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## *Full Length Research Paper*

# **Why We Go Shopping Online Together? Exploring the Antecedents and Consequences of eWOM in the Social Commerce Network**

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**The rise of social networking communities has affected not only the interpersonal relationships but also the transactions between sellers and consumers. More consumers are attracted to the engagement in social commerce networks to collect potential recommendations or useful product information before they make a purchase decision. The purpose of this study is to explore factors that influence electronic word-of-mouth (eWOM) communication in the new social medium by focusing on three social capital variables: relational ties, interpersonal trust, and reciprocity, which are related to eWOM behavior in the social commerce network. In addition, this study proposes important concepts regarding consumers' experiential value, as well as their perceptions of risk, to examine the effects of eWOM on participation intention. Results of this study demonstrate that individuals' perception of interpersonal trust and reciprocity has significant influence on eWOM-seeking behavior. Furthermore, eWOM is proven to reduce consumers' risk concern of e-commerce, and exert significantly positive influence to increase their experiential value. The theoretical and practical implications as well as the research limitations of this study are discussed to enhance the development of social commerce network.**

**Keywords:** Social Commerce Network, Electronic Word-of-Mouth, Social Capital, Experiential Value, Perceived Risk.

## INTRODUCTION

With the rapid development and popularity of information and computer technologies (ICTs), the word-of-mouth (WOM) has evolved into eWOM (electronic word-of-mouth), and can be observed in various online channels, including discussion forums, chat rooms, emails, and online communities, and is considered more credible than commercial sources for consumers seeking purchase-related information (Goldsmith and Clark, 2008). The social commerce network, a combination of electronic commerce (e-commerce) and social networking communities, has risen as a new approach to consumers' participation and contribution to the marketing process, as well as their perception of online transactions for products or services (Liang et al., 2011; Wang and Zhang, 2012). In the social commerce network, various collaborative tools, such as consumer ratings, reviews, recommendations, and shared shopping lists are designed to facilitate user-generated content and the exchange of product-related information from more trusted members (Hajli et al., 2014; Shiao and Luo, 2012; Shin, 2013). By engaging in eWOM and maintaining social relationships with other online members, exchange of product-related information and consumer perception of product value can be dispersed, which may increase the likelihood of purchase due to empathy with the persuasive marketing information relayed by other similar consumers (Bickart and Schindler, 2001; Gruen et al., 2006; King et al., 2014). Once product information has been obtained from other members and the product purchased, consumers go back to the social commerce network and share consumption experience of a new product or service. Therefore, a "bidirectional phenomenon" arises when consumers act as both receivers and communicators of the information posted on the social commerce network (Lim et al., 2012; Nekmat, 2012). It is common for people to consider product reviews and comparisons from other consumers to be credible, and to create their own "unique and compelling" consumer experiences (Compete™, 2006) by blending commerce with social interactions among members (Huang and Benyoucef, 2013; Yadav et al., 2013). Yoon, Hostler, Guo, and Guimaraes (2013) further argue that more shopping experience leads to stronger consumer satisfaction and consumer loyalty.

Although increasing concern over user acceptance and market profits in the development of social commerce, only a few studies provide a framework to identify the antecedents of user participation in the social commerce network and examine the impacts on consumer psychology and purchase decisions. For example, in Shin's (Shin, 2013) study, users' perceived usefulness and perceived enjoyment of social commerce are shown to be two significant factors that influence their attitudes toward

using social commerce; whereas Liang et al. (Liang and others, 2011) draw upon the perspectives of social support, relationship quality, and website quality to understand the user's intention in using and continuing to participate in social commerce networks. Besides, the trust and co-creation value stated in See-To and Ho's (See-To and Ho, 2014) study are derived from the firm's perspective. The product or marketing information is initially posted on the vendor's SNS fans page or website. However, the success of social commerce does not fully rely on the technical features or business strategies to attract consumers. To the best knowledge of the researcher of this study, only a few studies (e.g., Hajli and others, 2014; Kim and Park, 2013) have paid attention from consumers' perspectives to explore why individuals seek the eWOM message in a social manner, but little research has demonstrated how eWOM exerts psychological influences on consumers' purchase decision in the context of social commerce. Therefore, this study argues that the psychological factors of individuals as well as their social participation are the key elements to consume online. The objectives of this study are to (a) examine the social antecedents of eWOM-seeking behavior in social commerce networks, (b) identify the important psychological factors in determining consumer intention to conduct social commerce, and (c) inform the design of future user-centered services in social commerce activities.

## Theoretical Background and Research Framework

### Social Capital and eWOM

Several studies have pointed out that social capital is an important factor in the transmission of WOM communications. For example, Brown and Reingen (1987), along with Brown et al. (2007) argue that WOM communication takes place within a social relationship that consists of closeness, intimacy, and support among peers. According to social capital theory, the establishment and maintenance of social relationships help the member obtain resources with their identity as a member of a social network (Bourdieu and Passeron, 1977; Portes, 1995; Portes, 1998). More specifically, shared norms in the common contexts of network and mutual identification with other peers are created to shape social experiences and obligations, so as to increase beneficiary support, improve conflict management,

exchange sensitive information, and enhance resource availability (Hazleton and Kennan, 2000; Jenssen and Koenig, 2002; Krackhardt and Stern, 1988; Lin, 2001; Nelson, 1989). Sensitive, complicated, and rapidly-changing information flows more smoothly among members with strong ties to boost the achievement of tasks and performance (Hansen, 1999).

Given consumers' perceptions of online social capital, including relational ties, altruistic manner, interpersonal trust, normative and informational influence, eWOM communication has a significant effect on consumer purchase decisions (Chu and Kim, 2011; Lee et al., 2012). Chu and Kim (2011) indicate that eWOM referral behavior is initiated when individuals desire to develop social relationships and enhance connections through the discussion of consumption-related topics. Cheung and Lee (2012) also argue that as individuals identify themselves as part of the community, it often leads to more affective commitment, thus demonstrating a strong influence on the consumer's eWOM intention. In the social commerce network, participants who are connected through common interests or specific commercial purposes can foster their active transmission of information and recommend enjoyable consumption experiences to other members (Okazaki and Yagüe, 2012). Consumers with strong tie relationships feel free to share their positive or negative opinions about a product, brand, or company, which are more likely to be perceived as important or preferred information sources (Raacke and Bonds-Raacke, 2008; Steffes and Burgee, 2009). Accordingly, this study argues that relational ties can be considered to have a critical role in the activation of eWOM-seeking behavior, and to facilitate potential consumers to seek and receive useful product-related information from other social commerce members. The first hypothesis is formulated as follows:

**H1: Relational ties in the social commerce network are positively associated with individuals' eWOM-seeking behaviors.**

In the online environment, people never, or seldom meet others face-to-face; nonetheless, they provide their assistance through information sharing or collective communication, indicating that "a certain level of trust may exist because the information owner's credit and privacy is at risk" (Feng et al., 2004). In the studies of Kim and Park (2013) and Hajli (2014b), interpersonal trust is proved to be a critical factor in the success of social commerce and is shown to exert its significant influence on consumers' word-of-mouth engagements. The trustworthiness of a message is related to one's belief in eWOM credibility and has significant influence on purchase decisions (Cheung and Thadani, 2012).

Through the competence and goodwill of other community members, the exchange of useful information, as well as favorable repeated interactions, can facilitate commitment from other members (Hong and Cho, 2011; Lesser and Prusak, 1999) and foster cooperative actions (Ridings et al., 2002; Wasko and Faraj, 2005; Widen-Wulff and Ginman, 2004). Hajli (2014a) has proved that the stronger interpersonal trust will lead to more consumers' willingness to consider the shopping experience or buy the products recommended by SCN members. Thus, we propose the second hypothesis as follows:  
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**H2: Interpersonal trust in the social commerce network is positively associated with individuals' eWOM-seeking behaviors.**

Reciprocity is related to the social norm that group members consistently follow in a collective context or an intrinsic motivation for individuals to engage in interpersonal activities, and then evaluate the value of the outcomes (Gallucci and Perugini, 2003). Peddibhotla (2013) articulates that individuals develop connections to others because of the benefits derived from others for reciprocity reasons. According to Blau (1964), individuals would like to provide their personal intellectual assets for others' reference on the basis of reciprocity, indicating a perceived benefit for the individual who exchanges and contributes, not only for the immediate return but also to help or exchange information with others in the future. Thus, reciprocity continues even after an individual's proposed questions or issues are resolved; that is, they generally keep interacting with others and expect to provide feedback to meet someone else's need in a future social exchange. Online community members who once helped others usually receive assistance or feedback more quickly (Bock et al., 2005; Rheingold, 2000; Wasko and Faraj, 2000). Drawing upon the works of Bansal and Voyer (2000) and Nekmat (Nekmat, 2012), the notion of eWOM in social commerce networks is a bidirectional phenomenon, whereby individuals initiate product-related conversations and receive messages from other members, who then create and share their opinions and information on products and services. Thus, we propose the third hypothesis as follows:

**H3: Reciprocity in the social commerce network is positively associated with individuals' eWOM-seeking behaviors.**

**Experiential Value**

Experiential value, a subset of consumption value, refers to the consumers' perceptions derived from "direct usage"

or “distanced appreciation of goods and services,” which reflect the consumers’ emotional states and thoughts about consumption based on their pre-purchase shopping experience (Mathwick et al., 2001). Similarly, Li, Daugherty, and Biocca (2001) propose the concept of virtual experience as psychological and emotional states while consumers interact with products in a digital environment. Consumers can develop their experiential value in both extrinsic and intrinsic ways by achieving their utilitarian objectives and acquiring appreciation of an experience for its own sake, respectively (Babin and Darden, 1995; Holbrook, 1994). Holbrook (1994) specifically develops a systematic taxonomy of experiential value, including quality (excellence), convenience (efficiency), beauty (aesthetics), and reputation (esteem). The notion of experiential value emphasizes that the importance of the consumption experience in terms of functional, social, and emotional evaluation is greater than the traditional trade-off between product quality and price (Sheth et al., 1991). Moreover, experiential value comes from active or reactive interactions with products, services, or marketing processes by exerting control through physical or mental manipulation of products, or other marketing entities or simply responding to an object from a distance in terms of aesthetics or service excellence (Holbrook, 1994; Mathwick et al., 2002). Consequently, there will be significant purchase intention accompanied with a number of consumers’ experiential values regarding shopping atmosphere, sales personnel, products, location, and even other consumers’ similarities (Woodruffe-Burton and Wakenshaw, 2011).

In the online environment, web technologies make the online shopping experience different from what happens in the traditional business format. Current features of information technology, such as interactive advertising, online brand communities, online catalogs, music or movie trials, augmented reality experiences, and the effective aggregation of interpersonal communication and online consumption experiences help consumers collect product information and evaluate the possible outcomes of purchase (Zhoua et al., 2013). The online shopping experience is not only converted into a human-computer interaction, but also a collaborative process when consumers interact with others (Blasco-Arcas et al., 2014). Participation in social commerce networks allows the consumer to foster their social relations while simultaneously retrieving reliable product information or seeking social support, thus leading to a broadening of the consumption experience as well as technical evaluation of possible return on investment (Cha, 2009; Chi, 2011; Hajli and others, 2014; Li and others, 2001; Yadav and others, 2013; Zhang et al., 2014). Lim, Chung, and Pedersen (2012) demonstrate that eWOM messages play an important role in experiential consumption

activities, as consumers share their experiences of products or services to affect the purchase decision of others. According to the prior work discussed above, this study argues that the consumption experiential value increases when consumers seek and acquire useful consumption information from other social members. Such positive experiential value can further foster consumers’ purchase intentions for some specific product or service. Hence, we propose the two following hypotheses:

**H4: Individuals’ eWOM-seeking behaviors are positively associated with their experiential value in the social commerce network.**

**H5: Individuals’ experiential values in the social commerce network are positively associated with their purchase intention.**

### Perceived Risk

The concept of risk raises consumer concerns about uncertainty, security, and privacy (Chen and Dubinsky, 2003), and is a major determinant of whether a consumer buys or rejects a product/service. In general, the outcomes of an action are not precisely guaranteed. Consumers are unable to expect every explicit outcome, and it is not easy for them to calculate the possible losses; consequently, the greater the probability of a loss, the more concern about purchase risk. Several studies have identified the key risk perceptions and their impacts on online activities with regard to possible financial loss, performance loss, or loss of privacy (e.g., Agarwal and Teas, 2001; Bhatnagar et al., 2000; Forsythe and Shi, 2003; Jarvenpaa and Tractinsky, 1999; Liao et al., 2011; Tan, 1999) that are related to the consumers’ concerns of monetary loss, absence of product quality, and misuse of personal information (Kalakota and Whinston, 1997; Yousafzai et al., 2003). Aghekyan-Simonian, Forsythe et al. (2012), as well as Forsythe et al. (2006), further propose the concept of time risk, which is associated with consumers’ subjective perceptions of time loss occur due to difficulties encountered when navigating websites, submitting an order, or waiting for product delivery, replacement, and repair.

To minimize perceived risks, consumers seek various sources of information, or purchase products with high quality brand image/reputation. Apparently, reliable information provides a basis of action and also plays a critical role in social commerce networks, minimizing the risk of uncertainty. Compared with traditional electronic commerce, where consumers search product or service specifications from the vendor’s website, commercial message, advertising, or product catalogs, eWOM is

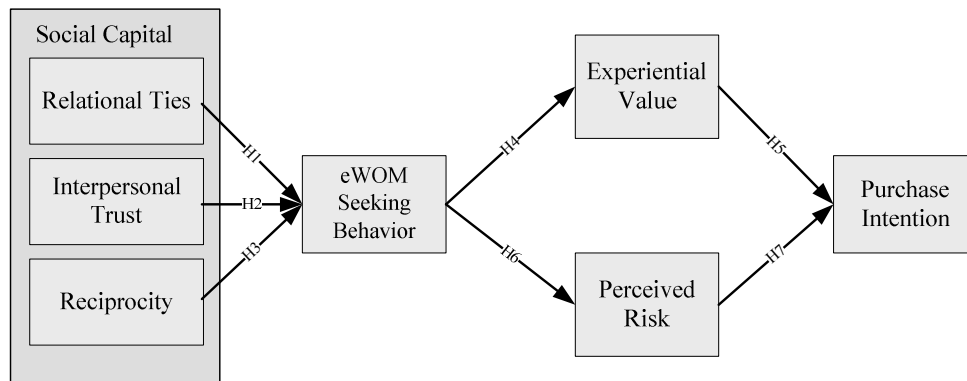


Figure 1: The research model

derived from consumers' purchasing experiences and marketing reviews, which then foster an exchange of information on product alternatives and attributes within the online setting. Several studies argue that intention is a common surrogate for actual behavior because it is neither easy to observe eventual user behavior nor obtain transaction data from commerce vendors. Thus, we argue that eWOM often changes consumers' intentions and potential behaviors because of its reliable personal sources and decreased possibility of transactional risks. The last two hypotheses are proposed as follows:

**H6: Individuals' eWOM-seeking behaviors are negatively associated with their perceptions of risk in the social commerce network.**

**H7: Individuals' perceptions of risk in the social commerce network are negatively associated with their purchase intentions.**

In sum, this study formulates the research framework presented as Figure 1.

### Research Design: Measurement Development

Based on the literature review discussed above, this study focuses on the issues concerning what social capital factors affect consumer engagement in eWOM-seeking activities, and the effects eWOM in the social commerce network have on decreasing consumers' perceptions of risk. In addition, we also examine both their experiential value and willingness to purchase online. Three social capital variables: relational ties, interpersonal trust, and reciprocity among participants, are adopted as

independent variables to represent the extent of social relationships. This study employed a survey methodology to collect and analyze empirical data. The operational definition and its references are presented in Table 1.

The measurement items shown in the Appendix were developed on the basis of the literature discussed above. First, to reflect the social capital emerging among social commerce network members, three dimensions were included to measure the construct of social capital. *Relational ties* were measured by four items adapted from Bansal and Voyer (Bansal and Voyer, 2000), Bristor (1990), Cheung and Lee (Cheung and Lee, 2012), and Chu and Kim (Chu and Kim, 2011), which evaluate the extent of intimacy and support that help solve other social commerce network members' informational or emotional problems. As for *interpersonal trust*, we assessed whether the product/service review or recommendation is reliable and if the information providers have the capability, benevolence, and integrity for social commerce network members to rely on (Ridings and others, 2002). The third social capital factor – *reciprocity* was measured by items that examine the anticipated reciprocal relationships in terms of the exchange of reviews, discussions, or recommendations of marketing products/services when someone is in need (Bock and others, 2005; Nekmat, 2012).

According to Bickart and Schindler (Bickart and Schindler, 2001) as well as Lim, Chung, and Pedersen (Lim and others, 2012), eWOM-seeking behavior is measured by four items that describe the process of members' actions when seeking product- or service-related information, recommendations, or suggestions from other members in the social commerce network. Based on Holbrook's (Holbrook, 1994) perspective, *experiential value* was measured by four dimensions: consumer return on investment, service

Table 1: Operational definitions of constructs

Construct	Operational definition	Sources
Relational ties	The strength of interpersonal relationships among members in the social commerce network.	(Brown and others, 2007; Cheung and Lee, 2012; Chu and Kim, 2011)
Interpersonal trust	The belief in another participant's ability, benevolence, and integrity to provide useful information or suggestions about products/services in the social commerce network (SCN).	(Kim and Park, 2013; Ridings and others, 2002; Wasko and Faraj, 2005; Widen-Wulff and Ginman, 2004)
Reciprocity	The mutual contribution and exchange of consumption information among SCN members so as to help others with their purchase decision.	(Bock and others, 2005; Nekmat, 2012)
eWOM-seeking behavior	The SCN members seek and gather consumer-created information of products/services in the SCN.	(Bansal and Voyer, 2000; Bickart and Schindler, 2001; Lim and others, 2012)
Experiential value	The SCN members' perceptions of value based on their pre-purchase shopping experience through direct usage or indirect appreciation.	(Mathwick and others, 2001; Woodruffe-Burton and Wakenshaw, 2011)
Perceived risk	The concerns of possible problems in security, privacy, perform, or time caused during social commerce transactions.	(Aghekyan-Simonian and others, 2012; Jarvenpaa and Tractinsky, 1999; Liao and others, 2011; Tan, 1999)
Purchase intention	The participants' willingness to continue using or purchasing products/services in the SCN.	(Liang and others, 2011)

excellence, aesthetic appeal, and playfulness. In this study, the items were adopted from Mathwick et al. (Mathwick and others, 2001) to measure the distanced appreciation of consumption return in terms of efficiency, convenience, price, utility, and product/service value.

Moreover, service excellence and service quality evaluate the service expertise and performance of social commerce activities while aesthetics reflect the visual appeal, as well as the entertaining enjoyment derived from the social commerce network site.

Table 2: Demographic information from valid responses

Measure	Items	Frequency	Percent
Gender	Male	69	31.5
	Female	150	68.5
Age	Under 20	33	15.1
	21-25	64	29.2
	26-30	56	25.6
	31-35	37	16.9
	36-40	19	8.7
	41-45	10	4.6
	Experience of SCN usage	Under 1	115
	1-2 years	30	13.7
	2-3 years	29	13.2
	3-4 years	23	10.5
	4-5 years	6	2.7
	Over 5 years	16	7.3
Average expense monthly spent in the SCN (NTD)	Under 1000	127	58.0
	1001-3000	62	28.3
	3001-5000	18	8.2
	5001-7000	7	3.2
	Over 7001	5	2.3

The measurement items of perceived risk were derived from Chen and Dubinsky (Chen and Dubinsky, 2003), Forsythe et al. (Forsythe and others, 2006), and Aghekyan-Simonian et al. (Aghekyan-Simonian and others, 2012), assessing four types of potential losses: financial risk, product performance risk, time/convenience risk, and privacy risk in the social commerce network. Financial risk refers to individuals' perceptions of monetary loss due to an insufficient product quality guarantee, higher online prices and maintenance costs, and fraud involving online payments. The perceived product risk reflects the unexpected performance of online products. Time/convenience risk was measured by evaluating the difficulty in adapting to a new product and completing online payment, waiting for product delivery, and spending extra efforts to negotiate a defective product/service. Privacy risk refers to the degree to which individuals suffer a loss of personal information when they interact and transact in the social commerce network

environment. Finally, the purchase intention and continuance intention in the social commerce network site are adapted from Liang et al. (Liang and others, 2011) to assess members' willingness to purchase from the social commerce network sites.

A questionnaire was developed for measuring the variables, which was then examined by an expert panel consisting of three social commerce network members to ascertain the construct validity in terms of ease of understanding, logical consistencies, and context fitness. Subsequently, the questionnaire was tested by administering a pilot survey among possible users, and some ambiguous questions were eliminated in this phrase. All variables were measured on a five-point Likert scale, ranging from "strongly disagree" (=1) to "strongly agree" (=5). Finally, the questionnaire was placed on the social commerce network (named as GFG) for members' voluntary participation. 237 survey responses were received, of which 18 were discarded due to their being

Table 3: Measurement model and scale properties

Construct	Item	Factor loading	AVE	CR	Cronbach's $\alpha$
<b>First-order construct</b>					
Relational ties	T1	0.840	0.640	0.876	0.817
	T2	0.796			
	T3	0.817			
	T4	0.742			
Interpersonal trust	T9	0.824	0.650	0.902	0.866
	T10	0.822			
	T11	0.836			
	T12	0.852			
Reciprocity	T13	0.682	0.664	0.887	0.830
	T5	0.722			
	T6	0.858			
	T7	0.860			
eWOM	T8	0.812	0.768	0.930	0.900
	W1	0.875			
	W2	0.877			
	W3	0.883			
Purchase intention	W4	0.870	0.675	0.861	0.760
	I1	0.823			
	I2	0.854			
	I3	0.786			
Product risk	P1	0.810	0.738	0.894	0.822
	P2	0.898			
	P3	0.867			
Financial risk	F1	0.856	0.662	0.886	0.827
	F2	0.861			
	F3	0.818			
	F4	0.872			
Time risk	M1	0.843	0.665	0.908	0.823
	M2	0.843			
	M3	0.819			
	M4	0.708			
	M5	0.856			
Privacy risk	V1	0.947	0.908	0.967	0.949
	V2	0.962			
	V3	0.950			
Return	E1	0.834	0.686	0.929	0.908
	E2	0.850			
	E3	0.831			
	E4	0.875			
	E5	0.817			
	E6	0.758			
Service	E7	0.869	0.748	0.856	0.663
	E8	0.860			
Aesthetics	E9	0.665	0.612	0.904	0.871
	E10	0.783			
	E11	0.837			
	E12	0.822			
	E13	0.839			
Playfulness	E14	0.734	0.620	0.890	0.844
	E15	0.801			
	E16	0.861			
	E17	0.875			
	E18	0.729			
	E19	0.649			
<b>Second-order construct</b>					
Perception of risk	Product	0.850	0.717	0.910	0.867
	Financial	0.848			
	Time	0.923			
	Privacy	0.757			
Experiential value	Return	0.823	0.728	0.914	0.874
	Service	0.872			
	Aesthetics	0.929			
	Playfulness	0.781			



Table 4: Discriminant validity for research constructs

	Relational ties	Reciprocity	Interpersonal trust	eWOM	Perception of risk	Experiential value	Purchase intention
Relational ties	0.800						
Reciprocity	0.481	0.815					
Interpersonal trust	0.485	0.688	0.806				
eWOM	0.334	0.603	0.531	0.876			
Perceived risk	-0.554	-0.501	-0.621	-0.527	0.847		
Experiential value	0.564	0.559	0.637	0.430	-0.694	0.853	
Purchase intention	0.336	0.590	0.537	0.370	-0.456	0.370	0.822

Note: diagonal elements represent the square root of AVE for each construct; off-diagonal elements are correlations among constructs.

incomplete. The remaining 219 questionnaires were subjected to further examination and analysis.

## ANALYSIS AND RESULTS

### Demographic Information of Samples

As demonstrated in Table 2, most of our respondents were females (68.5%) and between 21 and 35-years-old (71.7%), which indicates that the subjects of this research are predominantly young and female. Meanwhile, approximately half of the respondents (52.5%) have less than 1 year of social commerce network usage experience, and over half (58.0%) of respondents' monthly online spends is under 1,000 NTD.

### Measurement Validation

Before testing the hypotheses, the common method variance (CMV) is investigated to examine the potential problem of common method bias, which refers to the "the amount of spurious covariance shared among variables" (Malhotra et al., 2006) owing to the method biases, such as scale type, response format content of specific items,

halo effects, and social desirability (Podsakoff et al., 2003). This study conducts the Harman's single factor test by including all of the items in the study into a single factor. The exploratory factor analysis (EFA) from an unrotated factor solution is performed to examine whether the single factor explains the majority of variance. The data analysis with SPSS indicates that the single factor accounts for 41.875% variance and does not explain much of the common method bias a significant 50% variance of criteria.

The structural equation analysis — partial least square (PLS) is used in this study to test the research hypotheses. PLS analysis has been widely used in various research areas, not only to confirm theories but also to suggest exploratory propositions for later testing (Chin, 1998; Gefen et al., 2000). The first step in PLS is to assess measurement reliability and validity through Confirmatory Factor Analysis (CFA). As showed in Table 3, the Cronbach's alpha value of each construct exceeds 0.7 (Cronbach, 1951), indicating that the reliability is acceptable. Meanwhile, composite reliability (CR) is calculated to determine internal consistency of the

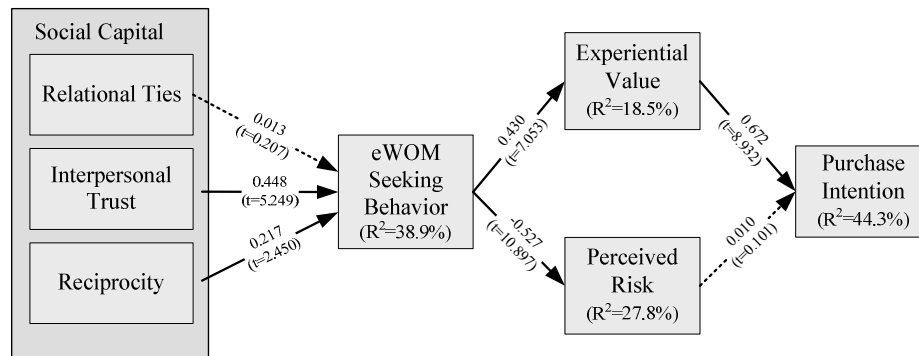


Figure 2: Results of the PLS analysis

measurements. All results were found to exceed the generally recommended threshold values of 0.7 (Nunnally and Bernstein, 1994). Convergent validity, referring to the degree to which different measures all indicate the same meaning of the construct (Hair et al., 2009), is significant when factor loadings for each item are greater than 0.5 (Steenkamp and Van Trijp, 1991). According to Chin (1998), discriminant validity – the square root of average variance extracted, is compared with the correlations among constructs. As demonstrated in Table 4, all square roots of AVE values are greater than the correlations between pairs of constructs. To sum up, all the constructs and items meet the requirements of reliability, convergent validity, and discriminant validity.

### Hypothesis Testing

After the validity and reliability of measurements are satisfactory at the above level of threshold values, we continue to use PLS to test the hypotheses by measuring the relationship between constructs. As shown in Figure 2, the path coefficients are significant except for that between relational ties and eWOM-seeking behavior (H1,  $\beta=0.013$ ,  $p>0.05$ ), as well as that between perceived risk and purchase intention (H7,  $\beta=0.010$ ,  $p>0.05$ ). The remaining paths are significant, indicating that both interpersonal trust among social commerce (H2,  $\beta=0.448$ ,

$p<0.01$ ) members and their reciprocity (H3,  $\beta=0.217$ ,  $p<0.05$ ) have significant impacts on eWOM participation. Meanwhile, research results demonstrate that eWOM further significantly increases consumers' experiences of social commerce (H4,  $\beta=0.430$ ,  $p<0.01$ ) and decreases their perceptions of risk (H6,  $\beta=-0.527$ ,  $p<0.01$ ). Finally, the relationship between purchase and experiential value (H5,  $\beta=0.672$ ,  $p<0.01$ ) from the social commerce network is supported in this study. As for the variance explained, the construct of social capital is able to explain 38.9 percent of the variance in eWOM seeking behavior, which further explains 18.5 percent and 27.8 percent of variances in experiential value and perceived risk, respectively. Finally, 44.3 percent of variance in the participation intention can be explained by both experiential value and perceived risk.

### DISCUSSION AND CONCLUSIONS

Social networking communities, established and developed through ICTs, have emerged as an important platform for individuals to satisfy their instrumental or emotional needs. Community members, with common interests or goals, communicate with others, share resources, solve problems, propose collective ideas, and promote further cooperation (Blanchard and Horan, 1998; Hagel and Armstrong, 1997; Zhou, 2011). Innovative marketers have initiated the social commerce network as a new business model to strengthen relationships with current and potential consumers, as well as to create revenues in an online environment (Peddibhotla, 2013). In this paper, we develop a research framework to examine the association among the social capital, eWOM, and perceptions of value and risk in the digital social commerce domain. The research findings support that

interpersonal trust and reciprocity are two important elements of social capital that encourage consumers to search for useful information derived from other social members' experiences or recommendations. Moreover, consumers' experiential values and perceived risks are both significantly influenced by the electronic interaction and communication in the online social environment. A discussion of the study results and relevant implications are provided below for future study.

### **Antecedents of eWOM in the Social Commerce Network**

Consistent with Hajli (2014a; 2014b), this study demonstrates that interpersonal trust and reciprocity are two crucial factors that drive information sharing among social commerce members. Due to the risks and uncontrollability in an e-commerce environment, the lack of social cues seems to make it harder for people to identify each other and may cause them to avoid close interaction and resource exchange. However, compared with marketer-generated information, the eWOM message is regarded by consumers as reliable and informative sources. The providers of consumer-created information are former consumers who share their own experiences and have no commercial interest with the seller or advertiser (Bickart & Schindler, 2001). Therefore, the quality of interactions among social commerce members who develop trustworthy relationships with other consumers is an essential element in the social commerce.

In this study, the social commerce members would like to provide their personal experience or knowledge for others to reference, based on the expectancy of future return. More specifically, individuals believe they will acquire mutual benefits, social approval, or further cooperation through efforts to express their opinions or knowledge toward something and provide assistance for the benefit of others. The design of a social network community makes it possible for individuals to overcome some of the limitations found in traditional commerce activities, where consumption-related information exchange takes place in private conversations. According to social capital theory, social members with closer community identification, mutual trust, and obligation awareness are more altruistic in expressing their feelings and opinions toward something without reservation. Although the orientation is altruistic, egoistic motives also serve to improve one's skills, moods, and sense of distinction and importance, thus contributing to further collaboration and cooperation within the network (Peddibhotla, 2013; Wagner and Prasarnphanich, 2007).

As hypothesized, our research results support the prior literature by revealing that the relationship between reciprocity and eWOM-seeking behavior is significant. Individuals may expect to maximize their reputation and welfare through helping others and receiving reciprocal assistance in the future.

The construct of relational ties in this study does not show statistical significance in affecting eWOM-seeking behavior. One plausible reason may be the co-existence of strong ties and weak ties. According to Burt (Burt, 1992), Granovetter (1973), and Lin (2001), weak ties in an open network are more useful for searching and obtaining new opportunities. However, with the structural and functional features of social commerce activities, strong ties are also critical for obtaining reliable information that will minimize transaction risk. Thus, the effects of strong ties, as well as weak ties, are not clear enough with regard to their influence eWOM-seeking behavior.

### **Effects of eWOM on Consumers' Online Purchases**

According to Lim et al. (Lim and others, 2012) and Nekmat (Nekmat, 2012), eWOM communication is related to the bidirectional relationship between information providers and receivers. Basically, with the user-generated contents as credible eWOM messages in the social commerce network, former consumers' experiences appear to maximize the experiential values as well as minimize the possible risks of online shopping. Drawing upon the hierarchical structure of experiential value proposed by Mathwick et al. (Mathwick and others, 2001; Mathwick and others, 2002), this study points out that the consumption values of social commerce arise in two dimensions: active value (efficiency and enjoyment) as well as reactive response (visual appeal and service excellence). Consistent with Holbrook (Holbrook, 1994), our analysis shows that through an eWOM-seeking process, social network members collect product/service cues to develop a personal and contextual preference, which characterizes their experiences of interactions with other consumers. As a result, potential consumers evaluate the product/service as being favorable or unfavorable. These preferential judgments, vicariously based on other consumers' experiences, further stimulate the extrinsic benefits, including convenience or satisfactory prices, as well as a distanced appreciation in terms of beauty or superiority, before the social commerce members make a purchase decision.

Due to the nature of uncertainty in online transactions, the consumer's perception of risk is a major determinant of whether they buy or reject a product or service (Chen and Dubinsky, 2003). These doubts are not limited to

unexpected performance of the product/service purchased online but also reflect potential loss of ability to control or monitor the financial transaction, the time involved and their personal information. Meanwhile, the possible damages caused by destruction, fraud, waste, and abuse can lead to consumers' negative online experiences and further decrease their online shopping intention (Kim et al., 2012; Mathwick and others, 2001; Utz et al., 2012). The present study confirms that eWOM-seeking is a useful approach to minimizing individuals' perceived risk of online consumption by gathering reliable information from others' experience or suggestions in the social commerce network. Although this result shows the insignificant relationship between perception of risk and purchase intention, one explanation for this is that the consumer purchase consideration is influenced more by the perception of experiential values in the social commerce network. In general, this study suggests that high experiential values and low perception of risk are two important outcomes of eWOM, whereas the concern of risk does not affect individuals' purchase intentions.

To conclude, the success of social commerce does not fully depend on the system features of social networking sites. Instead, motivation and participation are key elements of the purchase decision. This study shows that with unknown or unfamiliar individuals, social capital emerges to facilitate the eWOM-seeking behavior. As eWOM is regarded as a credible source, the possibility of future purchases must be increased significantly through the enhancement of experiential value, as well as the decline of potential risks in the online transaction.

### **Contributions and Implications**

The rapid growth of social networks in e-commerce has shifted both consumers' and vendors' attention from a product-oriented approach to a collective and shared context in the digital environment. This research investigates the determinants and effects of eWOM in the social commerce network by an integrated model, which is derived from social capital theory and consumer psychology perspectives to understand why and how eWOM affects the social commerce. Instead of vendor-driven advertising techniques, this study suggests that the valuable information is created by consumers' voluntary contributions to facilitate the evaluation of consumption. Beyond the constraints of location and time, a successful social networking community enhances social relationships by attracting individuals to engage, as well as increases enthusiasm and devotion to online or offline interactions. Moreover, this study is one of the

earliest researches examining how the consumers' purchase intention is affected via their positive experiential value toward social commerce. In sum, the results of this study support the view that user-generated content is unique and more reliable, and contributes to more eWOM-seeking activities, thus affecting consumers' experiences and their purchase decisions in the social commerce networks.

For research implications, this research employs the social capital as well as consumer behavior perspectives to examine that how factors induce eWOM-seeking behaviors and affect purchasing decisions in a social commerce network. Theoretically, these findings support the claim of Liang et al. (Liang and others, 2011) that social capital, in terms of interpersonal trust and reciprocity, reflects the relationship quality and has important influences on the use of eWOM. Moreover, to supplement with See-To and Ho's (See-To and Ho, 2014) study of value co-creation from consumer's perspectives, this study successfully integrates the concepts of experiential value and perceived risk to develop a comprehensive model in understanding consumers' responses to social commerce.

From a managerial viewpoint, eWOM becomes a critical e-commerce marketing technique to build brands, enhance brand loyalty, manage consumer relationships, and increase sales and profits. The results of this study will be useful for marketers to develop business strategies by fostering the consumers' perceptions and performance evaluations in the online environment. Instead of being affected by vendors or advertisers, eWOM messages should be generated from consumers' voluntary contributions. In light of the design of social commerce and online techniques of user-generated information, it is necessary for e-commerce practitioners to foster the development of social capital as well as to create the value of eWOM to the consumers. In other words, the importance of social interactions and the dissemination of consumption experiences among consumers are recognized, implying the significant extent of collective potential to enhance their competitive advantage in the digital economy.

### **Limitations and Future Research**

Although the present study has yielded findings that have theoretical and practical implications, there are several limitations and suggestions for future research that should be noted in this paper. First, this study collected data from one social commerce network in Taiwan. The generalization of the results to other contexts may be difficult and needs to be treated circumspectly. Second,

the convenience sampling method utilized in this study would inevitably lead to self-selection biases and over-representative of subjects with strong opinions. A more rigorous design of sampling techniques and replication of this study in other social commerce networks will be necessary to obtain more reliable and objective data. Furthermore, this study does not consider the characteristics of eWOM communication, such as quality and quantity of eWOM messages, as well as both the eWOM seekers' and recommenders' levels of expertise. Additional research focusing on these factors would be of value in understanding their influence on social commerce.

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**Appendix: measurement items**

Constructs	Measurement items	
Relational ties	T1	In GFG, I am closed to the members who provide their review or recommendation of products/services.
	T2	In GFG, I discuss my personal problem with the members who provide their review or recommendation of products/services.
	T3	In GFG, I do my best to help the members who provide their review or recommendation of products/services.
	T4	I would like to talk with the members who provide their review or recommendation of products/services in GFG.
Reciprocity	T5	When I share my review or recommendation of product/service in GFG, I believe that I will get an answer for giving an answer.
	T6	When I share my review or recommendation of product/service in GFG, I expect someone to respond when I am in need.
	T7	When I share my review or recommendation of product/service in GFG, I expect to get back knowledge when I need it.
	T8	When someone in GFG shares his/her review or recommendation of product/service, I believe that it is an obligation for me to share my experience or opinion in the future.
Interpersonal trust	T9	I feel confident with the review or recommendation of products/services in GFG.
	T10	I believe that the review or recommendation of product/service in GFG is helpful.
	T11	I believe that the one is benevolent in providing the review or recommendation of product/service in GFG.
	T12	The integrity of one who provides the review or recommendation of product/service in the SCN is unquestioned.
	T13	I believe that the review or recommendation of products/services in GFG is not faked nor faulted.
eWOM-seeking behavior	W1	I search the other GFG members' review or recommendation of product/service for future purchase reference.
	W2	I search product/service information from GFG and acquire others' opinions about buying it.
	W3	I search information about product/service that I am interested in buying.
	W4	I spend a lot of time browsing product/service information from GFG before buying it.
Experiential value	<i>Experiential value of service</i>	
	E7	When I think of GFG, I think of excellence.
	E8	I think of GFG as an expert in the merchandise it offers.
	<i>Experiential value of aesthetics</i>	
	E9	The way GFG displays its products is attractive.
	E10	GFG website is aesthetically appealing.
	E11	I like the way GFG's website looks.
	E12	I think GFG's website is very entertaining.
	E13	The GFG's website is catching.
	E14	GFG doesn't just sell products; it entertains me.
	<i>Experiential value of playfulness</i>	
	E15	Shopping from GFG's website "gets me away from it all".
	E16	Shopping from GFG makes me feel like I am in another world.
	E17	I get so involved when I shop from GFG that I forget everything else.
E18	I enjoy visiting GFG's website for its own sake, not just for the items I may have purchased.	
E19	I shop from GFG's website for the pure enjoyment.	
Perceived risk	<i>Product risk</i>	
	P1	I am concerned that I can't examine the actual product.
	P2	I am concerned that the size may be a problem with products I buy.
	P3	I am concerned that the product quality is under my expectation.
	<i>Financial risk</i>	
	F1	I am concerned that I may lose money because of inappropriate after-sales service.
F2	I am concerned that I may lose money because of expensive repair fee.	

## Appendix: measurement items

Constructs	Measurement items
	F3 I am concerned that the price is higher online than offline.
	F4 I am concerned that I may be defrauded when shopping online.
	<i>Time risk</i>
	M1 I am concerned that I may spend much time on learning how to use the product.
	M2 I am concerned that I may spend much time on learning how to pay online.
	M3 I am concerned that I may spend extra time on replacing the product.
	M4 I am concerned that I may spend extra time on repairing the product.
	M5 I am concerned that I may spend extra time on purchasing and delivery of the product.
	<i>Privacy risk</i>
	V1 I am concerned that my purchasing information may not be kept.
	V2 I am concerned that my personal information may be misappropriated by others.
	V3 I am concerned that my online account may be hacked
Purchase intention	I1 I will continuously visit GFG's website.
	I2 I will search products/services information on GFG's website continuously.
	I3 I may consider buying products on GFG's website in the future.