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## Factors influencing social commerce adoption in Mexico: An empirical research

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### **Resumen**

Las redes sociales han cambiado las estructuras de poder en el mercado y han abierto oportunidades para nuevos modelos de negocios de comercio electrónico, tales como comercio social. Esta investigación tiene como objetivo identificar factores relacionados con el comportamiento de los consumidores mexicanos en los sitios de redes sociales. Específicamente, prueba la influencia del apoyo emocional e informativo; la confianza hacia la red social y contactos en la red social; la influencia de la familia y los amigos; y vender la reputación de la empresa en la intención de compra. El modelo se probó mediante análisis factorial confirmatorio y se verificó mediante ecuaciones estructurales. El modelo predice que el comportamiento de compra de los consumidores mexicanos en los sitios de la red está influenciado por la confianza hacia los amigos de SNS, eWOM de los amigos de SNS y la reputación del sitio de s-commerce.

**Palabras clave.** Comercio social, Adopción, SEM, Estudio empírico

### **Abstract**

Social Media have changed the power structures in the marketplace and the way of interaction between the consumers and organizations. The increased popularity of social networking sites has opened opportunities for new business models for electronic commerce, often referred to as social commerce. Nevertheless, relatively few research studies have explored factors that influence adoption of social commerce in developing countries such as Mexico. This research aims to identify and explain some of the factors related to shopping behavior of Mexican consumers on social network sites. Specifically, it tests the influence of emotional and informational support; trust towards the social network and contacts in the social network; the influence of family and friends; and selling firm' reputation on purchase intent. The research model was tested using confirmatory factor analysis and structural equation modeling. The model predicts that Mexican consumer's shopping behavior on network sites is influenced by trust towards SNS friends, eWOM from SNS friends and the reputation of the s-commerce site.

**Keywords:** • Social Commerce • Adoption • SEM • Empirical study •

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## **Introduction**

The use of social media has seen a tremendous increase in the last few years. Social media platforms have played a major role in content marketing by sharing information and opinions about products and services (Cha, 2009), users are motivated by fulfilling emotional, social, functional, self-oriented and relational needs (Davis et al., 2014). These social media platforms are based on openness, cooperation, cocreation, trust and commitment between users (Constantinides, 2014).

Recently, social commerce gained a major attention from both academics and practitioners. Numerous studies have been conducted to understand s-commerce and examine its impact. Since 2010 the published studies on s-commerce increased. Busalim and Hussin (2016) conducted a systematic review of s-commerce research, and identified 110 studies which address s-commerce published from 2010 to 2015. The results from their study show that the studies addressing s-commerce increased during the last 6 years. They observed that the current studies covered numerous research themes under s-commerce, such as user behavior, business models, s-commerce website design, adoption strategy, social process network analysis and firm performance. Social media usage may be a good strategy for businesses to increase sales by retaining current customers and developing new customers (Hajli, 2015a). In today's challenging business environment, social media tools have been actively used for firms to present their business online and achieve marketing values (Stephen and Toubia, 2010). For example, firms may have a fan page on Facebook that allows management to interact directly with customers in order to improve and manage customer relationships. As such, social commerce has facilitated new channels that enhance communications between business enterprises and customers, thus, providing an innovative approach for changing business practice (Lin, Le and Wang, 2017).

## **Literature review**

### **Social Media**

The emergence of Web 2.0 applications transferred human approach to the web and interconnectivity among users (Mueller, Hutter, Fueller and Matzler, 2011). Nevertheless, the terms Web 2.0 and Social Media are new terms in the Internet and Marketing lexicon and there is no general consensus as to their exact meaning (Constantides, 2014). O'Reilly (2005) popularized the term Web 2.0 as the next stage in the Internet evolution by referring to it as a wide collection of online applications sharing a number of common interactive characteristics. According to Constantides (2014) "Web 2.0 is a collection of interactive, open source and user-controlled Internet applications enhancing the experiences, collaboration, knowledge and market power of the users as participants in business and social processes.

Web 2.0 applications support the creation of informal users' networks facilitating the flow of ideas, information, knowledge and promote innovation and creativity by allowing the efficient generation, dissemination, sharing and editing of content". The meaning of the term Social Media is different than the meaning of Web 2.0 although the terms are often used interchangeably (Constantides, 2014). Social media can be defined as any form of online publication or presence that allows interactive communication, including, but not limited to, social networks, blogs, Internet websites, internet forums and wikis (Akman and Mishra, 2017). The use of social media sites is gradually increasing and, over the past few years, social networking has attracted people in such a way that it has become a daily part of their daily lives (Gayathri, Thomas and Jayasudha, 2012). Progressively, the use of social media evolved and many social media-based businesses have emerged, giving rise to social commerce. Social Commerce refers to "the delivery of e-commerce activities and transactions via the social media environment, mostly in social networks and by using Web 2.0 software. Thus, social commerce "is a subset of e-commerce that involves using social media to assist in e-commerce transactions and activities" (Liang and Turban, 2011, p. 6). It enables businesses to reach global and distant customers and to build a good relationship with them (Park and Kim, 2014).

Social media represents an important platform for e-commerce and has one of the most metamorphic impacts on business. Therefore, investigating the usage of s-commerce with reference to important behavioral factors could provide valuable information for companies in establishing policies and strategies. It could also be useful for management studies and researchers in understanding the consumers' attitude towards usage of social media for commercial purposes. S-commerce creates opportunities for firms. Based on findings this research provides insights with major implications for marketers, who would like to generate direct sales on social network platforms.

### **Social Commerce**

The social interactions of people on the Internet, especially in social networking sites (SNSs), have created a new stream in e-commerce. This new stream is social commerce (Mahmood, 2013). The concept of social commerce emerged through Web 2.0 in 2005 amid the growing commercial use of social networking sites and many other social media websites (Curty and Zhang, 2011; Liang et al., 2011). It ushers a new form of e-commerce (Wang and Zhang, 2012). Social commerce is often considered as a subset of e-commerce (Curty and Zhang, 2013; Liang and Turban, 2013), however, unlike traditional e-commerce where consumers usually interact with online shopping sites separately, social commerce involves online communities that support user interactions and user generated content (Kim and Srivastava, 2012). Prior research has broadly characterized s-commerce with two essential elements:

social media and commercial activities (Liang, Ho, Li and Turban, 2013). Stephen and Toubia (2010) defined s-commerce as a form of Internet-based social media, which enables individuals to engage in the selling and marketing of products and services in online communities and marketplaces. Dennison et al. (2009) adopted a definition provided by IBM and explained it as the marriage of e-commerce and electronic word-of-mouth (eWOM). Marsden and Chaney (2012) conceptualized social commerce as the selling with social media websites, such as Facebook, Twitter, LinkedIn, Pinterest, and YouTube (the “Big Five”), which support user-generated content and social interaction. According to Liang and Turban (2011), s-commerce is the use of Web 2.0 and social technologies to support interactions in an online context to support consumers’ acquisition of services and products on the Internet. Social commerce can also be defined as word of - mouth applied to e-commerce (Dennison, Bourdage-Braun and Chetuparambil, 2009), and it involves a more social, creative and collaborative approach than is used in online marketplaces (Parise and Guinan, 2008).

### **Theoretical background, research model and hypotheses**

The perception that leads to purchasing consumer behavior in social media context as approached in this study are in agreement with the concepts stated in the Theory of Reasoned Action (TRA) model by Fishbein and Ajzen (1975), the Theory of Planned Behavior (Ajzen, 1991) and the UTAUT2 (Unified theory of Acceptance and Use of Technology 2) Model (Venkatesh et al., 2012). The identification of consumer motives is important for marketers and retailers to use in order to enhance the probability that the products and experiences they develop and provide satisfy consumers’ needs (Kang and Johnson, 2015). In light of these developments, the main objective of this study is to investigate the usage of s-commerce mediated by intention with reference to important behavioral factors that enhance trust as a key factor that influences shopping intention. These factors were selected to be in line with the available literature.

### **Trust in Social Media Contexts**

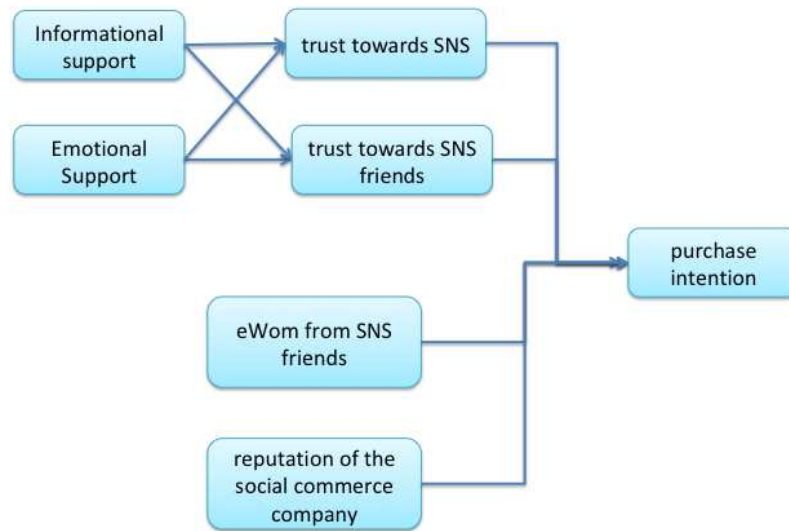
Trust is a concept studied in different disciplines such as philosophy, economics, sociology, management, and marketing (Corritore et al., 2003; Blois, 1999; Rousseau et al., 1998). Trust can be considered as a function of the degree of risk inherent in a certain situation (Koller, 1988). Many researchers argue that trust is a crucial issue in online shopping environments where there may be lots of uncertainty (Pavlou, 2003; Mutz, 2005; Geffen et al., 2003;), It has been shown that trust plays an important role in the e-commerce adoption process (Aljifri et al., 2003), in addition, consumers who trust e-commerce may not necessarily trust s-commerce. Bansal and Chen (2011) claimed that consumers are more likely to trust e-

commerce sites than s-commerce sites. Trust is more important in social commerce platforms where uncertainty is higher due to the lack of face to face communications and the high level of user-generated content (Featherman and Hajli, 2015), and because it reduces “transaction cost” in business interactions (Mutz, 2005). It reduces the tendency to monitor other parties’ activities, and is an element in sanctioning systems as reliable (Mutz, 2005). Many different practitioners and researchers on e-commerce believe that social trust is a key component in a country’s economic expansion and whether they can benefit from economic potential introduced by e-commerce (Mutz, 2005). Previous studies have emphasized the important role of trust in s-commerce. Moreover, It has been confirmed that trust has a significant role in a customer’s intention to buy (Shin, 2010; Han and Windsor, 2011; Lu et al., 2010). Having confidence in the provider and with less perceived risk, a customer will search for new items or services in the online environment and be more likely to make a purchase (Hassanein and Head, 2007; Shin, 2010). Some authors argue that s-commerce and the emergence of Web 2.0 can help customers to reduce their risk and increase social trust. Applications on Web 2.0, such as customer ratings and review, would be a good solution to overcome this barrier. Social technologies enable consumers to have social activities in SNSs (Han and Windsor, 2011), where interactions among the connected users can increase trust among the participants (Han and Windsor, 2011; Swamynathan et al., 2008). Trust is an important determinant in considering a consumer’s intention to buy (Roca et al., 2009; Han and Windsor, 2011). In fact, the more trust the consumers have, the more likely it is that they will buy (Han and Windsor, 2011). Hence, it is important to investigate exhaustively the role of trust on a social commerce adoption system. Trust can come from different sources. Linda (2010) claimed that various factors such as information quality, communication, and WOM effects could make s-commerce trustworthy because consumers themselves create them. Kim, Song, Braynoy and Rao (2005) claimed that gaining consumers’ trust is a key factor in s-commerce and found that various constructs such as the reputation and size of the s-commerce site.

### **Research Model and Hypothesis**

Figure 1 demonstrates a model for research. This research model includes five constructs: informational support, emotional support, trust to SNS, trust to friends in the SNS, eWOM from friends in the SNS, reputation of the s-commerce company are the independent variables, and purchase intention is the dependent variable. The variables included in the research model are hypothesized as follows.

**Figure 1.** Conceptual research model



### **Social support**

Social support, a notion from psychology is defined as the social interaction of individuals in a network that are cared for, answered to and supported (Ali, 2011). Strong social support makes a user feel connected to friends as well as builds trust with others in online community (Crocker and Canevello, 2008; Weber, Johnson and Corrigan, 2004). Social support refers to the perception of a member of a group or organization of being helped, responded to, and cared for physically and psychologically by others in the group or organization (Jennifer Crocker, 2008). In s-commerce, social support has been found to be useful in building close relationships among users and enhancing users' well being in organizations (Patricia Obst, 2010). Frequent sharing of supportive information can enhance friendship and trust among users; which may further increase the intention to conduct commercial activities (Liang and Turban, 2011). Previous studies have also revealed that social support exists in three forms: emotional, tangible, and informational (Schaefer, Coyne and Lazarus, 1981).

### **Emotional support**

In social commerce, emotional support is present when users perceive themselves as being cared for or empathized with based on the information provided by other users. Taylor and Heejung (2004) found that the emotional support provided by others in the group might reduce stress. Emotional support will help members open up and look for help from other members in the community. In particular, some scholars have demonstrated that caring is the basis for trust development (Ommen et al., 2008). Therefore, through

emotional exchange and connection with other members within the community, people will develop their trust toward other members and the social commerce community. Therefore,

Hypothesis 1. Emotional support is positively related to trust toward SNS friends.

Hypothesis 2. Emotional support is positively related to trust toward SNS.

### **Informational support**

Informational support refers to providing information and advice that could help another person. The various forms of UGC, including recommendations, advice, and knowledge, are all manifestations of information support. It is not difficult to understand that if people can consistently obtain instrumental assistance, such as valuable advice and immediate help from their online friends or from the focal community, they will be more likely to have confidence on the other side's benevolence, integrity, and ability, and further form a feeling of trust toward the information providers (Porter and Donthu, 2008; Chen, Xiao-Liang and Shen, 2015). Based on this reasoning, the following hypotheses emerge:

Hypothesis 3. Informational support is positively related to trust toward SNS friends.

Hypothesis 4. Informational support is positively related to trust toward SNS.

### **Trust toward SNS**

Trust toward community refers to one's perception of the focal community as a reliable and predictable place for social interaction. Online communities often have commonly accepted standards to ensure mutual and reciprocal benefits for its members. As the reciprocal nature of communication lying in the center of virtual community (Chen, Zhang and Xu, 2009), the extent to which community can follow the established rules will directly determine members' participatory activities in the community. In addition, the benevolence and integrity of a community will smooth away users' worry about opportunistic behaviors, such as deceptive advertising or inappropriate use of personal information. The relationship between trust toward a community and customers' loyalty was well established in the literature (Schaefer, Coyne and Lazarus, 1981; Salo and Karjaluoto, 2007; Chen, Zhang and Xu, 2009; Wu and Chang, 2006; Shen, 2012). Therefore,

Hypothesis 5. Trust toward SNS is positively related to social shopping intent

### **Trust toward SNS friends**

In this study, trust toward SNS friends is defined as an individual's willingness to rely on the words, actions, and decisions of friend's members in a social commerce community. Prior studies have found that trust toward members positively affected online participatory behaviors, such as getting and giving



information in the focal community (Shen, Lee and Cheung, 2014; Ridings, Gefen and Arinze, 2002), this is specially true if these members are also friends. This is because in a trusting environment, people tend to help each other and further engage in shared social activities. In particular, information obtained from credible sources is usually regarded as more useful, and thus will be used as decision aid (Sussman and Siegal, 2003). In a similar vein, people prefer to share their product/service consumption experience when the other side has some trustworthiness attributes (i.e. benevolence, integrity, and ability). This will let them converse easily based on common knowledge background and help to reduce possible opportunistic behaviors. Therefore,

Hypothesis 6. Trust toward friends in the SNS is positively related to social shopping intention.

### **eWOM**

eWOM theory was first developed by Arndt (1967). The original WOM theory assumes that WOM information is an indispensable experienced source created by individuals or marketers, and is then diffused by consumers or marketers to their consumers (Arndt, 1967; Engel, Kegerreis and Blackwell, 1969). The relationships between WOM-related constructs and consumer purchase behavior have been well illustrated in the existing literature (see Cheung and Thadani, 2012). WOM information aims to help consumers fully understand a service or a product before its consumption and might also shape expectations of service (Bansal and Voyer, 2000; Zeithaml and Bitner, 1996). WOM referrals refer to online activities in which consumers exchange information or experiences to help others make purchasing decisions (Kim and Prabhakar, 2000; Park, Chaib and Lee, 1998;). The phenomena of eWOM show that online consumers have ability to share their experiences, opinions and knowledge with others on popular topics (Huang, Hsieh and Wu, 2014; Prendergast, Ko and Yuen, 2010), and eWOM appearing in SNS can deliver brand messages to millions of SNS users, and that will reap the potential to retain existing customers and attract new consumers (Chu and Kim, 2011). That is, online buyers play a crucial role in promoting products or services for s-commerce firms through WOM referrals. In online shopping, as consumers do not have first-hand experience of a product, such as touching it or smelling it, reviews provided by other customers become ever more valuable, especially if these customers do have hands-on experience of the product or service (Do-Hyung et al., 2007). Their comments, reviews and ratings become vital supports for other potential customers (Do-Hyung et al., 2007). Consumers are more likely value others' information and opinions than advertising when purchasing products or services (Park et al., 1998). Previous studies of trust have demonstrated that online buyers influenced by WOM referrals are likely to have a positive trust propensity. For example, Brown and Reingen (1987) claimed that WOM referrals represent a major factor influencing individuals' behaviors through unofficial communication

channels. Kim and Prabhakar (2000) demonstrated that WOM referrals play a major role in increasing the level of trust in e-commerce. Kuan and Bock (2007) found that WOM referrals in SNS settings are more likely to inculcate consumers' trust in online environments than in offline environments. S-commerce makes use of SNSs for WOM referrals, which differentiates s-commerce from other forms of e-commerce. Therefore, WOM referrals may play a more important role in inducing consumers' trust for s-commerce than for other forms of e-commerce. In this regard, the following hypothesis is proposed:

Hypothesis 7. eWOM referrals have a positive effect on consumers' intent to purchase in s-commerce sites.

### **Reputation of the s-commerce company**

Reputation of the s-commerce firm, defined as the extent to which consumers believe that a firm is honest and concerned about its customers (Doney and Cannon, 1997). A firm with a good reputation or image enjoys a higher level of customers' trust (Doney and Cannon, 1997; Jarvenpaa, Tractinsky and Vitale, 2000). In addition, a good reputation is a valuable intangible asset for many e-retailers and provides consumers with potential cues for enhancing trust (Park, Gunn and Han, 2012). Thus, creating a positive reputation is particularly important for those companies to be successful. Previous studies of e-commerce have demonstrated a close relationship between reputation and trust (Casaló, Flavian and Guinaliu, 2007; Janda, Trocchia and Gwinner, 2002). S-commerce users are likely to consider a firm's reputation as an important factor in evaluating their trust in the firm when purchasing products or services. In this regard, the following hypothesis is proposed:

Hypothesis 8. A s-commerce firm's reputation has a positive effect on consumers' intent to buy in SNS.

### **Intention to buy**

Intention to buy is a construct of technology acceptance model (TAM), one of the most successful theories in predicting an individual's intention to use a system (Pavlou, 2003). There are two core theories to test and predict an individual's intention to utilize information systems (Mathieson, 1991). These two theories are TAM and the theory of planned behaviour by Ajzen (1991). TAM is a core theory in e-commerce studies (Martins, Oliveira and Popovič, 2014; Park, Roman, Lee and Chung, 2009) and many authors developed this model (Hsiao and Yang, 2011). Intention to buy in the present study is defined as a customer's intention to engage in online buying in social networking sites.

### **Research Method**

To test the stated hypotheses, a questionnaire was developed to measure the constructs in the research model and all questionnaire items were measured on a 5-point Likert-scale, with 5 equivalent to "strongly

agree” and 1 to “strongly disagree.” We implemented an online survey, which was run through the Survey Monkey web site. Survey respondents were random selected among Facebook users in Mexico. Facebook was selected, since among numerous SNSs, Facebook has the largest number of users Worldwide at 1.415 billion, followed by LinkedIn at 347 million, Instagram at 300 million, and Twitter at 288 million (Statista, 2015). Facebook not only assists communication and exchanges information but also enables businesses to facilitate and execute sales transactions. Facebook commerce (f-commerce), a form of s-commerce, refers to the buying and selling of goods or services through Facebook (Marsden, 2011). No restrictions were set for age, sex, educational level or profession. Respondents were 305 young Mexicans. The mean age of the group was 24.65 years, standard deviation 1.257 years. We believe it is representative of Mexican Facebook users as young cohorts are the most active and frequent users of social media (AMIPCI, 2014).

### Operationalization of Variables and Questionnaire Design

The operational items used to measure the problem-solving approach construct are presented in Table 1.

**Table 1.** Measurement instrument

Constructs	Measurement Variables
Informational support	<ol style="list-style-type: none"> <li>1. On Facebook, some people offer me suggestions when I need help.</li> <li>2. When I have a problem, some people on Facebook give me information to help me overcome it</li> <li>3. When I face a difficult situation, some people on Facebook help me find the cause and give me suggestions</li> </ol>
Emotional support	<ol style="list-style-type: none"> <li>1. When I face difficulties, some people on Facebook are on my side</li> <li>2. When I face a difficult situation some people on Facebook have comforted and encouraged me.</li> <li>3. When I have a problem some people on Facebook have expressed their interest and concern for my welfare.</li> </ol>
Trust in SNS	<ol style="list-style-type: none"> <li>1. Facebook's performance always meets my ex Facebook's performance always meets my expectations</li> <li>2. Facebook is a good social networking site.</li> <li>3. Facebook is a reliable social networking site.</li> </ol>
Trust in SNS Friends	<ol style="list-style-type: none"> <li>1. Facebook friends always try to help me if I have troubles.</li> <li>2. Facebook friends always keep their promises.</li> <li>3. Facebook members are sincere when dealings with others.</li> </ol>
eWOM propensity	<ol style="list-style-type: none"> <li>1. I like to present new brands and products to my Facebook friends</li> <li>2. I like to help my Facebook friends, providing information about many types of products.</li> <li>3. My Facebook friends ask me to get information about products or places to go shopping.</li> <li>4. My Facebook friends consider me a good source of information when it comes to new products or sales.</li> </ol>

Reputation of s-commerce company	<ol style="list-style-type: none"> <li>1. I buy at a s-commerce site because it is well known</li> <li>2. I buy at a s-commerce site because it has a good reputation</li> <li>3. I buy at a s-commerce site because its an honest company</li> <li>4. I buy at a s-commerce site because I am acquainted with the company.</li> </ol>
Intention to purchase	<ol style="list-style-type: none"> <li>1. I consider the buying experiences of other Facebook members when I need to buy something.</li> <li>2. I ask other Facebook members to give me suggestions before buying.</li> <li>3. I am willing to buy products recommended by other Facebook members.</li> </ol>

### Discussion of Data analysis and results

To assess H1 to H8, a Structural Equation Model (SEM) was utilized. Our analyses followed Anderson and Gerbing's (1988) two-step approach where by the estimation of a confirmatory measurement model precedes the simultaneous estimation of the structural model, as described next.

### The Measurement Model

Confirmatory factor analysis was performed using EQS 6.2 to confirm the variables measuring the constructs in the model. Reliability of the measurement model was examined by calculating Cronbach's alpha coefficient for each of the constructs separately. We also report the composite reliability and AVE of the constructs because it is generally acknowledged that composite reliability is a better measure of scale reliability than Cronbach's alpha coefficient (Bagozzi and Yi, 1988). Table 2 shows that the alpha coefficient value for all the constructs is greater than 0.7, which is considered to be acceptable for the constructs to be reliable (Hair, Black, Babin, Anderson and Tatham, 2006). The composite reliability values of all the constructs are greater than 0.6. Following recommendations from Bagozzi and Yi (1988), this further strengthens our assessment of reliability for all the measured constructs. The measurement model indicates an adequate model fit of the data (Bagozzi and Yi, 1988, Bearden, Sharma and Teel, 1982, Bentler, 1990). ( $\chi^2 = 557.568$   $df = 208$ ,  $NFI = 0.884$ ;  $NNFI = 0.907$ ;  $CFI = 0.923$ ; and  $RMSEA = 0.074$ ).

**Table 2.** Reliability and convergent validity

Constructs	Measurement Items	Loadings	Cronbach's Alpha	Composite Reliability	AVE
Informational support	IS1	0.453	0.844	0.702	0.451
	IS2	0.794			
	IS3	0.720			
Emotional support	ES1	0.714	0.708	0.757	0.509
	ES2	0.728			
	ES3	0.699			

Trust in SNS	TS1	0.650			
	TS2	0.697	0.750	0.710	0.450
	TS3	0.664			
Trust in SNS Friends	TF1	0.662			
	TF2	0.698	0.670	0.605	0.407
	TF32	0.543			
eWom propensity	EW1	0.629			
	EW2	0.709	0.858	0.768	0.410
	EW3	0.576			
	EW4	0.506			
Reputation of s-commerce company	RSC1	0.604			
	RSC2	0.881	0.909	0.867	0.574
	RSC3	0.762			
	RSC4	0.636			
Intention to purchase	IP1	0.619		0.700	
	IP2	0.648	0.853		0.439
	IP3	0.716			

### Convergent Validity

Convergent validity was examined by calculating the average variance extracted (AVE) and the factor loadings of the measurement items on respective constructs in the model (Fornell and Larcker, 1981). Table 2 shows that all the measurement variables had significant loadings onto the respective latent constructs ( $p < 0.05$ ) with values ranging between 0.453 and 0.881. In addition, the AVE for each construct is equal to or greater than 0.50, but for three of the constructs ('Informational support', 'Trust in SNS' and 'Trust in SNS Friends'), which further supports the convergent validity of five of the constructs.

### Discriminant Validity

Discriminant validity was assessed in two ways. First, as suggested by Fornell and Larcker (1981), it was assessed by comparing the average values of variance extracted for each construct with the corresponding inter-construct squared correlation estimates. Table 3 shows that most of the AVE values are greater than the inter-construct squared correlations; two squared correlations are slightly larger than correspondent AVE – eWOM/Intention to purchase and Informational support/Trust in SNS, while Emotional support/eWOM shows a high difference to its correspondent AVE, showing with this, a problem of discriminant validity. This may be due to problems in translating meaning of the items but further research

is needed. Second, to test whether the inter-construct correlation was significantly different from unity, we used the chi-squared difference tests (Bagozzi, Yi, and Phillips, 1991). Chi squared difference test was performed by estimating the measurement model by constraining the inter-construct correlation to unity and then the same model was estimated freely, estimating the inter-construct correlation. The test statistic is the difference between the chi-square values of 14 more degrees of freedom, and all changes in chi-square obtained were significant at  $p < 0.05$  level of significance. In this case eWOM/Trust in SNS show constructs overlap. Overall, we believe measurement scales utilized are reasonably reliable and valid except for the aforementioned.

**Table 3.** Reliability and convergent validity

	2	3	4	5	6	7	8
Informational support	<b>0.451</b>	0.460	0.083	0.271	0.130	0.069	0.143
Emotional support	0.84/0.51	<b>0.509</b>	0.187	0.745	0.276	0.097	0.191
Trust in SNS	0.40/0.18	0.66/0.38	<b>0.450</b>	0.328	0.270	0.169	0.291
Trust in SNS Friends	0.48/0.24	0.37/0.15	0.50/0.25	<b>0.407</b>	0.300	0.128	0.204
eWOM propensity	0.59/0.28	1.06/0.67	0.69/0.36	0.46/0.16	<b>0.410</b>	0.323	0.460
Reputation	0.60/0.27	0.73/0.42	0.67/0.37	0.55/0.27	0.70/0.38	<b>0.574</b>	0.612
Intention to purchase	0.71/0.39	0.50/0.22	0.61/0.30	0.73/0.41	0.85/0.50	0.97/0.60	<b>0.439</b>

Note: The upper triangle has the values of squared inter-construct correlations and the lower triangle has the interconstruct correlations values with a confidence interval of 95 %; the diagonal elements are the AVE values (bold).

### The structural model and hypotheses testing

The proposed hypotheses were tested using structural equation modeling using EQS 6.2. Results indicated an adequate model fit with a significant chi-square statistic (Bagozzi and Yi, 1988, Bearden, Sharma and Teel, 1982, Bentler, 1990). ( $\chi^2 = 557.568$   $df = 208$ ,  $NFI = 0.884$ ;  $NNFI = 0.907$ ;  $CFI = 0.923$ ; and  $RMSEA = 0.074$ ) also indicated an acceptable fit of the structural model with the data. Table 4 shows the parameter estimates of the structural model. Seven of the hypotheses were supported. Results show that the path coefficients between Informational support  $\rightarrow$  Trust towards SNS, Emotional support  $\rightarrow$  Trust towards SNS, Informational support  $\rightarrow$  Trust towards SNS friends, Emotional support  $\rightarrow$  Trust towards SNS friends, Trust towards SNS friends  $\rightarrow$  Purchase Intention, eWOM propensity  $\rightarrow$  Purchase Intention and Reputation of the s-commerce site  $\rightarrow$  Purchase Intention are positive and significant at  $p < 0.05$  while the path Trust towards SNS  $\rightarrow$  Purchase Intention, is not significant  $p < 0.05$  supporting H1, HIII, and HV. Hence, seven linear relationships in the model were supported.

**Table 4.** Estimated path coefficients

Hypothesized paths		Path coefficients	Results	
Informational support	→	Trust towards SNS	0.259*	H1 (Accepted)
Emotional support	→	Trust towards SNS	0.219*	H2 (Accepted)
Informational support	→	Trust towards friends	0.224*	H3 (Accepted)
Emotional support	→	Trust towards friends	0.578*	H4 (Accepted)
Trust towards SNS	→	Purchase Intention	0.054	H5 (NOT Accepted)
Trust towards friends	→	Purchase Intention	0.202*	H6 (Accepted)
eWOM propensity	→	Purchase Intention	0.254*	H7 (Accepted)
Reputation of S-C site	→	Purchase Intention	0.538*	H8 (Accepted)

### Research limitations, implications and future research directions

There are some limitations of this research, which needs to be considered while interpreting our research findings. First, these findings need to be qualified with some cautionary notes due to several limitations of the research design: this study was based on a “snap-shot” questionnaire instead of a longitudinal study. The quantitative analyses were developed from psychometric measures obtained by a self-reporting questionnaire, which allowed an empirical test of the proposed model based on statistical significance. Investigating the usage of s-commerce with reference to important behavioral factors could provide valuable information for companies in establishing policies and strategies. It could also be useful for management studies and researchers in understanding the consumers’ attitude towards usage of social media for commercial purposes. S-commerce creates opportunities for firms. Based on findings this research provides insights with major implications for marketers, who would like to generate direct sales on social network platforms. Future research should use other moderating variables that may affect the shopping intention in social media commerce sites. Further studies could apply a variant of research methods to include other techniques such as interviews, which allow for deeper understanding of the problem and issues

### Conclusions

This study investigates the factors influencing purchase intentions in social commerce and develops a research model to study this type of commerce. Seven significant linear relationships were supported to influence s-commerce adoption among Mexican Facebook users.

## References

- Ajzen, I. (1991). Theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Albors J., Ramos, J. C. and Hervás, J. L. (2008), New learning network paradigm: Communities of objectives, crowdsourcing, wikis and opensource. *International Journal of Information Management*, (28)194 – 202
- Ali, H. (2011). Exchanging value within individuals' networks: social support implications for health marketers. *Journal of Marketing Management*, 27(3–4), 316–335.
- Aljifri, H. A., Pons, A. and Collins, D. (2003). Global e-commerce: a framework for understanding and overcoming the trust barrier. *Information Management & Computer Security*, (11), 130-138.
- Akman, I. and Mishra, A. (2017). Factors influencing consumer intention in social commerce adoption. *Information & People*, 30(2), 1-22. DOI: 10.1108/ITP-01-2016-0006
- AMIPCI. (2014). Estudio de marketing digital y social media. *AMIPCI*. Retrieved from: [https://amipci.org.mx/images/Estudio\\_Marketing\\_2014.pdf](https://amipci.org.mx/images/Estudio_Marketing_2014.pdf)
- Anderson, J. C. and Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, (103), 411-423.
- Arndt, J. (1967). Role of product-related conversations in the diffusion of a newproduct. *Journal of Marketing Research*, 4, 291–295.
- Bagozzi, R. and Yi, Y. (1988). On the Evaluation of Structure Equation Models. *Journal of the Academy of Marketing Science*, 74-94. DOI: 10.1007/BF02723327
- Bagozzi, R., Yi, Y. and Phillips, L. (1991). Assessing Construct Validity in Organization Research. *Administrative Science Quarterly*. (36), 421-458. DOI: 10.2307/2393203.
- Bansal, G. and Chen, L. (2011). *If they trust our e-commerce site, will they trust our social commerce site too? Differentiating the trust in e-commerce and s-commerce: The moderating role of privacy and security concerns*. In: MW AIS 2011 Proceedings.
- Bansal, H. S. and Voyer, P. A. (2000). Word-of-mouth processes within a services purchase decision context. *Journal of Service Research*, 3(2), 166–177.
- Bearden, W., Sharma, S. and Teel, J. (1982). Sample Size Effects on Chi Square and Other Statistics Used in Evaluating Causal Models. *Journal of Marketing Research*. 19. DOI 425. 10.2307/3151716.
- Bentler, P. (1990). Comparative Fit Indexes in Structural Models. *Psychological bulletin*, (107), 238-46. DOI: 10.1037/0033-2909.107.2.238.
- Brown, J. J. and Reingen, P. (1987). Social ties and word-of-mouth referral behavior. *Journal of Consumer Research*, 14(3), 350–362.
- Busalim, A. H. and Hussin, A. R. C. (2016). Understanding social commerce: A systematic literature review and directions for further research. *International Journal of Information Management*, (36), 1075–1088.



- Casaló, L., Flavián, C. and Guinalú, M. (2007). The impact of participation in virtual brand communities on consumer trust and loyalty: the case of free software. *Online Information Review*, 31(6), 775–792.
- Chen, C. (2006). Identifying significant factors influencing consumer trust in an online travel site. *Information Technology & Tourism*, 8(3-4), 197–214.
- Chen, J., Zhang, C. and Xu, Y. (2009). The role of mutual trust in building members' loyalty to a c2c platform provider. *International Journal of Electronic Commerce* 14(1), 147–171.
- Chen, J. V., Su, B. C. and Widjaja, A. (2016). Facebook C2C social commerce: A study of online impulse buying. *Decision Support Systems*, 57-69.
- Cheung, C. M. and Thadani, D. R. (2012). The impact of electronic word-of-mouth communication: a literature analysis and integrative model. *Decision Support Systems*, 54(1), 461–470.
- Chu, S. C. and Kim, Y. (2011). Determinants of consumer engagement in electronic word-of-mouth (eWOM) in social networking sites. *International Journal of Advertising*, 30(1), 47–75.
- Constantinides, E. (2014). Foundations of Social Media Marketing. *Procedia - Social and Behavioral Sciences* (148), 40 – 57
- Coulson, N. S. (2005). Receiving social support online: An analysis of a computer mediated support group for individuals living with irritable bowel syndrome. *Cyber psychology & Behavior*, 6(8), 580–586.
- Crocker, J. and Canevello, A. (2008). Creating and undermining social support in communal relationships: the role of compassionate and self-image goals. *Journal of Personality & Social Psychology*, 95(3), 555–575.
- Curty, R. G. and Zhang, P. (2011). *Social commerce: looking back and forward*, in: Proceedings of the American Society for Information Science and Technology, 48, 1–10.
- Curty, R. G., and Zhang, P. (2013). Website features that gave rise to social commerce: a historical analysis. *Electronic Commerce Research and Applications*, 12, 260–279.
- Dennison, G., Bourdage Braun, S. and Chetuparambil, S. (2009). *Social Commerce Defined*, White Paper No. 23747, Research Triangle Park, NC: IBM,
- Doney, P. M. and Cannon, J. P. (1997). An examination of the nature of trust in buyer–seller relationships. *Journal of Marketing*, 61(2), 35–51.
- Drury, G. (2008). Opinion piece: Social media: Should marketers engage and how can it be done effectively? *Journal of Direct Data and Digital Marketing Practice*, 9(3), 274-277
- Eikermann, S., Hajj, J. and Peterson, M. (2008). Opinion piece: Web 2.0: Profiting from the threat. *Journal of Direct, Data and Digital Marketing Practice*, (9) 293-295.
- Engel, J. F., Kegerreis, R. J. and Blackwell, R. D. (1969). Word-of-mouth communication by the innovator. *Journal of Marketing*, 33, 15–19.
- Fornell, C. and Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18,(1), 39-50.

- Gabriela, L. P. A., Hor-meyll, L. F. and de Paula Pessôa, L. A. G. (2014). Influence of virtual communities in purchasing decisions: The participants' perspective. *Journal of Business Research*, 67, 882–890.
- Gayathri, K. S., Thomas, T., and Jayasudha, J. (2012). Security issues of media sharing in social cloud. *Procedia engineering*, (38), 3806-3815.
- Gefen, D. (2000). E-commerce: the roles of familiarity and trust. *Omega*, 28, 725–737
- Gefen, D., Karahanna, E. and Straub, D. W. (2003). Trust and TAM in online shopping: an integrated model. *MIS Quarterly*, (27), 51-90.
- Hair, J. F., Black, B., Babin, B., Anderson, R. E. and Tatham, R. L. (2006). *Multivariate Data Analysis*, Upper Saddle River, New Jersey: Pearson.
- Han, B. O. and Windsor, J. (2011). User's willingness to pay on social network sites. *Journal of Computer Information Systems*, (51), 31-40.
- Janda, S., Trocchia, P. J. and Gwinner, K. P. (2002). Consumer perceptions of Internet retail service quality. *International Journal of Service Industry Management*, 13(5), 412–431.
- Hassanein, K. and Head, M. (2007). Manipulating perceived social presence through the web interface and its impact on attitude towards online shopping. *International Journal of Human-Computer Studies*, (65), 689-708.
- Hsiao, C. H. and Yang, C. (2011). The intellectual development of the technology acceptance model: A co-citation analysis. *International Journal of Information Management*, 31(2), 128–136.
- Huang, Z. and Benyoucef, M. (2013). From e-commerce to social commerce: A close look at design features. *Electronic Commerce Research and Applications*, (12), 246–259.
- Huang, L. Y., Hsieh, Y. J. and Wu, Y. C. J. (2014). Gratifications and social network service usage: The mediating role of online experience. *Information & Management*, 51(6), 774–782.
- Jarvenpaa, S. L., Tractinsky, J. and Vitale, M. (2000). Consumer trust in an internet store. *Information Technology and Management*, 1(1-2), 45–71.
- Jennifer Crocker, A. C. (2008). Creating and undermining social support in communal relationships the role of compassionate and self-image goals. *Journal of Personality and Social Psychology*, 2(95), 555–575.
- Jiang, G., Ma, F., Shang, J. and Y. K. Chau, P. (2014). Evolution of knowledge sharing behavior in social commerce: An agent-based computational approach. *Information Sciences*, 250-268.
- Jim, Wu, Y. C., Shen, J. P. and Chang, C. L. (2014). Electronic service quality of Facebook social commerce and collaborative. *Computers in Human Behavior*, 395–1402.
- Kera, A. and Kaynak, E. (1997). Markets of a Single Customer: Exploiting Conceptual Developments in Market Segmentation. *European Journal of Marketing*, 31(11/12), 873-85

- Kim, J. H. and Bae, Z. (2008). The role of online brand community in new product development: case studies on digital product manufacturers in Korea. *International Journal of Innovation Management*, 12(3), 357 – 376.
- Kim, K. and Prabhakar, B. (2000). *Initial trust, perceived risk, and the adoption of Internet banking*. In Proceedings of Information Systems International Conference Atlanta, Georgia, USA.
- Kim, S. and Park, H. (2012). Effects of various characteristics of social commerce (s-commerce). *International Journal of Information Management*, 318-332.
- Kim, S. and Park, H. (2013). Effects of various characteristics of social commerce (s-commerce) on consumers' trust and trust performance. *International Journal of Information Management*, 33, 318–332.
- Kim, Y. A. and Srivastava, J. (2007). *Impact of social influence in e-commerce decision making*, in: Proceedings of the 9th International Conference on Electronic Commerce, Minneapolis, Minnesota, USA.
- Kim, D. J., Song, Y. I., Braynoy, S. B. and Rao, H. R. (2005). A multidimensional trust formation model in B-to-C E-commerce: a conceptual framework and content analyses of academia/practitioner perspectives. *Decision Support systems*, 40(2), 143–165.
- Koller, M. (1988). Risk as a Determinant of Trust. *Basic and Applied Social Psychology*, 9(4), 265-276
- Kuan, H. H. and Bock, G. W. (2007). Trust transference in brick and click retailer: an investigation of the before-online-visit phase. *Information & Management*, 44(2), 175–187.
- Koufaris, M. and Hampton-Sosa, W. (2004). The development of initial trust in an online company be new customers. *Information & Management*, 41(3), 377–397.
- Lee, S. Y. T. and Phang, C. W. D. (2015). Leveraging social media for electronic commerce in Asia. *Electronic Commerce Research and Applications*, 14(3), 145-149.
- Liang, T., Ho, Y. and Li, Y. (2012). What drives social commerce: The role of social support and relationship quality. *International Journal of Electronic Commerce*, 16(2), 69–90.
- Liang, T. P., Ho, Y. T., Li, Y. W. and Turban, E. (2011). What drives social commerce: the role of social support and relationship quality. *International Journal of Electronic Commerce*, (16), 69–90.
- Liang, T. P. and Turban, E. (2011). Introduction to the special issue social commerce: a research framework for social commerce. *International Journal of Electronic Commerce*, (16), 5–13.
- Lin, X., Le, Y. and Wang, C. (2017). Social commerce research: Definition, research themes and the trends. *International Journal of Information Management*, (37), 190–201.
- Linda, S. L. A. I. (2010). Social commerce – e-commerce in social media context. World Academy of Science. *Engineering and Technology*, 72, 39–44.
- Mahmood, H. (2013). A research framework for social commerce adoption. *Information Management & Computer Security*, 21(3), 144-154.

- M. Kang, J. Y. and K. P. Johnson, K. (2015). F-Commerce platform for apparel online social shopping: Testing a Mowen's 3M model. *International Journal of Information Management*, 601-701.
- Marsden, P. (2010). Social commerce: Monetizing social media. *Digital intelligence today*. Retrieved from: [http://digitalintelligencetoday.com/documents/Syzygy\\_2010.pdf](http://digitalintelligencetoday.com/documents/Syzygy_2010.pdf).
- Marsden, P. and Chaney, P. (2012). *The Social Commerce Handbook: 20 Secrets for Turning Social Media Into Social Sales*, New York, NY: McGraw-Hill.
- Martins, C., Oliveira, T. and Popovič, A. (2014). Understanding the Internet banking adoption: A unified theory of acceptance and use of technology and perceived risk application. *International Journal of Information Management*, 34(1), 1–13.
- Mathieson, K. (1991). Predicting user intentions: Comparing the technology acceptance model with the theory of planned behavior. *Information Systems Research*, 2(3), 173–191.
- Mueller, J., Hutter, K., Fueller, J. and Matzler, K. (2011). Virtual worlds as knowledge management platform - a practice-perspective. *Information Systems Journal*, 21(6), 479-501.
- Mutz, D. C. (2005). Social trust and e-commerce: experimental evidence for the effects of social trust on individuals' economic behavior. *Public Opinion Quarterly*, (69), 393-416.
- Ommen, O., Janssen, C., Neugebauer, E., Bouillon, B., Rehm, K., Rangger, C., Erli, H.J. and Pfaff, H. (2008). Trust, social support and patient type associations between patients perceived trust, supportive communication and patients preferences in regard to paternalism, clarification and participation of severely injured patients. *Patient Education and Counseling* 73(2), 196–204.
- Welbourne, J. L., Blanchard, A. L., Bpalmatier, M. D., Dant, R. W., Grewal, R. P. and Evans, K. R. (2006). Factors influencing the effectiveness of relationship marketing: A meta-analysis. *Journal of Marketing*, 4(70), 136–153.
- Parise, S. and Guinan, P. J. (2008). *Marketing using Web 2.0*. Washington, DC: IEEE Computer Society Press.
- Park, J. E., Chaiky, S. I. and Lee, S. H. (1998). The moderating role of relationship quality in the effect of service satisfaction on repurchase intentions. *Korea Marketing Review*, 13(2), 119–139.
- Park, J., Gunn, F. and Han, S. L. (2012). Multidimensional trust building in e-retailing: Cross-cultural differences in trust formation and implications for perceived risk. *Journal of Retailing and Consumer Services*, 19(3), 304–312.
- Park, N., Roman, R., Lee, S. and Chung, J. E. (2009). User acceptance of a digital library system in developing countries: An application of the Technology Acceptance Model. *International Journal of Information Management*, 29(3), 196–209.
- Patricia Obst, J. S. (2010). Online psychological sense of community and social support found through membership in disability-specific websites promotes well-being for people living with a physical disability. *Journal of Community & Applied Social Psychology*, 6(20), 525–531.
- Pavlou, P. A. (2003). Consumer acceptance of electronic commerce: integrating trust and risk with the technology acceptance model. *International Journal of Electronic Commerce*, (7), 101-134.

- Piller, F. and Walcher, D., (2006). Toolkits for idea competitions: a novel method to integrate users in new product development. *R&D Management*, 36(3), 307 – 318.
- Porter, C. E. and Donthu, N. (2008). Cultivating trust and harvesting value in virtual communities. *Management Science*, 54(1), 113–128.
- Prahalad, D. K. and Ramaswamy, V. (2004). Co-creation Experiences, The next practice in value creation. *Journal of Interactive Marketing*, 18(3), 5-14.
- Prendergast, G., Ko, D. and Yuen, S. Y. V. (2010). Online word of mouth and consumer purchase intentions. *International Journal of Advertising*, 29(5), 687–708.
- Ridings, C. M., Gefen, and Arinze, D. B. (2002). Some antecedents and effects of trust in virtual communities. *Journal of Strategic Information Systems*, 11(3), 271–295.
- Roca, J. C., García, J. J. and De la vega, J. J. (2009). The importance of perceived trust, security and privacy in online trading systems. *Information Management & Computer Security*, (17), 96-113.
- Salo, J. and Karjaluoto, H. (2007). A conceptual model of trust in the online environment. *Online Information Review*, 31(5), 604–621.
- Schaefer, C., Coyne, J. C. and Lazarus, R. S. (1981). The health-related functions of social support. *Journal of Behavioral Medicine*, 4(4), 381–406.
- Shanmugam, M., Shiwei, S., Asra, A., Farzad, K., F. and Fariborz, K. (2016). The applications of social commerce constructs. *International Journal of Information Management*, 425-432.
- Shen, J. (2012). Understanding users acceptance of social shopping websites: effects of social comparison and trust. *Enterprise Information Systems*, 31, 365–373.
- Shen, X. L., Lee, M. K. and Cheung, C. M. (2014). Exploring online social behavior in crowdsourcing communities: a relationship management perspective. *Computers in Human Behavior*, 40, 144–151.
- Shin, D. H. (2010). The effects of trust, security and privacy in social networking: a security-based approach to understand the pattern of adoption. *Interacting with Computers*, (22), 428-438.
- Stephen, A. T. and Toubia, O. (2010). Deriving value from social commerce networks. *Journal of Marketing Research*, 47, 215–228.
- Sussman, S. W. and Siegal, W. S. (2003). Informational influence in organizations: an integrated approach to knowledge adoption. *Information Systems Research*, 14(1), 47–65.
- Swamynathan, G., Wilson, C., Boe, B., Almeroth, K. and Zhao, B. Y. (2008). *Do social networks improve e-commerce? A study on social marketplaces*, in: Proceedings of the First Workshop on Online Social Networks, ACM, Seattle, WA
- Teo, T. S. H. and Liu, J. (2007). Consumer trust in e-commerce in the United States, Singapore and China. *Omega*, 35, 22–38.
- Taylor, S. E. and Heejung, K. S. (2004). Culture and social support: Who seeks it and why? *Journal of Personality and Social Psychology*, 3(87), 354–362.

- Venkatesh, V., Thong, J.Y.L. and Xu, X. (2012). Consumer acceptance and use of information technology: Extending the Unified theory of acceptance and use of technology. *MISQ*, 36(1), 157–178
- Wang, J. and Chang, C. (2013). How online social ties and product-related risks influence purchase intentions: A Facebook experiment. *Electronic Commerce Research and Applications*, 12, 337–346.
- Wang, Y. and Yu, C. (2017). Social interaction-based consumer decision-making model in social commerce: The role of word of mouth and observational learning. *International Journal of Information Management*, 37(3), 179-189.
- Wang, C. and Zhang, P. (2012). The evolution of social commerce: the people, management, technology, and information dimensions. *Communications of the Association for Information Systems*, 31.
- Weber, K., Johnson, A. and Corrigan, M. (2004). Communicating emotional support and its relationship to feelings of being understood, trust, and self-disclosure. *Communication research reports*, 21(3), 316–323.
- Wu, J. J. and Chang, Y. S. (2006). Effect of transaction trust on e-commerce relationships between travel agencies. *Tourism Management*, 27(6), 1253–1261.
- Wu, H. and Wang, J. (2011). *An empirical study of flow experiences in social network sites*. In: The 15th Pacific Asia Conference on Information systems (PACIS) Queensland University of Technology, Australia,
- Yadav, M. S. K., De Valck, T., Hennig Thurau, D. L. and Hoffman, M. S. (2013). Social commerce: a contingency framework for assessing marketing potential. *Journal of Interactive Marketing*, (27), 311–323.
- Zhang, L., Zhang, P. and Hans Dieter, Z. (2013). Social commerce research: An integrated view. *Electronic Commerce Research and Applications*, 12, 61–68.