

## Intention to apply e-commerce in marketing communication activities in the supply chain of community-based tourism in Vietnam

Nguyen Duc Thang<sup>a</sup>, Truong Duc Thao<sup>b</sup>, Phung Xuan Dung<sup>c\*</sup>, Bui Cam Phuong<sup>d</sup>, Pham Tran Thang Long<sup>d</sup>, Dinh Van Toi<sup>e</sup>, Vo Thanh Trung<sup>f</sup>, Nguyen Thi Thuy<sup>b</sup> and Bui Phuong Linh<sup>g</sup>

<sup>a</sup>East Asia University of Technology, Vietnam

<sup>b</sup>Dai Nam University, Vietnam

<sup>c</sup>Hanoi University of Physical Education and Sports, Vietnam

<sup>d</sup>Thang Long University, Vietnam

<sup>e</sup>Nghe An University of Economics, Vietnam

<sup>f</sup>Hanoi Open University, Vietnam

<sup>g</sup>Thuongmai University, Vietnam

### ABSTRACT

#### Article history:

Received November 1, 2022

Received in revised format

December 10, 2022

Accepted April 3 2023

Available online

April 3 2023

#### Keywords:

Supply chain in tourism

Technology acceptance model

e-commerce

Marketing communication

Community-based tourism

This study represents a survey data of 466 community-based tourism establishments in the northern provinces of Vietnam such as, Yen Bai, Ha Giang, Tuyen Quang etc., with strongly developed community-based tourism activities based on the technology acceptance model (TAM). The results show that perceived ease of use of e-commerce has a positive and strong impact compared to perceived effectiveness of e-commerce on the intention to apply e-commerce to marketing communication activities in the supply chain of community-based tourism in Vietnam. In addition, if community-based tourism businesses perceive themselves as being modern, it will positively affect the perception of the ease of use and effectiveness of e-commerce, thereby indirectly bringing about a positive impact on the intention to apply e-commerce. Conversely, if they perceive themselves being traditional, it will negatively affect this relationship. Accordingly, this study helps provide practical evidence for promoting the application of e-commerce in tourism in remote, economically difficult areas in Vietnam and elsewhere. Nonetheless, the study remains limited when it has not been done a multi-group analysis to consider different influences of the factors of region, destination characteristics, type of tourism on intention to apply e-commerce for marketing communication activities in community-based tourism establishments.

© 2023 Growing Science Ltd. All rights reserved.

## 1. Introduction

The study of intention to apply new management methods has been approached by many researchers including Davis's (1989) technology acceptance model (TAM). They usually focus only on perceived effectiveness and ease of use of the new method without considering how factors of the decision maker's own perception affect the perception of the ease of use or the perception of effectiveness, which eventually affect the intention to apply the new management method. The factor of self-perception has been confirmed to have a strong influence on people's decision to accept new things (Mai, Kwon, Lantz & Loeb, 2003; Mai, Smith & Cao, 2009). Recent research by Thao *et al.* (2022) has mentioned the impact of the decision maker's self-perception on the perception of the ease of use, but the perceived effectiveness of the system was not included. Therefore, in this study, we further examine the impact of the decision maker's own perception on the perceived ease of use and effectiveness of the new method, thereby indirectly affecting the intention to apply the new management method.

The community-based tourism business is developing very strongly in Vietnam, especially in the northern provinces due to its rich natural tourism resources and ethnic minorities whose many cultural values and beautiful wild features. However, the

\* Corresponding author

E-mail address [phungxuandungtdt@gmail.com](mailto:phungxuandungtdt@gmail.com) (P. X. Dung)

source of visitors to the community-based tourism areas here still mainly comes from travel companies in the traditional way with little cooperation between members in the tourism supply chain including travel agencies, carriers, accommodation establishments, food establishments, attractions, tourist destinations, etc. This seems to create a huge limitation on the size of the source of tourists and the division of value among the members of the supply chain and incomplete exploitation of the tourism potential in the community. In the last few years, especially since the Covid-19 pandemic took place, e-commerce has been applied more and more widely in Vietnam and in many fields, but most of it is in businesses doing import and export in urban areas in big cities, meanwhile it seems to be absent in the countryside and rural areas. It is this that induces the implementation of this study to determine part of the reason for the slow introduction of e-commerce applications in the communication and promotion of tourism in the community-based tourism supply chain in Vietnam.

## 2. Theoretical background

### 2.1. Introduction to community-based tourism and marketing communication activities in the supply chain of community-based tourism in Vietnam

#### 2.1.1. Community-based tourism in Vietnam

Community is a collection of people with high intrinsic cohesion, with recognition criteria and common rules of operation and behavior based on consensus on will, emotions, beliefs and sense of community; so that members of the community feel connected to the whole community and its individual members (Pham Hong Tung, 2009). Community-based tourism is a type of tourism that gives visitors the experience of local community identity, in which the local community directly participates in tourism activities, enjoys socio-economic benefits from tourism activities and is responsible for protecting natural resources, environment, and cultural identity of the community (Pham Trung Luong, 2010).

In tourism development, the term community-based tourism (CBT) was first introduced in 1985 (Murphy, 1985). Soon after, the concept of community-based tourism was widely mentioned in many countries. However, CBT in Vietnam first received a lot of attention at the 2003 Workshop on sharing lessons learned in developing Vietnam's community-based tourism held in Hanoi. Since then, this issue has attracted a large number of intellectuals to participate in research and development (Bui Cam Phuong, 2018; Bui Cam Phuong & Truong Duc Thao, 2016). In the above studies, the authors have clarified the concept of community-based tourism; conditions for the development of community-based tourism; practical lessons at home and abroad. Across all regions in Vietnam, many community-based tourism projects have been implemented, such as those in villages of Thanh Phu, Ban Ho, Ta Van, San Xa Ho, Ta Phin ... in Sa Pa and Bac Ha districts (Lao Cai province), Lac village in Mai Chau district (Hoa Binh province), Nghia Lo district (Yen Bai province), Ba Vi district (Hanoi), the lakeside area of Tuyen Quang hydropower plant (Tuyen Quang province), Moc Chau district (Son La province), Pu Luong commune (Thanh Hoa province). In most of those places, community-based tourism often relies on ethnic groups such as Thai, Muong, Dao, Tay... who are ethnic minorities in Vietnam with their own unique cultural identity. However, in order to see community capacity in projects on community-based tourism, it is necessary to deeply study their knowledge, skills, attitudes and practices of participating in tourism (Bui Cam Phuong, 2018; Thao, Thanh, Hai & Phuong, 2022). One thing in common that could be pointed out is about the role of marketing communication to attract tourists that is usually performed only by tour operators without the overall coordination of all members of the supply chain, especially of people who do tourism at the destinations (Truong Duc Thao, Bui Cam Phuong, Pham Tran Thang Long, Nguyen Thi Lien Huong, & Nguyen Tuong Minh, 2022). This becomes more and more necessary when e-commerce is growing; that the distance between businesses, customers and the community is becoming closer than ever, but it is also a big obstacle if a member of the chain is limited in technology and language to deploy e-commerce applications in their activities, including marketing communications.

#### 2.1.2. Application of e-commerce in marketing communication in Vietnam

**E-commerce:** Currently, e-commerce has become one of the top priority issues of businesses in the world (Adam, Alhassan, & Afriyie, 2020) as well as in Vietnam. According to the United Nations Conference on Trade and Development, e-commerce has 3 levels: information; transaction; and cooperation (Nguyen & Ta, 2019). At the first level, the exchange of information and contract negotiations between the buyer and the seller is mainly through email and forums... At this level, the buyer can make purchases online, but the payment method is still traditional (Nguyen & Ta, 2019). At the second level, electronic payments began to take shape and business activities were built on the basis of an intranet mainly for data sharing and the application of management software (Nguyen & Ta, 2019). The third level is the highest level of development, which requires the application of information technology in the operation process from the input of the production process to the distribution of output products (Nguyen & Ta, 2019). Thus, it can be said that e-commerce is the use of the internet to buy and sell products and services, by-product services and after-sales support (Adam et al., 2020); this is also the concept about e-commerce that the authors will use in this study. Although e-commerce transactions bring a lot of benefits to Vietnamese companies, there are still many challenges, such as the use of smartphones in e-commerce still has many problems with 81% of businesses whose websites are incompatibly built up for accessing from smartphones (Nguyen & Ta, 2019).

**Supply chain:** Supply chain can be considered as a system (Quiédeville, Bassene, Lançon, Chabrol, & Moustier, 2018) characterized by the linkage of the members in the chain. The alignment in the supply chain of services is very important for

strengthening local businesses, reducing unemployment, promoting trade, and promoting progress in enhancing the value of the whole system (Nguyen & Ta, 2019). Good supply chain management is an important factor in determining the division of labor of chain members, shaping the capabilities of participants, thereby motivating them to act and create value for the whole chain (Li, Frederick, & Gereffi, 2018). Accordingly, the tourism supply chain includes members from the input to the output of the chain to create value for tourists. For a community-based tourism supply chain, marketing communication activities need to be carried out more through the role of destination managers and community-based tourism business households rather than simply being up on the travel companies for their tour sales.

## 2.2. Theoretical groundwork and research model

### 2.2.1. Theoretical framework for system acceptance

In this study, we use technology acceptance model (TAM) to implement data collection and analysis. TAM has been applied in many studies on applying new management methods at both individual and organizational levels (Davis, 1989). It is a new theory developed based on the theory of rational behavior (TRA) to explain any human behavior in general, including the behavior of accepting something (Ajzen, 1991). Although TRA is a pioneering model in explaining human behavior, the TRA model alone still has limitations, and the TAM model explains better (Ndubisi, 2006). Therefore, inheriting from the TRA model, Davis has developed a technology acceptance model to explain whether a person or an organization accepts a certain system (Tang, Chen, & Wu, 2010). The intention to accept the system is influenced by the attitude towards that system (Davis, 1989). Two important components that Davis added in the TRA model to translate into the technology acceptance model are the perceived system efficiency and the perceived ease of use of the system (Davis, 1989). The authors also predicted that there would be many variables affecting the perceived effectiveness and perceived ease of use of the system. From this model, other researchers have suggested an extension of the technology acceptance model with four main development directions including: contextual factors; external factors affecting the “perception of system efficiency” and “perceived ease of use of the system”; elements from other theories; and using other measurement tools (Marangunić & Granić, 2015). It can be said that TAM is a relatively flexible model and has been applied by research in many different fields, from individual decisions to organizational decisions (Mortensona & Vidgen, 2016).

### 2.2.2. Intention to apply new methods

Davis' concept of system application intention is derived from Fishbein and Ajzen's concept of behavioral intention in the TRA model and later TPB. Accordingly, the intention to accept the system is understood as the level of effort, trying to accept the use of the system (Ajzen, 1991; Tang et al., 2010). According to Davis, the intention to apply a new system will determine whether an individual or organization will use the system (Rauniar, Rawski, Yang, & Johnson, 2014), and is an important factor influencing an individual or an organization to use a new system (Ong, Kathawala, & Sawalha, 2015). The stronger the intention to accept a system, the higher the likelihood that an individual or an organization will accept that system (Ajzen, 1991; Ong et al., 2015; Sheikhshoaei & Oloumi, 2011; Tang et al., 2010). Possibility that a system is implemented or not depends directly on the intention to accept the use of the system by who decides to implement the system (Sheikhshoaei & Oloumi, 2011; Walker & Johnson, 2008). Intention to adopt the system is strongly influenced by perceived effectiveness and perceived ease of use, but is almost not influenced by attitude towards the system (Hasan, 2007; Klein, 2007; Ndubisi, 2006; Walker & Johnson, 2008). Therefore, the concept of intention to apply e-commerce in this study is understood as the extent to which the CBT business establishment is willing and having intention to make efforts to apply e-commerce in communication, advertisement and marketing promotion to attract tourists to use the service.

### 2.2.3. Factors affecting e-commerce application intention

#### (1) Perception of the efficiency of the system

Some studies have confirmed that the perception of the effectiveness of a new system or a new method positively and strongly influences the intention to accept the system (Elbeltagi, McBride, & Hardaker, 2005; Klein, 2007; Ndubisi, 2006). In addition, there are many studies in different fields with similar conclusions (Brezavšček, Šparl, & Žnidaršič, 2014; Carr, Zhang, Klopping, & Min, 2010; Mariani, Curcuruto, & Gaetani, 2013; Tarcan, Varol, & Toker, 2010; Walker & Johnson, 2008). In contrast, some studies have shown a low impact on this relationship (Hasan, 2007; Ong et al., 2015; Sheikhshoaei & Oloumi, 2011). Overall, the studies on the intention to accept the system in different professions have not really consistent results. Accordingly, the following hypothesis is proposed:

**Hypothesis H<sub>1</sub>:** *Perceived effectiveness of e-commerce positively affects the intention to apply e-commerce in marketing communication activities in the supply chain of CBT in Vietnam.*

#### (2) Perceived ease of use of the system

Several studies have confirmed that perceived ease of use of a system has a positive effect on acceptance of system use (Brezavšček et al., 2014; Elbeltagi et al., 2005; Hasan, 2007; Ndubisi, 2006; Tarcan et al., 2010). However, some other studies found that perceived ease of use does not affect the intention to adopt the system at all (Klein, 2007; Ong. et al., 2015; Walker & Johnson, 2008). In addition, some studies have shown a weak impact of perceived ease of use on the intention to adopt the system (Carr et al., 2010; Mariani et al., 2013; Sheikhshoaei & Oloumi, 2011). ).

From the above arguments, we propose the following hypothesis:

**Hypothesis H<sub>2</sub>:** *Perceived ease of use of e-commerce positively affects the intention to apply e-commerce in marketing communication activities in the supply chain of CBT in Vietnam.*

### (3) Feeling about yourself

Self-perception has an influence on motivation to perform a behavior or perception of behavior (Markus & Wurf, 1987). Two types of self-perception, modern and traditional, can occur in each person at the same time (Mai et al., 2003). Accordingly, people with a modern self-perception tend to be more open to change, more likely to be pioneers in shopping, choosing, and accepting new things. People who perceive themselves as modern are often younger, more educated... Meanwhile, people who perceive themselves as traditional are identified as those who are less inclined to accept new things, often not open to change, older and less educated (Mai et al., 2009).

From the above arguments, we propose the following hypotheses:

**Hypothesis H<sub>3a</sub>:** *The perception of modern decision makers has a positive impact on the perception of the effectiveness of e-commerce when applied to marketing communication activities in the CBT supply chain in Vietnam.*

**Hypothesis H<sub>3b</sub>:** *The perception of traditional decision makers has a positive impact on the perception of the ease of use of e-commerce when applied to marketing communication activities in the CBT supply chain in Vietnam.*

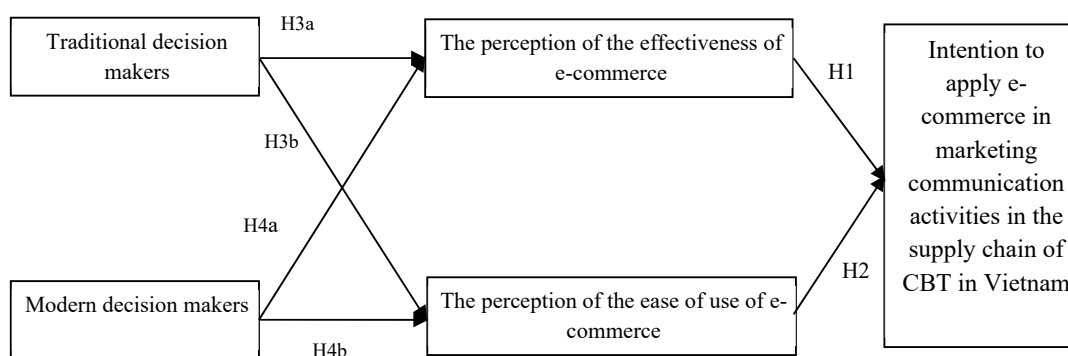
**Hypothesis H<sub>4a</sub>:** *The perception of traditional decision makers has a negative impact on the perception of the effectiveness of e-commerce when applied to marketing communication activities in the CBT supply chain in Vietnam.*

**Hypothesis H<sub>4b</sub>:** *The perception of traditional decision makers has a negative impact on the perception of the ease of use of e-commerce when applied to marketing communication activities in the CBT supply chain in Vietnam.*

## 3. Research Methods

### 3.1. Research Framework

From the theoretical basis presented above, we propose a research model on this issue as follows:



**Fig. 1.** Research model of intention to apply e-commerce in marketing communication activities in the supply chain of CBT in Vietnam

### 3.2. Research data

The study mainly uses primary data based on the survey of 466 community-based tourism businesses in Vietnam about the intention to apply e-commerce in marketing communication activities in the CBT supply chain. The sample size was calculated for EFA analysis, according to the sampling formula of Hair et al. (1998) (Hair, Tatham, & Black, 1998). Therefore, with a total of 26 observational statements for 05 factors in the model, the minimum required number of survey samples is 130 questionnaires or better, 260 valid questionnaires. As a whole, we distributed directly or via email 500 survey questionnaires to 500 community-based tourism businesses in the northern provinces of Vietnam in January 2023 (when there is held the most tourism events and festivals) by selecting non-probability random sample with subjects who are representatives of those community-based tourism businesses. As a result, all 500 questionnaires were collected, 32 of which were invalid. Thus, the remaining of 466 valid questionnaires representing 466 community-based tourism establishments in Vietnam, satisfying the conditions to conduct exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and structural equation modeling (SEM) to estimated. Accordingly, the research result presented in this paper is highly representative and reliable.

The results of EFA analysis with Principal axis factoring method with Promax rotation and eigenvalue equal to 1 are used for factor analysis with 26 important variables. The results showed that the KMO coefficient reached 0.888 with Sig.=0.000, Eigenvalues=1.611 and Cumulative % Extraction Sums of Squared Loadings reached 70.636%. The result of the rotation matrix also shows the converge of scales on 06 factors that is consistent with the proposed research model.

The results of testing the reliability of the concepts and scales show that Cronbach's Alpha coefficients of the factors all reach values greater than 0.7, meaning that the scales used in the study are appropriate.

The results of confirmatory factor analysis (CFA) for these scales have 288 degrees of freedom (df=288). The CFA results show that the model is compatible with the research data set: Chi-square = 723.035 ( $p = 0.000$ );  $cmin/df = 2.511$ ; CFI = 0.948; GFI = 0.899; TLI = 0.942; and RMSEA = 0.056. The normalized weights of the observed variables are all greater than 0.5 and the unnormalized weights of the variables are statistically significant, therefore the convergence value of the scales can be confirmed. The correlation coefficients of the concepts are all less than one unit, so the concepts gain discriminant value. The measurement model is suitable for the research data set and no correlation between the measurement errors was found that confirms the unitarity. Therefore, the research data set satisfies conditions for testing structural equation modeling (SEM) on the relationship of intention to apply e-commerce in marketing communication activities in the CBT supply chain in Vietnam and factors affecting that intention.

## 4. Results and discussion

### 4.1. The results of testing structural equation modeling

The test results of the critical model have 291 degrees of freedom (df=291). The SEM test results show that the model achieves the compatibility with the research data set: Chi-square = 747.065 ( $p = 0.000$ );  $cmin/df = 2.567$ ; CFI = 0.946; GFI = 0.896; TLI = 0.939; and RMSEA = 0.057. The impact of factors affecting the intention to apply e-commerce to marketing communication activities in the CBT supply chain in Vietnam has the estimated results of the model for the value  $R^2 = 0.171$ , that is, there are 17.1% of the change in intention to apply e-commerce in marketing communication activities in the CBT supply chain in Vietnam is influenced by "perception of the effectiveness of e-commerce" and "perception of the ease of use of e-commerce". In which, the factor "perception of the ease of use of e-commerce" has a stronger impact with the standardized  $\beta$  coefficient of 0.337 and at 99% statistical significance ( $P\_value = 0.000$ ); and lower is the factor "perception of the effectiveness of e-commerce" with standardized  $\beta$  coefficient of 0.194 and at 99% statistical significance ( $P\_value = 0.000$ ). This is understandable, given that the majority of survey questionnaires collected at CBT businesses are ethnic minority farmers in the northern mountainous region of Vietnam, where the literacy level is quite low, with many language barriers, and people like simple, easy to understand things that can be used easily. On the other hand, when considering the impact of factors perceived by representatives of CBT businesses in Vietnam about themselves as traditional or modern people on "perception of the effectiveness of e-commerce", the results show that  $R^2 = 0.087$ , that is, only 8.5% of the change in "perception of the effectiveness of e-commerce" is explained by the perception of the representative of CBT business in Vietnam. In particular, if they feel that they are modern, it will have a positive impact on "perception of the effectiveness of e-commerce" with a standardized  $\beta$  coefficient of 0.294 and a statistical significance level of 99% ( $P\_value=0.000$ ). But when they perceive themselves as traditional people, there is not enough evidence to conclude that it will affect the "perception of the effectiveness of e-commerce" ( $P\_value = 0.814$ ).

The study also shows that there is a 30.4% ( $R^2 = 0.304$ ) change in "perception of the ease of use of e-commerce" which is explained by the perception of the representative of CBT business in Vietnam. Accordingly, if they perceive themselves as modern, it will have a positive impact on "perception of the ease of use of e-commerce" with a standardized  $\beta$  coefficient of 0.487 and at 99% statistical significance ( $P\_value = 0.000$ ); and if they perceive themselves as traditional, it will not negatively affect the "perception of the ease of use of e-commerce" with a standardized  $\beta$  coefficient of -0.229 and at 99% statistical significance ( $P\_value = 0.000$ ).

The estimated results of the main parameters in the theoretical model are presented in the table below. The estimation results show that all hypotheses H1, H2, H3b, H4a and H4b are accepted with statistical significance above 99%, while the hypotheses H3a are rejected ( $P\_value = 0.814$ ). As follows:

**Table 2**

Normalized estimation equation modeling (SEM) results

No.	Relationship between concepts			Normalized estimate	Unnormalized estimate	Standard deviation	t Value	p Value
R <sup>2</sup> of intention to apply e-commerce in marketing communication activities in the CBT supply chain in Vietnam = 0.171								
H1	Inten	←	Eff	0.194	0.292	0.074	3.954	***
H2	Inten	←	Easy	0.337	0.464	0.068	6.782	***
R <sub>12</sub> of Perception of the effectiveness of e-commerce = 0.087								
H3a	Eff	←	TS	-0.012	-0.006	0.027	-0.236	0.814
H4a	Eff	←	MS	0.294	0.235	0.039	5.994	***
R <sub>22</sub> of Perception of the ease of use of e-commerce = 0.304								
H3b	Easy	←	TS	-0.229	-0.137	0.027	-5.092	***
H4b	Easy	←	MS	0.487	0.426	0.040	10.654	***

(Source: Data processing results of the author's group)

#### 4.2. Discuss the results

From the model's estimation results, the following comments have been made:

*Firstly:* The intention to apply e-commerce in marketing communication activities in the CBT supply chain in Vietnam depends on “perception of the ease of use of e-commerce” with a standardized  $\beta$  coefficient of 0.337 and at the level of statistical significance reached over 99% ( $p < 0.001$ ). This result is similar to some studies such as, the study of Rauniar et al (2014) on the intention to use facebook social network of 389 students at universities in the US, in which the standardized coefficient  $\beta$  equal to 0.62,  $p < 0.001$ . This is explained by the fact that the majority of CBT businesses in the tourism supply chain in the north of Vietnam are in relatively unspoiled places, with low education level, mainly local languages..., leading to language limitations, limited access to modern technology and e-commerce platforms; therefore, people doing CBT are often desired and ready for things that they perceive as easy to use.

*Second:* The intention to apply e-commerce in marketing communication activities in the CBT supply chain in Vietnam depends on the “perception of the effectiveness of e-commerce” with the standardized  $\beta$  coefficient of 0.194 and at the level of statistical significance was over 99% ( $p < 0.001$ ). This result supports the studies of Rehman et al. (2019) on online purchase intention in Pakistan, in which the normalized  $\beta$  coefficient is 0.226,  $t = 3.20$ ,  $p < 0.001$ . Obviously, for those who do community-based tourism with limited language, low level of understanding capability and possibility of access to digital technology, it is difficult for them to feel the effectiveness of a new method. Therefore, the level of impact of this factor on the intention to apply e-commerce in marketing communication activities in the CBT supply chain in Vietnam is positive but much lower than the factor "perception of ease of use of e-commerce".

*Third:* The representatives of community-based tourism businesses that are modern people will have a very positive impact on the perception of the ease of use of e-commerce and the perception of its effectiveness, with the value of  $\beta$  standardized are 0.487 and 0.294, respectively, and are at the level of statistical significance above 99%. Meanwhile, if they perceive themselves as traditional, it will have a negative impact on the perception of ease of use of e-commerce (standardized  $\beta$  is -0.229,  $p=000$ ), even they no longer feel about the effectiveness of e-commerce in marketing communication for their community-based tourism supply chain ( $p=0.814$ ). This is explained by limitations in cognition and language, limited social understanding within a small community, lack of communication with the outside society, the lack of training people to do community tourism; all have led them to be cautious in accepting and applying new things, with the fact that they always think that new things are very difficult to apply, even negatively when denying the benefits that the application of new technology brings when they have never applied.

## 5. Some policy implications

As discussed above, the intention to apply e-commerce in marketing communication activities in the CBT supply chain in Vietnam depends on “perception of the ease of use of e-commerce” and “perception of effectiveness of e-commerce” for organizations and individuals participating in community-based tourism activities. Therefore, the policy implications for promoting the intention to apply e-commerce in marketing communication activities in the supply chain of community-based tourism in Vietnam lie in the following issues:

**Firstly:** Strengthening the effectiveness of propaganda policies on the effects, roles and benefits of e-commerce application in marketing communication activities in community-based tourism. The CBT supply chain is very diverse, with many objects participating in the chain, however, the propaganda policy needs to be synchronized and highly connected between the stages in the chain to be effective at the same time in terms of awareness. It is necessary for the perception of e-commerce to be easy to use, to be more effective than conventional methods, to achieve higher marketing communication efficiency, etc. In localities where community-based tourism is available, there is an Internet to serve the needs of tourists. However, the form of promotion of community-based tourism products and accompanying services by tourism business households is still limited. Therefore, local authorities need to propagate widely to the tourism business community the effectiveness of using e-commerce applications in promoting business activities in the community.

**Second:** There should be a synchronous policy on the application of e-commerce in marketing communication activities in community-based tourism. It is a synchronous policy mechanism, creating the most favorable mechanism in the application of e-commerce application technology. Synchronizing the steps in the chain is very important. Accordingly, it is recommended to build a sample model into a specific tourism business community, then replicate it to other communities in order to spread the effectiveness of e-commerce applications in tourism. Because of low intellectual capital, the community has limited access to modern technology and e-commerce platforms, but when they can learn and visit households doing community-based tourism that have applied e-commerce to their business, they will be encouraged to apply e-commerce.

**Third:** Having a synchronous investment policy on technology infrastructure for e-commerce applications for all stages in the supply chain such as machinery, software, technological equipment, internet,.... For example: investment from Market Research, target market identification, market positioning, product development, product introduction, new product sales and reproduction, after-sales customer care, etc. The above steps all use the same synchronous technology software infrastructure.

**Fourth:** Having a policy of training professional human resources, setting up a team of professional experts on e-commerce in marketing communication so that in the first stage, at each community-based tourism point, maximum and effective support will be given to the chain. Follow until successful, then stop supporting activities. Open training courses on knowledge and skills to use e-commerce applications for the community. This is very important, because the representatives of CBT businesses are often the head of the family and have the highest voice in the family; Therefore, when they are fully equipped with knowledge and skills about e-commerce, it will motivate them to apply e-commerce in business activities.

**Fifth:** In addition, there are separate policies for each object in the CBT supply chain. Still synchronizing and transferring each part to each object in accordance with different levels of understanding and accessibility. The Ministry of Culture, Sports and Tourism needs to coordinate with the Ministry of Industry and Trade and the Ministry of Information and Communications to have such policies.

The above are some suggestions and solutions proposed by the research team to accelerate the intention to apply e-commerce in marketing communication activities in the community-based tourism supply chain in Vietnam. The results of this study may be true for many developing countries with the same characteristics of community-based tourism resources as Vietnam. Therefore, the research results can be a good reference for tourism managers in similar countries to deploy e-commerce applications to increase the effectiveness of marketing communication of the entire supply chain.

## References

- Adam, I. O., Alhassan, M. D., & Afriyie, Y. (2020). What drives global B2C E-commerce? An analysis of the effect of ICT access, human resource development and regulatory environment. *Technology Analysis & Strategic Management*, 32(7), 1-16.
- Ajzen, I. (1991). The theory of planned behaviour. *Organizational behaviour and human decision processes*, 50(2), 179-211.
- Brezavšček, A., Šparl, P., & Žnidaršič, A. (2014). Extended Technology Acceptance Model for SPSS Acceptance among Slovenian Students of Social Sciences. *Organizacija*, 47(2), 12.
- Bui Cam Phuong. (2018). *Research on tourism based on the Tay community in the area along Tuyen Quang hydropower reservoir, Tuyen Quang province*. (PhD thesis), Hanoi National University,
- Bui Cam Phuong, & Truong Duc Thao. (2016). Community-based eco-tourism - a new livelihood for ethnic people in the area around Tuyen Quang hydropower reservoir to improve their lives and escape poverty sustainably. *Industry and Trade Journal*, 12.
- Carr, A. S., Zhang, M., Klopping, I., & Min, H. (2010). RFID Technology: Implications for Healthcare Organizations. *American Journal of Business*, 25(2), 16.

- Davis. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 13(3), 319-339.
- Elbeltagi, I., McBride, N., & Hardaker, G. (2005). Evaluating the Factors Affecting DSS Usage by Senior Managers in Local Authorities in Egypt. *Journal of Global Information Management*, 13(2), 24.
- Hair, J. F. A., Tatham, R. E., & Black, R. L. (1998). *Multivariate Data*. 5<sup>th</sup> ed. 1998: Upper Saddle River Prentice - Hall.
- Hasan, B. (2007). Examining the Effects of Computer Self-Efficacy and System Complexity on Technology Acceptance. *Information Resources Management Journal*, 20(3), 13.
- Klein, R. (2007). Internet-Based Patient- Physician Electronic Communication Applications: Patient Acceptance and Trust. *E - Service Journal*, 5(2), 25.
- Li, F., Frederick, S., & Gereffi, G. (2018). E-Commerce and Industrial Upgrading in the Chinese Apparel Value Chain. *Journal of Contemporary Asia*, 49(1), 1-30.
- Mai, N. T. T., Kwon, J., Lantz, G., & Loeb, S. G. (2003). An Exploratory Investigation into Impulse Buying Behavior in a Transitional Economy: A Study of Urban Consumers in Vietnam. *Journal of International Marketing*, 11(2), 23.
- Mai, N. T. T., Smith, K., & Cao, J. R. (2009). Measurement of Modern and Traditional Self-Concepts in Asian Transitional Economies. *Journal of Asia-Pacific Business*, 10, 20.
- Marangunic, N., & Granic, A. (2015). Technology acceptance model: a literature review from 1986 to 2013. *Universal Access in the Information Society*, 14(1), 15.
- Mariani, M. G., Curcuruto, M., & Gaetani, I. (2013). Training opportunities, technology acceptance and job satisfaction A study of Italian organizations. *Journal of Workplace Learning*, 25(7), 21.
- Markus, H., & Wurf, E. (1987). The dynamic self-concept: A social psychological perspective. *Annual review of psychology*, 38, 39.
- Mortensona, M. J., & Vidgen, R. (2016). A computational literature review of the technology acceptance model. *International Journal of Information Management*, 36, 12.
- Murphy, P. (1985). *Community Approach*. Methesen: Londres, Argentina.
- Ndubisi, N. O. (2006). Factors of Online Learning Adoption: A Comparative Juxtaposition of the Theory of Planned Behaviour and the Technology Acceptance Model. *International Journal on ELearning*, 5(4), 21.
- Nguyen, D. C., & Ta, P. D. (2019). Trade, Structural Adjustments and Productivity Growth in Vietnam. *Journal of Southeast Asian Economies*, 36(2), 256-273.
- Ong, C. M., Kathawala, Y., & Sawalha, N. (2015). A Model for ISO 9000 Quality Management System Maintenance. *The Quality Management Journal*, 22(2), 22.
- Pham Hong Tung. (2009). Community: concepts, approaches and taxonomy in research. *Journal of Social Science Information*, 12, 21 - 29.
- Pham Trung Luong. (2010). *Teaching materials on community tourism*. Tourism Development Research Institute - Vietnam National Administration of Tourism.
- Quiédeville, S., Bassene, J.-B., Lançon, F., Chabrol, D., & Moustier, P. (2018). Systemic Sustainability of the French Organic Rice and PGI Einkorn Value Chains: A Preliminary Assessment Based on Network Analysis. *Sustainability*, 10, 1-22.
- Rauniar, R., Rawski, G., Yang, J., & Johnson, B. (2014). Technology acceptance model (TAM) and social media usage: an empirical study on Facebook. *Journal of Enterprise Information Management*, 27(1), 25.
- Sheikhshoaei, F., & Oloumi, T. (2011). Applying the technology acceptance model to Iranian engineering faculty libraries. *The Electronic Library*, 29(3), 12.
- Tang, Z., Chen, X., & Wu, Z. (2010). Using behavior theory to investigate individual-level determinants of employee involvement in TQM. *Total Quality Management*, 21(12), 30.
- Tarcan, E., Varol, E. S., & Toker, B. (2010). A Study on the Acceptance of Information Technologies from the Perspectives of the Academicians in Turkey. *Ege Akademik Bakis*, 10(3), 22.
- Thao, T. D., Phuong, V. D. T., Phuong, B. C., Tuan, N. A., Minh, P. V., & Tu, D. M. (2022). Intention to apply total quality management system in petroleum and liquefied petroleum gas in Vietnam's enterprises. *Russian Management Journal*, 19(4), 494 - 514.
- Thao, T. D., Thanh, T. D., Hai, N. T., & Phuong, B. C. (2022). Provincial government spending on socio-cultural issues and tourism development in Vietnam. *Forum Scientiae Oeconomia*, 10(2), 9-27. doi: 10.23762/FSO\_VOL10\_NO2\_1.
- Truong Duc Thao, Bui Cam Phuong, Pham Tran Thang Long, Nguyen Thi Lien Huong, & Nguyen Tuong Minh. (2022). *Tourism Marketing: A specific approach to tourism services*. Social Science Publishing House.
- Walker, G., & Johnson, N. (2008). Faculty Intentions to Use Components for Web-Enhanced Instruction. *International Journal on ELearning*, 7(1), 20.

