The role of trust in information adoption in social commerce: A PLS approach

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ARTICLE INFO	ABSTRACT
	Social commerce (s-commerce or SC) is rapidly growing and it is an increasingly favourite shopping way that customers adopt. Based on the view of trust as a social reality and Petty and Cacioppo's (1986) ELM theory, the paper proposes a theoretical model integrating information quality and social support to explain information adoption through perceived consumer trust. A survey with PLS-SEM analysis of 333 consumers shows that 7 out of 11 hypotheses are empirically supported and the model explains up to 47.4% of consumer information adoption. Moreover, as expected, the *information quality* of s-commerce sites is always to be present to build consumer trust in s-commerce sites and in members of s-commerce sites.

1. Introduction

The electronic commerce in general and social commerce (s-commerce or SC) in particular are characterized by the element of information (Pearlson, Saunders, & Galletta, 2016). Accordingly, the *information adoption* of the transaction must be established so that users or customers can decide whether to participate or shop online and thus it is important both academically and practically (Erkan & Evans, 2016). It should be noted that transactions in virtual communities have social identities and thus, hides the uncertainty and complexity of social interactions in general (Luhmann, 1979; Morvinski, Amir, & Muller, 2017). To explore such social problems, *trust* was used as a central concept (Gefen, Karahanna, & Straub, 2003; Lewis & Weigert, 1985). According to Lewis and Weigert (1985), *trust* as a social reality of modern life is a property of the collective units (community), not of isolated individuals, and is therefore determined by social characteristics more than personality or even personal psychologic states. Functionally, trust is a strategic alternative or complementary possibly to rational prediction that is basically being applied to deal with the processes of social reality being more and more risky and rapidly changing (Lewis & Weigert, 1985) such as e-commerce and s-commerce in recent years (Gefen et al., 2003; Morvinski et al., 2017). The paper proposes the use of *trust* instead of *information usefulness* as it is used in the majority of existing studies (e.g., Cheung, Lee, & Rabjohn, 2008; Erkan & Evans, 2016; Sussman & Siegal, 2003) as a determinant to explain the *information adoption* of the customer in s-commerce. Another

notable feature of the information in s-commerce is the increasingly important role of e-WOM of the community of respective websites, including buyers, potential customers, service & product experts and other stakeholders (Hussain et al., 2018; Kim & Park, 2013). These types of information, along with official information from the social networking site's owner, form two kinds of information that must be considered when researching *information adoption* of social network users in general (Morvinski et al., 2017).

After all, *social support*, an essential element of social interactions in s-commerce, can actively support the understanding and evaluation of the transactions of potential buyers (Liang, Ho, Li, & Turban, 2011). Thus, the feelings of *social support* of the customer will also be integrated into the research model of this paper - accordingly, the *information quality* and *social support* will shape the *trust* and hence leading to the *information adoption* of the customer in s-commerce.

The research settings chosen are the online transactions on the s-commerce sites in Vietnam of individuals mainly in Ho Chi Minh City and Hanoi - the two largest trade centers in Vietnam.

The structure of the paper is as follows. The next part is the theoretical basis to form a research model in which basic concepts such as *information quality*, *social support*, *trust* and *information adoption* are presented. The next part is the research methodology and then the research results are presented. Finally, theoretical contributions, managerial implications, as well as constraints and further research directions, are discussed.

2. Literature review

Social commerce

Social commerce (s-commerce) is often understood as a form of commerce in a social media context, and, thus, is converging both online and offline environment (C. Wang & Zhang, 2012).

In a typical way, s-commerce shows itself as a kind of Internet-based commercial applications, using social media and Web 2.0 technologies which support social interactions and user-generated contents in order to assist consumers in their decision making and buying and selling of products and services within online and even traditionally marketplaces (Huang & Benyoucef, 2013). Such environments or marketplaces would be helpful to identify two kinds of social commerce: online and offline (Zhong, 2012), or alternatively, onsite and offsite (Stulec, Petljak, & Naletina, 2018). While the former refers to the traditional e-commerce platform that the incorporate social sharing features and functionality on the seller's or provider's website, the latter indicates the commerce forms that are on social platform such as Facebook, Twitter, Instagram, etc. rather than on the seller's or provider's website (Stulec et al., 2018; Zhong, 2012). However, from a practitioner's perspective, it is commonly agreed that both kinds of social commerce would accommodate six Cs of social technologies, which are Content, Community, Commerce, Context, Connection, Conversation (Bankinter, 2012). It should be noted that, while the former three 'C' refers to the original 3 'C' of e-commerce, the latter three 'C' mention the updates for an era of social sharing and support. Thus, to truly reflect

such updates, this study takes the social perspective for viewing *trust* as a social reality rather than a traditionally psychological expression and for adopting *social support* including *informational support* and *emotional support* as main antecedents for social trust.

Theory of ELM (Elaboration Likelihood Model)

The persuasive process in shaping human perceptions and behavior is often considered in the dual-process theory of social psychology (Bhattacherjee & Sanford, 2006). Accordingly, the formation of individual attitudes in addition to being influenced largely by the process of scrutinizing the judgment-relevant information externally is influenced by heuristic cues, with less effortful processing.

The theory of ELM (Petty & Cacioppo, 1986), also a dual-process, is a general theory of attitude change and suggests that the process of changing individual attitudes toward an issue through two routes: the central route is presented by the *information quality* related to the issue and carefully considered by the individual and peripheral route is presented by other relevant cues such as emotion, attractiveness or persuasiveness of the source.

In essence, the central route refers to the process of scrutinizing the information of the individual in a relatively objective manner, i.e., thoughtful consideration of the information is the decision to persuade the individual. In contrast, the peripheral route refers to the change of attitude in a relatively biased manner, i.e., initial evaluations or prejudices play an important role in persuading individuals.

Petty and Cacioppo (1986) introduces the concept of likelihood of elaboration to reflect individual attention when considering arguments related to the issue under consideration, and this depends on the condition of information processing. The likelihood of elaboration will be high when the communication environment supports the individual for the allocation of considerable cognitive resources to all relevant aspects of the issue, thereby forming a corresponding attitude on the issue under consideration. Objective processing helps to discover the true value of information and thus the stronger the argument is, the more convincing it is and vice versa, bias processing usually produces the type of prejudiced thought or emotion or initial attitudes of the individual (Petty & Cacioppo, 1986)

Then, attitudes, understood as the individual's response to the stimulus, are presented both emotionally (e.g., emotional reactions, instantaneous feelings) and cognitively (e.g., perceptual responses, knowledge) (Breckler, 1984). Two emotional and cognitive components of attitudes can be applied to individual persuasion studies, and the integration of these two components creates a stable or equilibrium state or not? In the ELM theory, Petty and Cacioppo (1986) defines attitudes as general perceptions of the individual based on the emotional, cognitive experiences and be able to affect or direct cognitive and emotional processes of the individual. Changing attitudes generated from issue relevant arguments will last longer and predict behavior better than attitude changes generated from peripheral cues (Petty & Cacioppo, 1986). Finally, the ELM theory shows that *object adoption* can be achieved after *attitudes toward that object* are shaped through both the central route and peripheral route.

Information adoption

Adoption theory describes the process an individual must undergo when deciding to perform an action for the first time (as distinguished from repetitive behavior) (Sussman & Siegal, 2003) based on information, ideas or the technology they receive (Rabjohn, Cheung, & Lee, 2008). It is possible to view the process of *information adoption* as the internal phase of knowledge transfer, in which explicit information is transferred to tacit information or internalized knowledge (Nonaka, 1994).

This paper follows Sussman and Siegal (2003) in defining *information adoption* as a form of technology acceptance that is proposed in the well-known technology acceptance model (TAM) (see Davis, 1989). Whereby, *information adoption* is understood as the use of information for subsequent decision making, similar to the intention to use technology that results in the behavior using the technology in the stated TAM model (Sussman & Siegal, 2003).

In online commerce, Rabjohn et al. (2008) argue that *information adoption* is an acknowledgment of this information in a consciously or subconsciously manner and using this information in subsequent purchase decisions. In addition, *information adoption* is also understood as the use of targeted information and, moreover, is one of the most important activities when individuals actively participate in the virtual community (Cheung et al., 2008). For example, individuals seeking feedback and comments posted by others in the community before they make a purchase decision or posting questions or concerns through the virtual community for the advices (Sussman & Siegal, 2003).

Trust and information adoption

From the point of view of sociologists, trust is a social reality and is a multidimensional concept, typically cognitive and emotional trust (Lewis & Weigert, 1985). First, the cognitive trust will discriminate among individuals or organizations that are trustworthy, distrusted and unknown (Lewis & Weigert, 1985) and Luhmann (1979 as cited in Lewis & Weigert, 1985) describes the cognitive process as "overdrawing" on the informational bases. Emotional trust is the emotional bond between individuals and emotional base that is complementary to its cognitive base (Lewis & Weigert, 1985).

Lewicki and Bunker (1996) defined trust as the positive expectation of the individual about the actions of others toward him in potentially risky situations. By reducing the complexity of social relationships, *trust* is the basis for social exchanges, enabling social interactions to occur in a more reliable and simplified way (Simmel, 2004). For online shopping, customers must rely on electronic information and often have limited information resources, so they may be compromised by incomplete or distorted information from the seller and the third component (Lee, 1998, as cited in Pavlou, 2003). To reduce the uncertainty and complexity of virtual transactions, they often rely on the *trust* of their suppliers (Fang, Chiu, & Wang, 2011), which is still considered essential to understand the behavior of exchange between seller and buyer (Pavlou, 2003). In addition, in s-commerce, buyers also rely on the *trust* of virtual community members to gain advice as well as other information related to the transaction experience (Chen & Shen, 2015). Accordingly, this paper looks at two types of trust

- the *trust in SC site* that is understood as the belief of the buyer that they can receive reliable information as expected from this s-commerce site (Pavlou & Gefen, 2004); the *trust in members of SC site* that is understood as an individual's belief that other members of the s-commerce community will exchange and deal with them in a kind and decent way (Chen & Shen, 2015). In comparison with Simmel's (2004) dimensions of *trust*, it can be seen that while *trust in SC site* is cognitive *trust* (Lewis & Weigert, 1985), which is inherent in the consideration and evaluation through the interaction between the individual and the person they trust (Gefen, 2000), *trust in members of SC site* is emotional trust (Lewis & Weigert, 1985), there is derived from mere personal, spontaneous beliefs about the kindness that other people will treat them (Möllering, 2001). Moreover, in view of the multi-dimensional attitude of Breckler (1984), *trust in SC site* is the cognitive attitude and *trust in the members of SC site* is the emotional attitude.

Recall that ELM theory has shown that the formation of attitudes toward an object facilitates the corresponding behavior on that object. From here, with the notion of *trust in SC site* and *trust in members of SC site* revolve around transaction information from s-commerce site and from members of s-commerce site correspondingly, the following hypotheses are proposed:

H1a: Trust in SC site has a positive impact on the information adoption of customers

H1b: Trust in members of SC site has a positive impact on the information adoption of customers

In addition, Luhman, based on Lewis and Weigert (1985), asserts that system trust ultimately depends on personal trust. In more detail, Stewart (2003) believes that trust can be transferred between objects: starting with trusting an entity (as a member of the s-commerce community), one will come to trust other relevant entities (such as the s-commerce sites). Empirically, the relationship between member trust and community trust is also confirmed in Chen, Zhang, and Xu (2009), Chen and Shen (2015), or Pavlou and Gefen (2004). So the following hypothesis is suggested:

H1c: Trust in members of SC site has a positive impact on the trust in SC site

Information quality of social commerce site

Information quality is understood as the customer's perceptions of the characteristics and presentation of information and it deals with attributes such as relevance, understandability, accuracy, completeness and timeliness in relation to their purchase decision (Fang et al., 2011).

In the s-commerce, *information quality* becomes more specific as information about products and services is offered on both sides - from direct suppliers and from the broad range of customers who have already shopped, potential customers and other partners (Kim & Park, 2013). This paper examines two *information quality* that corresponds to the two sources of information: the *information quality of SC site* (provided by the business) and the *e-WOM quality* (widely disseminated comments and opinions of customers in the form of electronic word of mouth on s-commerce sites). While the first type of information relates to the characteristics and specifications of the product or service, price, supplier, warranty, after-sales

and billing, the second type of information is more about evaluating, ranking and discussing shopping and consuming experiences of members on the s-commerce website (Cheung et al., 2008). It is important to note that both sources of information are necessary for potential buyers of the s-commerce sites to consult and evaluate before they make a purchase decision (Hussain et al., 2018).

Next, in e-commerce transactions, a principle-agency perspective can be used to explain objective inconsistencies in the employer-employee relationship, which induce uncertainty (Pavlou, Liang, & Xue, 2007). The principle-agency view based on agency theory that explains the relationship between employer and employee, used by information economists for imperfect information markets (Akerlof, 1970, as cited in Pavlou et al., 2007) and specifically for virtual transactions in socio-economic systems that exist asymmetric information, fears of opportunism and bounded rationality (Milgrom & Roberts, 1992, as cited in Pavlou et al., 2007). Principle - agency views can be applied in the relationship between the seller and the buyer (the buyer is the principle, the seller is the agency) where the buyer authorizes the seller who has more information about the product & service than the buyer and the buyer cannot fully monitor the behavior of the seller, resulting in two issues of information: adverse selection (hidden information) or moral hazard (hidden action) (Pavlou et al., 2007). From the point of view of information system operators, the uncertainty in the principle-agency relationship is due to the information problem, which can be minimized if the information system is properly used (Pavlou et al., 2007). In the context of social commerce, in addition to the products & services information provided by the sales company on the s-commerce website, the social network is a means by which the buyer community can exchange e-WOM about products & services as well as e-WOM related to the behavior of the seller in the online purchase transaction. Consequently, e-WOM can help minimize hidden information and hidden actions that increase the reliability of online transactions.

The consideration of these bases, according to the ELM theory, is carried out according to the central route: the process of scrutinizing issue-relevant arguments in a relatively objective manner aimed at convincing individuals about the authenticity of the issue. In other words, the *information quality* is gathered around the issue in order to shape positive (or negative) attitudes about the issue in question. For example, the *trust in members of SC sites* can be established when the content of the relevant s-commerce sites is transparent, rich or the s-commerce community's comments are multi-dimensional positively.

Empirically, the clarity and completeness of the information content of the s-commerce site has been affirmed as the main reason for the customer's *trust* in this s-commerce site (Liao, Palvia, & Lin, 2006), or the *information quality of SC sites*, along with some other characteristics of s-commerce sites, is a factor that strongly influences the customers' *trust* (Kim & Park, 2013).

From here, the following hypotheses are proposed:

H2: Information quality of SC site has a positive impact on (a) the trust in SC site, (b) the trust in member of SC site

H3: e-WOM quality has a positive impact on (a) the trust in SC site, (b) the trust in member of SC site

Social support in the online community

Social support is the basic concept of social support theory that is suggested to explain the social relationships that affect the activity of the individual concerned (Y. Wang & Hajli, 2014). *Social support* is information that makes people believe that they are interested, loved, valued, and they are members of a network of mutual support and *social support* facilitates the individual when confronted with crisis and adapted to change (Cobb, 1976). In more detail, Mattson and Hall (2011) proposed *social support* as a process of social interaction through psychological or physical exchanges to improve individual problem-solving capacities.

Schaefer et al. (1981, as cited in Mattson & Hall, 2011) describe five types of *social support* including informational support, emotional support, tangible support, network support and esteem support. Since interaction on the Internet is essentially virtual, online *social support* is intrinsically invisible (Liang et al., 2011) and individuals are also intangible, so online *social support* is considered non- verbal and non-verbal communication to convey emotional and informational messages that reduce mental stress for the recipient (Pleif & Zaphiris, 2009, as cited in Chen & Shen, 2015). Mattson and Hall (2011) argue that individuals are more likely to receive supportive communication from social networks and individuals with more social connections are more likely to engage with social networks. Thus, the online community can bring social value to users and *social support* is an important social value that   Internet users acquire (Liang et al., 2011). However, members of the online community usually only give and receive informational and emotional support (Mattson & Hall, 2011) so in the context of s-commerce, the *social support* is mainly *informational support* and *emotional support* (Chen & Shen, 2015; Liang et al., 2011; Y. Wang & Hajli, 2014).

Informational support is a type of support where individuals receive useful advice or guidance that can help them solve problems, generate new ideas, or help them make better decisions (Liang et al., 2011). It should be noted that, while the *informational quality* refers to perceptions through the assessment of the usefulness of the information content itself that they receive (such as the level of comprehension of a buying advice), then *informational support* is an assessment of how often or frequently people are being helped or provided with content or ideas from virtual community members (such as how often they get advice when buying a product).

Emotional support is the type of support through which individuals receive attention or understanding in order to motivate them to make the effort to solve the problem. As well as *informational support*, *emotional support* expresses a heavy consideration of the customer's feelings when communicating and interacting on s-commerce sites. Thus, these emotional considerations may have a bias in personal persuasion as the ELM theory has identified, and therefore, both forms of *informational support* and *emotional support* do the role of the peripheral route in shaping attitudes towards problem-solving. More specifically, this biased influence process occurs when customer's *trust* primarily comes from the feeling of being

motivated and interested when they participate in s-commerce sites rather than from the process of assessment and analysis of the relevant *information quality*. Although there is no argument, *social support* will provide an emotional support environment that will convince and direct customers to form positive attitudes toward the s-commerce site, in this case, is their *trust*.

According to Weber, Johnson, and Corrigan (2004), strong forms of *social support* make individuals feel coherent and thereby shape their *trust* with members of the virtual community. In addition, *social support* forms provide psychological benefits to online consumers and build a positive attitude between them and the s-commerce site such as trust and commitment to the s-commerce site (Liang et al., 2011). From here, the following research hypotheses are formed:

H4: Informational support has a positive impact on (a) the trust in SC site, (b) the trust in member of SC site

H5: Emotional support has a positive impact on (a) the trust in SC site, (b) the trust in member of SC site

3. Research methodology

Data collection

The data is collected by convenient sampling via questionnaires distributed in two forms - the Google Form on Facebook and the hardcopy questionnaire to individuals who participated in s-commerce sites mainly in Ho Chi Minh City and Hanoi. With a total of more than 350 receipts after more than two months of surveying, after cleaning up, eliminating invalid questionnaires (the questionnaires lacked information or were matched for all questions), the author remains 333 questionnaires eligible for further analysis.

Demographic statistics show that the proportion of male respondents was 61%, female 39%; age group, age under 25 years old accounted for 29%, age 25 to 35 accounted for 44%, age 36 to 50 accounted for 23%, age over 50 accounted for 3%; income of under 5 million VND/month accounted for 20%, income 5 to 10 million VND accounted for 26%, income 10 to 15 million VND accounted for 24%, income 15 to 20 million VND accounted for 14%, income over 20 million VND/month accounted for 16%.

Measures

All the measures in this study have been used and validated in prior studies with some preliminary qualitative adjustments and minor changes in the wordings that were made so as to fit the current research context. Specifically, "*Information Quality*" is measured with items adapted from Fang et al. (2011), "*Informational Support*" and "*Emotional Support*" are measured with items adapted from Liang et al. (2011), "*Trust in member of SC site*" and "*Trust in SC site*" are measured with items adapted from Chen and Shen (2015), and Fang et al. (2011), "*Information Adoption*" is measured with items adapted from Cheung et al. (2008), and Lal (2017). Instruments for all the constructs were phrased on a five-point Likert scales, anchored from "1=strongly disagree" and "5=strongly agree".

Data analysis

The paper uses quantitative methods and Structural Equation Model (SEM) with the popular Partial Least Squared (PLS) technique. The measurement model (inner) and the structural model (outer) will be assessed simultaneously (Hair, Hult, Ringle, & Sarstedt, 2014). The software used is smartPLS 3.0.

4. Research findings

Measurement model

The measurement model was examined in terms of convergent validity and discriminant validity. Convergent validity of all constructs can be assessed by examining the composite reliability (CR), factor loadings and the average variance extracted (AVE) (Hair et al., 2014). Factor loading of 0.65 or above (Table 1), CR of 0.7 or above and AVE of more than 0.5 (Table 2) indicate clearly that convergent validity is acceptable. Discriminant validity was assessed by checking if the square root of the average variance extracted for each construct is greater than the correlations between that construct and all other constructs (Hair et al., 2014). Table 2 presents the correlation matrix of the constructs and the square root of the AVE for each construct. The results demonstrate satisfactory discriminant validity of the measurements.

Table 1

Factor loadings of measures

	Measure	**Factor Loading**
Construct	**Information Quality of SC site**	
InfoQual1	Information provided by the social commerce site is relevant to my purchase decisions.	**0.696**
InfoQual2	Information provided by the social commerce site is easy to comprehend.	0.721
InfoQual3	Information provided by the social commerce site is accurate.	0.787
InfoQual4	Information provided by the social commerce site is complete.	0.798
InfoQual5	Information provided by the social commerce site is timely.	**0.651**
Construct	**e-WOM Quality**	
eWOMQual1	e-WOM is relevant to my purchase decisions.	0.705
eWOMQual2	e-WOM is easy to comprehend.	**Dropped**
eWOMQual3	e-WOM is accurate.	0.791
eWOMQual4	e-WOM is complete.	0.702
eWOMQual5	e-WOM is timely.	0.756

	Measure	**Factor Loading**
Construct	**Informational Support**	
InfoSupp1	On the social commerce site, some people would offer suggestions when I needed help.	0.761
InfoSupp2	When I encountered a problem, some people on the social commerce site would give me information to help me overcome the problem.	0.895
InfoSupp3	When faced with difficulties, some people on the social commerce site would help me discover the cause and provide me with suggestions.	0.869
Construct	**Emotional Support**	
EmotSupp1	When faced with difficulties, some people on the social commerce site are on my side with me.	0.823
EmotSupp2	When faced with difficulties, some people on the social commerce site listened to me talk about my private feelings.	0.862
EmotSupp3	When faced with difficulties, some people on the social commerce site comforted and encouraged me	0.876
EmotSupp4	When faced with difficulties, some people on the social commerce site expressed interest and concern in my well-being.	0.811
Construct	**Trust in member of SC site**	
MembTrus1	I trust the information provided by member of social commerce site	0.846
MembTrus2	Members in social commerce site are truthful in dealing with one another.	0.860
MembTrus3	Members in social commerce site will always keep the promises they make to one another.	0.730
Construct	**Trust in SC site**	
CommTrus1	Based on my experience with social commerce site in the past, I know it is trustworthy.	0.806
CommTrus2	I trust the information provided by social commerce site	0.808
CommTrus3	Based on my experience with social commerce site in the past, I know it is not opportunistic.	0.788

|	Measure	Factor Loading
CommTrus4	Based on my experience with social commerce site in the past, I know it keeps its promises to customers.	0.742
Construct	**Information Adoption**	
InfoAdop1	I will closely follow information of social commerce site when I want to buy product.	0.780
InfoAdop2	I will consider the shopping experiences of my friends in social commerce site when I want to shop	0.829
InfoAdop3	I will ask my friends in social commerce site to provide me with their suggestions before I go for shopping	0.735
InfoAdop4	I am willing to buy the products recommended by my friends in social commerce site.	**0.681**

Source: The researcher's data analysis

Table 2

Convergent validity and discriminant validity

CR	AVE	Construct	InfoQual	eWOMQual	InfoSupp	EmotSupp	CommTrus	MembTrus	InfoAdop
0.852	0.537	InfoQual	**0.733**						
0.828	0.546	eWOMQual	0.579	**0.739**					
0.880	0.712	InfoSupp	0.356	0.455	**0.844**				
0.908	0.711	EmotSupp	0.334	0.427	0.703	**0.843**			
0.866	0.618	CommTrus	0.574	0.404	0.342	0.364	**0.786**		
0.855	0.663	MembTrus	0.428	0.456	0.463	0.581	0.605	**0.814**	
0.843	0.575	InfoAdop	0.487	0.428	0.335	0.347	0.683	0.498	**0.758**

Source: The researcher's data analysis

Structural model

The bootstrap technique (n = 4999) was used to evaluate the hypotheses and the results showed that 7 out of 11 hypotheses were supported (Figure 1). In general, *information adoption* is much more influenced by trust in *SC site* ($\beta = 0.601$) than *trust in member of SC site* ($\beta = 0.135$). In addition, these two aspects of trust explain well *information adoption* of the customer ($R2 = 47.4\%$).
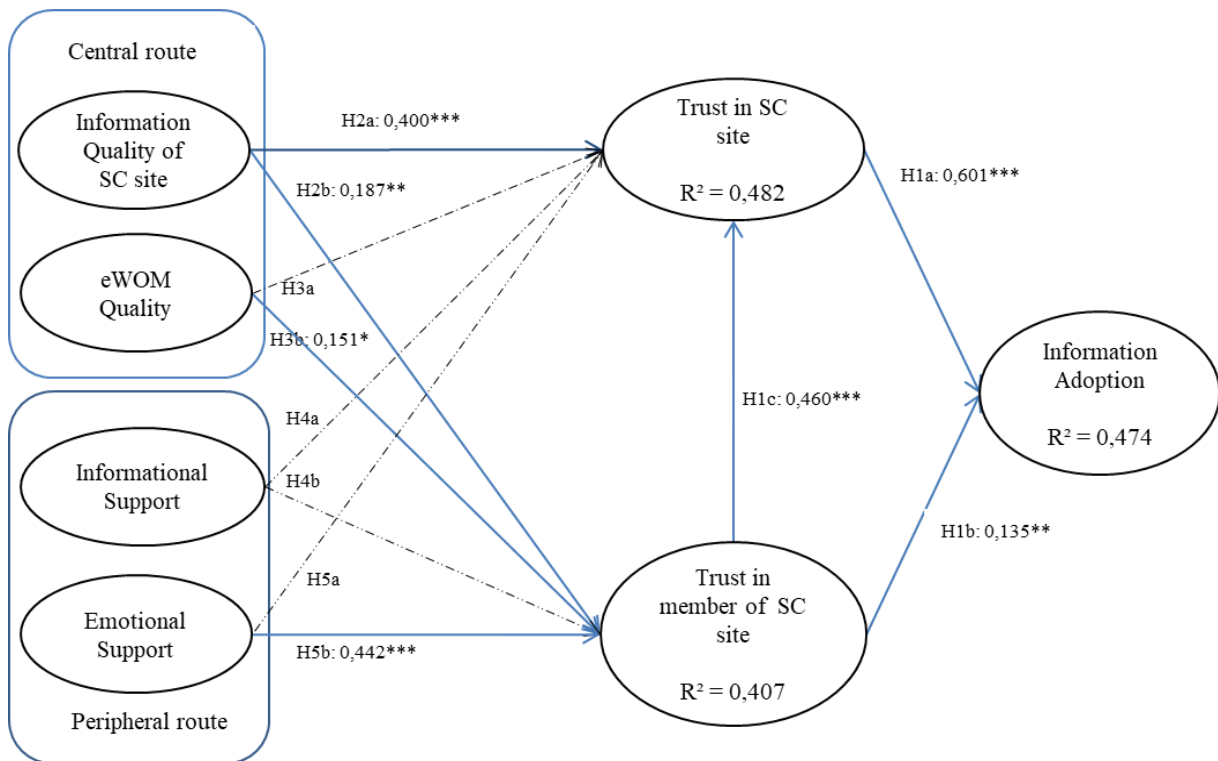
Figure 1. Results of the PLS analysis

Discussion

The paper based on ELM theory tests two routes affecting the *trust* of customers, in which the central route includes the *information quality of SC site* and *e-WOM quality*, the peripheral route consists of *Informational Support* and *Emotional Support*. For the central route, three out of four hypotheses are supported, compared to only one of four hypotheses supported by the peripheral route.

Firstly, the research results confirm the role of *trust* for customer's *information adoption*, accordingly that *trust in SC site* has a significantly higher impact (0.601) than *trust in member of SC site* (0.135). This reveals that the basic requirement for customer's *information adoption* is that they can trust the information provided by the supplier's official s-commerce site, followed by information from members of s-commerce site.

Furthermore, this finding is consistent with many previous papers on *information adoption* in which the most popular antecedent is *information usefulness*: *trust* in this study may explain more than 47% of customer's information adoption comparing to *information usefulness* that explained around 22% by Sussman and Siegal's (2003) and 88% by Erkan and Evan's (2016).

In addition, the paper also found that, for different objects of *trust*, the effect of each route of ELM theory is different. In particular, *trust in member of SC site* has been impacted significantly higher by an element of peripheral route, namely, *emotional support* (β = 0.442) than two elements of the central route, namely, *information quality of SC site* and *eWOM quality* (β = 0.151). Meanwhile, *trust in SC site* is affected only by the central route, namely, *information quality of SC site* (β = 0.400). Thus, it can be concluded that *trust in members of SC site* is based on a more emotional biased thinking, while *trust in SC site* is dominated by rational thinking.

Next, the role of *informational support* has not been confirmed (hypotheses H4a & H4b are rejected), it means that in s-commerce, *emotional support* is the primary ingredient for *social support* in shaping customer's *trust in members of SC site*. This result may be a significantly initial finding to (i) work of Chen and Shen (2015) that *informational support* influences customer *trust* in general and *emotional support* affects to *trust in member* and (ii) work of Kim and Park's (2013) that two elements of *information quality* help building *trust* in the buyer. This can be explained as follows - in Chen and Shen's (2015) study, when there are no elements of *information quality* belonging to central route, two components of *social support* exhibit its full role and in Kim and Park's (2013) study, when there are no factors of *social support*, *information quality* influences positively customer *trust*. However, in the presence of *information quality* to build *trust* as in this study, *information quality* that the user absorbs has a dominant role compared to the form or volume of information they receive.

Finally, *trust in members* has a great impact on *trust in SC site* (β = 0.46) reaffirmed the work of Chen and Shen (2015), Chen et al. (2009) and reinforced the view of Luman that the system trust ultimately depends on personal trust (Lewis & Weigert, 1985). From this, it can be concluded that *trust in members of SC site* is one of the important ingredients for forming *trust in SC site* of customers.

5. Conclusion

Theoretical contributions

The paper has the following two theoretical contributions. First, traditional *information adoption* is most often explained by the rational prediction that is the basis of the TAM model (Gefen et al., 2003); accordingly, *information usefulness* is considered to be the core explanation for user acceptance (Erkan & Evans, 2016; Sussman & Siegal, 2003). Meanwhile, this study, based on the viewpoint of *trust* as a social reality (Lewis & Weigert, 1985), especially in the modern context focusing on broader social connectivity (Hsu, Chang, & Yen, 2011; Sohn, 2014), has successfully proposed the use of *trust* comprising two components - *trust in SC site* (cognitive) and *trust in member of SC site* (emotional) - as the primary driver for the *information adoption*.

Second, the ELM theory-based paper proposed two routes to explain the formation of trust through cognition (*information quality*) and emotion (*social support*). This may be considered as a significant complement to most previous studies where predictors, although of diverse origins (such as knowledge-based trust, institution-based trust or calculative based trust)

(see Gefen et al., 2003), emotional backgrounds for the formation of trust are lacking. So here one can say that the paper is one of the first empirical studies taking the view of trust as the social reality in which trust in real life is a mixture of rational and emotional attitudes (see Lewis & Weigert, 1985).

Managerial implications

This study may suggest several managerial applications. Firstly, for *information adoption*, by *trust in SC site* has a remarkable effect, the administrators of s-commerce sites should focus on building user trust on the site itself. This, in turn, requires businesses to invest in *information quality of SC site* (H2a hypothesis) (such as continuous information updating, enriching the content such as comparison of products' information between suppliers ...).

Secondly, businesses need to take care of their fanpage community in order to promote the *emotional support* from the community for each consumer (H5b hypothesis) to build mutual trust in the community through which it builds trust in the relevant s-commerce site (such as providing a lot of interesting interactive tools, reinforcing forums on the site, helping the community to interact and exchange information, easily share feelings with each other, etc.).

Thirdly, s-commerce site managers also need to increase the promotion of products and services and/or link between media channels and s-commerce sites to ensure *e-WOM quality* in the consumer community in order to reinforce *trust in members of SC site* (H3b hypothesis).

Finally, with the fact that both *trust in SC site* and *trust in member of SC site* play an important role for information adoption, given that both e-commerce web users and Facebook (f-commcerce), or Twitter (t-commerce) users are in a great way increasing (Bankinter, 2012; Stulec et al., 2018), it should be better for businesses to combine their onsite with their offsite activities to attract more and more established users and potential customers into their social commerce endeavor.

Limitations and future research directions

The paper currently only recommends customers' *trust* as the only determinant for their information adoption in s-commerce, as opposed to many previous works where only *information usefulness* is used as antecedent. At this point, further studies might have some opportunities to combine *trust* and *information usefulness* to predict *information adoption* of customers. This combination is acceptable because both contain the cognitive aspects of individual users (Gefen et al., 2003).

In addition, *trust* in this study is approached from a social point of view and bypass the tendency of trust originating in more psychological approaches (Gefen et al., 2003). Accordingly, another possible avenue for further studies is to examine the dispositional trust of the customer to explain their *information adoption* (Hsu et al., 2011).

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