



Original Article

# Impacts of Social Networks on Consumers' Trust and Behavior in the Vietnamese Retail Sector

Luu Thi Minh Ngoc<sup>1,\*</sup>, Nguyen Thi Trang Nhung<sup>2</sup>,  
Nguyen Phuong Mai<sup>3</sup>, Dao Phu Quy<sup>1</sup>

<sup>1</sup>*VNU University of Economics and Business, Vietnam National University, Hanoi,  
144 Xuan Thuy, Cau Giay, Hanoi, Vietnam*

<sup>2</sup>*Faculty of Business Administration, Hanoi University of Industry,  
298 Cau Dien, Bac Tu Liem, Hanoi, Vietnam*

<sup>3</sup>*International School, Vietnam National University, Hanoi, 144 Xuan Thuy, Cau Giay, Hanoi, Vietnam*

Received 5 November 2019

Revised 06 March 2020; Accepted 06 March 2020

**Abstract:** The goal of the study is to analyze social networking related factors influencing consumers' trust and intent to purchase online via social networks in the Vietnamese market. The model of social commerce adoption of Hajli (2015) is used as the primary research framework to analyze the factors affecting Vietnamese consumers' trust when purchasing goods through Social Networks [1]. Research results through a Google Form online questionnaire survey with a sample size of 1037 consumers, identified four elements of social networks affecting consumers' trust including forums and groups, ratings and reviews, reference groups and information security. In addition, this study also proved that perceived usefulness had both a direct and indirect impact on consumers' online purchasing intention through trust.

**Keywords:** Perceived usefulness, social network, retail trade, TAM, trust, Vietnam.

## 1. Introduction

According to the E-commerce Report 2017 issued by the Vietnam E-commerce and Information Technology Agency, 30% of Vietnam's population (approximately 27

million people) has been involved in online shopping with annual purchases worth \$350 per head. The total revenue of B2C online sales reached \$10 billion in 2016, accounting for 5% of the country's total revenues of goods and services. This figure seems quite high but still disproportionate with the country's potential despite significant improvements and investments L.T. Min telecommunication infrastructure, online payments, business

\* Corresponding author.

E-mail address: [ltmngoc@vnu.edu.vn](mailto:ltmngoc@vnu.edu.vn)

<https://doi.org/10.25073/2588-1108/vnueab.4289>

supporting platforms, and online selling. One of the reasons why consumers are still reluctant to do online shopping is they do not have full trust in this format: 50% have not yet bought online as it is challenging to check product quality; 48% do not trust sellers while another 48% believe that they can shop in stores, supermarkets, and convenience stores more quickly and conveniently.

Previous studies indicate that trust represents a vital factor in the decision-making process as well as the development of business brands. Research models on purchasing behavior have confirmed the positive role of trust in purchasing intentions. Typically, the research by Gan and Wang (2017) looked into purchasing intentions based on the two elements of trust and perceived value when consumers evaluate a product or service in the context of e-commerce [2]. The research by Kim et al. (2008) constructed a purchasing intention model based on three elements: consumers' trust, awareness of benefits and awareness of risks [3].

Given online shopping as a form of interaction with suppliers, trust is also considered a property determining the relationships even more significantly than other economic elements such as lower price [4-6]. Therefore, trust is considered a tool to minimize risks between suppliers and inexperienced web administrators and can be seen as a means for reduction of social uncertainty about familiarity and belief and about approval seals or policy declarations of privacy [7].

In addition, according to the reports of the Vietnam E-commerce and Information Technology Agency, retail products are most frequently purchased on both the social network and websites. Given the importance of consumers' trust as well as the popularity of purchasing retail products online, investigating the impacts of trust on the online purchasing intentions of consumers in the retail sector in Vietnam becomes significant. Previous studies on e-commerce via Web browsing reveal that preventing consumers from evaluating suppliers' reliability affects consumers' trust

and their behavior, [6] while other studies demonstrate that many suppliers can easily exploit online consumers [8].

This research aims to investigate the impacts of social networks on the trust and purchase intentions of consumers and suggest solutions to build up and maintain consumers' trust in online selling channels in order to promote their purchase intentions.

The rest of this paper is structured into five parts. Part 2 summarizes the theoretical background and research model. Part 3 presents the methodology. Part 4 discusses the findings of this research. The limitations and implications of this research are mentioned in Part 5. Finally, Part 6 concludes this paper.

## **2. Theoretical Background and Research Model**

### *2.1. Purchasing on Social Network*

Purchasing on the social network has become a more accessible way of shopping and has developed more widely in the world in recent years. Academic research of Singh and Sailo (2013) and Li and Zhang (2002) defined purchasing on the social network as the process where consumers buy goods or services via social network applications [9, 10]. Online purchasing is not just an action but also a process starting from when consumers make purchasing decisions to when they take purchasing action on the social network. In this research, the authors accept the definition of purchasing on the social network as "a process where consumers buy goods and services via the Internet-based social network". Along this process, buyers and sellers do not have direct interactions, and all transactions are conducted on the social network [11]. Online stores on the social network operate 24 hours a day, seven days a week so that customers can buy anytime they want [11]. When customers want to buy a product, they need to leave a comment or message, and then the product will be delivered to the address provided by customers. Products in these stores are often described by text,

images, sound, and videos [12, 13]. Therefore, customers can only perceive and evaluate products via messages (in the form of images, text, sound, and video) posted by sellers on their social network but not by common sense as they often have in traditional shopping [14]. As customers get information on the Internet, they can access various stores at the same time. Therefore, customers can easily find products that best satisfy their demand and find the most reliable stores with the most reasonable prices.

## 2.2. Trust

Hosmer (1995) confirms that trust is the expectation that other people will act following commitments, negotiate honestly, and do not take advantage of situations even when they have opportunity [15].

In studies on social network - based business activities, researchers affirm that trust and reputation are decisive factors in the success of online purchases via the social network. Trust is when one party believes that the other can be reliable [16] or willing to be empathetic to the other party. Suh and Han (2003) and Yoon (2002) claim that trust creates a feeling of security and safety when receiving care from the other party [17, 18]. Consumers' trust in online purchasing via the social network is the willingness of consumers to accept the impacts of actions taken by suppliers in transactions on the social network based on the expectation that the suppliers will act adequately irrespective of the controls and supervision of consumers (Lee and Turban, 2001). According to Pavlou (2003), online trust allows consumers to accept the weaknesses of online sellers after considering the sellers' characteristics.

## 2.3. Factors Affecting Trust When Purchasing Via Social Networks

Privacy can affect consumers' trust when they buy online [3, 19]. Hoffman et al. (1999) stated that one reason why people are reluctant to buy online or even to provide information on

the social network in exchange for the right to get other information from social networks is a lack of mutual trust [15]. Trust not only depends on external factors but also depends on the personalities of each customer, which are affected by their experience and culture.

There are different factors affecting trust, but most notably, the researchers classified these affecting factors into four groups of criteria: i) awareness (quality of information; perception of customer privacy protection, perception of security); ii) influences (recognition and approval from the third party, positive reputation); iii) experience (familiarity of customers with sellers); iv) personalities (characteristics, culture, living and working environment).

Trust not only encourages consumers to make purchasing decisions but also forms their belief in the brands. Research by Ha (2004) looked into trust in online brands and showed that factors affecting trust in online brands include: security, privacy (protecting customers' information), brands/names, word of mouth, experience and quality of information [20]. Trust in an online brand is represented by the customers' familiarity with and preference to that brand over other brands of the same kind. Scholars also introduced some elements typical of the virtual environment, such as order fulfillment [21] and web design [22, 23].

## 2.4. Research Model and Hypotheses

The authors use the Social Commerce Adoption Model developed by Hajli (2015) as the primary framework to build up a model to explain and analyze factors affecting Vietnamese consumers' trust when purchasing online and add the "information security" adopted from the study of Mak Wing Ka F (2014) into the framework [24]. Thus, the research model of this study is presented in Figure 1.

### 2.4.1. Relationship between trust and purchasing intentions via social networks

Scholars believe that trust, especially social trust, is a vital element of the online

environment [25]. Trust is essential as it helps to reduce transaction costs in business interactions and also reduce care about activities of other business entities [26].

Trust helps to improve the efficiency of society by facilitating activity coordination. Social trust facilitates enterprises to expand their business in the market by attracting more customers, thereby promoting economic growth. Many people believe that a market in the digital economy is based on the reduction of face-to-face meetings. In this setting, trust plays a vital role in online interactions.

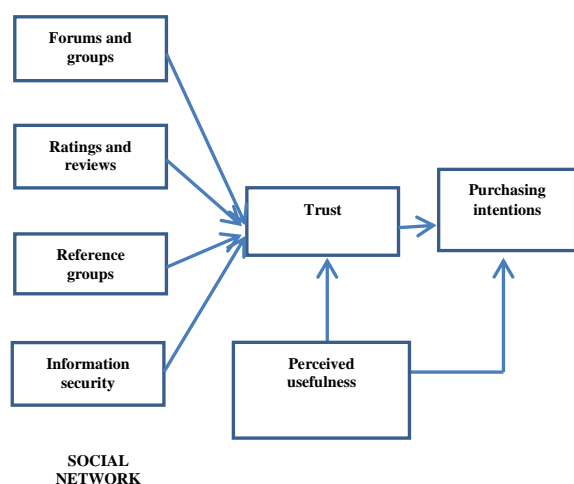


Figure 1. Proposed research model.

Source: Adapted from previous studies.

Researchers affirm that trust has an essential role in the purchasing intentions of customers [17, 27, 28]. Customers will seek new products or services in the social network environment and are more likely to buy when they have trust in suppliers and feel that they have fewer risks [17, 29, 27]. Reality has shown that the more trust consumers have, the more likely they are to make purchasing decisions [17].

There exists a significant relationship between trust and online purchasing behavior via social networks [30]. Trust plays the primary role in determining behavioral intentions and real intentions of consumers [31, 26].

Based on these arguments, we put forth the following hypothesis:

*Hypothesis 1:* Consumers' trust has a positive impact on purchasing intentions via social networks.

#### 2.4.2. Relationship between the social network and consumers' trust

There are many factors constructing trading activities via social networks. They include social media, ratings and reviews, social shopping, social advertising, proposals and recommendations, forums, and groups. Enterprises use them as a platform to connect with customers and allow them to connect [32].

Online technology providers have created platforms that allow enterprises and customers to interact, and with the support of Web 2.0 and social media technology, customers can provide ratings, reviews, proposals, and recommendations. Members of social networks can assure each other by exchanging information and experience of shopping and using products/services, which results in higher consumer trust and a higher willingness to buy [17].

Another feature of the social network is the application of ratings and reviews. Customers can access the websites of suppliers to read reviews and ratings of their friends and other customers. Reading these ratings and feedback from other buyers is a foundation for customers to believe in products/services to make purchasing decisions. The reputation of brands can be partly affected by ratings and reviews [33]. The quality and quantity of information provided by customers' reviews positively affect the purchasing intentions of customers.

Consumers can also rely on proposals and recommendations from reference groups such as acquaintances and friends, or those with experience of shopping for goods and services from online stores on the social network. Opinions from reference groups seem to have substantial impacts on consumers' trust in products and services they intend to buy. Furthermore, by encouraging friends and other users to participate in and provide reviews, sellers can raise their ratings on the social network. These interactions will help to raise

consumers' trust, and enterprises can increase their sales [34]. Ratings also help to increase consumers' trust when they perform transactions [34].

From these arguments, we propose the following hypotheses:

*Hypothesis 2:* Opinions from forums and groups have a positive impact on consumers' trust when purchasing via social networks

*Hypothesis 3:* Ratings and reviews of sellers on the social network have a positive impact on consumers' trust when purchasing via social networks

*Hypothesis 4:* Proposals and recommendations from reference groups have a positive impact on consumers' trust when purchasing via social networks.

*Hypothesis 5:* Commitments to customer information security have a positive impact on consumers' trust when purchasing via social networks.

2.4.3. Relationship between perceived usefulness of purchasing via social networks and purchasing intentions of consumers

The Technology Adoption Model (TAM) is one of the most successful theories in testing and forecasting the intentions of information technology users. Perceived usefulness is one of the two main constructs of TAM.

Many researchers believe that perceived usefulness affects purchasing intentions when consumers use e-commerce. This element is also applied in purchasing and selling via social networks [17]. Useful, simple, and easy-to-understand information on the social network of sellers increases online trust and therefore increases the purchasing intentions of consumers on the social network [35]. Research indicates that a social network account providing many useful functions to customers (such as information and content) can enhance consumers' trust in their products and services [35]. The content and design of a social network can significantly affect the success of e-commerce activities on the social network. A social network with an attractive design and easy navigation can help customers feel comfortable and build trust in the network.

From these arguments, we propose these hypotheses.

*Hypothesis 6:* Consumers' perceived usefulness of purchasing via a social network has a positive impact on their trust in purchasing via social networks

*Hypothesis 7:* Consumers' perceived usefulness of purchasing via a social network has a positive impact on their purchasing intentions via social networks

### 3. Methodology

#### 3.1. Research Sample

The research sample was selected in such a way that as many samples could be chosen as possible with two control properties: age and income. This research chose sample size  $n = 1100$  based on the sampling distribution theory [36]. To collect 1100 responses, the authors conducted a Google Form online questionnaire survey via email and other social communication channels, including Viber, Zalo and Facebook. After being collected and filtered, 63 samples were rejected due to response errors. As a result, 1037 completed questionnaires were used.

Sample statistics reveal that 195 respondents have a monthly income of less than VND 2 million (accounting for 18.8%); 393 people have a monthly income of VND 2 million to 4 million (equivalent to 37.9%); 329 people have a monthly income of VND 4 million to 8 million (representing 31.7%), and 120 respondents have a monthly income of over 8 million (making up 11.6%). In terms of age, 176 respondents are aged 18-22 (accounting for 17%); 430 are aged 23-31 (representing 41.5%); 332 people are aged 32-38 (equal to 32%); and the remaining 99 respondents are over 38 (making up 9.5%).

#### 3.2. Measurements

Measurement tools used in this research are adopted from previous studies. All English measurement scales were translated into Vietnamese. To verify the translation, a bilingual expert translated scales from English

into Vietnamese then translated back into English to ensure the quality of translation. For each item in the questionnaire, respondents were asked to express their viewpoint in a 5-point Likert scale, with 1 representing “strongly disagree” and 5 representing “strongly agree”.

#### *Purchasing intentions via social network*

Purchasing intentions via the social network (YD) consists of 4 observation variables developed from the research by Lu and Hsiao (2010), measured by a scale with four observation variables [27]. The CFA test revealed that all observation variables have quite high weight and all exceed allowed criteria (0.05). Findings also showed that this model is appropriate with market data: Chi-square = 5.966, degree of freedom  $df = 2$ . Other criteria measuring appropriateness are very high (IFI = 0.987, GFI = 0.989, AGFI = 0.946, NFI = 0.986, TLI = 0.960, CFI = 0.987, RMSEA = 0.046 and RMR = 0.012). Composite reliability of the measurement of purchasing intentions via the social network is 0.843, with an average variance extracted of 57.3%.

#### *Consumers' trust*

Consumers' trust in purchasing via social networks is measured by six observation variables developed by Gefen and Straub (2004) [37]. Preliminary testing results rejected variable NT5, leaving five observation variables. The CFA test showed that all observation variables have quite big weight and exceed the allowed criteria (0.50). Findings also showed that this model is appropriate with market data: Chi-square = 11.115, degree of freedom  $df = 5$ . Other criteria measuring appropriateness are very high (IFI = 0.990, GFI = 0.986, AGFI = 0.957, NFI = 0.988, TLI = 0.980, CFI = 0.990, RMSEA = 0.015 and RMR = 0.012). Composite reliability of the measurement of consumers' trust is 0.889, with an average variance extracted of 62.2%.

#### *Forums and groups*

Forums and groups (DD) are measured by scales developed by Han and Windsor (2011) with four observation variables [17]. The CFA test showed that all observation variables have quite a big weight and exceed the allowed criteria (0.50). Findings also showed that this model is appropriate with market data: Chi-square = 4.168, degree of freedom  $df = 2$ , IFI = 0.999, GFI = 0.998, AGFI = 0.990, NFI = 0.998, TLI = 0.998, CFI = 0.999, RMSEA = 0.032 and RMR = 0.004. Composite reliability of the measurement of forums and groups is 0.907, with an average variance extracted of 71.0%.

#### *Ratings and reviews*

Ratings and reviews (XH) consist of 4 observation variables used in the research of Han and Windsor (2011) [17]. The CFA test showed that this model is appropriate with market data: Chi-square = 5.202, degree of freedom  $df = 2$ , IFI = 0.995, GFI = 0.992, AGFI = 0.958, NFI = 0.995, TLI = 0.986, CFI = 0.995, RMSEA = 0.085 and RMR = 0.009. Composite reliability of the measurement of ratings and reviews is 0.928 with an average variance extracted of 76.3%.

#### *Reference groups*

Reference groups (TK) consists of 4 observation variables based on the research of Hasslinger et. al (2008) [38]. The CFA test showed that this model is appropriate with market data: Chi square = 1.897, degree of freedom  $df = 2$ , IFI = 1, GFI = 0.999, AGFI = 0.995, NFI = 0.999, TLI = 1, CFI = 1, RMSEA = 0.000 và RMR = 0.004.

Composite reliability of the measurement of the reference group is 0.860 with an average variance extracted of 60.8%.

#### *Information security*

Information security (BM) is measured by 4 observation variables based on the research of (Mak Wing Ka F, 2014) [24]. The CFA test showed that this model is appropriate with market data: Chi-square = 5.33, degree of freedom  $df = 2$ , IFI = 0.988, GFI = 0.976, AGFI = 0.880, NFI = 0.988, TLI = 0.965, CFI = 0.988, RMSEA = 0.048 and RMR = 0.013. Composite reliability of the

measurement of information security is 0.958 with an average variance extracted of 84.9%.

*Perceived usefulness*

Perceived usefulness (HI) uses 3 observation variables based on the research of Cha (2009) [39]. The CFA test showed that this model is appropriate with market data: Chi-square = 4.924, degree of freedom df = 2, IFI = 0.927, GFI = 0.927, AGFI = 0.915, NFI = 0.924, TLI = 0.926, CFI = 0.927, RMSEA = 0.042 and RMR = 0.010. Composite reliability of the measurement of perceived usefulness is 0.818 with an average variance extracted of 60.0%.

**3.3. Data Analysis Strategies**

Confirmatory Factor Analysis (CFA) was conducted to test the hypothesis model on the basis of standard indexes such as Chisapes [ $\chi^2$ ], Chi-square/df [2/df], Goodness of Fit Index [GFI], Incremental Fit Index [IFI], Tucker-Lewis index [TLI], Comparative Fit Index [CFI], Root Mean Square Error Approximation [RMSEA] when using AMOS-22. We use Structural Equation Modeling (SEM) to test hypotheses on the direct and indirect relations between variables in the research model (H1 - 7).

**4. Findings**

*4.1. Reliability and Validity Test*

The results of linear structural analysis indicate the significant values of the model: Chi-square of 905.079, Cmin/df = 2.751, IFI = 0.959, GFI = 0.925, AGFI = 0.907, NFI = 0.944. TLI = 0.952, CFI = 0.959, RMSEA = 0.052, RMR = 0.022. So it is possible to conclude that the critical model is appropriate with market data.

In this research, we used the Composite Reliability index of Bagozzi and Yi (1988) and Average Variance Extracted of (Fornell and Larcker, 1981) to calculate the reliability of measurements [40, 41]. Both Composite Reliability and the Average Variance Extracted are higher than the criteria for all measurements (CR > .60; AVE > .50). Besides, as can be seen

from Table 1, all items loading in their hypotheses and estimates are positive and significant, providing evidence for convergence [40].

Table 1. Confirmatory factor analysis and reliability of measurements

Items	Standardized loading	Reliability (CR, AVE)	Items	Standardized loading	Reliability (CR, AVE)
<b>Ratings and reviews (XH)</b>					
YD1	0.749	CR = 0.843 AVE = 0.573	XH1	0.874	CR = 0.928 AVE = 0.764
YD2	0.77		XH2	0.883	
YD3	0.735		XH3	0.87	
YD4	0.772		XH4	0.869	
<b>Reference groups (TK)</b>					
NT1	0.692	CR = 0.892 AVE = 0.627	TK1	0.858	CR = 0.861 AVE = 0.608
NT2	0.909		TK2	0.802	
NT3	0.662		TK3	0.723	
NT4	0.746		TK4	0.728	
NT6	0.915				
<b>Information security (BM)</b>					
HI1	0.788	CR = 0.814 AVE = 0.599	BM1	0.939	CR = 0.957 AVE = 0.849
HI2	0.757		BM2	0.927	
HI3	0.776		BM3	0.906	
			BM4	0.913	
DD1	0.771	CR = 0.907 AVE = 0.710	Note: CR: Scale composite reliability AVE: Average variance extracted		
DD2	0.872				
DD3	0.889				
DD4	0.834				
Items	Standardized loading	Reliability (CR, AVE)	Items	Standardized loading	Reliability (CR, AVE)
<b>Ratings and reviews (XH)</b>					
YD1	0.749	CR = 0.843 AVE = 0.573	XH1	0.874	CR = 0.928 AVE = 0.764
YD2	0.77		XH2	0.883	
YD3	0.735		XH3	0.87	
YD4	0.772		XH4	0.869	
<b>Reference groups (TK)</b>					
NT1	0.692	CR = 0.892 AVE = 0.627	TK1	0.858	CR = 0.861 AVE = 0.608
NT2	0.909		TK2	0.802	
NT3	0.662		TK3	0.723	
NT4	0.746		TK4	0.728	
NT6	0.915				
<b>Information security (BM)</b>					
HI1	0.788	CR = 0.814 AVE = 0.599	BM1	0.939	CR = 0.957 AVE = 0.849
HI2	0.757		BM2	0.927	
HI3	0.776		BM3	0.906	
			BM4	0.913	
DD1	0.771	CR = 0.907 AVE = 0.710	Note: CR: Scale composite reliability AVE: Average variance extracted		
DD2	0.872				
DD3	0.889				
DD4	0.834				

Source: Own elaboration.

4.2. Model and Hypothesis Test

The significant value of Chi-square = 711.382. After adjusting with a degree of freedom Cmin/df, this index indicates that the model gain has appropriateness with market data (2.074). As such, it is possible to conclude that this model is appropriate with data collected from the market.

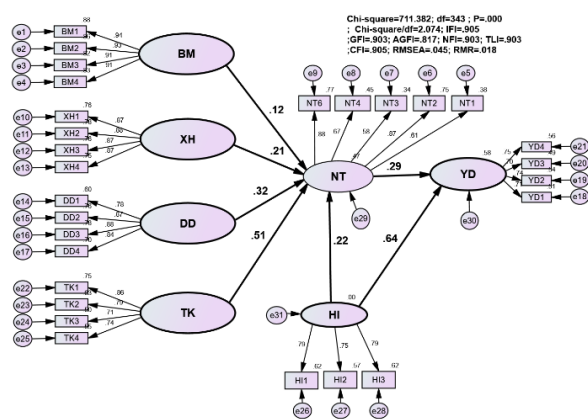


Figure 1. SEM analysis results. Source: Own elaboration.

The estimated (standardized) results of the main parameters are presented in Table 1. The results illustrate that these relations have statistical significance ( $p < 5\%$ ).

Research results indicate that *consumers' trust has a positive impact on purchasing intentions on the social network*. It means that the higher consumers' trust is, the more likely they intend to buy and vice versa. Estimated results show that the relationship between consumers' trust (NT) and their purchasing intentions via social networks (YD) has a value of 0.295 with a standard error  $se = 0.039$  ( $p = 0.000$ ). Thus, hypothesis H1 is accepted. This shows that when consumers have trust in an individual or enterprise selling products online, they tend to buy from that seller. However, it should be noted that this relation does not have a higher value than other relations in the model. This suggests that trust must be used to encourage consumers to show purchasing intentions, but trust alone is not

enough. When they trust sellers but do not feel the usefulness of the good or service or the necessity to buy, they are not likely to form purchasing intentions.

Table 2. Relations between concepts in the research model (standardized)

Relations	ML	S.E.	C.R.	P
NT <- XH	0.21	0.015	7.353	***
NT <- DD	0.324	0.022	10.333	***
NT <- TK	0.513	0.022	14.174	***
NT <- HI	0.219	0.021	7.175	***
NT <- BM	0.118	0.012	4.348	***
YD <- NT	0.295	0.039	9.01	***
YD <- HI	0.639	0.032	16.036	***

Source: Own elaboration.

*Feedback from forums and groups has a positive impact on consumers' trust when purchasing on the social network*. Estimated results reveal that the relationship between feedback from forums and groups about selling activities of sellers on social networks (DD) and consumers' trust (NT) has a value of 0.324 with a standard error  $se = 0.022$  ( $p = 0.000$ ). Hypothesis H2 is accepted. This shows that positive feedback from forums and groups about products of sellers on the social network have a positive impact on consumers' trust in products that sellers provide on the social network.

Ratings and reviews about sellers on the social network have positive impacts on consumers' trust when purchasing via social networks. Estimated results reveal that the relation between the ratings of sellers on social networks (XH) and consumers' trust (NT) has a value of 0.21 with a standard error  $se = 0.015$  ( $p = 0.000$ ). As such, this hypothesis H3 is accepted. This shows that high ratings and reviews about sellers on the social network have a positive impact on consumers' trust in sellers.

Proposals and recommendations from reference groups have positive impacts on consumers' trust when purchasing via social networks. Estimated results reveal that the relation between the views of reference groups (TK) and consumers' trust (NT) has a value of



0.513 with a standard error  $se = 0.022$  ( $p = 0.000$ ). Thus, hypothesis H4 is accepted. This shows that opinions from reference groups, including friends, relatives and acquaintances have very positive impacts on consumers' trust in sellers on the social network.

It should be noted that this relationship has the highest impact on consumers' trust; therefore, selling enterprises or individuals need to guarantee the quality of their products and services to satisfy consumers' demand. Once consumers are satisfied, they are willing to share their shopping experiences and recommend them to other people.

*Sellers' commitments to information security have a positive impact on consumers' trust when purchasing via social networks.* Estimated results reveal that the relation between the commitments to information security (BM) and consumers' trust (NT) has a value of 0.118 with a standard error  $se = 0.012$  ( $p = 0.000$ ). As a result, hypothesis H5 is accepted. This shows that the more security of consumers' information sellers guarantee, the higher consumers' trust is. However, it should be noted that this relationship has the lowest impact on consumers' trust, which implies that Vietnamese people do not really consider information security as an essential thing to them.

Perceived usefulness of consumers about purchasing via a social network has a positive impact on consumers' trust and purchase intention via the social network. Estimated results reveal that the relation between the perception of consumers about the usefulness of shopping on social networks (HI) and consumers' trust (NT) has a value of 0.219 with a standard error  $se = 0.021$  ( $p = 0.000$ ). As such, hypothesis H6 is accepted. This shows that when consumers perceive the usefulness of purchasing on the social network, they are more likely to trust in sellers. In addition, estimated results reveal that the relation between the perception of consumers about the usefulness of shopping on social networks (HI) and their purchasing intentions (YD) has a value of 0.639 with standard error  $se = 0.032$  ( $p = 0.000$ ). As such, hypothesis 7 must be accepted. This

shows that consumers' purchasing intentions will rise when they perceive the usefulness of purchasing on the social network. The impact of perceived usefulness of purchasing on the social network is the strongest on consumers' purchasing intentions; therefore, it is imperative to raise consumers' awareness.

## 5. Discussion

### 5.1. Theoretical Implications

Research results of this study have the following implications in terms of theory:

*Firstly*, regarding research methodology, this research contributes to the existing measurement scales of the social network; trust, perceived usefulness, and purchasing intentions by supplementing a valuable measurement scale in the Vietnam context. This helps to provide academic and practical researchers on marketing and business management with a measurement scale system to do their research in the Vietnam market. Moreover, this system can be the foundation for the establishment of a unified measurement scale on social commerce adoption. This is very important in research on international e-commerce because, currently, one of the difficulties in this sector is the lack of a proper basic measurement scale in developing countries.

*Secondly*, researchers in the e-commerce sector can use these measurement scales for their studies. It should also be noted that the primary significance of these results is if a hidden concept (variable) is measured by many observation variables (measurement variables), the value and reliability of measurements will increase while it is not necessary to use the exact number of observation variables used in this research. These observation variables can be adjusted and supplemented in line with each market.

### 5.2. Practical Implications

The findings of this research indicate that the main factors creating consumers' trust when purchasing via social network include:

*Firstly*, via forums and groups, information about product/service quality and serving

attitude of sellers are discussed and evaluated. This is an entirely accurate source of information for consumers to refer to before purchasing. Therefore, forums and groups have an impact on consumers' trust in sellers on the social network.

*Secondly*, via ratings and reviews about sellers on the social network, consumers have the foundations to evaluate the quality of products/services of sellers. This is also a basis to raise consumers' trust in sellers.

*Thirdly*, feedback from reference groups such as family members or friends is a reliable source of information for consumers. Therefore, positive feedback from reference groups helps to consolidate consumers' trust. This is an essential factor to which enterprises or individual sellers should pay attention. The only way to gain positive feedback from reference groups is that enterprises and sellers should always improve the quality of products/services as well as after-sales services.

*Fourthly*, guaranteeing consumers' personal information security helps consumers feel safer when making purchases. However, these research findings indicate that Vietnamese consumers do not really care about information security techniques, as a majority of Vietnamese consumers tend to place orders online but make payment in cash upon delivery. Therefore, social network sellers in Vietnam guarantee customers' information security by hiding customers' telephone numbers and addresses upon provision so that customers' personal information is not revealed. This helps to avoid the risk of losing customers to competitors and keeps customers from being disturbed.

In addition to objective factors from the social network, there is a subjective factor from consumers, which affects their trust when purchasing - that is their perception of the usefulness of purchasing via social networks. Purchasing via social networks is convenient and time-saving for consumers. Purchasing via social networks also provides consumers with opportunities to compare different stores before making decisions.

### 5.3. Limitations and Further Research Suggestions

Like other studies, this research has many limitations. Firstly, this research was conducted in only one form of the social network, which is Facebook. There may be differences in measurement scales of other kinds of the social network. Therefore, it is necessary to repeat research on other types of the social network.

Additionally, this research was conducted in a short period of time, using the surveying method of online questionnaires. The number of the collected questionnaires was quite large, but the reliability may not be high as respondents might be affected by many factors, resulting in their giving evasive answers.

The online respondents of the survey were mostly young people with a high frequency of Internet use and online shopping. These respondents might not fully represent the population (most respondents were aged under 38, so this research was mostly based on the opinions of young people).

Moreover, this research was done in Vietnam. Its generalization is quite high. In the future, this research can be done in other markets to compare and build up a system of measurement scales for different concepts of the social network. This would be very helpful to conduct research on e-commerce via the social network. This is the orientation for following research.

Besides, this research only looks into part of the social network (forums and groups, ratings and reviews, reference groups, security). Many other factors may consolidate consumers' trust in shopping via a social network such as the quality of the services, scales of shops and reputation of sellers. These suggest another direction for future research.

### 5.4. Recommendations

Based on the analysis in the research, the authors suggest that online traders on social networks should raise the awareness, understanding, and trust of consumers in this form of shopping. To reach these goals, the authors put forth the following recommendations:

Although the reference group is the variable with the most substantial impacts on consumers' trust when shopping via social networks, it is hard to influence and adjust this variable as the opinions of reference groups depend much on their previous experience of using products and services of online traders on the social network. Therefore, the authors suggest that online traders on social networks should care about and improve the quality of products and services they provide to consumers, improve after-sale services to gain better opinions from reference groups. Once reference groups have definite opinions about online traders on the social network, this is a useful source of information to consolidate consumers' trust. This is the most economical but practical form of marketing.

Similarly, to raise ratings and reviews, besides forums and groups, online traders should raise their brand recognition and reputation via different communication channels such as the Internet, television and press. Once domestic shopping websites can build their image, Vietnamese consumers will be more open and feel more secure when shopping via social networks. Vietnamese enterprises should also care about their reputation based on review platforms such as Facebook. These platforms enable consumers to send reviews and ratings about enterprises. Enterprises should attend to this feedback to maintain favorable ratings and reviews about their products and enterprises.

Besides implementing marketing campaigns, especially viral marketing, it is necessary to appoint staff in charge of administrating forums, social networks, groups to provide consultations, information and answer consumers' inquiries when they want to search information from forums.

One advantage of shopping online via social networks is enterprises in general and individual sellers, in particular, can quickly get a consumer's information such as their email, telephone number and social network addresses, so they should try to raise the perceived service quality by paying more attention to after-sale

care. To have reasonable after-sale care, enterprises should build up a customer-care system by using Customer Relationship Management software so that they can take care of each customer by sending an email, messages, coupons, new product brochures and best wishes on a customer's birthday and on festivals.

In order to raise the quality of products/services, enterprises should be prudent in choosing partners in supplying products as well as packaging and delivering products to bring the best shopping experience to consumers. It is necessary to ensure that products will be delivered to online customers rapidly with quality as described on the social network.

Buyers on the social network have the right to know of product selection, methods of payment, methods of delivery, and customer protection programs. Therefore, it is necessary to guide consumers about the entire online purchasing process. With this knowledge, customers will not be overwhelmed or confused when browsing and purchasing products on the social network.

Consumers buy online via the social network pages of enterprises or selling accounts on the social network. Therefore, online traders on social networks need to provide transparent information, a convenient ordering process, and various choices for transactions. Customers will feel more satisfied if they can easily find information about any products they need to buy on the pages of the traders. This requires traders to be aware of customer tastes and always update information about product descriptions, prices, shopping policies, promotion, and prizes on their pages.

## **6. Conclusion**

Consumers' trust is the critical factor in transactions and the prerequisite to the business success of enterprises. Upon surveying consumers' trust in purchasing products in the retail sector on the social network, it can be seen that factors affecting consumers' trust when purchasing via social networks include:

information from forums and groups on the social network, information from reference groups, ratings and reviews of sellers on the social network and the security of customers' personal information. Among these factors, information from reference groups has the most forceful impact on consumers' trust, while Vietnamese consumers seem not to care about personal information security. Vietnamese consumers do not consider personal information security a fundamental matter as most of the cash is paid on delivery, so financial risks rarely happen. The research also indicates that consumers' trust in purchasing online and the level of perceived usefulness of purchasing online have positive impacts on purchasing intentions of online shoppers. Therefore, raising consumers' trust and awareness is of great importance for online traders to sell more products at present and in the future.

## References

- [1] N. Hajli, "Social commerce constructs and consumer's intention to buy", *International Journal of Information Management* 35(2) (2015) 183-191.
- [2] C. Gan, W. Wang, "The influence of perceived value on purchase intention in social commerce context", *Internet Research*, 2017.
- [3] D.J. Kim, D.L. Ferrin, H.R. Rao, "A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents", *Decision support systems* 44(2) (2008) 544-564.
- [4] F. Fukuyama, *Trust: The social virtues and the creation of prosperity*, Free Press New York, 1999.
- [5] R.M. Morgan, S.D. Hunt, "The commitment-trust theory of relationship marketing", *Journal of Marketing* 58(3) (1994) 20-38.
- [6] F.F. Reichheld, P. Scheffer, "E-loyalty: Your secret weapon on the web", *Harvard Business Review* 78(4) (2000) 105-113.
- [7] D.H. McKnight, V. Choudhury, C. Kacmar, "Developing and validating trust measures for e-commerce: An integrative typology", *Information Systems Research* 13(3) (2002) 334-359.
- [8] S.L. Jarvenpaa, P.A. Todd, "Consumer reactions to electronic shopping on the World Wide Web", *International Journal of Electronic Commerce* 1(2) (1996) 59-88.
- [9] N. Li, P. Zhang, "Consumer online shopping attitudes and behavior: An assessment of research", *AMCIS 2002 Proceedings*, 2002.
- [10] A.K. Singh, M. Sailo, "Consumer Behavior in Online Shopping: A Study of Aizawl", *International Journal of Business & Management Research*, 1 (2013) 3, 45-49.
- [11] D.H. Lester, A.M. Forman, D. Loyd, "Internet shopping and buying behavior of college students", *Services Marketing Quarterly* 27(2) (2006) 123-138.
- [12] M.B. Kolesar, R.W. Galbraith, "A services-marketing perspective on e-retailing: implications for e-retailers and directions for further research", *Internet Research*, 2000.
- [13] G.L. Lohse, P. Spiller, "Electronic shopping", *Communications of the ACM* 41(7) (1998) 81-87.
- [14] M. Laroche et al., "The influence of country image structure on consumer evaluations of foreign products", *International Marketing Review*, 2005.
- [15] L.T. Hosmer, "Trust: The connecting link between organizational theory and philosophical ethics", *Academy of Management Review* 20(2) (1995) 379-403.
- [16] D.H. McKnight, V. Choudhury, C. Kacmar, "Trust in e-commerce vendors: A two-stage model", *ICIS 2000 Proceedings*, 2000.
- [17] B. Han, J. Windsor, "User's willingness to pay on social network sites", *Journal of Computer Information Systems* 51(4) (2011) 31-40.
- [18] S.J. Yoon, "The antecedents and consequences of trust in online-purchase decisions", *Journal of Interactive Marketing* 16(2) (2002) 47-63.
- [19] F. Belanger, J.S. Hiller, W.J. Smith, "Trustworthiness in electronic commerce: The role of privacy, security, and site attributes", *The Journal of Strategic Information Systems* 11(3-4) (2002) 245-270.
- [20] H.Y. Ha, "Factors influencing consumer perceptions of brand trust online", *Journal of Product & Brand Management*, 2004.
- [21] Y. Bart et al., "Are the drivers and role of online trust the same for all web sites and consumers? A large-scale exploratory empirical study", *Journal of Marketing* 69(4) (2005) 133-152.
- [22] H.W. Kim, Y. Xu, J. Koh, "A comparison of online trust building factors between potential customers and repeat customers", *Journal of the Association for Information Systems* 5(10) (2004) 392-420.

- [23] M.K. Lee, E. Turban, "A trust model for consumer internet shopping", *International Journal of Electronic Commerce* 6(1) (2001) 75-91.
- [24] Y.K. Man, "Factors affecting Customer's Trust in Online banking", Hong Kong: Hong Kong Baptist University, 2006.
- [25] P.A. Pavlou, "Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model", *International Journal of Electronic Commerce* 7(3) (2003) 101-134.
- [26] D.C. Mutz, "Social trust and e-commerce: Experimental evidence for the effects of social trust on individuals' economic behavior", *Public Opinion Quarterly* 69(3) (2005) 393-416.
- [27] H.P. Lu, K.L. Hsiao, "The influence of extro/introversion on the intention to pay for social networking sites", *Information & Management* 47(3) (2010) 150-157.
- [28] D.H. Shin, "User experience in social commerce: in friends we trust", *Behaviour & Information Technology* 32(1) (2013) 52-67.
- [29] K. Hassanein, M. Head, "Manipulating perceived social presence through the web interface and its impact on attitude towards online shopping", *International Journal of Human-Computer Studies* 65(8) (2007) 689-708.
- [30] S. Ba, P.A. Pavlou, "Evidence of the effect of trust building technology in electronic markets: Price premiums and buyer behavior", *MIS Quarterly*, 2002, pp. 243-268.
- [31] S. Grazioli, S.L. Jarvenpaa, "Perils of Internet fraud: An empirical investigation of deception and trust with experienced Internet consumers", *IEEE Transactions on Systems, Man, and Cybernetics-Part A: Systems and Humans* 30(4) (2000) 395-410.
- [32] L.S. Lai, E. Turban, "Groups formation and operations in the Web 2.0 environment and social networks", *Group Decision and Negotiation* 17(5) (2008) 387-402.
- [33] A. Davidson, J. Copulsky, "Managing webmavens: relationships with sophisticated customers via the Internet can transform marketing and speed innovation", *Strategy & Leadership*, 2006.
- [34] G. Swamynathan et al., "Do social networks improve e-commerce? A study on social marketplaces", In *Proceedings of the first workshop on Online social networks*, 2008.
- [35] Y.H. Chen, S. Barnes, "Initial trust and online buyer behaviour", *Industrial management & data systems*, 2007.
- [36] T. Raykov, K.F. Widaman, "Issues in applied structural equation modeling research", *Structural Equation Modeling: A Multidisciplinary Journal* 2(4) (1995) 289-318.
- [37] D. Gefen, D.W. Straub, "Consumer trust in B2C e-Commerce and the importance of social presence: Experiments in e-Products and e-Services", *Omega* 32(6) (2004) 407-424.
- [38] A. Hasslinger, S. Hodzic, C. Opazo, *Consumer behaviour in online shopping*, 2008.
- [39] J. Cha, "Shopping on social networking Web sites: Attitudes toward real versus virtual items", *Journal of Interactive Advertising* 10(1) (2009) 77-93.
- [40] R.P. Bagozzi, Y. Yi, "On the evaluation of structural equation models", *Journal of the academy of marketing science* 16(1) (1988) 74-94.
- [41] C. Fornell, D.F. Larcker, "Evaluating structural equation models with unobservable variables and measurement error", *Journal of marketing research* 18(1) (1981) 39-50.