaction. Other social commerce studies have found similar results in developed economies (e.g., Roca et al., 2009; Bojang, 2017; Sharma, Menard and Mutchler). It is critical for social commerce websites to inform customers that they have security systems in place to safeguard their personal information.

Our findings show that the establishment of an e-commerce network has provided a solid foundation for profiting from online trading in China. The traditional electronic commerce regime is rapidly transitioning to social commerce. The primary distinction between electronic commerce and social commerce is that the former focuses on a product-oriented environment, whereas the latter focuses on a consumer-oriented environment with an emphasis on reliability and sustainability. The goal of social media, which began with the launch of Web 2.0, is to gather collective intelligence. Users are more likely to surf the Web for readily available knowledge and product information, allowing them to make more accurate and well-informed impulse product purchases, thanks to the advancement of social commerce. Because of this, retailers and manufacturers are more cautious and careful about how their products are presented.

CONCLUSION

This research revealed some fascinating consequences for the theory of social capital. Earlier research on social capital yielded some contradictory findings. This study used the SEM method to better understand the role of social capital in cultivating purchase intentions. Researchers looked at the impact of different purposes of social commerce usage affect social capital, techno-stress, online impulse purchase, and information overloading in the setting of social commerce shopping in China. The findings showed different aspects of social capital, such as social interaction, peer trust, reciprocity, sharing language, and reciprocity language, play a variety of roles in promoting purchase intent. The SEM findings revealed the impact of the informal relationship between social commerce use and online impulse purchase. Despite the fact that the factors influence consumers' e-commerce purchase intentions, this study yields a better understanding of the configurations that link dimensions of social commerce use with social capital and information overloading to consumers' purchase intentions in e-commerce.

Practical and Managerial Implications

Such research has few managerial implications. According to the findings, the managers of social commerce platform should boost their mates to build effective social capital. The findings of SEM show that social commerce directly influenced online impulse purchasing of all three social capital dimensions and that social capital and social commerce play the mediating role during the influence of purchase intentions. According to the SEM results, the presence of shared language and the absence of reciprocity, peer trust and reciprocity, and peer trust and social interaction are all satisfactory situations for purchase intentions.

TABLE 6 | Hypotheses testing results of the constructs.

Hypothesis	Structural paths	β-coefficient	t-value	Sig.	Decision
H1	SOCA → SCAP	0.248	2.239	**	Supported
H2	SOCA → INFO	0.239	2.207	**	Supported
H3	PERU → SCAP	0.514	4.817	**	Supported
H4	PERU → INFO	0.345	3.585	**	Supported
H5	SCAP → ONIP	0.762	6.410	***	Supported
H6	SCAP → TECS	0.543	5.428	**	Supported
H7	INFO → ONIP	0.369	3.393	*	Supported
H8	INFO → TECS	0.458	4.459	*	Supported
H9	TECS → ONIP	0.713	5.792	***	Supported
H10	SOCA x PERU → SCAP → TECS	0.477	4.993	**	Supported
H11	SOCA x PERU → SCAP → ONIP	0.587	5.496	***	Supported
H12	SOCA x PERU → INFO → TECS	0.768	7.095	**	Supported
H13	SOCA x PERU → INFO → ONIP	0.345	3.321	*	Supported

Each path's standardized coefficient, p-value, and t-value are shown in **Figure 1** *and* **Table 5**. *As a result, all hypotheses are supported.* *$p < 0.1$, **$p < 0.05$, ***$p < 0.01$.*

As a result, improving just one aspect of social capital is insufficient to elicit purchase intentions. Social capital should be carefully maintained on structural, relational, and cognitive levels. First, the SEM findings show that whereas consumers' purchase intentions were not directly influenced by shared language, social commerce was also positively associated to it, enhancing purchase intentions. In the social commerce community, s-commerce managers should develop a shared vision, shared values, shared language, and shared narration. Consumers in the s-commerce society, for example, are encouraged to use abbreviations with special meanings. Consumers can minimize social distance, maximize cohesion power, and feel like they belong to the s-commerce community by doing so.

Furthermore, the SEM findings showed that consumers' online impulse purchase intentions were positively influenced by social commerce. Managers of e-commerce sites are stimulated to develop a regulation system to ensure a secure business atmosphere. False advertising, fake products, and ambiguous approvals should all be eliminated from social commerce sites. The social commerce platform should penalize opportunism. To create a reciprocal atmosphere, e-commerce managers should boost customers to be genuine and honest.

Finally, the SEM findings showed that CCAP and INFO play the mediating role during the influence of SOCA and PERU on purchase intentions, confirming that the presence of peer trust and social interaction are enough situations for purchase intentions. To improve SOCA and PERU, interaction and interpersonal contact should be stimulated. For example, an e-commerce site can motivate potential customers with spiritual returns such as membership ranks and badges and monetary incentives such as coupons and credits.

Research Limitations

There are two drawbacks. To begin with, only three different dimensions of social capital were taken into account as antecedent variables. Other factors, such as social support, could also play a role in the solutions. More factors that can enrich the configurations should be considered in future research. Furthermore, this research focused solely on the factors that influence the presence of purchase intentions. Further research could look into the configurations that lead to a lack of purchase intentions or what factors might prevent consumers from making purchases in s-commerce. The reasons for buying or not buying in e-commerce can be varied.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

AUTHOR CONTRIBUTIONS

HX: conceptualization, data curation, methodology, and writing - original draft. WI: data curation, visualization, supervision, and editing. MI: methodology, formal analysis review & editing. KC: writing - review & editing, and software. All authors contributed to the article and approved the submitted version.

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