Factors affecting online shopping intention of Vietnamese rural youth

Nho Quyet Tran[a],*, Dang Thi Tra My[b]

[a]College of Economics and Management, Northeast Forestry University, Harbin, Heilongjiang, China, 150040.
[b]Business Administration, Troy University, Alabama, United States
*Correspondence Email: chenlao1980@163.com

Abstract

The authors propose a research model consisting of 8 factors: usefulness, ease of use, relevance, risk, behavioral control, subjective perception, attitude, and belief. The research sample was collected through an online survey with rural youth in Hanoi who participated in online shopping (aged from 18 to 40 years old). After eliminating invalid votes, 304 qualified votes were collected, the study used structural equation modeling (SEM) method to measure the impact of factors on intention. Results: besides the cognitive factors controlling behavior, beliefs and attitudes, the online purchase intention of Vietnamese rural youth is also influenced by subjective norms. From here, businesses will have an accurate plan to promote the factors that positively affect the purchase intention of rural people to help their online sales.

173

1. Introduction

The article investigates the factors affecting the intention of Vietnamese rural youth (buyers) in the e-commerce market. Currently, the rural e-commerce market in Vietnam has great potential, and the intention of rural consumers to shop is increasingly concerned by business enterprises. Understanding the intention of rural youth in Vietnam is conducted by surveying consumers through questionnaires or identifying intentions through inferences about shopping behavior. There are many studies abroad on the topic of e-commerce to explain the online shopping behavior of consumers, but almost no research can fully cover the factors, only focusing on a few fundamental aspects such as the studies of Koufaris (2002), Pavlou (2003), Mohammad (2012) and Gagandeep & Gopal (2013). Besides, there are many studies on the online shopping intention of consumers in different countries such as India, Korea, China, Taiwan, Malaysia. In the above studies, online shopping intention is considered information-receiving behavior and buying behavior. Or in previous studies by See Siew Sin (2012), Lim et al (2016) focused on young adults (Malaysia). In Vietnam, research on

user intentions and behavior in the e-commerce market is still limited because it is a complex social phenomenon in terms of technical, behavioral, and psychological (Ngo &Gim, 2014), moreover the studies on rural youth consumers in the e-commerce market are extremely few and mostly descriptive. This study was conducted to identify the factors affecting the intention of Vietnamese rural youth in the e-commerce market, which will help market participants, especially sellers, have a can adjust the intention of buyers, helping to sell the most effective products to rural people in Vietnam. This is an important and necessary issue in the process of developing the rural e-commerce system in Vietnam. Our biggest difference is that we focus more on Vietnamese rural youth (typically Hanoi's rural youth) that has not been studied before in Vietnam.

2. Theoretical basis
2.1 Subjective norms

Previous studies on subjective norms focused on the intention to work at an older age, and online shopping (Almaghrabi et al., 2011; Limayem et al., 2000; Jamil & Mat, 2011; Orapin, 2009; Tseng et al., 2011; Xie et al., 2011). Most research on subjective normative norms is mediated by purchase intention before actual purchase (Choo et al., 2004; Limayem et al., 2000; Jamil & Mat, 2011; Zhou, 2011). A related finding by Jamil & Mat (2011) suggested that subjective perception has no significant influence on an actual internet purchase but has a profound effect on online purchase intention. Subjective norm is the second most influential factor after cognitive

behavioral control to influence purchase intention to shop online (Orapin, 2009).

2.2 Feelings of usefulness

A website's perceived usefulness often depends on the effectiveness of technological features such as advanced search engines and the personalized service that service providers provide to consumers (Kim & Song, 2010). A correlation between perceived usefulness and consumer behavior has been found (Aghdaie et al., 2011; Hernandez et al., 2011; Ndubisi&Jantan, 2003). Hernandez et al (2011) revealed that Perceived usefulness has a significant influence on online shopping behavior in Spain, but Aghdaie et al (2011) argue that perceived usefulness has no significant effect on internet purchasing behavior. in Iran. It may be due to the differing views of respondents from developed and developing countries about the perceived usefulness of their internet shopping behavior. Concerns about price, quality, durability and other product-related aspects are the main drivers of purchasing decisions in developed countries but considerations may differ in developing countries. (Ahmed, 2012). According to Enrique et al (2008), Kim & Song (2010) and Xie et al (2011), perceived usefulness has been shown to have a significant impact on internet purchase intention. In short, perceived usefulness will influence consumer purchase intention under high-risk conditions (Xie et al., 2011).

2.3 Feelings of ease of use

In online shopping, PEOU can be defined as the degree to which consumers believe they need no effort when shopping online (Lin, 2007). Similar to PU,

the role of PEOU has been shown to have a significant influence on online shopping intention through attitude (Hernandez, 2006; Fygenson & et al.).

2.4 Suitability

In e-commerce, suitability is assessed by comparing the compatibility between consumers' needs and their lifestyles with online shopping (Verhoef &Langerak, 2001). Many previous studies have supported the view that the suitability of online shopping has an influence on consumers' attitudes toward online shopping (Chen & Tan, 2004; Lin, 2007).

2.5 Purchase Intention and Online Shopping Behavior

Ajzen (1991) suggests that intention is thought to be an indicator of the extent to which people are willing to approach a certain behavior and how many times they are trying to perform a certain behavior. According to the research of Hsin Chang & Wen Chen (2008), lack of online purchase intention is the main obstacle in the development of e-commerce. The theory of planned behavior (TPB) applied to Thai consumers implies that online shopping intention is more likely to be influenced by perceived behavioral control and subjective norm (Orapin, 2009). Substitute shopping intent for purchase behavior also needs to be explored. Although intention has been identified as a prominent predictor of actual behavior for online shopping (Hsin Chang & Wen Chen, 2008; Orapin, 2009; Pavlou&Fygenson, 2006), it must be acknowledged that Purchase intention does not translate into purchase action (Kim & Song, 2010). Based on the Technology Acceptance Model (TAM),

ease of use and perceived usefulness have determined online shoppers' decisions after online behavioral intentions begin (Hu & Huang, 2009).

2.6 Attitude

Attitude (ATT) is an individual's assessment of the results obtained from performing a behavior (Ajzen, 1991). In the context of online shopping, attitude refers to consumers' good or bad judgments about using the Internet to purchase goods or services from retail websites (Lin, 2007). Consumers' attitudes have an influence on their intentions (Ajzen & Fishbein, 1980). In the context of online shopping, consumers' attitude towards online shopping has been shown to have a positive influence on their purchase intention (Yoh et al., 2003).

2.7 Cognitive behavioral control

In the context of online shopping, perceived behavioral control describes a consumer's perception of the availability of necessary resources, knowledge, and opportunities to make an online purchase. In online shopping, perceived behavioral control has been shown to have a positive impact on consumers' online purchase intention (Lin, 2007). Furthermore, Barkhi et al (2008) demonstrated that perceived behavioral control has a significant impact on consumers' attitudes toward online shopping.

2.8 Belief

Previous studies have demonstrated that trust is a factor that greatly influences consumer intention and behavior in both online and brick-and-mortar shopping (Chen & Tan, 2004). A lack of trust has been noted as one of the

main reasons that discourage consumers from engaging in e-commerce (Y Monsuwé& De Ruyter, 2004). The higher the buyer's confidence in the seller, the more positive the effect on their attitude (Schurr&Ozanne, 1985).

2.9 Perceived risk

In e-commerce, customers' perceived risk has an inverse relationship with their attitude toward a virtual store (Jarvenpaa et al., 2000). On the other hand, Hsin Chang & Wen Chen (2008) demonstrated that perceived risk has an inverse relationship with trust and intention to buy online.

2.10 Theory of planned behaviour

The theory of planned behavior (TPB) is an extension of the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980; Ajzen, 2002) due to the prominent limitation in the previous theory in coping with voluntary behavior while the latter theory proposes that the behavior is not completely under control, therefore, is a voluntary action (Ajzen, 1991). TRA believes that a person's positive attitude along with the individual's thoughts constitutes a person's behavioral intentions. In contrast to the TRA, the TPB model provides a better explanation of the behavioral pattern in which a person is supposed to perform some behavior if he or she actually has control over that behavior (Ajzen, 1991). Thus, when a person has more favorable attitudes and subjective norms, and with acumen of perceived behavioral control and intention, that person will engage in actual behavior (Ajzen, 1991; Caulfield, 2012). In the TPB model, behavioral beliefs are expected to influence attitudes, thus the influence of normative beliefs on subjective norms while controlling beliefs form the basis of behavioral control (Ajzen, 1991).

2.11 Technology Acceptance Model (TAM)

Considered an adaptation of the theory of rational action (TRA) (Hernandez et al., 2010). Proposed by Davis (1985) and further developed by this same author in 1989 (Davis, 1989), TAM seeks to explain users' acceptance of using information technology. Based on the theory of reasonable action (TRA), the main purpose of the technology acceptance model (TAM) is to provide a basis for investigating the impact of external factors on internal factors such as: beliefs, attitudes and intentions of users.

2.12 Hypotheses and research models
2.12.1 Research hypothesis
From the above arguments, we hypothesize that:

H1: Consumers' attitude towards online shopping has a positive influence on their online purchase intention.

H2: Consumers' subjective norms positively affect their online purchase intention.

H3: Consumer's subjective norm has a positive influence on their attitude towards online shopping.

H4: Consumer's subjective norm has a positive effect on buyer's trust in online shopping.

H5: Consumers' perceived behavioral control has a positive influence on their online purchase intention.

H6: Consumers' perceived behavioral control has a positive influence on their attitude towards online shopping.

H7: Consumer trust in an online store positively affects their intention to shop online.

H8: Perceived risk has a negative impact on online purchase intention.

H9: Perceived risk has a negative impact on consumers' attitudes towards online shopping.

H10: Perceived risk has a negative impact on consumer confidence in online shopping.

H11: Perceived usefulness positively affects attitude towards online shopping.

H12: Perceived ease of use positively affects attitudes towards online shopping.

H13: Consistency between online shopping and consumer's lifestyle has a positive influence on their attitude towards online shopping.

177

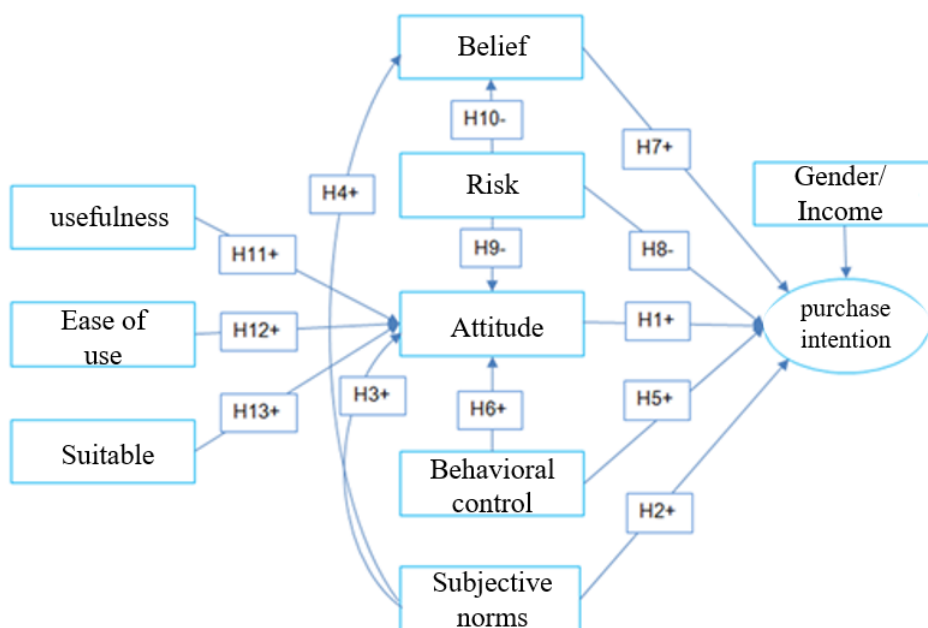## 2.12.2 Research Model

The research model is shown in Figure 1.

Figure 1: Proposed research model

3. Research Methods
3.1 Data

Research subjects are consumers aged from 18 to 40 years old living in rural areas of Hanoi, Vietnam, who use the internet. Since accepting to shop from an online channel is a two-step process, internet adoption is the first step and shopping is the second. Due to the impact of the Covid-19 pandemic, it is very difficult to reach customers directly. Therefore, we use the online survey method. The questionnaire was designed on google tools (google docs) and sent to respondents through online tools such as email and Facebook. 352 answer sheets were obtained. All of these answer sheets are put into data processing setting the mode that respondents cannot send answer sheets when missing information. After re-checking according to the requirements of living area and age, 304 questionnaires were collected to meet the research requirements, the research data was re-statisticed in Table 1.

Table 1: Post-survey statistics meet research requirements

Variabale		Count	Column N %
Sex	Male	108	35.5%
	Female	196	64.5%
Job	Officers	96	31.6%
	Farmers	56	18.4%
	Business	78	25.7%
	Freelancers	74	24.3%
Education level	Colleges	211	69.4%
	<= High school	93	30.6%
Age	18-30	205	67.4%
	31-40	99	32.6%
Income	Over 5 million VND	132	43.4%
	Less than 5 million VND	172	56.6%

3.2 Analytical methods

After collecting the data, the CMB-Common method bias is assessed, measuring the unidirectionality and fit of the model in confirmatory factor analysis, preliminary discovery (EFA), reliability testing, convergent validity and discriminant by variance in Model Validity Measures (CFA), all these evaluations are guaranteed to be appropriate. In this article, we mainly focus on analyzing the interaction measurement values. The impact of factors on intention by SEM model, testing the model's fit with market data by Bootstrap. In addition, we also consider the impact of income, and gender on the estimated results by multi-group structural model. IBM SPSS Analysis Support Tool version 25 –AMOS version 24 from IBM.

4. Results and Discussion
4.1 CBM test

For research using online survey method to collect information that may lead to inflated or misleading data Common method bias (CMB) to test CBM, the author uses the single-factor analysis method of Harman, where all items (measures of latent variables) are loaded into a common factor.

Table 2. CBM Test

Total Variance Explained					
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.802	28.005	28.005	9.148	26.136	26.136
2	4.008	11.453	39.457			
3	3.255	9.300	48.757			
4	2.905	8.299	57.056			
Extraction Method: Principal Axis Factoring.						

If the total variance for a single factor is less than 50%, it indicates that the CMB did not affect the results of the data. The results of the single-factor analysis showed that the total % variance = 26.136% <50%, so the collected data is guaranteed (Table 2).

4.2 EFA Analysis

Table 3: KMO Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.906
Bartlett's Test of Sphericity	Approx. Chi-Square	7137.823
	df	666
	Sig.	.000

The results of factor analysis showed that the coefficient of KMO (Table 3) in Bartlett's test = 0.906>0.5; and its significance level (Sig<0.001), so the exploratory factor analysis method is suitable.

Besides, with the observed variables of the independent variables included in the analysis, 8 main variables were extracted, with a total variance of 70.23%.

The main variables formed are trust, attitude, risk, behavioral control, subjective norm, usefulness, ease of use, relevancy, factor loading components of the above 8 variables >0.5.

4.3 CFA Analysis
4.3.1 Unidimensionality

According to Hair et al (2010), the fit of the model with market data gives us the necessary and sufficient conditions for the set of observed variables to achieve

unidirectionality, except for the cases where the errors of the observed variables are observations are related. To measure the relevance of market information, people often use: Chi-square (CMIN), Chi-square adjusted for degrees of freedom (CMIN/df); GFI-Good of Fitness Index; Comparative Fit Index (CFI); TLI-Tucker & Lewis Index; RMSEA (Root Mean Square Error Approximation).

The model is considered appropriate to market data if the Chi-square test has P-value>0.05; CMIN/df =< 2, in some cases CMIN/df can be =< 3; GFI, TLI, CFI >= 0.9; and RMSEA =<0.08. However, in the recent opinion of researchers, GFI is still acceptable in the range (0.8-0.9) (Hair et al., 2010).

4.3.2 Evaluate reliability, convergence, discriminant

The reliability of the scale is assessed through: composite reliability. Composite reliability in CFA is the reliability of a set of observed variables measuring a concept, standard CR>0.7.

The scale achieves convergence value when the average variance extracted is >0.5.

Discriminant value is also an important property of the measure. The discriminant value represents the discriminant level of the measurement concepts (Steenkamp &VanTrijp, 1991), The discriminant value is achieved when: MSV (maximum shared variance) <AVE, SRTAVE(square root of average variance extracted) > (inter construct correlation).

4.3.3 CFA analysis results with factors in the model of factors affecting the intention of rural youth in online shopping.
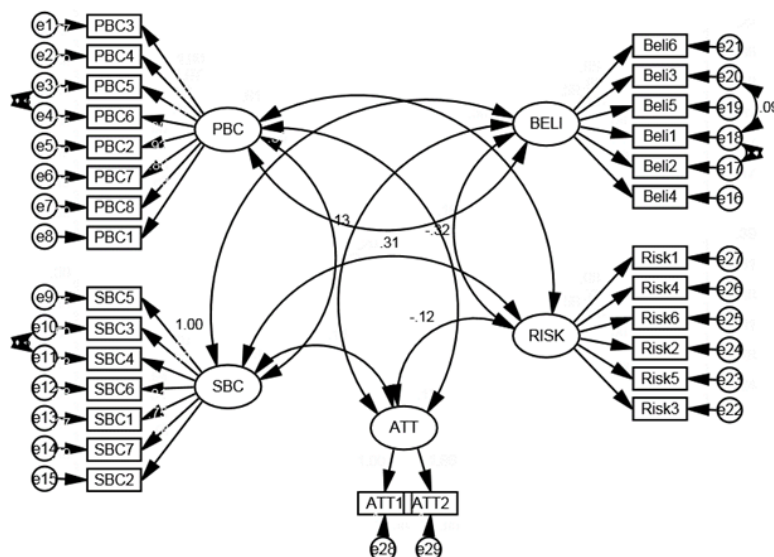
Chi-square=574.733 df=363;P=.000 Chi-square/df=1.583
GFI=.881 TLI=.957 CFI=.961; RMSEA=.044

Figure 2: CFA results with factors affecting intention

Unidirectionality evaluation showed that Chi-square = 656,009 with P-value < 0.05; CMIN/df =< 2, GFI=0.881 >0.8, TLI=0.957>0.9, CFI =0.961>0.9; and RMSEA = 0.05<0.08, so unidirectionality is guaranteed, or this method is appropriate.

Table 4: CFA Test

	CR	AVE	MSV	MaxR(H)	PBC	SBC	BELI	RISK	ATT
PBC	0.924	0.603	0.371	0.928	0.776†				
SBC	0.889	0.536	0.241	0.895	0.347***	0.732†			
BELI	0.901	0.606	0.336	0.910	0.492***	0.462***	0.778†		
RISK	0.875	0.542	0.371	0.888	-0.609***	-0.328***	-0.579***	0.736†	
ATT	0.804	0.699	0.297	1.152	0.545***	0.491***	0.462***	-0.423***	0.836†

PBC: *Perceived behavioral control;* **SBC:** *Subjective perception;* **RISK:** *risk;* **BELI;** *Belief;* **ATT:** *Attitude;* **CR:***composite reliability;* **AVE:***average variance extracted;* **MSV:***maximum shared variance;* **†:SRTAVE** *square root of AVE; *p<0.050; ** p < 0.010; ***p < 0.001*

Table 4 analysis shows that all quantifiable values of reliability (CR), convergence (AVE), discriminant (MSV, SRTAVE) are guaranteed, so the variables affecting purchase intent included in the analysis are guaranteed.

The results of the analysis are measured separately for each model in the article, assessing the fit based on the aspects that are unidirectional, (based on the CFI, CFI, CLI, RMSAE indexes) to assess the reliability composite reliability, convergence, and discriminant through variance test.

4.4 Structural Model SEM

The study uses SEM method to conduct regression model of factors affecting online purchase intention of rural youth in Vietnam and also examines the impact of factors on trust as well as the attitude of Vietnamese youth in rural areas in online shopping. Besides, we also use in combination with the multi-group structural model to measure the impact in the above models according to gender and income characteristics, the analysis results are in Table 5.

Table 5: Regression value results

DV	IV	Generality	Multi-Group Analysis			
			Male	Female	> 5million	≤ 5million
INT	BELI	.419***	.438***	.445***	.548***	.243**
	RISK	.-089	.-031	-.019	.-140	-.032
	ATT	.126*	.070	.163*	.284**	.049
	SCB	.351***	.390***	.323***	.259**	.431

PBC	.228**	.311***	.169**	.063	.342
R^I	0.62	.587	.643	.600	.657

PU: useful; *PEOU*: easy to use; *CPT*: suitable; *PBC*: Perceived Behavioral Control; *SBC*: Subjective perception; *RISK*: risk; *BELI*; Faith; *ATT*: Attitude; *INT*: intention; R^I: R-Square coefficient of the model of factors affecting intention; **†**: p<0.1; *:p<0.050; **: p < 0.010; ***: p < 0.001.

4.4.1. Measuring the impact of factors on purchase intention

For the general model, 5 variables included in the model have RI = 0.620 (table 6), which means that 5 variables included in the model are assumed to be over 62% of the change in purchase intention. The variables of attitude, belief, behavioral control and subjective perception have a positive impact with intention and this impact is statistically significant (p<0.05). Meanwhile, the variable risk has no statistically significant impact (P>0.05).

In the multi-group structural model, the results of estimability, coefficients and effects of variables on purchase intention do not differ much between groups and compared with the general model.
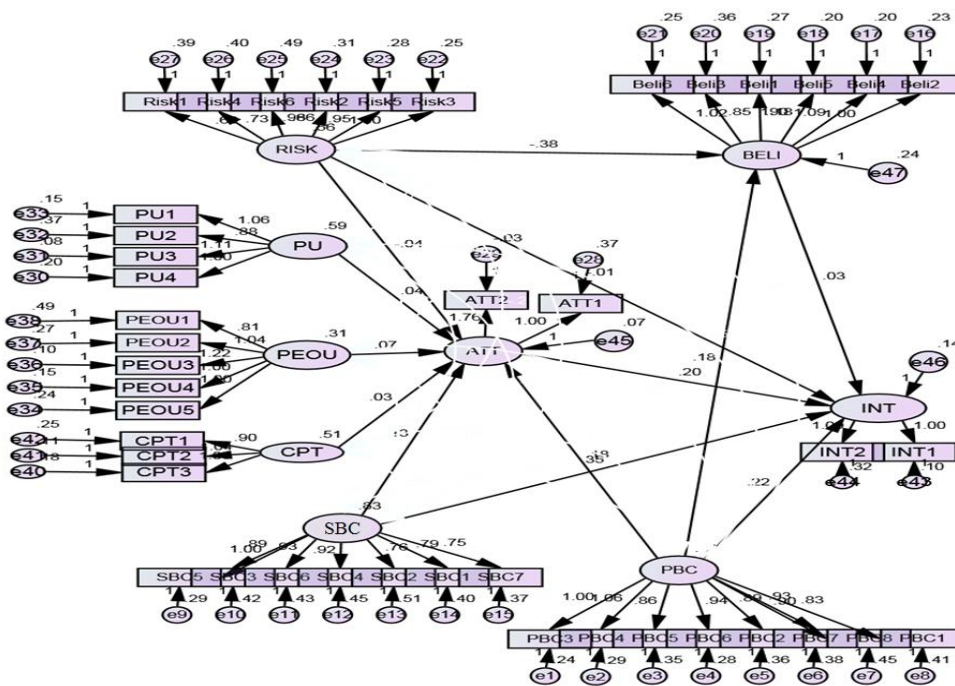

Figure 3: SEM Model

4.4.2. Testing the reliability of the estimates of the theoretical model by bootstrap

This test helps to evaluate the reliability of the estimates in the evaluation model. By testing whether the regression coefficients in the SEM model are well estimated, are they consistent overall?

In this study, we used the bootstrap method with the number of repeated samples N = 300. The estimated results from 300 samples were averaged and compared with the theoretical model to determine bias, then compared bias with the critical value (when p<=0.05, when the sample approaches infinity) the condition that the critical value of the calculated bias is < 1.96 (critical value when p<=0.05).

Table 6: Results of bootstrap test

DEPENDENT VARIABLE	INDEPENDENT VARIABLES	SE	SE-SE	Mean	Bias	SE-Bias	CR-P
INT	BELI	.091	.005	.421	.002	.006	0.83
	RISK	.078	.004	-.090	.000	.006	1.33
	ATT	.070	.003	.138	.012	.005	0.67
	SCB	.070	.003	.341	-.010	.005	1.20
	PBC	.078	.004	.221	-.007	.006	0.33

PU; useful; PEOU: easy to use; CPT: suitable; PBC: Perceived Behavioral Control; SBC: subjective perception; RISK: risk; BELI: belief; ATT: attitude; INT: intention.

The test results (Table 6) show that all values of bias are less than 1.96 (critical value at 5% significance level). The results of theoretical model estimation and bootstrap in linear structural model analysis (SEM) show that the hypothesized relationships in the theoretical model have the p significance level varying from 0.000 to 0.005, reaching the significance level necessary (at the 95% confidence level). In other words, the above model estimates well and fits overall.

5. Conclusion

Research has shown that besides the cognitive factors perceived behavioral control, beliefs and attitudes, the online purchase intention of Vietnamese rural youth is also influenced by subjective norms. similarities and differences compared with previous studies in the world. Also from the study, the businessmen will have an accurate plan to promote the factors that have a positive impact on the purchase intention of rural consumers to help their sales be favorable and have the best income.

5.1 Request

Online shopping in rural Vietnam is not really developed yet, people still mainly rely on traditional methods, besides the intention to buy online, choosing a website/store is mostly largely based on beliefs, the usefulness of products, methods and the influence of friends and relatives. However, with the strong development of e-commerce combined with the prolonged Covid 19 pandemic in the coming time, online shopping in rural areas is very potential and important to

be directed from the government and businesses selling online.

5.2 Limit

The study uses a multi-group structural model for analysis, so to be accurate, the groups must have a uniform distribution (groups with frequency > 20%). Moreover, this study was conducted during the period of isolation due to the covid epidemic, so the online survey method was used, so the age groups broken down according to the requirements of the topic will not guarantee the conditions for analysis by multigroup structure in AMOS. So this is also a limitation of the topic, the authors will focus on the next research.

References

Aghdaie, S.F.A., Piraman, A. &Fathi, S. (2011), 'An analysis of factors affecting the consumer's attitude of trust and their impact on internet purchasing behavior', *International Journal of Business and Social Science*, 2(23), 147-158.

Ahmed, E.-K. (2012),'Consumer Behavior Differences between developed and developing Countries', *We are development*, last retrieved on March 23, 2022, from <http://wearedevelopment.net/2011/11/01/10-consumer-behavior-differences-between-developed-and-developing-countries/>.

Ajzen, I. (1991), 'The theory of planned behavior', *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.

Ajzen, I. (2002), 'Perceived Behavioral Control, Self-Efficacy, Locus of Control, and the Theory of Planned Behavior', *Journal of Applied Social Psychology*, 32(4),665-683.

Ajzen, I. & Fishbein, M. (1980), *Understanding Attitudes and Predicting Social Behavior,* Prentice Hall, Englewood Cliffs, NJ.

Almaghrabi, T., Dennis, C.& Halliday, S.V. (2011),'Antecedents of Continuance Intentions towards e-shopping: the case of Saudi Arabia', *Journal of Enterprise Information Management*, 24(1), 85-111.

Barkhi, R., Belanger, F. & Hicks, J. (2008),'A model of the determinants of purchasing from virtual stores', *Journal of Organizational Computing and Electronic Commerce*, 18(3),177-196.

Caulfield, B. (2012), *The Theory of Planned Behaviour*,last retrieved on March 23, 2022, from<https://sphweb.bumc.bu.edu/otlt/mph-modules/sb/behavioralchangetheories/BehavioralChangeTheories3.html>.

Chen, L.D. & Tan, J. (2004), 'Technology Adaptation in E-commerce: Key Determinants of Virtual Stores Acceptance', *European Management Journal*, 22(1),74-86.

Choo, H., Chung, J.-E.&Pysarchik, D.T. (2004),'Antecedents to new food product purchasing behavior among innovator groups in India', *European Journal of Marketing*, 38(5/6), 608 - 625.

Davis, F.D. (1985), 'A technology acceptance model for empirically testing new end-user information systems: Theory and results', Doctoral dissertation, Massachusetts Institute of Technology.

Davis, F.D. (1989),'Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology',*Management Information Systems Quarterly*, 13(3), 319-340.

184

Enrique, B.A., Carla, R.-M., Joaquin, A.-M.& Silvia, S.-B. (2008),'Influence of Online Shopping Information Dependency and Innovativeness on Internet Shopping Adoption',*Online Information Review*, 32(5), 648-667.

Gagandeep, N.&Gopal, R. (2013),'An study of Factors Affecting on Online Shopping Behavior of Consumers', *International Journal of Scientific and Research Publications,*3(6), 1-4.

Hair, J.F., Black, W.C., Babin, B.J. & Anderson, R.E. (2010), *Multivariate Data Analysis, Seventh Edition*,Prentice Hall, Upper Saddle River, New Jersey.

Hernandez, B., Jiménez, J. & Martín, M.J. (2010),'Customer behavior in electronic commerce: The moderating effect of e-purchasing experience', *Journal of Business Research*, 63(9),964-971.

Hernandez, B., Jiménez, J. & Martín, M.J. (2011),'Age, gender and income: do they really moderate online shopping behaviour?',*Online Information Review*, 35(1),113-133.

Hsin Chang, H. and Wen Chen, S. (2008),'The impact of online store environment cues on purchase intention: Trust and perceived risk as a mediator', *Online Information Review*, 32(6),818-841, DOI: https://doi.org/10.1108/14684520810923953.

Hu, Y. & Huang, L.(2009), 'A university student behavioral intention model of online shopping', *In 2009 International Conference on Information Management, Innovation Management and Industrial Engineering, v*ol. 1, 625-628. IEEE.

Jamil, N.A. & Mat, N.K.N. (2011),'To investigate the drivers of online purchasing behaviour in Malaysia based on theory of planned behaviour (TPB): A structural equation modeling (SEM) Approach', *In International conference on management (ICM 2011) proceeding*, Conference Master Resources,453-460.

Jarvenpaa, S.L., Tractinsky, N. & Vitale, M. (2000),'Consumer trust in an Internet store', *Information Technology and Management*, 1(1), 45-71.

Kim, H.& Song, J. (2010),'The Quality of Word-of Mouth in the Online Shopping Mall', *Journal of Research in Interactive Marketing*, 4(4), 376-390.

Koufaris, M. (2002),'Applying the technology acceptance model and flow theory to online consumer behavior',*Information Systems Research*, 13(2), 205-223.

Lim, Osman, A., Salahuddin, S.N., Romle, A.R. & Abdullah, S. (2016),'Factors influencing online shopping behavior: the mediating role of purchase intention', *Procedia Economics and Finance*, 35, 401-410.

Limayem, M., Khalifa, M. &Frini, A. (2000),'What makes consumers buy from Internet? A longitudinal study of online shopping', *IEEE Transactions on systems, man, and Cybernetics-Part A: Systems and Humans*, 30(4), 421-432.

Lin, H.F. (2007),'Predicting consumer intentions to shop online: An empirical test of competing theories', *Electronic Commerce Research and Applications*, 6(4), 433-442.

Mohammad, H.M. (2012),'An analysis of factors affecting on online shopping

behavior of consumers', *International Journalof Marketing Studies*, 4, 81-94.

Ndubisi, N.O. &Jantan, M. (2003),'Evaluating IS usage in Malaysian small and medium-sized firms using the technology acceptance model',*Logistics Information Management*, 16(6), 440-450.

Ngo, T.&Gim. G.Y.(2014),'Factors Affecting the Online Shopping Behavior: An Empirical Investigation in Vietnam', *Journal of Engineering Research and Applications*, 4, 388-392.

Orapin, L. (2009),'Factors influencing Internet Shopping Behavior: A Survey of Consumers in Thailand',*Journal of Fashion Marketing and Management*, 13(4), 501-513.

Pavlou, P.A. (2003),'Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model', *International Journal of Electronic Commerce*, 7(3), 101-134.

Pavlou, P.A. &Fygenson, M. (2006),'Understanding and predicting electronic commerce adoption: An extension of the theory of planned behavior', *MIS Quarterly*, 115-143.

Schurr, P.H.&Ozanne, J.L. (1985),'Influences on exchange processes: buyers' preconceptions of a seller's trustworthiness and bargaining toughness', *Journal of Consumer Research*, 11, 939-53.

See Siew Sin(2012),'Factors Affecting Malaysian young consumers' online purchase intention in social media websites',*Procedia - Social and Behavioral Sciences*, 40J, 326 – 333.

Steenkamp, J.B.E. &VanTrijp, H. (1991),'The Use of LISREL in Validating Marketing Constructs', *International Journal of Research in Marketing*, 8, 283-299.

Tseng, Y. F., Lee, T. Z., Kao, S. C., & Wu, C. (2011, June),'An extension of trust and privacy in the initial adoption of online shopping: An empirical study',*In International Conference on Information Society* (i-Society 2011),159-164, IEEE.

Verhoef, P.C. &Langerak, F. (2001),'Possible determinants of consumers' adoption of electronic grocery shopping in the Netherlands',*Journal of Retailing and Consumer Services*, 8(5),275-285.

Xie, G., Zhu, J., Lu, Q. & Xu, S. (2011), 'Influencing factors of consumer intention towards web group buying', *IEEE International Conference on Industrial Engineering and Engineering Management* (IEEM),1397-1401,Singapore: Institute of Electrical and Electronics Engineers.

Y Monsuwé, T.P.& De Ruyter, K. (2004),'What drives consumers to shop online? A literature review',*International Journal of Service Industry Management*, 15(1),102-121.

Yoh, E., Damhorst, M.L., Sapp, S. &Laczniak, R. (2003),'Consumer adoption of the internet: the case of apparel shopping', *Psychology & Marketing*, 20(12),1095-1118.

Zhou, T. (2011),'Understanding online community user participation: a social influence perspective',*Internet Research*, 21(1), 67-81.