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# Understanding the interplay of social commerce affordances and swift guanxi: An empirical study

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**Abstract:** Prior studies highlight consumer behavior in social commerce from the perspective of relational exchange, while culture-driven aspects have been neglected. Given cultural uniqueness in China, this study develops a research model to explore the effects of key social commerce affordances on swift guanxi dimensions and subsequent purchase intention. Data from 450 social commerce users were used in PLS analysis for testing the proposed research model. The results indicate that interactivity, stickiness, and word of mouth exert positive effects on mutual understanding, reciprocal favor, and relationship harmony, to various degrees. In turn, swift guanxi dimensions are determinants of consumers' purchase intention in social commerce.

**Keywords:** Social commerce; Swift guanxi; Mutual understanding; Reciprocal favor; Relationship harmony

## 1 Introduction

With the emergence of recent improvements in Information and Communication Technologies (ICTs) and Web 2.0, social media, characterized by social features and self-generated content, is becoming increasingly prevalent among Internet users (Hajli, 2015). In China, the volume of users of MicroBlog and WeChat has reached 242 and 558 million, respectively, and the total number of online citizens has reached 710 million (CNNIC, 2016). Both consumers and companies are able to take advantage of social media to exchange information and transact with each other. Consumers are empowered to make wise purchase decisions because knowledge or experiences about products or services are available on the Internet, thanks to social media users' information sharing. Online businesses can harness social media platforms to attain valuable information that is generated by consumers for products/services improvements and advance their relationship with consumers. Amid the growing commercial use of social media, social commerce was introduced around 2005 and has now become popular in many countries. Social commerce is the application of Web 2.0 features, such as content generation tools, for the enhancement of users' interactions in e-commerce (Liang et al., 2011), and it is regarded as encompassing relationship-based online commercial activities (Stephen and Toubia, 2010). In China, the annual social commerce transaction amount is RMB 2134 per online shopping user for the year of 2015 with an increase rate of 75.5% compared to that in 2014 (CNNIC, 2016).

Interpersonal relationship is an essential foundation for social commerce success because the scope of connections among users has been expanded via social networks, leading to increasing transparency of information, which facilitates the realization of transactions in social commerce (Liang et al., 2011; Yadav et al., 2013). A recent survey has found that nearly 83% of respondents tend to share shopping information with their online friends, and almost 67% of respondents are likely to purchase more based on the recommendations they get from their online friends (Marsden, 2016). Because shopping information received from friends is viewed as more valuable and credible, it may influence online purchase behavior and play a key role in social commerce (Hu et al., 2016). In contrast, word of mouth in traditional e-commerce

often depends on people that one does not know and has no formal or informal relationship with. As such, the nature of interpersonal relationship in social commerce is an important contributor to purchase decisions (Zhang et al., 2016). Previous studies focused on relational exchange between parties, as manifested in trust, commitment, and satisfaction in social commerce in western cultural contexts (Shanmugam et al., 2016; Hsu et al., 2017). Relational exchange indicates that exchanging parties tend to have economic and impersonal involvement in networking (Liang et al., 2011; Hajli, 2014). Notwithstanding the relative immaturity and weak enforcement of institutional arrangements associated with the legal system, it is guanxi, a close and pervasive interpersonal relationship that is the most salient in China (Lovett et al., 1999). The descriptive report by the China Internet Network Information Center (CNNIC) shows that social media such as WeChat is being used to build guanxi (CNNIC, 2015). Therefore, in China's social commerce context, guanxi is an important element of reflecting interpersonal aspect. Nevertheless, guanxi in social commerce (i.e., swift guanxi) has de facto received rather scarce attention. As such, there is a pressing need for further research to theoretically and empirically examine social commerce to expand our understanding on this new yet important paradigm.

Given the presumed importance of swift guanxi in social commerce in China, it is imperative to consider how to predict it. One core benefit of social commerce is the unique affordances or attributes it provides to its users (Chen et al., 2016). Social commerce attributes such as recommendations, ratings, and reviews all generate valuable information that strongly influences customer behavior and purchasing decisions (Hajli, 2015). Online consumers interact with social commerce environment via the enabled technical features and generate their evaluations about these functions (Grange and Benbasat, 2010; Animesh et al., 2011). When a customer uses social commerce platforms, he/she interacts with the technical system enabled by user-generated content. Meanwhile, customers gradually alter the environment through the platforms by contributing to the website content, therefore exerting influence on sellers (Wang and Zhang, 2012). This reveals the interactive and interpenetrating nature of social commerce (Animesh et al., 2011). Therefore, social commerce affordances serve as a basis for forming relationships between buyers and sellers as it motivates reciprocity, cooperation, and trust (Liang et al., 2011; Zhang et al., 2016). We hence also suggest that and examine how social commerce affordances

drive swift guanxi we emphasize in this study.

Thus, this study develops a research model to investigate the impact of social commerce affordances on swift guanxi and subsequent purchase intention in social commerce in China. Specifically, we want to pursue the following questions: (1) Do social commerce affordances exert influence on building swift guanxi in social commerce? (2) What is the impact of swift guanxi on purchase intention in social commerce? And (3) Does swift guanxi mediate the path from social commerce affordances to purchase intention in social commerce? The findings are expected to be beneficial to sellers in their endeavors to effectively advance customer relationship and thus facilitate the success of social commerce.

The rest of this paper is structured as follows. In section two, we review literature related to social commerce, social commerce affordances, and swift guanxi. This is followed by section three discussing the current research model and hypotheses. Section four presents the study design and data collection. Then data analysis and results are provided in section five. At the end of this paper, we discuss the key findings, implications, and limitations as well as potential future research directions.

## **2 Literature Review**

### **2.1 Social commerce**

Rapid advancements of ICTs and the appearance of Web 2.0 have contributed to the increasing popularity of social media. Social media emphasizes self-created content and social interactions; these drive the transformation of e-commerce from a product-centered context into a new platform that concentrates on social connections and customers (Wigand et al., 2008). In such an environment, exposure to contents (knowledge of or experiences with products/services) generated by other online users enables consumers to make more informed purchase decisions (Baethge et al., 2016). Using such tools, companies develop relevant operational strategies on the basis of observation of consumer behavior and social commerce insights as a means to enhance consumers' experiences and expectations of purchase (Constantinides and Fountain, 2008).

A growing number of firms have become aware of such reciprocal advantages in this new context. Under this condition, an evolution has been taking place in e-commerce practices with practitioners' adoption of Web 2.0 features, functions, and

capabilities to motivate customer participation, advance customer relationship-building, and profit from newly created economic value (Kim and Srivastava, 2007; Parise and Guinan, 2008; Liang et al., 2011). Social commerce refers to a new wave of e-commerce wherein traditional e-commerce companies use social media or social networking services in order to promote online transactions and shopping-related information exchanges (Wang and Zhang, 2012). As such, it is an online application integrating e-commerce features with Web 2.0 technologies (Lee et al., 2008). This integration works because when people shop online, they are prominently affected by the information tracks created by someone in a given network community.

## 2.2 Social commerce affordances

Social commerce adds e-commerce functionalities to social media, thus helping people buy goods and services from the places where they are already connected. Social commerce has unique attributes that encourage consumers to undertake active roles and co-create value (Liang and Turban, 2011; Wang and Zhang, 2012). In social connection, e-commerce enabled by web 1.0 provides a classical way of browsing where a customer is normally perceived as isolated, disconnected from his community, and conducting an individual act with no connection with others; however, social commerce provides a more social and interactive environment to allow customers to share their information (Busalim and Hussin, 2016). Social commerce sites provide social interactions, such as information sharing, networking, and collaborating, to facilitate communications between consumers (Li and Ku, 2018). Therefore, interactivity is recognized as a unique affordance of social commerce. Regarding word of mouth, social commerce focuses on social media on sharing reviews about products or services. Word of mouth is considered as a key in social commerce because of its reliability, speed, convenience, amplitude, and so on (Wang et al., 2016). For example, users on social networks usually are friends or indirect acquaintances, and their information sharing seems relatively sincere compared with recommendations or reviews on shopping platforms (Curty and Zhang, 2013). In addition, social commerce presents stronger user stickiness than e-commerce, because Web 2.0 technologies, as the basis of social media (e.g., Facebook, WeChat, and Twitter), facilitate the acquisition of products through supporting users' interactions and contributions (Hajli et al., 2017). Although studies have so far not been consistent in social commerce affordances, most researchers identified interactivity, word of

mouth, and stickiness as the most important social commerce affordances in affecting customers' decision-making process (Kim and Park, 2013; Hsu and Liao, 2014; Li and Liang, 2014; Hajli, 2015; Busalim and Hussin, 2016; Zhang et al., 2016).

Specifically, interactivity refers to a consumer's perception of the interactivity level of a seller's social commerce website (Zhang et al., 2016). Interactive technologies have changed not only the structure of business but also how firms and customers interrelate in online marketplaces (Arcas et al., 2013). Consumers' social interaction via social media platforms has become an integral part of social commerce (Hajli, 2014). A high level of interactivity between users and social platforms can encourage the establishment of relationships among social commerce users and cultivate a sense of community among these users (Hajli, 2015). The interconnectivities via social media allow customers to have an access to information provided through social interaction and lead to a better and informed decision (Liang et al., 2011; Huang and Benyoucef, 2013).

Stickiness refers to the capacity of social commerce websites to attract and retain customers (Hsu and Lin, 2016). If a social commerce website is visited repeatedly and makes users spend lots of time on browsing, the website is considered to exhibit the feature of stickiness (Wang et al., 2016). A high level of stickiness means that a beneficial buyer–seller relationship over social commerce has been established; this relationship is often beneficial for social commerce site operators (Hsu and Lin, 2016; Zhang et al., 2017). In strengthening the stickiness of websites, traditional e-commerce relies mostly on system functions, such as user-friendly product categorization, search engines, shopping carts, or preference-rooted recommender systems (Sosa and Koufaris, 2005; Kim et al., 2011). In contrast, a social commerce website relies mainly on user-created information on social media to attract appreciators and induce them to linger on the site (Hsu and Liao, 2014; Chen and Shen, 2015).

Word of mouth refers to online activities in which consumers exchange information or experiences to help others make purchasing decisions (Kim and Park, 2013). In social commerce, word of mouth focuses on sharing information with friends on social media, whereas traditional customer reviews are shared with unknown online shoppers (Wang and Yu, 2017). Shopping information received from friends is viewed as more valuable and credible; thus, it plays a key role in social commerce (Hu et al., 2016). Word of mouth with friends on social media not only

improves the perceived information reliability, but also allows this kind of recommendation networking to become an emerging approach of online marketing strategy (Wang et al., 2016; Yan et al., 2016).

### **2.3 Swift guanxi**

Guanxi has its own unique characteristics distinguishable from relational exchange in western societies (Shaan et al., 2013). First, guanxi is more personal than impersonal in that it mainly works on the basis of friendship (Wu and Chiu, 2016). Guanxi is a personalized relationship based on the reciprocal exchange of personalized care and favors, and its affective value is more important than its monetary value in social interactions. By contrast, relational exchange tends to have at least some economic and impersonal involvement, which leads to calculative commitment and expectation of mutuality in the relationship. Second, guanxi is focused more on a particularistic, rather than universalistic relationship (Wang, 2007). Guanxi is highly network-specific and thus normally does not generalize to members of outside social networks, while relational exchange has a universalistic nature in that the network is relatively open to any exchange partners as long as one plays by the rule of the game. Third, guiding principles of relational behaviors in guanxi are morality and social norms. However, guiding principles of a relational exchange in the West are legality and rules (Lee et al., 2001).

Swift guanxi, an extension of traditional offline guanxi, often exists in online social markets; it captures properties of consumers' positive and harmonious relationships with sellers in online marketplaces (Arias, 1998; Lee et al., 2001). Such business relationships can be built rapidly and the personal nature of guanxi can be imitated by communication tools in online marketplaces (Ou et al., 2014; Lisha et al., 2017). Swift guanxi thus has potential to influence consumers' decision-making processes. Swift guanxi mainly includes three dimensions: mutual understanding, reciprocal favors, and relationship harmony (Ou et al., 2014). Specifically, mutual understanding reflects the notion that both buyers and sellers recognize and value each other's demands and become agreeable on what to buy/sell, especially regarding the details of the transaction. Mutual understanding is a key foundation of swift guanxi, which is similar to mutual understanding's role in traditional guanxi that requires parties to a transaction to understand and follow the implicit rules of a guanxi-based relationship or network including issues like business culture, exchanging favors, and the operation of business (Wong and Chan, 1999; Lee et al.,

2001). Reciprocal favor is shown by offering discounted prices or small gifts to buyers or releasing positive ratings and reviews for sellers, as a means to fulfill reciprocal obligations. Social exchange theory argues that reciprocity is the basic prerequisite for the success of social exchange (Cropanzano and Mitchell, 2005; Akoorie et al., 2013). Such reciprocal behaviors form relationships, which promote future transactions (Luk et al., 1999; Lee and Dawes, 2005; Leung et al., 2005). Relationship harmony, characterizing Confucianism-oriented Chinese culture, is also a crucial component of swift guanxi. In a harmonious relationship, both parties respect each other and aim to achieve conflict avoidance. In this way, during the transaction process, harmonious relationships help reduce some contracting costs associated with potential opportunism and thus consumer's purchase becomes easy to fulfill.

Swift guanxi in social commerce has specific characteristics that distinguish it from swift guanxi in e-commerce, such as the role of technology in communication. The interaction using computer-mediated communication technologies (e.g., Taobao WangWang) is the primary mode used to build traditional swift guanxi, while social media greatly matters in facilitating interaction to establish interpersonal relationships in social commerce (Huang and Benyoucef, 2013; Ou et al., 2014). There are differences between interactions using computer-mediated communication technologies and interactions facilitated by social media in three aspects. First, the online communities that consumers join support social connection and encourage conversation between consumers in social commerce, while consumers interact with e-commerce platforms individually and independently from other consumers (Huang and Benyoucef, 2013). Second, focusing on social activities in social commerce, while the goal of interactions is maximizing shopping efficiency in e-commerce (Wang and Zhang, 2012). Third, consumers have little or no control in e-commerce, but consumers are empowered in social commerce (Huang and Benyoucef, 2015).

### **3 Theoretical model and hypotheses**

#### **3.1 Impacts of swift guanxi dimensions on purchase intention**

Swift guanxi is a swiftly formed interpersonal relationship between buyers and sellers and is based on reciprocal favors from both parties in online marketplace (Ou et al., 2014). Its effects are rooted in social exchange theory that embraces the fundamental concepts of modern economics as a foundation for analyzing human

behavior and relationships. The theory posits that when one party does something valuable for the other party, the receiving party tries to “reciprocate” with something valuable (Cropanzano and Mitchell, 2005). Guanxi comes into existence when one party does something valuable for the other, so that they have a reciprocal obligation to repay this debt (Akoorie et al., 2013). In this sense, guanxi is like a specific application in the Chinese context of the concept of “social exchange” of Blau (1964) which infers that care and affection from one party create a moral obligation toward another party to reciprocate it with something valuable. Prior studies have found that swift guanxi between buyers and sellers can produce positive outcomes such as repurchase behavior in e-commerce context (Ou et al., 2014). In social commerce context, when buyers have developed swift guanxi, they will engage in positive social behaviors including sharing information and transacting with others. Such transactions may even take place when a product is not perceived as ideal as the buyer’s expectation, but they have an obligation to reciprocate and buy from the seller. Given that mutual understanding, reciprocal favor, and relationship harmony are the three ingredients of swift guanxi, we suggest they positively affect consumers’ purchase intention in social commerce. Specifically, mutual understanding is the foundation of guanxi-oriented relationship as it promotes that both buyers and sellers appreciate each other’s needs (Akoorie et al., 2013; Wu and Chiu, 2016). It is obvious that without mutual understanding, agreement on price, delivery, quality, or other requirements are unlikely to encourage buyers to make a purchase decision (Luk et al., 1999). This implies that mutual understanding is the first and inextricable stage of online transactions. Therefore, we put forward the hypothesis as follows:

H1: Mutual understanding is positively associated with purchase intention in social commerce.

Exchange of favors as a form of reciprocal obligation is a prerequisite to building interpersonal relationship (Arias, 1998). If a seller offers favors to consumers, reciprocal favor exchange provides the opportunity that advances the willingness to transact with the seller (Wong, 2007). For example, offering discounts or presenting minor gifts and providing positive ratings or comments through a feedback system are beneficial to establishing transaction. Social exchange theory posits that individuals exchange resources with one another owing to the expectation of receiving something in return, or so-called reciprocity (Huang et al., 2018). Applying this notion to the social commerce context, we put forward that reciprocal favor facilitates the

formation of a consumer's intention to buy.

H2: Reciprocal favor is positively associated with purchase intention in social commerce.

Harmony is an essential characteristic to promote and pursue in Chinese society, since Confucianism is the primary attitudinal orientation, which highly values harmony (Lee et al., 2001; Su et al., 2003; Leung et al., 2005). A harmonious relationship is instrumental to business success, which avoids potential conflicts in related parties (Rui and Ken, 2008). Given the nature of relationship harmony, consumers are likely to purchase products/services from the sellers who respect them (Ou et al., 2014). Without mutual respect and relationship harmony, it is scarcely possible that a buyer will make a purchase decision. In social commerce context, when sellers care for buyers through communication on social media during the transaction process, they will attract new and cultivate loyal customers. Therefore, we put forward the hypothesis as follows:

H3: Relationship harmony is positively associated with purchase intention in social commerce.

### **3.2 Impacts of interactivity on swift guanxi dimensions**

Interactivity involves active control, two-way communication, and synchronicity in online market (Ou et al., 2014). Social commerce sellers usually offer basic information about products, payment modes, and delivery modes, but addressing the other detailed and personal requirements of certain buyers entails immediate buyer-seller communication with mutual understanding between them. Information such as product features and service improvements can be specified during the communication process. This information exchange can advance the extent of clear understanding of the transaction details. Furthermore, without active control, social commerce users cannot even browse and get necessary knowledge about products/services. Social commerce sites can offer greater extent of two-way communication and synchronicity by using social media (Curty and Zhang, 2013). In turn, interactivity enables sellers and buyers to understand each other better. Therefore, the following hypothesis is put forward.

H4: Interactivity is positively associated with mutual understanding in social commerce.

For exchanging favors, actions like sellers offering discounts or gifts to consumers or consumers offering positive feedback to sellers are catalysts to fulfill

reciprocal favor achievement. In sum, through dynamic and interactive exchange, buyers and sellers can favor each other and gain satisfactory outcomes (Hu et al., 2016). From the perspective of social exchange theory, when consumers get favors from high level of interaction with a seller in social commerce, they tend to give reciprocal favors to the seller in return. Therefore, the following hypothesis is put forward.

H5: Interactivity is positively associated with reciprocal favor in social commerce.

High-quality interaction, as such, is critical to establishing relationships (Hsiao, 2001). Research on online markets has probed into the mechanism that underlies the manner by which interactivity transforms visitors into buyers and advances the relationships between sellers and buyers (Teo et al., 2003). Similarly, interactivity in social commerce facilitates to solve some divisions of opinion which are likely to cause conflicts, negotiate details through smooth interaction, such as allowing the transaction parties to communicate and respond to each other (Ou et al., 2014). Therefore, the following hypothesis is put forward.

H6: Interactivity is positively associated with relationship harmony in social commerce.

### **3.3 Impacts of stickiness on swift guanxi dimensions**

Stickiness is a key element of profitability in online marketplaces because if users stay at a social commerce site for a longer period and interact more extensively with it than other sites, they are likely to buy more goods, employ more services, browse more advertisements, and partake in more activities on the site (Lin, 2007). In social commerce, stickiness relies on a community (users' attachment to certain fields and functions of the community) or interdependence among people in the community. A stickier social commerce site reflects stronger user's reliance and familiarity with the site; thus, it is easier to understand the seller's behavior and opinions. Further, stickiness implies that users are willing to re-patronize a given social commerce site and are attracted by the content and products provided from this site (Lin, 2007). This shows that the seller understands consumers' needs and is willing to meet consumers' expectations. Therefore, the following hypothesis is put forward.

H7: Stickiness is positively associated with mutual understanding in social commerce.

A high stickiness of a social commerce seller's site means that the seller has done

something favorable to the customers, thus attracts customers to visit again (Hsu and Lin, 2016). According to the social exchange theory, when one party does something valuable for the other party, the receiving party tries to “reciprocate” with something valuable (Cropanzano and Mitchell, 2005). Applying this notion to the social commerce context, we conjecture that when consumers believe the products from sellers are valuable, they will feel obliged to reciprocate positive outcomes to the sellers.

H8: Stickiness is positively associated with reciprocal favor in social commerce.

The higher social commerce stickiness is, the higher is user dependence; therefore, it is more convenient to establish the relationships among consumers and sellers (Li et al., 2006). When a social commerce seller’s site is highly sticky, indicating individuals interact frequently, it is beneficial for customers and the seller to listen to each other, solve some conflicts, and reach harmonious outcomes (Hsu and Liao, 2014). In other words, if a social commerce seller’s site is lowly sticky, it means that customers do not want to interact with the site, and it is difficult to form a proper interpersonal relationship between the seller and customers (Zhang et al., 2017). Therefore, the following hypothesis is put forward.

H9: Stickiness is positively associated with relationship harmony in social commerce.

### **3.4 Impacts of word of mouth on swift guanxi dimensions**

Word of mouth involves the exchanges of information and experiences as a means to assist consumers who engage in online activities to make purchase decisions (Park et al., 1998; Kim and Prabhakar, 2000). The more frequently consumers solve problems or generate solutions with the assistance of information offered by online friends, the more positive valence toward these relationships and exchanges they develop (Liang et al., 2011). If people can consistently obtain instrumental assistance, such as valuable advice and immediate help from their online friends in a social networking website, they are more likely to feel connected to friends as well as develop stronger interpersonal relationship with them (Cropanzano and Mitchell, 2005; Akoorie et al., 2013) and develop further aspects of the relationship with the website via trust transfer mechanism (Stewart, 2003; Stewart, 2006). When consumers lack personal experience with a seller in social commerce, the word of mouth from their reliable friends can convey relevant and positive information about the seller’s product quality, service quality, or even satisfaction of prior customers, by

association (Jiang et al., 2008; Jin et al., 2009). In turn, mutual understanding between consumers and sellers is advanced by fundamental information and positive comments offered by word of mouth from online friends. Hence, we propose:

H10: Word of mouth is positively associated with mutual understanding in social commerce.

Word of mouth provides individuals with advice, guidance, or useful information to help them solve problems, generate new ideas, or make good decisions (Wang and Yu, 2017). The spread of positive word of mouth on social media platforms allows sellers to get a lot of consumers' support and increase transactions. In other words, using social media as a platform enables sellers to test new products/services by obtaining feedback from customers. This insight may foster closer customer-vendor relationships and give companies a competitive edge (Lee and Phang, 2015). When sellers collect information from word of mouth, they can use the information to develop marketing communication strategies and improve product design and customer services (Torres et al., 2014). Word of mouth creates an atmosphere where buyers and sellers can easily reciprocate favors. We hypothesize that:

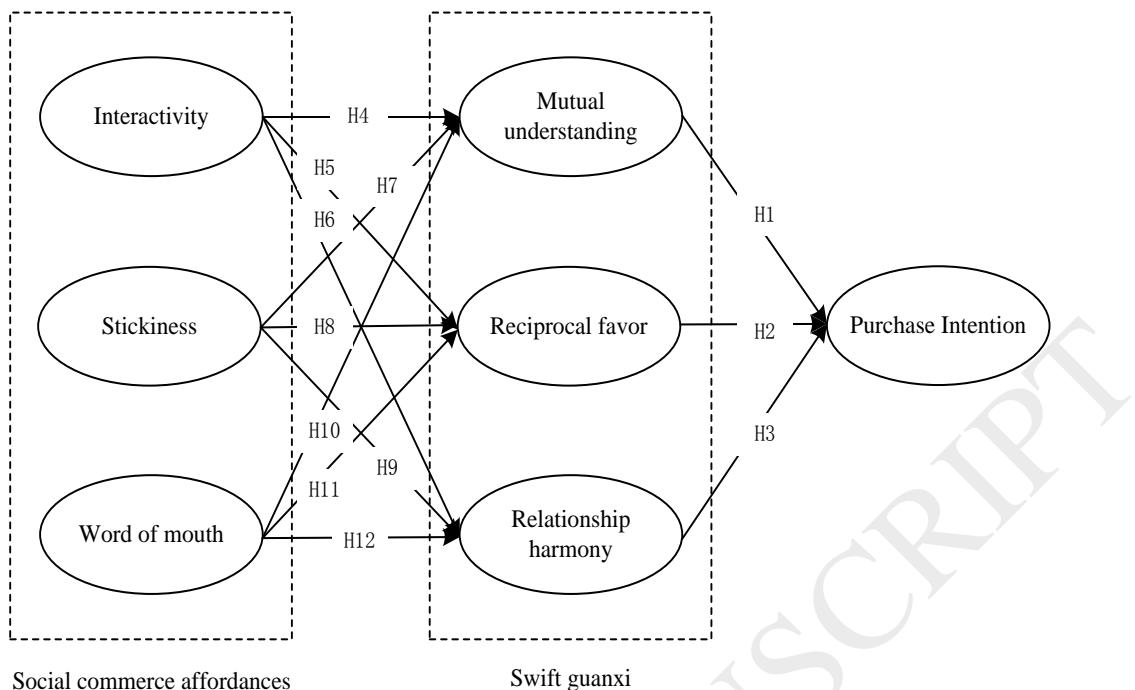
H11: Word of mouth is positively associated with reciprocal favor in social commerce.

A consumer's relationship with a seller will be affected by word of mouth information from their friends about the seller's benevolence, loving, and caring in social commerce on the basis of trust transfer mechanism (Stewart, 2003; Hajli and Sims, 2015). When other people care about a consumer, it signals to the consumer that the website and its users by affiliation, bear the consumer's interest in mind and their intentions are altruistic. Thus, sellers on a social networking website can cultivate the relationship with consumers by showing their efforts to foster members' social relationships (Chen and Shen, 2015). Research has found such efforts as a signal that the sellers would not act opportunistically toward community members and have the ability to nurture a friendly and harmonious environment (Porter and Donthu, 2008).

In this regard, the research can postulate this hypothesis:

H12: Word of mouth is positively associated with relationship harmony in social commerce.

Based on the above discussion, we present our research model as Figure 1 shows:



**Figure 1** Research Model

## 4 Research design and method

### 4.1 Scale design

This study employed a survey to collect data for examination of the theoretical model. The questionnaire includes two sections: the first section captured the demographic features of the participants and the second section measured the model's constructs. To ensure content validity, the scale items for the variables were adapted from existing literature and were modified to fit the context of social commerce. Interactivity was measured with items adapted from Ou et al. (2014), wherein three first-order constructs (active control [IAC], two-way communication [ITC], and synchronicity [ISY]) constitute a second-order formative construct of interactivity. Items for stickiness (STI) were adapted from Hsu and Lin (2016). Items for word of mouth (WOM) were adapted from Kim and Park (2013). The three dimensions of swift guanxi, namely, mutual understanding (MU), reciprocal favor (RF), and relationship harmony (RH), were measured with items adapted from Ou et al.(2014). Items for purchase intention (PI) were adapted from Hong and Cha (2013).

Because the survey was conducted in Chinese, we followed the forward-backward translation method to ensure the translation validity. First, a researcher whose native language is Chinese translated the original items into Chinese. Second, another researcher back-translated the Chinese version items into English.

Third, we compared the two English versions and made subtle modifications to ensure that the Chinese scales accurately convey the intended meaning of all the items. Then the questionnaire was pilot-tested in a study involving 20 college students. Based on their feedbacks, we refined and finalized the scales to improve ambiguous expressions. Appendix A. presents the measurement scales for all the variables. All items were measured on a five-point Likert scale with ranges from 1 (strongly disagree) to 5 (strongly agree).

#### **4.2 Data Collection**

The survey was conducted on WeChat in China, because it is the most popular social commerce platform in China and the number of its active users per month has reached 762 million (Tencent, 2016). WeChat has functions like “Messages,” “Moments,” “Group Chat,” “Like,” “Comments,” “Official Account,” and “Payment”, and these functions enable its users to connect with each other, create unique profiles, share comments on products, and buy the products that sellers release over the platform. We sent invitation messages to group chats and posted an online version of the questionnaire in “Moments” (a function platform where WeChat users can post pictures, texts and hyperlinks) in WeChat. In order to encourage more users to finish the questionnaire, “one red packet with RMB 5 prizes” (a function of WeChat that allows users to give money with red image to be clicked before money is transferred from account of one user to another) was offered when the respondents completed the survey. As an initial screening method, the first question in the questionnaire asked whether the participants had social commerce experience. To ensure that each respondent participated only once in the survey, each participant’s Internet Protocol address was tracked and examined. In total, 576 users clicked on our survey invitation, and 450 valid responses were received for further analysis.

The statistics regarding demographics are shown in Table 1. Among the respondents, 45.56% were male and 54.44% were female. The majority of respondents was 20 to 34 years old (77.56%) and attained a bachelor’s degree or higher (87.12%). With respect to monthly income and occupation, 40.89% earned over RMB 5000 per month; 37.78% were company employees. With regard to use experience of WeChat, almost all the respondents had been using WeChat for more than one year (98.44%).

**Table 1** Sample demographic (N=450)

Attributes	Options	Frequency	Percentage (%)
Gender	Male	205	45.56
	Female	245	54.44
	<20	18	4.00
	20–29	288	64.00
	30–34	61	13.56
	35–39	49	10.89
Age	40–44	14	3.11
	45–49	7	1.56
	50–54	11	2.44
	55–59	1	0.22
	>60	1	0.22
Education	Below college	20	4.44
	Junior college	38	8.44
	Bachelor's degree	304	67.56
	Master's degree or higher	88	19.56
	< 3000	197	43.78
Monthly income (RMB)	3000–4999	69	15.33
	5000–5999	67	14.89
	6000–7999	48	10.67
	> 8000	69	15.33
	Student	194	43.11
	Firm employees	170	37.78
Occupation	Government personnel	15	3.33
	Non-profit organization personnel	54	12
	Others	17	3.78
Duration of using WeChat (years)	< 1	7	1.56
	2–3	265	58.89
	4–5	136	30.22
	> 5	42	9.33

## 5 Data analysis and results

### 5.1 Reliability and validity

The reliability and validity of the constructs were verified through confirmatory factor analysis. The Cronbach's  $\alpha$  of all the factors range from 0.664 to 0.861, indicating that the questionnaire has relatively good reliability. Furthermore, the CR of each factor exceeds 0.800, which indicates that the inner consistency of the scales was comparatively good. The standard loadings range from 0.705 to 0.907 and were

significant at the 0.001 level. The average variance extracted (AVE) of each construct ranges from 0.606 to 0.805, demonstrating that the constructs exhibit relatively good convergent validity. The statistical test results are presented in Table 2.

**Table 2** Results on reliability and convergent validity

Factor	Item	Standard loading	AVE	CR	Cronbach's $\alpha$
IAC	IAC1	0.881	0.767	0.868	0.696
	IAC2	0.871			
ITC	ITC1	0.856	0.766	0.868	0.697
	ITC2	0.895			
ISY	ISY1	0.896	0.805	0.892	0.758
	ISY2	0.898			
STI	STI1	0.814	0.643	0.844	0.725
	STI2	0.800			
	STI3	0.791			
WOM	WOM1	0.834	0.606	0.821	0.664
	WOM2	0.792			
	WOM3	0.705			
MU	MU1	0.807	0.644	0.900	0.861
	MU2	0.811			
	MU3	0.784			
RF	MU4	0.823	0.657	0.884	0.825
	MU5	0.785			
	RF1	0.759			
RH	RF2	0.811	0.756	0.903	0.839
	RF3	0.844			
	RF4	0.824			
PI	RH1	0.876	0.773	0.911	0.853
	RH2	0.840			
	RH3	0.892			
PI	PI1	0.907	0.773	0.911	0.853
	PI2	0.854			
	PI3	0.875			

**Notes:** IAC, active control; ITC, two-way communication; ISY, synchronicity; STI, stickiness; WOM, word of mouth; MU, mutual understanding; RF, reciprocal favor; RH, relationship harmony; PI, purchase intention; All standard loadings are significant at  $p<0.001$ .

Table 3 gives the results of discriminant and convergent validity tests. Numbers on the diagonal were the square roots of AVEs of variables and the other numbers were the

correlation coefficients. The discriminant validity was also deemed to be reasonable because the diagonally organized values are greater than the rest of the values on the column of each diagonally arranged value.

**Table 3** Results on discriminant validity

Construct	1	1a	1b	1c	2	3	4	5	6	7
1.INTE	—									
R										
1a.IAC	<b>0.748</b>	<b>0.876</b>								
1b.ITC	<b>0.922</b>	0.541	<b>0.875</b>							
1c.ISY	<b>0.805</b>	0.522	0.594	<b>0.897</b>						
2.STI	0.361	0.340	0.290	0.304	<b>0.802</b>					
3.WOM	0.483	0.434	0.383	0.417	0.564	<b>0.778</b>				
4.MU	0.504	0.367	0.399	0.473	0.476	0.558	<b>0.802</b>			
5.RF	0.420	0.272	0.337	0.407	0.419	0.485	0.765	<b>0.811</b>		
6.RH	0.479	0.406	0.397	0.416	0.435	0.509	0.777	0.702	<b>0.869</b>	
7.PI	0.392	0.342	0.299	0.346	0.412	0.494	0.592	0.580	0.577	<b>0.879</b>

**Notes:** Correlations among formative constructs are shown in gray highlight. Constructs 1 are second-order constructs that are formatively measured. All other constructs are reflectively measured first-order constructs. Diagonally arranged values are the square roots of AVEs.

Given the use of self-reported cross-sectional data, we first used Harman's single-factor test to examine potential common method bias (CMB) in accordance with the recommendation of Podsakoff et al.(2003). We ran an exploratory unrotated factor analysis on all 27 items of reflective constructs. The factor analysis showed that 9 factors were extracted from the data, which together explain 74.07% of the total variance. The first factor explains only 33.25% of the variance, which does not account for the majority of covariance. Harman's test therefore suggested that CMB is not a problem in this study. Second, following Liang et al. (2007), we included a common method factor in the PLS model. The results demonstrated that the method factor loadings ( $R^2$ ) were insignificant and the indicators' substantive variances ( $R^2$ ) were substantially greater than their method variances ( $R^2$ ). We therefore concluded that common method bias is not a substantial problem in this study.

This study also examined multicollinearity in the formative construct of swift guanxi. Table 4 presented the formative indicator weights and variance inflation factors (VIFs). Different weights of first-order constructs toward their second-order constructs were obtained, indicating that these exert distinct effects. All the VIFs were below the threshold of 3.3 (Petter et al., 2007), suggesting that multicollinearity is not

a problem in our study. This confirmed that interactivity can be conceptualized as a formative construct composed of active control, two-way communication, and synchronicity.

**Table 4** Formative indicator weights and VIFs

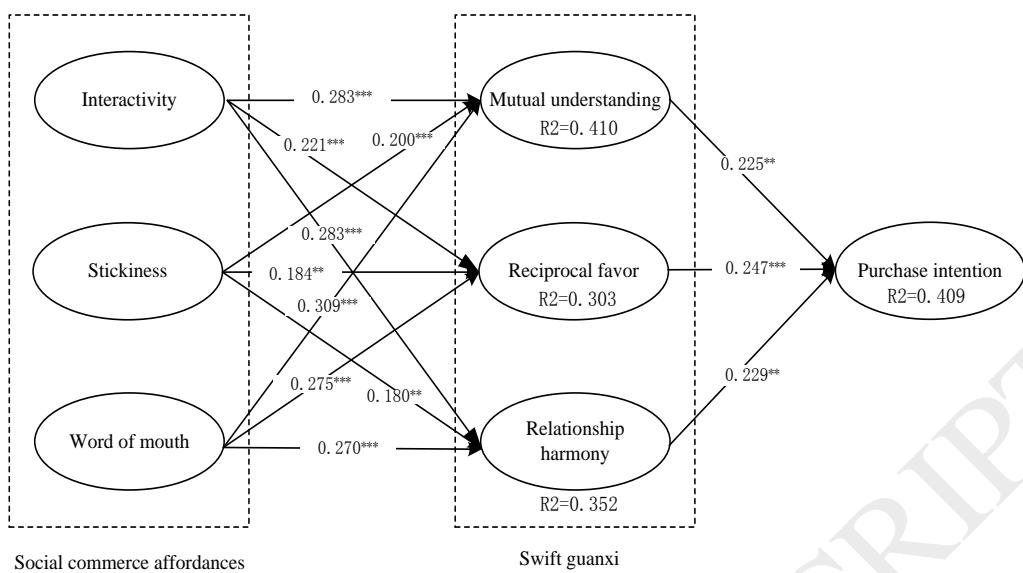
Second-order construct	First-order construct	VIF	Weight
Interactivity (INTER)	IAC	1.540	0.270
	ITC	1.721	0.301
	ISY	1.688	0.603

**Notes:** Weights for IAC and ITC are significant at  $p<0.01$ ; weight for ISY is significant at  $p<0.001$ .

## 5.2 Structural model testing

PLS was used for generating parameter estimates, and bootstrapping with 1000 re-samples was done to derive t-statistics. The results are shown in Figure 2. All the hypotheses were supported. According to path coefficients, mutual understanding ( $\beta = 0.225, p < 0.05$ ), reciprocal favors ( $\beta = 0.247, p < 0.01$ ), and relationship harmony ( $\beta = 0.229, p < 0.05$ ) exert positive impacts on consumers' purchase intention. With regard to antecedents of swift guanxi, interactivity exerts positive impacts on mutual understanding ( $\beta = 0.283, p < 0.001$ ), reciprocal favor ( $\beta = 0.221, p < 0.001$ ), and relationship harmony ( $\beta = 0.283, p < 0.001$ ). Stickiness also exerts positive impacts on mutual understanding ( $\beta = 0.200, p < 0.001$ ), reciprocal favor ( $\beta = 0.184, p < 0.01$ ), and relationship harmony ( $\beta = 0.180, p < 0.01$ ). Apart from that, word of mouth positively influences mutual understanding ( $\beta = 0.309, p < 0.001$ ), reciprocal favors ( $\beta = 0.275, p < 0.001$ ), and relationship harmony ( $\beta = 0.270, p < 0.001$ ).

The explained variances for purchase intention, mutual understanding, reciprocal favors, and relationship harmony are 40.9%, 41.0%, 30.3%, and 35.2%, respectively. These values demonstrate that interactivity, stickiness, and word of mouth are able to well explain the formation of mutual understanding, reciprocal favor, and relationship harmony; in turn, mutual understanding, reciprocal favor, and relationship harmony substantially contribute to motivating social commerce consumers' purchase intention. To examine potential impact of individual differences on purchase intention in social commerce, we considered gender, age, education, and length of time in using WeChat as control variables in determining purchase intention. The results showed that the control factors had no significant effect on purchase intention.



**Figure 2** Structural model testing results (\*\*p<0.001, \*\*p<0.01)

### 5.3 Post-hoc test

As the proposed model, mutual understanding, reciprocal favor, and relationship harmony are the mediators of the relationship between social commerce affordances (interactivity, stickiness, and word of mouth) and purchase intention. We tested the mediated effects suggested by Baron and Kenny (1986). The results are reported in Table 5. First, there were significant effects of interactivity, stickiness, and word of mouth (independent variable (IV)) on purchase intention (dependent variable (DV)) without involving mutual understanding, reciprocal favor, and relationship harmony (mediating variable (MV)). Second, there were significant effects of interactivity, stickiness, and word of mouth (IV) on mutual understanding, reciprocal favor, and relationship harmony (MV). Third, there were significant effects of mutual understanding, reciprocal favor, and relationship harmony (MV) on purchase intention (DV). Finally, in the presence of mutual understanding, reciprocal favor, and relationship harmony (MV), the effects of interactivity, stickiness, and word of mouth (IV) on purchase intention (DV) were reduced, though they were still significant. Taken together, the results suggest that mutual understanding, reciprocal favor, and relationship harmony (MV) act as partial mediators. Next, we conducted the Sobel's (1982) standard errors test to further ascertain the mediating relationship. This reveals the internal mechanism of the effects of social commerce affordances on purchase intention.

**Table 5** Results of testing for mediating effects

IV	MV	DV	IV → DV	IV → MV		IV+MV → DV			Sobel test	
				IV	S.E.	IV	MV	S.E.	Mediating effects ( <i>t</i> )	
INTE	MU	PI	0.432***	0.430***	0.031	0.157***	0.640***	0.054	9.01	
INTE	RF	PI	0.432***	0.385***	0.034	0.206***	0.588***	0.049	8.24	
INTE	RH	PI	0.432***	0.442***	0.033	0.186***	0.558***	0.051	8.47	
STI	MU	PI	0.503***	0.449***	0.035	0.227***	0.617***	0.052	8.71	
STI	RF	PI	0.503***	0.414***	0.038	0.266***	0.574***	0.048	8.05	
STI	RH	PI	0.503***	0.445***	0.038	0.263***	0.540***	0.049	8.03	
WOM	MU	PI	0.629***	0.566***	0.035	0.316***	0.551***	0.055	8.52	
WOM	RF	PI	0.629***	0.526***	0.039	0.358***	0.515***	0.050	8.19	
WOM	RH	PI	0.629***	0.558***	0.039	0.362***	0.478***	0.050	7.95	

**Notes:** IV=independent variable; MV=mediating variable; DV=dependent variable; INTE, interactivity; STI, stickiness; WOM, word of mouth; MU, mutual understanding; RF, reciprocal favor; RH, relationship harmony; PI, purchase intention; \*\*\* p<0.001

We used the path comparison method proposed by Li et al. (2013) to test Path coefficients (Table 6). The result showed that reciprocal favor had a stronger impact on purchase intention than relationship harmony did. No significant difference between the impacts of mutual understanding and relationship harmony on purchase intention was found. Among social commerce affordances, word of mouth had a highest positive effect on the two dimensions (mutual understanding and reciprocal favor). However, word of mouth and interactivity had no statistically significant difference in their effects on relationship harmony.

**Table 6** Results of path comparison tests

Path coefficient or Comparison	<i>t</i> -statistic	Conclusion
$\beta_{RF \rightarrow PI}$ (0.247) > $\beta_{MU \rightarrow PI}$ (0.225)	3.59***	Difference detected
$\beta_{RH \rightarrow PI}$ (0.229) > $\beta_{MU \rightarrow PI}$ (0.225)	1.24 (n.s.)	No difference detected
$\beta_{INTE \rightarrow MU}$ (0.283) > $\beta_{STI \rightarrow MU}$ (0.200)	3.44***	Difference detected
$\beta_{WOM \rightarrow MU}$ (0.309) > $\beta_{STI \rightarrow MU}$ (0.200)	5.98***	Difference detected
$\beta_{WOM \rightarrow MU}$ (0.309) > $\beta_{INTE \rightarrow MU}$ (0.283)	2.62**	Difference detected
$\beta_{INTE \rightarrow RF}$ (0.221) > $\beta_{STI \rightarrow RF}$ (0.184)	3.75***	Difference detected
$\beta_{WOM \rightarrow RF}$ (0.275) > $\beta_{STI \rightarrow RF}$ (0.184)	5.33***	Difference detected
$\beta_{WOM \rightarrow RF}$ (0.275) > $\beta_{INTE \rightarrow RF}$ (0.221)	3.88***	Difference detected
$\beta_{INTE \rightarrow RH}$ (0.283) > $\beta_{STI \rightarrow RH}$ (0.180)	4.25***	Difference detected
$\beta_{WOM \rightarrow RH}$ (0.270) > $\beta_{STI \rightarrow RH}$ (0.180)	4.13***	Difference detected

$B_{\text{INTE} \rightarrow \text{RH}}(0.283) > \beta_{\text{WOM} \rightarrow \text{RH}}(0.270)$	1.06 (n.s.)	No difference detected
<b>Notes:</b> INTE, interactivity; STI, stickiness; WOM, word of mouth; MU, mutual understanding; RF, reciprocal favor; RH, relationship harmony; PI, purchase intention; ***p<0.001; n.s.: nonsignificant.		

We examined the multicollinearity in regression of purchase intention on swift guanxi dimension. Table 7 presented the coefficients and variance inflation factors (VIFs) of swift guanxi dimension. Different coefficients of swift guanxi dimension toward purchase intention were obtained, indicating that these exert distinct effects. Of tremendous importance was the fact that all the VIFs were less than the threshold of 10 (Petter et al., 2007), suggesting that multicollinearity was not a problem in our study. Thus, we confirmed the substantive contribution of swift guanxi dimension on purchase intention in social commerce.

**Table 7** The VIFs of swift guanxi dimension

Dependent variable	Swift guanxi dimension	VIF	Coefficient*
Purchase intention	Mutual understanding	3.49	0.223
	Reciprocal favor	2.69	0.254
	Relationship harmony	2.73	0.212

\* All weights are significant at p<0.001.

## 6 Discussions and implications

### 6.1 Discussion of findings

This study initiates an attempt to explore relationship building in social commerce, especially in China, from a unique lens of cultural value which is prominent in China. A research model is developed and empirically examined by a survey. The measurement model is validated, and the results provide sufficient evidence to support all the proposed hypotheses. In this section, we discuss the key findings from this study.

First, social commerce is associated with relational exchange, which means that individuals can rely on interpersonal relationship to reduce risk in fulfilling transactions. This study empirically confirms that a special interpersonal relationship (namely, swift guanxi) exists in Chinese social commerce, and examined its important role in improving the success of social commerce. Mutual understanding, reciprocal favor, and relationship harmony are found to be prominent affecting factors of consumers' purchase intention in social commerce. The results indicate that within an atmosphere of mutual understanding, sellers and buyers are able to interact with each

other smoothly, offer favors to each other, avoid opinion division or conflicts, and maintain harmonious relationship. In turn, this establishment of swift guanxi acts as the fertile soil for fostering consumers' intention to purchase.

Specifically, the most influential factor of purchase intention is reciprocal favor. Reciprocal favor reflects that both consumers and sellers put into actions to realize their respective interests through interaction process. Because a transaction in social commerce is actually exchanging money and goods, reciprocal favor has a more influential effect on purchase intention than mutual understanding and relationship harmony. That is, whether to become willing to transact with sellers or not largely depends on the reciprocity condition. No significant difference between the impacts of relationship harmony and mutual understanding on purchase intention is found. The current study therefore makes contribution to intensive understanding of three dimensions of swift guanxi in social commerce and their effects on consumers' purchase intention.

Second, interactivity exerts positive influences on mutual understanding, reciprocal favor, and relationship harmony, confirming that interactivity is a significant determinant of swift guanxi. Social interaction via social media can produce rich information that enhances consumers' understanding of the stores, products, and services of sellers and advances the situation of swift guanxi between buyers and sellers. The results also indicate that the effect of interactivity on mutual understanding and relationship harmony are equivalent to each other and greater than its effect on reciprocal favor. Increased interactivity thereby is of equal importance to develop mutual understanding and relationship harmony between sellers and buyers, and such importance exceeds that for improving the condition of reciprocal favor. Interactivity has three dimensions, namely, active control, two-way communication, and synchronicity, among which synchronicity exhibits the greatest weight. This finding extends existing research (Ou et al., 2014) that suggests that active control is the largest dimension of interactivity in traditional e-commerce.

Third, word of mouth is another important affecting factor for mutual understanding, reciprocal favor, and relationship harmony, which means that the extensive word of mouth is an influential element for cultivating swift guanxi between consumers and sellers. Actually, among the roles of three social commerce affordances in affecting mutual understanding, word of mouth is the most effective one that builds a bridge linking consumers and sellers and helps them to understand

each other. Likewise, the effect of word of mouth on reciprocal favor, compared to those of interactivity and stickiness, is also the most significant one. Regarding the effects of these three social commerce affordances on relationship harmony, word of mouth's contribution ranks first and is equal to interactivity. We thus believe that in social commerce which is featured with regular interaction among acquaintances, word of mouth is a crucial determinant for building relationship between consumers and sellers.

Finally, stickiness also exerts positive effects on mutual understanding, reciprocal favor, and relationship harmony, suggesting the extent that social commerce users stick to a website is an important predictor for improvement of relationship with the website. Furthermore, stickiness has a greater impact on mutual understanding than reciprocal favor or relationship harmony. To improve interpersonal relationship between buyers and sellers, it is indispensable to improve the stickiness of sellers' social commerce website.

## **6.2 Contributions for research**

First, interpersonal relationship produced in social networks is the cornerstone of social commerce success. Previous research highlighted the importance of the stable, long-term relational relationship exchange among members or between members and social media platforms in social commerce (Hajli, 2015; Shanmugam et al., 2016; Hsu et al., 2017). However, the interpersonal and immediate aspect of relationship between buyers and sellers in social commerce has received little attention. In addition, although few studies examined the formation and effect of swift guanxi (a swiftly formed interpersonal relationship) in e-commerce (Ou et al., 2014), social commerce is distinguishable from e-commerce, indicating that an imperative is to assess the role of swift guanxi in purchase intention in social commerce. The current research work fills these gaps. Our findings provide empirical evidence to support and elucidate how an interpersonal relationship exists in social commerce, and further enrich the concept of swift guanxi and extend it from traditional e-commerce to the embryonic paradigm of social commerce.

Second, we confirm the roles of social commerce affordances in building swift guanxi between consumers and sellers. Although previous studies discussed social commerce affordances or attributes, there has been a rather inconsistent understanding in the literature (Zhang et al., 2014; Hu et al., 2016). We enrich the existing research by identifying three key social commerce affordances, namely interactivity, word of

mouth, and stickiness, and revealing their important yet different impact on swift guanxi dimensions. Specifically, this study provides evidence from post-hoc analyses that word of mouth and interactivity are more influential than stickiness on the establishment of mutual understanding, reciprocal favor, and relationship harmony between buyers and sellers in social commerce. More importantly, this study tested the mediating role of swift guanxi dimensions amidst social commerce affordances and purchase intention to reveal additional insights into how social commerce affordances lead to purchase intention through swift guanxi dimensions.

Third, this study empirically operationalizes mutual understanding, reciprocal favor, and relationship harmony as swift guanxi dimensions in social commerce. The effects of mutual understanding, reciprocal favor, and relationship harmony on consumers' purchase intention are confirmed to be significant, and the explained variance of consumers' purchase intentions, as predicted by swift guanxi, is 40.9%. This extends prior research (Ou et al., 2014) by comparing the difference in the effects of swift guanxi dimensions on purchase intention. Among the observed effects, reciprocal favor is greater than other two dimensions of swift guanxi. This implies that in buyer-seller swift guanxi, both party-generated interests are more important. This study thereby also contributes to swift guanxi literature and social commerce.

### **6.3 Implications for practice**

The theoretical analysis and empirical results present several implications for practice. First, given the importance of interpersonal relationships in the success of social commerce sites, practitioners should take the necessary steps to build and maintain close interpersonal relationships with users. Owing to cultural differences, managers should consider the fact that Chinese people greatly concern themselves with guanxi in doing business and in social commerce contexts; they should therefore pay attention to swift guanxi in customer relationship management. To establish swift guanxi with consumers, social commerce practitioners ought to spare no efforts to make sure they can form mutual understanding with consumers, exchange favors with consumers regularly, and their relationship stays in a harmonious state wherein no conflicts or opinion divisions reduce the possibility of transactions. Social commerce practitioners should therefore be aware of the importance of swift guanxi establishment and strive to promote the quality of their relationships with consumers.

Second, social commerce affordances significantly affect swift guanxi. We suggest that social commerce practitioners manage different types of social commerce

affordances and test their effects on swift guanxi with consumers. Specifically, to enhance word of mouth, practitioners can strengthen policies and rules that safeguard the interests of consumers, provide good products and services, and actively communicate with consumers to reduce the spread of negative information. Practitioners can also increase interactivity and stickiness by embedding a variety of interactive tools to support communication before, during, and after purchase, such as instant chatting tools and message board. These are beneficial to a harmonious relationship between consumers and sellers and ultimately facilitative of social commerce transactions.

#### **6.4 Limitations and future research**

Several limitations are noteworthy. First, although the overall model explains 40.9% of the variance in purchase intention, other related factors were not fully considered. Future research should account for a broader set of purchase intention predictors. Second, our research model is based on the Chinese context, where guanxi is a long-standing and popular cultural orientation. The results may not be fully generalizable to other cultures because of cultural differences. Additional studies should be conducted to explore the applicability of our research model in other cultural contexts. Third, the respondents were WeChat users and the results may not be directly applicable to other social commerce sites, such as Facebook. Future research should widen the sampling sources. Fourth, to address the limitations of our chosen survey method where data were subjective self-report responses, future research can carry out social network analysis to elucidate actual user behavior in social commerce. Lastly, our study focused on three facets of social commerce affordances: interactivity, stickiness, and word of mouth, as these are key manifestations of social commerce. Nevertheless, there can be other facets of social commerce affordances. We hence call for future research to expand our treatment of social commerce affordances and perhaps include more nuance facets of this concept.

#### **6.5 Conclusions**

This study investigates the factors affecting consumers' purchase intention in Chinese social commerce and has revealed the role of a prevalent interpersonal relationship that differs significantly from relational exchange described in the Western research literature. The findings show that social commerce affordances effectively predict purchase intention by swift guanxi that embody elements of mutual understanding, reciprocal favor, and relationship harmony. There are important

implications for the establishment of swift guanxi between buyers and sellers to facilitate the success of social commerce. Our research suggests that effective arrangements of social commerce affordances and swift guanxi dimensions should not be underrated. This study improves our understanding on how to build a close interpersonal relationship between buyers and sellers in social commerce. The hypothesized relationship in this study is worthy of further examination using other constructs.

#### **Appendix A. Measurement Scales**

Variable	Item	Content
Interactivity (INTER): Active control (IAC)	IAC1	I feel that I have a lot of control at sellers' "Moments" or stores on WeChat.
	IAC2	I can freely choose what I want to see at sellers' "Moments" or stores on WeChat.
Interactivity (INTER): Two-way communication (ITC)	ITC1	Sellers on WeChat have two-way communication between themselves and visitors.
	ITC2	Sellers on WeChat give visitors the opportunity to talk to them.
Interactivity (INTER): Synchronicity (ISY)	ISY1	Sellers on WeChat respond to my questions very quickly.
	ISY2	I am able to get information from sellers on WeChat very rapidly.
Stickiness (STI)	STI1	I intend to spend more time on sellers' "Moments" or stores on WeChat.
	STI2	I use sellers' "Moments" or stores on WeChat as often as I can.
	STI3	I use sellers' "Moments" or stores on WeChat every time I am online.
Word of mouth (WOM)	WOM1	I have heard from others that sellers' "Moments" or stores on WeChat are very useful.
	WOM2	I have heard from others that sellers' "Moments" or stores on WeChat are very easy to use.
	WOM3	I have heard from others that sellers' SinaWeibo is very reliable.
Mutual understanding (MU)	MU1	Sellers on WeChat and I can understand each other's needs.
	MU2	Sellers on WeChat and I can understand each other's points of view.
	MU3	Sellers on WeChat and I can make ourselves heard.

	MU4	Sellers on WeChat and I can follow the flow of conversations.
	MU5	Sellers on WeChat and I show interest in each other's opinions.
Reciprocal favor (RF)	RF1	If I buy from Sellers on WeChat, they would provide discounts to me.
	RF2	Sellers on WeChat and I provide positive ratings or comments to each other.
	RF3	Sellers on WeChat and I help each other.
	RF4	Sellers on WeChat and I prove we are friends by doing favors for each other.
Relationship harmony (RH)	RH1	Sellers on WeChat and I maintain harmony.
	RH2	Sellers on WeChat and I avoid conflict.
	RH3	Sellers on WeChat and I respect each other.
Purchase intention (PI)	PI1	I would like to purchase a product from sellers on WeChat.
	PI2	I would like to recommend that my friends and family purchase a product from sellers on WeChat.
	PI3	If there is a product that I want to purchase, I would like to buy it from sellers on WeChat.

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