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Factors Affecting Consumer Purchase Intention Through The O2O Commerce Model Combined With A Learning Experience

Trong Quynh Dao[a] and Nho Cuong Tran[a,*]
[a]Vietnam National University of Forestry, Ha Noi, Viet Nam
[*]Corresponding author: cuongtrannho@gmail.com
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Abstract
The authors proposed a research model consisting of 8 factors: Attitude, belief, habit, usefulness, logistics, quality, variety, and combined experience. The research sample was collected through a survey randomly sent to 700 email addresses. After eliminating invalid ballots, 366 qualified samples were obtained. The study used the structural equation modeling method (SEM) to measure the impact of factors on intention. Results: Besides the perceived usefulness and attitude, customers' habits and beliefs about logistics products and services also affect online purchase intention. This result also helps managers realize the importance of factors influencing consumers' purchase intention through the O2O commerce model, thereby building appropriate business strategies.

1. Introduction

It can be said that e-commerce has become a business method that represents the knowledge economy. The trend of globalization has created favorable conditions for e-commerce to promote its strengths such as speeding up business activities, reducing costs, and overcoming obstacles in space and time. However, to have a successful rural e-commerce site is not simple, it depends not only on the above potentials but also on many factors such as Psychology, preferences, and behavioral intentions of consumers (Insley and Nunan, 2014; Cheung et al., 2005; Gefen et al., 2003; Pavlou, 2003), the authors believe that understanding the psychology of consumers' behavior will help businesses reach target customers and bring success to products as well as businesses.

For e-commerce, there are many business models, of which the O2O (Online – To – Offline) business model is a trend among e-business models (TSeng, 2019). In contrast to traditional e-commerce models that focus on shifting customers' shopping from offline to online environments, O2O commerce aims to integrate online platforms with offline sales (Li, Shen and Bart, 2018). The authors argue that using both online sales pages and physical stores complements each other to boost sales and bring value to both buyers and sellers (Seng, 2019; Li, Shen and Bart, 2018).

This study was conducted to develop e-commerce for local specialty agricultural products in Vietnam. This study was conducted to identify factors affecting consumers' purchase intention through the O2O commerce model, which will help market participants, especially sellers, to adjust buyers' intentions, helping to sell most effectively to rural people in Vietnam.

This is an important and necessary issue in the process of developing the rural e-commerce system in Vietnam.

2. Theoretical basis

2.1 Belief

Belief is an important component in building a good relationship between buyers and sellers, and it is characterized by uncertainty, vulnerability, and dependence (Bradach and Eccles, 1989). This is even more important in the online environment because the online environment perceives higher risks. After all, buyers do not have direct contact with the seller as well as the product they intend to buy (Jarvenpaa et al., 2000; Pavlou, 2003; Verhagen et al., 2006). Previous studies have approached belief from three main perspectives: characteristics of online sellers, website characteristics, and customer characteristics (Chiu et al., 2009). Among them, the characteristics of online sellers (size, reputation) affect belief more than customer characteristics (Shao et al., 2005). Seller characteristics include size and reputation (Benedicktus et al., 2010; Chiu et al., 2009).

2.2 Logistics

Logistics plays an important role not only in commerce but also in people's daily lives. All production activities are related to transportation. Transportation in e-commerce includes many stages from warehousing to inventory management, payment, packaging, labeling, delivery, cash on delivery, and returns. Joong-Kun Cho, Ozment and Sink (2008) showed that Logistics is positively related to business performance in the e-commerce market. Ramanathan, George and Ramanathan. (2014) affirmed that logistics plays an important role in e-commerce; logistics' efficiency is in deciding sellers' efficiency in e-commerce.

Logistics impact on customer repurchase intention. Chow et al. (1994) proposed various aspects of logistics performance, such as on-time delivery, cost-effectiveness, product availability, customer satisfaction, etc. The importance of logistics to firm performance in traditional business environments has been thoroughly investigated in many studies (e.g., Tracey, 1998; Cho et al., 2008; Lynch et al., 2000). Rabinovich (2006) pointed out that the role of logistics services is more significant in the context of e-business. Ramanathan (2010) suggested that logistics plays an important role in encouraging customers to repurchase products. Several studies have found a strong relationship between logistics performance and customer repurchase intention (Jiang and Rosenbloom, 2005; Heim and Sinha, 2001).

2.3 Habit

A habit is an action that is repeated and sometimes occurs unconsciously and is formed by experience, knowledge, and skills learned over time Venkatesh et al. (2012). Feedback from previous experience influences different beliefs and future behaviors Ajzen, Fishbein (2018).

2.4 Attitude

According to Ajzen (1991), attitudes are divided into two different types: attitudes toward objects and attitudes toward behaviors. Based on the classification of Ajzen (1991), in this study, attitudes are concerned with the perspective of attitudes toward a behavior, specifically attitudes toward shopping behavior. Attitude is an individual's evaluation of the

results obtained from performing a behavior (Ajzen, 1991, p.188). In shopping, attitudes refer to consumers' favorable or unfavorable evaluations of using the Internet to purchase goods or services from retail websites (Lin, 2007, p.434). Consumers' attitudes influence their intentions (Fishbein and Ajzen, 1975). In the context of online shopping, consumers' attitudes toward online shopping have been shown to have a positive influence on their purchase intentions (Yoh et al., 2003).

2.5. Hypothesis

2.5.1. Research hypothesis

From the above arguments, we hypothesize that:

H1: Belief has a positive impact on intention
H2: Product quality has a positive impact on belief.
H3: The richness and diversity of products have a positive impact on belief.
H4: Experiences have a positive impact on beliefs.
H5: Logistics has a positive impact on intention
H6: Habit has a positive impact on the intention
H7: Attitude has a positive impact on belief.
H8: Perceived benefits have a positive impact on attitude.
H9: Habit has a positive impact on attitude.
H10: Belief has a positive impact on attitude.
H11: Knowledge has a positive impact on attitude.

2.5.2. Research model

Figure 1 displays the research model.

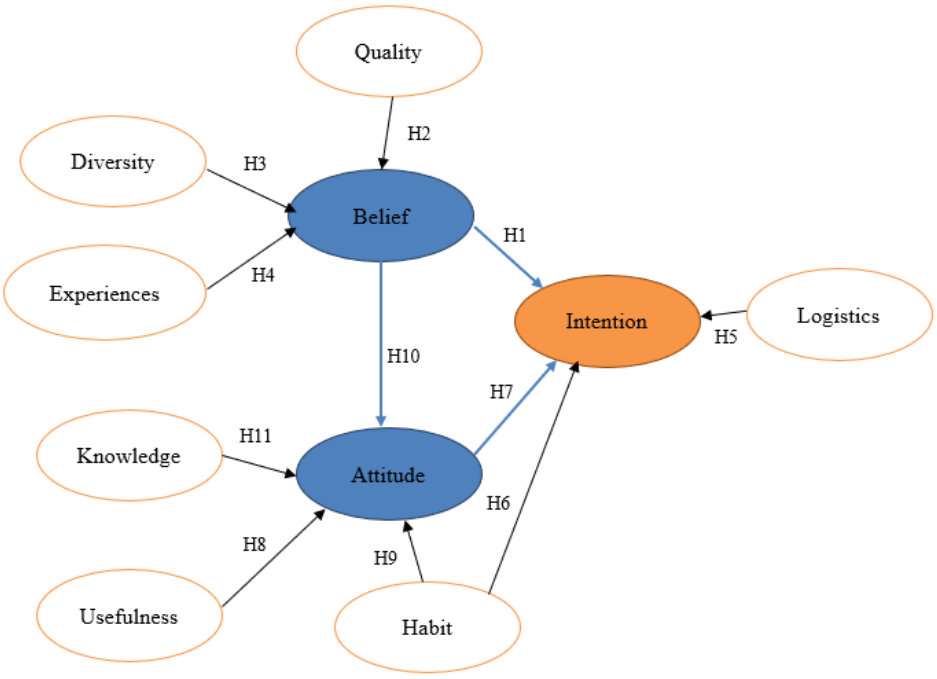

Figure 1. Proposed research model

3. Research methods

3.1. Data

The survey subjects are people using the internet in Hanoi, regardless of gender, age, education level, and area of residence. To get a sample size larger than the minimum sample size, we randomly sent the questionnaire to nearly 700 subjects from October 2020 to December 2020 via paid Facebook. The results were over 500 responses, through screening and eliminating incomplete questionnaires, we got 436 qualified questionnaires with demographic characteristics, research data are summarized in Table 1.

Table 1: Post-survey statistics meet research requirements

Variables		N	%
Gender	Male	124	33.9%
	Female	242	66.1%
Jobs	Students	112	30.6%
	Retired person	69	18.9%
	Office	94	25.7%
	Freelance	91	24.9%
Education	University degree or higher	126	34.4%
	College	116	31.7%
	High school	124	33.9%
Age	<25	122	33.3%
	25-50	123	33.6%
	>50	121	33.1%
Income	<10 million	160	43.7%
	>10 million	206	56.3%

3.2. Analytical method

The collected data was evaluated by CMB-Common method bias to evaluate the accuracy of the data collection method, descriptive statistics, reliability analysis of the scale using Cronbach's Alpha coefficient, EFA exploratory factor analysis, measurement of unidimensionality and model fit in confirmatory factor analysis, reliability testing, convergence testing and discrimination testing by variance in Model Validity Measures, measuring the impact of factors on the decision to purchase via O2O using SEM model, testing the model's suitability with market data using Bootstrap, with the support of IBM's SPSS 25 and AMOS 24 software.

4. Results and discussion

4.1. CBM Testing

For research using online survey method to collect information can lead to inflated or biased data Podsakoff (2003) (Common method bias - CMB), if the data is CMB will bias the

results. To check CMB, the author uses Harman's single factor analysis method, in which all items (measuring latent variables) are loaded into a common factor. If the total variance for a single factor is less than 50%, it shows that CMB does not affect the data. The results of single factor analysis show that the total % variance = 27.577% <55% so the collected data is guaranteed (Table 2).

Table 2: CBM Testing

Total Variance Explained						
Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.403	29.239	29.239	10.755	27.577	27.577
Extraction Method: Principal Axis Factoring.						

4.2. EFA Analysis

Table 3: EFA analysis results

Test value in EFA	Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.871
Sig.	0.000
Cumulative %	71.98
Factor Loading	>0.5

The results of exploratory factor analysis show that the KMO coefficient in Bartlett's test = 0.871 > 0.5; and its significance level (Sig < 0.001) so the exploratory factor analysis method is appropriate. Besides, the total variance extracted (Cumulative %) is 71.89% > 50% and the factor loading coefficient of each observed variable is > 0.5, so the scale ensures suitability through EFA assessment.

4.3. CFA Analysis

4.3.1. Unidimensionality

To measure the level of fit with market information, people often use the chi-square (CMIN), Chi-square adjusted by degrees of freedom (CMIN/df); Goodness of Fitness Index (GFI); Comparative Fit Index (CFI); Tucker and Lewis Index (TLI); RMSEA (Root Mean Square Error Approximation).

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

The results of the unidimensionality assessment (table below) show that Chi-square =880.007

with P-value< 0.05; CMIN/df =< 2, some cases GFI =0.877>0.8, TLI=0.935, CFI =0.943; and RMSEA =0.049<0.08, so unidimensionality is guaranteed.

4.3.2. Assessment of reliability, convergence, and discrimination

The reliability of the scale is assessed through: the composite reliability coefficient. Composite reliability in CFA is the reliability of a set of observed variables measuring a concept (factor). In the article, using the variance test method of Hu, L., Bentler, P.M. (1999) to assess the composite reliability (CR), all calculated values have the smallest CR =0.833> 0.7 (CR standard>0.7)

The scale achieves a convergent value when the average variance extracted >0.5. The calculated result has AVE ≥0.57, so the convergent value is guaranteed.

Discriminant value is also an important property of measurement. Discriminant value shows the level of discrimination of measurement concepts. Discriminant value is achieved when: MSV (maximum shared variance) <AVE, SRTAVE (square root of average variance extracted) > (inter construct correlation). Statistical results show that MSV of the largest value ≤0.404<AVE, SRTAVE are both greater than inter construct correlation.

4.3.2. Regression analysis results using SEM model

The study uses a linear structural model (SEM) to conduct multiple regression models at the same time, specifically: a model of the impact of factors affecting belief in O2O combined, a model of factors affecting participants' attitudes, a model of factors affecting purchase intention through O2O combined, the structural model is shown in the figure below (figure 2).

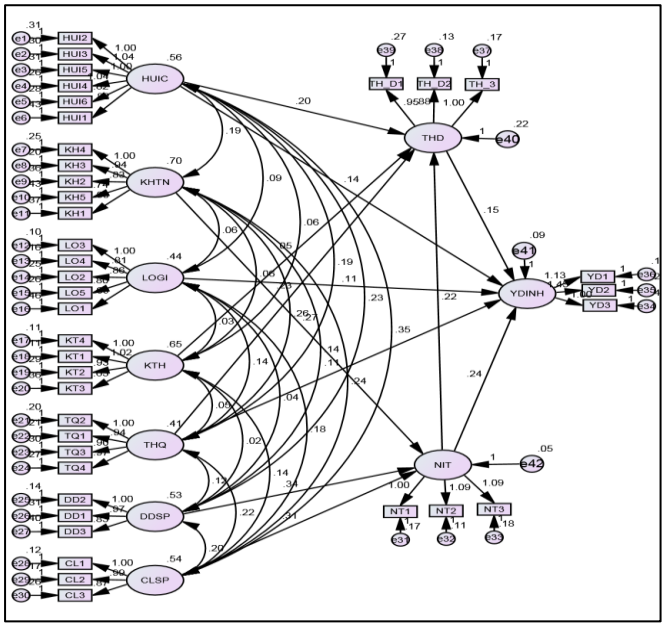

Figure 2: SEM structural model

***HUIC**: benefits of O20; **KHTN**: combined with experience; **LOGI**: logistics; **KTH**; Knowledge; **THQ**: Habits;*

***DDSP**: product diversity; **CLSP**: product quality management; **THD**: Attitude; **NIT**: belief; **YDINH**: intention*

From the SEM analysis results and the summary table (table below) we get the results of 3 models.

Model 1, the factors affecting the reputation of the combined O2O platform include: combining experience, product quality, and product diversity with the same impact (statistical significance level (p<0.001). R2 coefficient = 0.837 means that the 3 variables included in the model explain 83.7% of the change in reputation. The regression model with the belief variable is written as follows:

Belief =0.440DDSP + 0.398CLSP + 0.385 KHTN

Model 2, the impact of factors on attitude, with 4 independent variables included in the model: knowledge, habit, benefits, and reputation, has R2=0.361, which means that these 4 variables explain 36.1% of the change in purchasing attitude. All variables have a positive impact on attitude, however, the impact of the variable knowledge about e-commerce is not statistically significant (p>0.05). The general regression model with the attitude variable is written as follows:

Attitude =0.217NIT + 0.249 THQ + 0.260HUIC

Model 3, Impact of factors on participation intention, with 5 variables included in the model with coefficient R2 = 0.575, meaning that 5 variables included in the model explain 57.5% of the change in participation intention. The variables attitude, benefits, habits, reputation, and logistics have a positive impact on intention and this impact is statistically significant (p<0.05).

Intention =0.305NIT + 0.149THQ + 0.229HUIC+ 0.166LOGI+ 0.191 THD

4.3.3. Testing model estimates using Bootstrap

This test aids in determining how reliable the evaluation model's estimates are. by determining if the SEM model's regression coefficients are accurately calculated and in line with the population. This study uses the bootstrap method with the number of replicate samples N=500. The estimated results from 500 samples are averaged together with the bias and then compared with the critical value when p=0.05 is 2 when the sample approaches infinity (the condition that the critical value of the calculated bias is < 2). The test results show that all bias values are less than 2 (critical value with 5% significance level). Therefore, the above models are well estimated and consistent with the population.

Table 4. Bootstrap test results

DEPENDENT VARIABLE	INDEPENDENT VARIABLE	Bias	SE-Bias	CR-P
NIT	KHTN	-0.004	0.003	1.33
	DDSP	-0.001	0.003	0.33
	CLSP	0	0.003	0

THD	KTH	0.003	0.004	0.75
	THQ	0.003	0.006	0.50
	NIT	-0.002	0.006	0.33
	HUIC	0.009	0.005	1.80
YDINH	HUIC	-0.009	0.005	1.80
	LOGI	-0.002	0.006	0.33
	THD	0.01	0.006	1.67
	NIT	0.004	0.006	0.67
	THQ	-0.006	0.006	1.00

***HUIC**: benefits of O20; **KHTN**: combined with experience; **LOGI**: logistics; **KTH**; Knowledge; **THQ**: Habits; **DDSP**: product diversity; **CLSP**: product quality management; **THD**: Attitude; **NIT**: belief; **YDINH**: intention*

4.3.4 Multigroup analysis with income variable

To evaluate the impact of income, the author uses multi-group structural analysis to measure the predictive ability and impact on the intention to purchase via O2O of people with incomes below 10 million and above 10 million.

Table 4. Multi-group estimation results by income

Dependent variable	**Independent variable**	**Income < 10 million**		**Income > 10 million**	
		Beta	**R2**	**Beta**	**R2**
Intention	HUIC	0.165	0.437	.263**	0.675
	LOGI	0.101		.210**	
	THD	0.170		.187*	
	NIT	0.309*		.332***	
	THQ	0.154		.135	

***HUIC**: usefulness; **LOG**: logistics; **THQ**: Habit; **THD**: Attitude; **NIT**: belief;*p<0.050; ** p < 0.010; *** p < 0.001*

The estimated results show that in the group with income over 10 million/month, the variables included in the model explain 67.5% of the change in intention, while in the group with income under 10 million it is 43.7%. The impact coefficient (Beta) in the group with income over 10 million has a higher value than the group under 10 million (results in table 6). This result means that different incomes will lead to different intentions.

5. Conclusion

The research model is based on the theory of decomposition of planned behavior DTPB of Taylor and Todd (1995) and the technology application model TAM of Davis (1989). Although, many views believe that from purchase intention to actual purchase behavior is influenced by many factors. The research results of the article show that, besides the perception of usefulness and attitude, online purchase intention is also influenced by customers' habits and beliefs about logistics products and services. The research results have demonstrated that consumers' attitudes towards online shopping have a positive impact on their online purchase intention. The better the consumer's attitude towards a website/store, the higher their purchase intention at this website/store. This result is consistent with the results of many previous studies such as Lin (2007), Bigne-Alcaniz et al. (2008).

5.1. Recommendation

The study is of great significance to the development of the three-agriculture model (agriculture - rural areas - farmers) in Vietnam in the new era because it aims at modern and advanced agricultural business, an inevitable trend of Vietnam today and in the future. Bringing income to farmers not only selling local specialties, but also income from practical learning experience services (learning through the production of specialty products, through historical and cultural literature, through visiting local scenic spots, through local rural agricultural ecology, etc.). Exploiting experience products on the basis of available platforms does not require too much investment but has high economic efficiency that is not mixed with other regions and regions, and is systematic.

5.2. Limitation

To perfect the research in the future, it is possible to expand to regions across the country and establish a trading system for all regional specialties, as well as experience programs related to local agricultural specialties. Moreover, the model can be applied to other countries in the world as well as cross-border e-commerce and cross-border practical educational experiences. Combine the development of O2O e-commerce stores to deliver and sell local specialties.

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