

THE PURCHASE BEHAVIOUR VIA E-COMMERCE PLATFORM: A CASE OF SMES AND HOUSEHOLDS IN VIETNAM

Nguyen Hoang Tien¹, Nguyen Xuan Quyet^{1,*}, Tran Nho Quyet²

¹*Ho Chi Minh City University of Industry and Trade, Vietnam*

²*Northeast Forestry University, China*

*Email: quyetnx@huit.edu.vn

Received: 26 March 2026; Revised: 25 April 2026; Accepted: 16 May 2026

ABSTRACT

During and probably after the period of Covid-19 pandemic, online purchase has become increasingly and widely accepted by SMEs and households as a mode of carrying out business transactions. Using SPSS 25 and AMOS 24 software, this study has collected and analysed data from several hundred SMEs and households in Vietnam. Based on that, several relevant hypotheses were proposed to be verified. The obtained research results have shown that the purchase intention of SMEs and households via E-business platform is impacted by: product's usefulness, attitude, habit, trust and delivery services. Furthermore, the research results also indicated that experience positively affected trust and delivery services in terms of a better trust promotion, as well as improving efficiency and reducing costs, opening ways to enhance competitive capacity and service performance of E-business platforms.

Keywords: Attitude, trust, delivery services, intention, behaviour, performance.

1. INTRODUCTION

In the era of the Fourth Industrial Revolution, the Internet and its related services play a critical role in global and borderless sharing information and carrying out business transactions [1], [2]. The impressive rise in E-business retail sales is a strong proof of huge opportunities and rooms for businesses to grow if they decide to move into a virtual space. The spectacular growth and development of global E-business empires such as Alibaba, Ebay, Groupon and Amazon are some of important evidence that shifting business to a virtual space is really a failure or success. To be more convinced, the fact is that E-commerce B2B and B2C sales were equivalent to 30% of the total world GDP in 2019 [3].

Vietnam has 69 million Internet and social media users. It is a little bit more than two thirds of a total population. More importantly, most Internet and social media users are having multi mobile devices and phone numbers and as a consequence using multiple accounts to connect to the Internet. As such, there are much more mobile network subscribers, Internet accounts than the real number of total population which is currently more or less than 100 million [4]. These impressive numbers are the sound evidence that Internet transactions must be the quickest and the most convenient way to approach and serve potential customers, for now and for the future.

According to the Vietnam E-Commerce Association, the E-business average year to year growth rate of the last period before the pandemic was about 50%. It is also an impressive jump from several billion USD to more than 10 billion USD in total revenue. Paradoxically,

the pandemic despite its bad effect on the economy, has been a decisive factor to speed up the development of E-business. During the pandemic time, SMEs and households' purchase habits have shifted from offline shopping to hybrid (offline and online) shopping [5]. As such, the Online to Offline E-business offers both online purchase (for people wishing to avoid direct interpersonal contact) and offline purchase (for people wishing real experiences in real stores).

The real advantage of E-business is the possibility to enable buyers to get a quick overview of price comparison, products quality and authenticity check before purchasing in real or virtual stores [6]-[8]. Despite some strengths and opportunities, E-business sites in Vietnam have several downsides regarding low level of customer's trust and unfavourable return policy (complex and slow processing of customer's claims) that lowers their prestige and popularity. Most often, customers are at risk of being cheated by fake products' images and being at risk of receiving inferior products. All of that could potentially lead to total dissatisfaction, and as consequence, to the serious loss of customers. Going against it, the development of Online to Offline platform has enormous potential to overcome all those adversities and restore customer's trust and satisfaction, enhancing Vietnam's E-business again [9].

Based on the analysis of previous studies present in the literature and successful case studies of practices of E-business in the world, it seems to be that Vietnam E-business firms encounter quite less favourable context but great development opportunities by application of Online to Offline platforms in their marketing activities and sales transactions [10]. In this study the word 'customer' and 'consumer' mean the same and are used alternately. Also in this study, due to the scope of research objects, we have two types of customers/consumers: SMEs and households. Regarding the scope of this study, three points below are our main research objectives:

(1) Identify factors impacting the purchase intention of SMEs and households via Online to Offline transactions.

(2) Identify factors impacting SMEs and households' trust for Online to Offline business model.

(3) Propose some suggestive solutions to enhance the credibility, applicability and popularity of the Online to Offline business model.

2. THEORETICAL BACKGROUND AND LITERATURE REVIEW

2.1. O2O E-Business

There are a number of definitions and understanding of the essence of the Online to Offline E-business model. Basically, this is a business strategy that uses accessible digital techniques to let customers come to physical stores. Such digital techniques along with social media campaigns are to boost customers' brand's image and awareness [11]. For the Online to Offline E-business model, customers usually are small and medium enterprises (SMEs) and households. More and more enterprises follow this business model to maximise the ability to inform, to reach potential customers and to convince them to purchase corporate products both online and offline wherever and whenever they are regardless of time and geographical distance. Several world renown corporations have put the Online to Offline model into practice for their business activities. For instance, Zara with new Online to Offline stores in London; Starbucks did the same to reduce waiting time for customers; Burger King in Spain has used Instagram to launch a new marketing campaign for new products; Victoria's Secret has utilised the Online to Offline model to promote their newly released perfume. The Online to Offline E-business model is particularly popular in Vietnam, a very populous nation, as "SMEs" sector (not Small and Medium Enterprises but Small and Micro Enterprises) and households segment of customer base is booming and changing the ways to transact and do business, purchase

things, proceed with payments under immense impact of Covid-19 pandemic. Understanding the distinction between micro and small enterprises is crucial for regulatory compliance, tax incentives, and eligibility for specific government support programs. In Vietnam, these distinctions are primarily governed by Decree No. 80/2021/ND-CP. Micro enterprises are the smallest economic unit, often family-run or individual-led, their owner handles all functions (sales, accounting, labor), why small enterprises involve more structured management and departments with some delegated roles [12]. This E-business model originated from China this time around and has found its great mission and *raison d'être* during pandemic tough times. After becoming popular in China, it is now imported to Vietnam's largest cities, a similar country, smaller but same population density, urbanisation rate, consumer behaviour and psychology to achieve the same success and popularity.

Changes in today's business environment have led to the new era of M-commerce (era of mobile shopping) that is replacing E-commerce [13]. That also induces many changes in relevant business models. Regarding Online to Offline business model, Zhang & Liu (2019) has analysed all strengths and downsides, then put forward solutions for each stage of its development [8]. Lim and Osman (2016) have studied to identify opportunities and threats for Online to Offline model application in Shanxi province of China [14]. As a result, they proposed adequate solutions to enhance the applicability of the Online to Offline model there. Guo and Zhou (2021) have carried out analysis for Online to Offline model development in Hebei province of China [15]. They have come to the conclusion that the strong combination and cooperation of cooperatives, farmers (SMEs), and households toward the marketisation is the core essence of the Online to Offline model. The development of the Online to Offline model in Zhushan province of China also indicated that over 90% of purchases and payments were executed online [16]. These are one of many proofs of Online to Offline model expansion which needs further going supportive solutions from the government side. Wang and Guang (2019) in their study of the E-business model in Anhui province of China have pointed out that the selection of Online to Offline model to be implemented is the most important critical success factor for M-business development [17]. The rapid development of the Internet has altered traditional purchase and payment methods [12]. The convenience of online shopping has led to the development of various business models, with Online to Offline as a prominent one which has set a new trend for M-business activities in the recent global pandemic years [8].

2.2. Conceptual analysis

- *Trust*, Trust plays a more important role in enhancing online purchase intention than in enhancing offline purchase intention [18]. During the E-business transactions, consumers follow some cognitive rules to secure and reduce their complexity. In this highly uncertain context, trust has an important impact on purchase intention for both offline and online shopping. Specifically, trust plays a vital role for online shopping because it favours purchase intention and reduces risk of being cheated. As a consequence, trust always positively influences online shopping as the higher the trust the lower the relevant risk. Regarding the trust in Online to Offline E-business, Yan et al. (2015) and Jarvenpaa et al. (2000) have agreed on a positive relationship between scale and prestige online stores and the consumers' trust and risk's awareness [19], [20]. We could also hypothesise in this study that trust in Online to Offline business model impacts positively customers' purchase intention. However, other factors are also important to promote trust such as products' quality, products' diversity and products' experience.

- *TTD (travel, transport and delivery) logistics services*, E-business needs TTD logistics services in its different development stages: travelling, warehousing, inventory, packaging, labelling, transport, payment, delivery, processing products returned and dealing with services

complained, etc. Delivery (transport) is considered the utmost and paramount importance in trading perishable, for-immediate-use goods. Cho et al. (2008) indicated that TTD logistics services positively relate to the operational performance and sales performance of E-business systems [21]. It is obvious that if the TTD logistics services are improved, they will boost the quality of products and services delivered to customers [22]. Enhanced TTD logistics services create a high competitive intensity in the E-business retail industry with values based on customer satisfaction and loyalty [23]. Undoubtedly, effective TTD logistics services will promote the purchase intention and speed up the purchase decision. So, the O2O business model needs to be based on widely understood modern TTD logistics services.

- *Habits*, Habits are constantly repetitive actions that happen unconsciously and are based on experience and skills learned over a long time. Habits are one of the important factors impacting consumers' behaviour and purchase intention [24], [25]. Specifically, regarding the use of technology, habits are considered as automatic behaviours in line with the need for learning to utilise the mobile shopping to form a natural reflex of purchase intention. Also at this point of research development, we hypothesise that habits positively contribute to the improvement of purchasing intention.

- *Attitudes*, we normally divide attitudes into two types: attitude to object and attitude to behaviour. The attitude here in this study is an attitude toward behaviour – the shopping behaviour. Attitude is defined as an individual's assessment of the result obtained from the actions performed [26]. Regarding shopping activities, it refers to customers' reviews in line with their experience and history of purchase from retail websites. Certainly, consumers' attitudes influence their purchase intentions. In this context, customers' positive attitudes have been proven to exert positive impacts on their purchase intention [27]. Factor taken into consideration to create customers' positive attitudes is the perceived usefulness. Furthermore, we also suppose that both knowledge and attitude have the same direction of impact on purchase intention.

- *Perceived Usefulness*, for online purchase, the perceived usefulness is understood as to be proportionate to the level of customers' trust for the website or system [28]. Perceived usefulness may alternatively be described as individuals' trust that using the website or system will boost their work performance. The perceived usefulness of a website or a system is dependent on the technology as hard factor and human as soft factor. Customers must be fully informed with a variety of aspects of product descriptions to assist them in making sound business decisions and right choices. Most of research on perceived usefulness was carried out in developing nations rather than in developed nations as most of the products and services offered in developed markets better suit consumers' needs than those offered in emerging markets and industrialising countries are still in the early phases of e-commerce and e-business development. Previous research of Aghdaie et al. (2011) have found a link between perceived usefulness and customer behaviour and intention to buy [29]. The primary drivers of purchasing intention, and later on, decision in industrialised nations may differ very much from those in developing nations or underdeveloped nations. In summary, customers' intention and decision to purchase a product is influenced by its perceived usefulness. The perceived usefulness is one of three factors affecting the online shopping behaviour, purchasing intention and decision of customers [30].

- *Purchase Intention and Customer Behaviour*, Purchase intention is to measure how people are ready to purchase a product in their behaviour [26]. The next step after the purchase intention is the purchase decision. The online purchase intention is even more important for e-commerce and e-business development [28]. Although online purchase intention has been identified as an important factor impacting the online purchase behaviour, however online purchase intention doesn't always lead to online purchase decision and action [31].

2.3. Theoretical analysis

Theory of Planned Behaviour, Theory of Reasoned Action (TRA) is followed by and is developed into Theory of Planned Behaviour (TPB) (Ajzen, 1991). Removing the limitation in handling voluntary behaviour of TRA, TPB suggested that behaviour is a voluntary action because it is uncontrollable [26]. According to TRA, a positive attitude and healthy mind-set contribute to the formation of behaviour and intention. On the contrary, TPB assumes that people take action (regarding purchase decisions) if they can control their own behaviour.

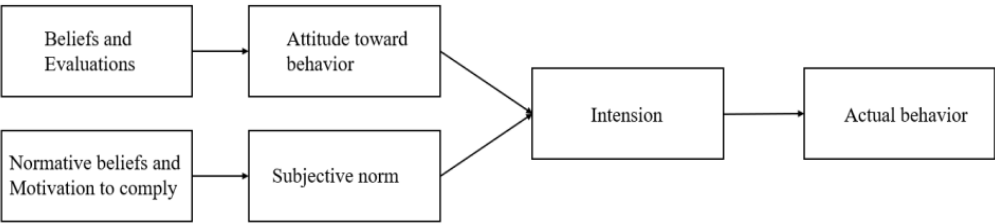


Figure 1. Theory of Reasoned Action (TRA). Source: [26]

Technology Acceptance Model, Theory of Reasoned Action (TRA) is also modified and adapted into Technology Acceptance Model (TAM). TAM was used to assess user acceptance of technology, which is measured by the intention to use technology, the effect of attitude and perceived usefulness on that intention (Davis et al., 1989). The findings revealed that perceived usefulness had a significant impact on intention to use technology. The effects of perceived usefulness on intention to use technology, on the other hand, was mediated by just the attitude [32]. TAM was adjusted by eliminating the attitude factor identified in TRA. The new TAM indicated its role is to act as a mediator in connecting the perceived usefulness and purchase behaviour.

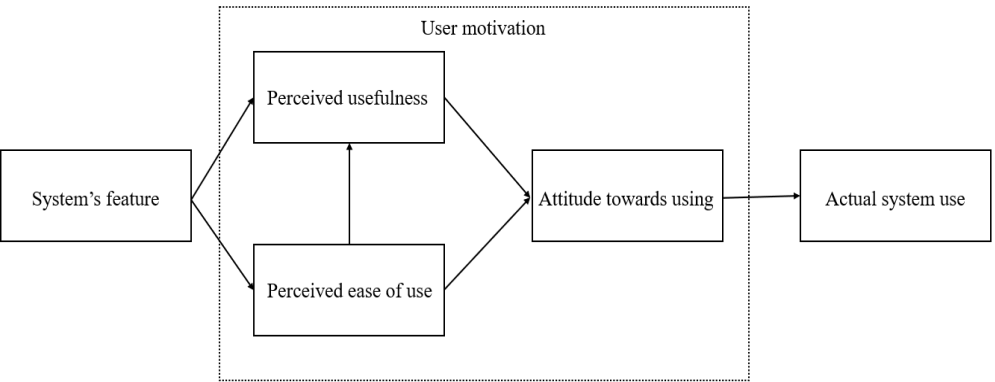


Figure 2. Technology Acceptance Model (TAM 1989). Source: [32]

3. METHODOLOGY

The survey questionnaires were sent randomly to 500 emails of SMEs and households starting from January 2019 to May 2020. We have got feedback from around 400 recipients and about 350 of them are correct and usable. The content of the questionnaire has been focused on customers' behaviour, specifically customers' online purchase intention and its impacting factors. The questionnaire was designed and elaborated on the basis of experts'

opinions and a test survey to ensure that all questions and phrases are suitable for the target respondents. The questionnaire has used a 5-point Likert scale. The important variables of the questionnaire are: trust (in Online to Offline E-commerce), quality of products, diversity of products, customer attitude, customer habit, customer product perceived usefulness, customer product knowledge, logistics services, and customer purchase intention. The data collected was evaluated via CMB (Common Method Bias) to test the reliability of the scale, calculate the unidimensionality and the model's goodness of fit in CFA (Confirmatory Factor Analysis), to measure the influence of factors on trust, attitude and intention by SEM (Structural Equation Modelling), test the model's goodness of fit with market data by Bootstrap. The analytical tools include SPSS 25 and AMOS 24. Based on the above presented theoretical models: Theory of Reasoned Action, Theory of Planned Behaviour, Technology Acceptance Model and after in-depth theoretical review and practical study, we propose the following research hypotheses with following study model in figure 3:

- + H1: Consumers' trust in Online to Offline E-commerce positively influences purchase intention.
- + H2: The quality of products via consumers' trust positively influences purchase intention.
- + H3: The diversity of products via consumers' trust positively influences purchase intention.
- + H4: The experience via consumers' trust positively influences purchase intention.
- + H5: Efficient TTD logistics services positively influence purchase intention.
- + H6: Consumers' habit positively influences purchase intention.
- + H7: Consumers' attitude positively influences purchase intention.
- + H8: Perceived usefulness via consumers' attitude positively influences purchase intention.
- + H9: Consumers' habit via consumers' attitude positively influences purchase intention.
- + H10: Consumers' trust promotes consumers' attitude.
- + H11: E-business knowledge via consumers' attitude positively influences purchase intention.

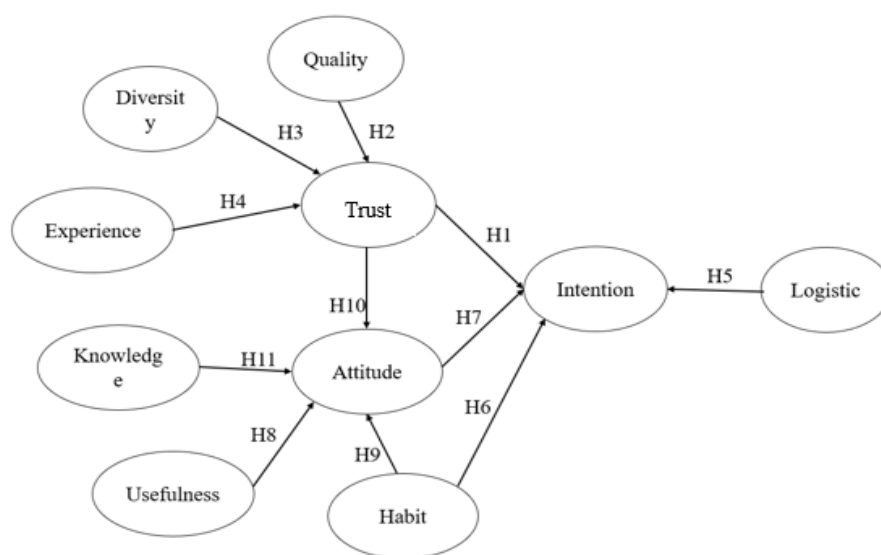


Figure 3. The proposed study model. Source: Own elaboration

4. RESULTS AND DISCUSSION

4.1. Common Method Bias test

The studies that use an online survey to collect input data can encounter a common problem of data bias. If the input data has a symptom of so-called CMB (Common Method Bias), the research results will be meaningless. Therefore, to be sure whether we have to deal with CMB or not, the Single Factor Test of Harman must be done. It means that we check whether all the variables (measuring the latent variables) are loaded into a general element. If the total variance of one element is less than 50%, the CMB does not affect the input data. In our case, the single factor test result indicated that the TVE (Total Variance Explained) was less than 27.6%, smaller than 50%, so the collected input data were qualified.

4.2. Cronbach Alpha reliability test

This reliability test aims at finding out whether the observed variables measure the same value or not. Thanks to the Cronbach's alpha-(CA) test, we were able to eliminate unsuitable variables from the research model. If the CA coefficient is within (0,8; 1), the measuring variable is good. If the CA coefficient is within (0,7; 0,8) the measuring variable is acceptable. If the measuring variable is within (0,6; 0,7) the measuring variable can be considered for use but only in new research. The used variables must have contributed value described by Corrected Item - Total Correlation of more than 0,3. The result of this test ensures that all the variables are acceptable to serve as measuring scales.

4.3. Exploratory Factor Analysis

We use EFA (Exploratory Factor Analysis) to determine the latent variables created from observed variables via the assessment of convergence and discriminant. The following conditions must be fulfilled:

- + KMO coefficient > 0.5 and sig value < 0.05
- + Total % of variance extracted of the generated factors > 50%
- + Loading factors > 0.5

- *EFA analysis with independent variables*, the results of analysis showed that the KMO coefficient in Bartlett's test = 0.87 > 0.5; and its sig value = .000 (Sig < 0.001), so the EFA method is suitable. Besides, with the observed variables of the independent variables included in the analysis, 7 main variables were drawn, with a total variance of 71.87% extracted. The main variables created all have factor loading > 0.5.

- *EFA analysis with dependent variables*, all indicators in above EFA analysis for dependent variables (Attitude, Trust, Purchase Intention) are fulfilled so that latent variables are formed as key variables used in regression analysis.

4.4. Confirmatory Factor Analysis

- *Unidimensionality test*, To check the suitability of the model with market information, we use the following indicators: Chi-square (CMIN) and Chi-square modified to the degree of freedom (CMIN/df); Goodness-of-Fit-Index (GFI); Comparative Fit Index (CFI); Tucker and Lewis Index (TLI); Root Mean Square Error Approximation (RMSEA). The model is considered suitable (with market information) if: CMIN has P-value > 0.05; CMIN/df $\leq$ 3.00; GFI within (0.8; 0.9); CFI and TLI $\geq$ 0.9; RMSEA $\leq$ 0.08 (Hair et al., 2010). The unidimensionality test here indicated that CMIN is 880.01 with P-value > 0.05; CMIN/df $\leq$ 2; GFI = 0.877 > 0.8 and < 0.9, TLI = 0.935 $\geq$ 0.9, CFI = 0.943 $\geq$ 0.9; RMSEA = 0.049 < 0.08. Therefore, the unidimensionality is satisfied.

- *The reliability, the convergence, and the discriminant*, The reliability of the measuring variable is evaluated using the Composite Reliability (CR) test. The CR is the total reliability of observed variables used to measure one factor. In this article, we use the variance test of Hu et al. (1999) to estimate the CR of all values, whose minimum is $0.833 > 0.7$ (the threshold of CR quality). The measuring variable must have Average Variance Extracted (AVE) > 0.5 . In this case, the calculated results had $AVE \geq 0.57$ which means the AVE is suitable. Discriminatory value, an important characteristic of measurement, represents the discriminant of measured concepts. This value can be achieved when Maximum Shared Variance (MSV) $< AVE$. The results show that MSV of the highest value is $\leq 0.404 < AVE$.

- *The relationships of factors*, This study uses covariance to measure the effect of multiple variables in the model. Covariance measures the directional relationship between two random variables in contrast to the Variance which measures the degree of variation of one variable. If two random variables have the same trend, their covariance has a positive value. Oppositely, it has a negative value. The results indicate that there is a positive relationship among variables (covariance has positive value). Apart from relationships among other factors present in this study (habit, attitude, trust, usefulness, experience, TTD logistics services, quality, diversity), knowledge (KNO) showed no statistical significance (with sig. value > 0.05), while the rest are statistically significant (with sig. value ≤ 0.05).

4.5. Structural Equation Modelling

In this study we use Structural Equation Modelling (SEM) to regress several models in parallel in the O2O E-business, specifically: the model of factors impacting “trust”; the model of factors impacting “attitudes”; the model of factors impacting “purchase intention”. In order to complete our study, we have consulted the way Cavaliere et al. (2020) and other authors on how to use SEM in their research [8]. From the analysis results of SEM, we suggest the following formulas for 3 models:

+ *Model 1*, model of factors influencing “Trust” (in Online to Offline E-business) include 3 independent variables: product quality, product diversity and experience which exert the positive impact (with statistical significance $p < 0.001$). The coefficient $R^2 = 0.84$ means that the 3 mentioned variables can explain 83.7% of the variability of “Trust”. The regression model with “Trust” is written below:

$$TRU = 0.44 * DIV-PROD + 0.40 * QUA-PROD + 0.39 * EXP \quad (1)$$

+ *Model 2*, model of factors influencing “Attitude” (toward Online to Offline E-business) include 4 independent variables: knowledge, habit, trust and usefulness. The coefficient $R^2 = 0.36$ means that these 4 independent variables can explain 36% of the variability of “Attitude”. All given variables have positive effects on “Attitude”, but the influence of knowledge (about Online to Offline E-Business) is statistically insignificant (with $p > 0.05$). The general regression model with the “Attitude” is written as below:

$$ATT = 0.22 * TRU + 0.25 * HAB + 0.26 * USE \quad (2)$$

+ *Model 3*, model of factors influencing (Purchase) “Intention” (via Online to Offline E-business) include 5 variables: Transport-travel-delivery, usefulness, habit, prestige, logistics. This model has a coefficient $R^2 = 0.58$ which means that 58% of the variability of (Purchase) Intention is explained by these 5 variables. All of 5 variables have positive impacts on (Purchase) “Intention” and these impacts are statistically significant ($p < 0.05$).

$$INT = 0.31 * TRU + 0.15 * HAB + 0.23 * USE + 0.17 * TTD + 0.19 * ATT \quad (3)$$

The regression coefficients of all variables in 3 above given models are demonstrated in table 1:

Table 1. The results of regression analysis in 3 models

Dependent variable	R2	Independent variables	Beta	Standardised beta	Critical value.	P
Trust (TRU)	0.84	EXP	0.27	0.39	9.67	***
		DIV-PROD	0.35	0.44	10.27	***
		QUA-PROD	0.31	0.40	9.42	***
Attitude (ATT)	0.36	KNO	0.05	0.07	1.29	0.20
		HAB	0.23	0.25	3.88	***
		TRU	0.22	0.22	3.08	**
		USE	0.20	0.26	3.95	***
Intention (INT)	0.58	USE	0.14	0.23	3.56	***
		TTD	0.11	0.17	3.21	**
		ATT	0.15	0.19	2.91	**
		TRU	0.24	0.31	4.37	***
		HAB	0.11	0.15	2.34	*

Noted:

TRU: trust; ATT: Attitude; INT: intention

EXP: experience; DIV-PROD: products' diversity; QUA-PROD: products' quality;

KNO; Knowledge; HAB: Habit; USE: perceived usefulness; TTD: TTD logistics services;

** $p < 0.050$; ** $p < 0.010$; *** $p < 0.001$*

Source: Authors' calculation

4.6. Model estimated test by Bootstrap

The Bootstrap test enables us to measure the reliability of the model estimation by evaluating whether the regression coefficients in SEM are well-estimated or not and suitable with the population or not. In this study we use the Bootstrap test with $N=500$ repeated samples so that the results of estimation are averaged with bias. Subsequently, this figure is put in comparison with the critical bias value of 2 ($p \leq 0.05$) when samples reach infinity as the critical value of bias is usually below 2. The Bootstrap test's results show that the bias values are below 2 (the statistical significance is 5%). Hence, the mentioned models are well-estimated and suitable for the population.

5. CONCLUSION

5.1. Discussion over main findings

The research model in this study is based primarily on the Theory of Planned Behaviour. However, there are many expert opinions that the online purchase intention (INT) is affected by many factors. The results of this study lead to the following conclusions:

Apart from the perceived usefulness (awareness of benefits, USE) and attitude (ATT), the online purchase intention (INT) is affected by the customers' habit (HAB), trust (TRU) in products' quality (QUA-PROD), products' diversification (DIV-PROD) and logistics services (TTD). The results of this study have proved that customers' attitude towards Online to Offline E-business (ATT) positively impacts their online purchase intention (INT). The better the attitude (ATT), the higher the purchase intention (INT). This statement

conforms to the research results of various other studies presented above in the “Literature background” section.

The attitude of consumers (ATT) towards online purchase via Online to Offline E-business platform is affected by the usefulness (USE), habit (HAB), and trust (TRU) in O2O E-business. This consumers’ attitude can be improved if they receive or perceive that they receive benefits in terms of time, price and convenience (USE). Changing the purchase and payment habits (HAB) also positively impacts consumers’ attitude toward online purchase via Online to Offline E-business platform (ATT). Besides, the trust (TRU) in O2O E-business's quality and differentiation of products can promote a better consumers’ attitude (ATT).

Habit (HAB) can exert a significant impact on customers’ attitudes (ATT), and at the same time, has a direct impact on online purchase intention (INT) via Online to Offline E-business platform. This requires a great deal of effort to convince people about the values that the Online to Offline E-business platform can bring about to change customers’ habit (HAB). In line with findings of Wood and Neal (2009), we conclude that consumers; habit (HAB) will change if they pursue the goal of usefulness (USE) in online daily purchase activities.

Regarding trust (TRU) in O2O E-business platform, findings of this study indicate the positive impact of factors, such as products’ quality and diversity (QUA-PROD and DIV-PROD). However, the customers’ experience with local products, services and culture (EXP) will also enhance their trust (TRU). As indicated by Clare et al. (2020), the higher the trust (TRU), the higher the purchase intention (INT). Based on the current level of trust in O2O E-business platforms in Vietnam, we state that the choice of E-business platform originated from the O2O E-business model in combination with experience (EXP) is appropriate.

Logistics services (TTD) play a critical role in E-commerce and E-business and this has been examined not only in this study but also by others. Each business process is related to this factor that includes several stages from warehousing to managing inventory, payment settlement, packaging, labelling, delivery, returning and dealing with complaints. It is regarded as an irreplaceable stage/factor/ variable that contributes to the building of a business brand. Thus, to ensure the TTD logistic process’ efficiency, effective goods and people transport systems should be deployed to bring about customers’ satisfaction, by ensuring products’ quality and diversity every time and everywhere, staff and customers whenever and wherever they need to be. As a result, a qualified transport system is necessary to minimise travel and delivery distance, to reduce downtime and waiting time, enhancing consumers’ trust (TRU), improving competitive capacity and overall business performance.

5.2. Contributions

This study has contributed to enhance the knowledge body of research by re-examining the existing in theories and in practice e-business models to distinguish and differentiate the only one Online to offline model, to prove its popularity and applicability in the current socio-economic context and later on.

Regarding practical contribution, as said repetitively, this Online to Offline model has been in this study analysed, adjusted or modified to be on time imported from Chinese business reality into Vietnamese socio-economic ground to become more successful in the future of post pandemic time.

Regarding theoretical contribution, many related concepts such as: attitude, habit, trust, perceived usefulness, etc. have been identified, discussed and accordingly highlighted regarding interested for us topics. The study results have proved that the customer’s attitude towards online platforms has positive effects on their purchase intention. The better the attitude, the higher the purchase intention. This statement is suitable with the results of various research, such as the research of Fishbein and Ajzen [26]. Habit exerts a significant impact on

customers' attitudes, and, at the same time, it has a direct effect on purchase intention. This requires a great deal of marketing effort about the values that Online to offline model has brought back to make changes to daily habits. According to the viewpoint of Wood et al. (2009), the habit will change if people pursue the goal of purchasing for daily necessity [33-42]. The result indicates the positive effects of products' quality and diversity on customers' trust. The studies by Chiu et al. (2009) shared the same results [34]. However, in this study, we added the experience to evaluate whether this factor can promote the trust or not. The result shows that experience increases customers' trust and the higher the trust, the higher the purchase intention. Finally, logistics services play an important role in Online to offline model, which have been proved by Ramanathan (2014) [35], and also by our study. Every manufacturing process is related to travel, transport and delivery of logistics services, from warehousing to inventory, payment, packaging, labeling, delivery, money collecting, good returning, etc. In Online to offline model the joint optimization of sales and logistics will improve the efficiency and service quality, thus enhance the competitiveness, which further boost customer perceived usefulness.

5.3. Limitations

Despite the above presented multidimensional contributions, there are still some limitations that need to be overcome in this study for the benefit of future similar or related studies. First, a further extensive conceptual analysis must be carried out to identify more impact factors/determinants of the purchase intention in current business reality and its prospective future development. Secondly, an in-depth literature review on theoretical analysis regarding e-commerce models must be realised more meticulously in future research. The theory of planned behaviour and theory of acceptance model indicated in this research are adequate but far from enough for a decent, in-depth, high quality and original research. Final limitation of this study is focusing on the SMEs and households segment/sector of the e-commerce market while other segments/sectors also are of no less importance. Additionally, in the authors' understanding and perception, SMEs means rather small and micro enterprises, this is not what we usually often think of.

Acknowledgement: This research is partly funded by Ho Chi Minh City University of Industry and Trade, Northeast Forestry University (China). The authors would like to thank Ho Chi Minh City University of Industry and Trade for providing financial support.

REFERENCES

- [1] N. H. Tien, L. P. Dana, R. J. S. Jose, P. M. Duc, N. T. H. Oanh, and N. T. Vu, "Situation of training logistics human resources in Vietnam and development solutions," *International Journal of Advanced Education and Research*, vol. 5, no. 3, pp. 99–104, 2020. Available: <https://www.alleducationjournal.com/assets/archives/2020/vol5issue3/5-1-15-654.pdf>
- [2] L. P. Dana, *Asian Models of Entrepreneurship, from the Indian Union and Nepal to the Japanese Archipelago: Context, Policy and Practice*. Singapore: World Scientific, 2014. ISBN: 978-981-459-025-9.
- [3] H. T. Nguyen, "The impact of Covid-19 pandemic on brand value of transport and logistics industry in Vietnam," *International Journal of All Multidisciplinary Research Studies*, vol. 1, no. 2, pp. 38–44, 2022. Available: https://www.academia.edu/77466563/The_impact_of_Covid_19_pandemic_on_brand_value_of_transport_and_logistics_industry_in_Vietnam
- [4] M. Cuong, *Vietnam Digital Report 2021*. DigitalVN, 2021. [Online]. Available: <https://digitalvn.vn/digital-report-vietnam-2021/>. [Accessed: Feb. 26, 2026].

- [5] VECOM, *Vietnam E-commerce Index Report 2021*. Hanoi, Vietnam, 2021. [Online]. Available: <https://vecom.vn/bao-cao-chi-so-thuong-mai-dien-tu-viet-nam-2021>. [Accessed: Apr. 24, 2026].
- [6] N. H. Tien, D. T. Y. Nhi, and D. T. P. Chi, “Logistics service management in Vietnam enterprises and foreign corporations,” *International Journal of Multidisciplinary Research and Development*, vol. 6, no. 10, pp. 16–21, 2019. Available: <https://www.allsubjectjournal.com/assets/archives/2019/vol6issue10/6-9-31-789.pdf>
- [7] K. Santarek, N. H. Tien, M. T. H. Dao, and D. T. Minh, “Factors impacting effectiveness of R-logistics activities at supermarkets in Vietnam,” *International Journal of Multidisciplinary Research and Growth Evaluation*, vol. 3, no. 1, pp. 217–223, 2022. Available: <https://www.allmultidisciplinaryjournal.com/article/644/factors-impacting-effectiveness-of-r-logistics-activities-at-supermarkets-in-vietnam>
- [8] A. Cavaliere, E. Siletti, and A. Banterle, “Nutrition information, Mediterranean diet, and weight: A structural equation approach,” *Agricultural Economics – Czech*, vol. 66, no. 1, pp. 10–18, 2020, doi: <https://doi.org/10.17221/25/2019-AGRICECON>
- [9] T. H. Nguyen and T. V. Nguyen, “Factors affecting the e-commerce adoption of SMEs in Vietnam,” *The Journal of Asian Finance, Economics and Business*, vol. 9, no. 1, pp. 211–220, 2022, doi: <https://doi.org/10.13106/jafeb.2022.vol9.no1.0211>
- [10] D. T. Cuong, “Determinants affecting online shopping consumers’ satisfaction and repurchase intention: Evidence from Vietnam,” *Innovative Marketing*, vol. 19, no. 1, pp. 126–139, 2023, doi: [https://doi.org/10.21511/im.19\(1\).2023.11](https://doi.org/10.21511/im.19(1).2023.11)
- [11] Q. T. Pham, X. P. Tran, M. T. H. Nguyen, and T. T. T. Doan, “Consumer behavior towards e-commerce during the COVID-19 pandemic: Evidence from Vietnam,” *Frontiers in Psychology*, vol. 12, Art. no. 624410, pp. 1–15, 2021, doi: <https://doi.org/10.3389/fpsyg.2021.624410>
- [12] K. D. Tran and T. N. Vo, “Determinants of online shopping intention: A study of Vietnamese consumers in the post-pandemic era,” *International Journal of Retail & Distribution Management*, vol. 52, no. 2, pp. 145–168, 2024, doi: <https://doi.org/10.1108/IJRDM-05-2023-0312>
- [13] N. M. Nguyen, T. T. Hoai, H. V. Vo, and N. P. Nguyen, “Digital approach toward environmental sustainability in supply chains: Evidence from Vietnamese firms,” *Sustainable Development*, vol. 31, no. 5, pp. 3303–3317, 2023, doi: <https://doi.org/10.1002/sd.2586>
- [14] Y. J. Lim, A. Osman, S. N. Salahuddin, A. R. Romle, and S. Abdullah, “Factors influencing online shopping behavior: The mediating role of purchase intention,” *Procedia Economics and Finance*, vol. 35, pp. 401–410, 2016, doi: [https://doi.org/10.1016/S2212-5671\(16\)00050-2](https://doi.org/10.1016/S2212-5671(16)00050-2)
- [15] J. Li and D. Zhao, “Analysis on the development of rural e-commerce in Hubei Province under the background of rural revitalization strategy,” in *Proceedings of the 2020 International Conference on E-Commerce and Internet Technology (ECIT)*. Piscataway, NJ, USA: IEEE, 2020, pp. 14–19, doi: <https://doi.org/10.1109/ECIT50008.2020.00011>
- [16] K. T. Mehta and V. Shah, “E-commerce: The next global frontier for small businesses,” *Journal of Applied Business Research*, vol. 17, no. 1, pp. 95–104, 2001, doi: <https://doi.org/10.19030/jabr.v17i1.2067>.

- [17] C. Wang and W. G. Guo, "Research on the development status and countermeasures of new e-commerce to help the sales of agricultural products," *ResearchGate*, 2024. Available: https://www.researchgate.net/publication/389257126_Research_on_the_Development_Status_and_Countermeasures_of_New_E-Commerce_to_Help_the_Sales_of_Agricultural_Products
- [18] O. Masood, "Inertia and online trust leading factors affecting consumer repeat purchase intention in e-commerce: Moderating role of alternative attraction," *Journal of Internet Banking and Commerce*, vol. 26, no. S9, 2021. [Online]. Available: https://www.researchgate.net/publication/311258858_Inertia_and_online_trust_leading_factors_affecting_consumer_repeat-purchase_intention_in_E-commerce_Moderating_role_of_alternative_attraction
- [19] Z. Yan, X. Yaru, and Y. Jing, "The influence factors of O2O e-commerce trust research: Based on the perspective of consumer participants," *International Journal of Research Studies in Science, Engineering and Technology*, vol. 2, no. 8, pp. 84–90, Aug. 2015.
- [20] S. L. Jarvenpaa, N. Tractinsky, and M. Vitale, "Consumer trust in an Internet store," *Information Technology and Management*, vol. 1, nos. 1–2, pp. 45–71, 2000, doi: <http://dx.doi.org/10.1023/A:1019104520776>
- [21] J. K. Cho, J. Ozment, and H. Sink, "Logistics capability, logistics outsourcing and firm performance in an e-commerce market," *International Journal of Physical Distribution & Logistics Management*, vol. 38, no. 5, pp. 336–359, 2008, doi: <https://doi.org/10.1108/09600030810882825>
- [22] R. Ramanathan, G. Joseph, and U. Ramanathan, "The role of logistics in e-commerce transactions: An exploratory study of customer feedback and risk," in *Supply Chain Strategies, Issues and Models*. London, U.K.: Springer, 2013, pp. 221–233, doi: https://doi.org/10.1007/978-1-4471-5352-8_10
- [23] J. Zhu, X. Chen, X. Wang, and S. Wang, "Research on countermeasures for agricultural product distribution in Guangxi under the O2O model," in *Proceedings of the 9th International Conference on Engineering Management and the 2nd Forum on Modern Logistics and Supply Chain Management (ICEM-MLSCM 2024)*. Paris, France: Atlantis Press, 2024, pp. 5–12, ISBN: 978-94-6463-531-7.
- [24] V. Venkatesh, J. Y. L. Thong, and X. Xu, "Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology," *MIS Quarterly*, vol. 36, no. 1, pp. 157–178, 2012, doi: <https://doi.org/10.2307/41410412>
- [25] V. Venkatesh and F. D. Davis, "A theoretical extension of the technology acceptance model: Four longitudinal field studies," *Management Science*, vol. 46, no. 2, pp. 186–204, 2000, doi: <https://doi.org/10.1287/mnsc.46.2.186.11926>
- [26] I. Ajzen, "The theory of planned behavior," *Organizational Behavior and Human Decision Processes*, vol. 50, no. 2, pp. 179–211, 1991, doi: [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- [27] E. Yoh, M. L. Damhorst, S. Sapp, and R. Laczniak, "Consumer adoption of the Internet: The case of apparel shopping," *Psychology & Marketing*, vol. 20, no. 12, pp. 1095–1118, 2003, doi: <https://doi.org/10.1002/mar.10110>
- [28] Y. Hu, X. Sun, Z. Jing, X. Zhang, F. Luo, and L. Huang, "A university student behavioral intention model of online shopping based on TAM," in *Proc. 2009 International Conference on Information Management, Innovation Management and Industrial Engineering (ICIII)*. Piscataway, NJ, USA: IEEE, 2009, pp. 625–628, doi: <https://doi.org/10.1109/ICIII.2009.156>

- [29] S. F. Aghdaie, A. Piraman, and S. Fathi, "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*, vol. 2, no. 23, pp. 147–158, 2011.
- [30] I. B. Hong and H. Cho, "The impact of consumer trust on attitudinal loyalty and purchase intentions in B2C e-marketplaces: Intermediary trust vs. seller trust," *International Journal of Information Management*, vol. 31, no. 5, pp. 469–479, 2011, doi: <https://doi.org/10.1016/j.ijinfomgt.2011.02.001>
- [31] L. Orapin, "Factors influencing Internet shopping behavior: A survey of consumers in Thailand," *Journal of Fashion Marketing and Management*, vol. 13, no. 4, pp. 501–513, 2009, doi: <https://doi.org/10.1108/13612020910991367>
- [32] F. D. Davis, R. P. Bagozzi, and P. R. Warshaw, "User acceptance of computer technology: A comparison of two theoretical models," *Management Science*, vol. 35, no. 8, pp. 982–1003, 1989, doi: <https://doi.org/10.1287/mnsc.35.8.982>
- [33] D. T. Binh, H. T. Hoa, P. V. Hieu, B. V. Can, D. H. Hung, and N. H. P. Dai, "Applying e-commerce by Vietnamese SMEs: A critical analysis," *Journal of Social Economics Research*, vol. 10, no. 3, pp. 81–96, 2023, doi: <https://doi.org/10.18488/35.v10i3.3409>
- [34] C. M. Chiu, C. C. Chang, H. L. Cheng, and Y. H. Fang, "Determinants of customer repurchase intention in online shopping," *Online Information Review*, vol. 33, no. 4, pp. 761–784, 2009, doi: <https://doi.org/10.1108/14684520910985710>
- [35] R. Ramanathan, G. Joseph, and U. Ramanathan, "The role of logistics in e-commerce transactions: An exploratory study of customer feedback and risk," in *Supply Chain Strategies, Issues and Models*, U. Ramanathan and R. Ramanathan, Eds. London, U.K.: Springer, 2014, pp. 221–233, doi: <https://doi.org/10.1007/978-1-4471-5352-8>