



THE EFFECT OF E-CRM ON CUSTOMER INTENTION IN LOGISTICS IN RETAIL INDUSTRY

Nguyen Thi Khanh Chi, Foreign Trade University

Ho Thien Huong, the third year student at Foreign Trade University

Abstract

Electronic customer relationship management is now the tools and strategies for Logistics industry to increase service quality and customer satisfaction. Nowadays, in emerging countries, especially for the Logistics industry, organizations are performing application of e-CRM in the endeavor to offer high quality services to customers, but still at limited level. The study attempts to investigate the effect of e-CRM on customer intention in Vietnamese Logistics. There are two research methodologies in this paper: qualitative and quantitative. Qualitative research is conducted by questionnaires from 10 customers and 10 key managers coming from Logistics enterprises in order to examine the factors affecting customer intention based on technology acceptance model (TAM) of Davis (1989). Quantitative method is qualified by a survey given to 417 randomly selected tourists. Data was collected and examined by CFA and SEM through AMOS 20.0. The results showed that both perceived usefulness and perceived ease of use significantly and directly impacted customer intention. Implications of this study are important for Logistics enterprises.

Key words: *Customer intention, Logistics, E-Commerce, Retail industry*

1. Introduction

E-CRM is a business strategy that builds and develops long-term relationships with customers (Blery and Michalakopoulos, 2006). The aim of e-CRM is to create customer value in the long run to segment existing customers and improve customer profitability through the use of software and the internet. Moreover, ICT use enhances the economic growth; and access to ICTs represents an essential prerequisite for both Logistics enterprises and consumers participating in the digital economy (Mokraf, 2013).

Additionally, in accordance with Eric *et al.* (2006), tourism sector is rated among the top three product or service categories purchased via the Internet; which is, with the world Internet users currently of approximately 4 billions, accounted for 51.7 of the world population, leading a growth of 976.4% from the year of 2000 to 2017 (Internetworldstat, 2017). According to UNWTO, in 2016 the international tourist was estimated at 1.235 billion turns, which increased by 3.9% compared to the previous year. This is the seventh

year in a row that world tourism has maintained steady growth since the global financial crisis and economic recession in 2009. Also, UNWTO statistics in 2017 states that Europe remains the biggest market (619.7 million turns of tourists) following by Asia-Pacific (200.9 million turns) and Africa (58.2 million turns), and Vietnam at the same time ranks sixth in the list of the strongest tourist growth countries thanks to ICT development. In more detail, in 2016, Vietnam welcomed 10 million international tourists and in the first four months of 2017, international arrivals to Vietnam increased by 31.2%, making Vietnam as the fastest growing travel market in Asia (UNWTO, 2017).

There are few researchers studied in exploring the effect of e-CRM on Logistics industry. Jain and Sharma (2013) showed that drivers influencing e-tourism service adoptability in India were utility, economic, reliability, efficiency, and security. Souhani *et al.* (2013) identified five other factors affecting e-Tourism in Iran including hardware, software, information system, governmental and managerial policies, cultural and social factor. In term of the technology adoption, there are many researches showed variety of factors affecting like TAM of Davis (1989), IDT of Rogers (1995), TPB of Ajzen (1991), TOE of Tornatzky and Fleischer (1990) (Musawa and Wahab, 2012). According to Park (2009), with its first introduction in 1986 by Davis, the technology acceptance model (TAM) is one of the well-known models related to technology acceptance and use, which are popular and applicable in the West. Nonetheless, they need to be retested in emerging markets for their validity.

In light of this, the research is undertaken to study the effect of e-CRM in Logistics by integrating theoretical framework of customer acceptance and intention all basing mainly on the TAM model. Thus, the detailed objectives of the paper are following:

- Identify determinants on tourist acceptance and intention to use Logistics service
- Analyse relationship of tourist acceptance and intention to use Logistics service with selected determinants
- Develop a structure equation model of e-CRM that provide tourism managers implications for better implementing

The remainder of this paper is organized into the following four sections. The first section provides a brief review of the literature, including the definition of E-CRM, theoretical background of the technology acceptance model and studies about the relationship between selected factors effecting customer intention. Next, the research hypotheses are given out basing the theories in the preceding section. Then, we use CFA and SEM analysis via Amos 20.0 to test the proposed model, present the analysis and results of our study. Finally, the paper would end with conclusion conducted by discussing the implications of our study, followed by presenting limitations and future research direction.

2. Literature review

2.1 E-CRM features

Anton and Postmus (1999) defined e-CRM features and identified 25 features in their analysis and study of e-CRM in retailing. E-CRM features are described as a site customization, alternative channels, local search engine, membership, mailing list, site tour, site map, introduction for first-time users, chat, electronic bulletin board, online purchasing, product information online, customization possibilities, purchase condition, preview product, external links, problem solving, complaining ability, spare parts, customer service page. In 2000, e-CRM features were added 17 features by Feinberg *et al.* (2002). Several studies have attempted to determine both empirical and conceptual relationship between e-CRM features and customer satisfaction, and e-CRM features and customer loyalty. There was a statically significant positive relationship between the number of e-CRM features and customer satisfaction (Feinberg and Kadam, 2002;

Anton and Postmus, 1999; Feinberg *et al.*, 2002; Fragouli and Noutrixa, 2014; Kim *et al.*, 2003; Mithas *et al.*, 2005).

2.2 Technology acceptance model (TAM)

Proving to be a helpful theoretical model, TAM assists in making explanation and prediction of user behaviour of information technology (Legris *et al.*, 2003). TAM seeks to explain the relationship between individual's technological acceptance and adoption and subsequently, his behavioral intention to use it (Autry *et al.*, 2010; Lee, Cheung and Chen, 2005; Ndubisi 2006; Maihotra and Galletta, 1999). This model also suggests that perceived ease of use influences perceived usefulness, because technologies that are easy to use can be more useful (Schillewaert *et al.*, 2005). Hence, it can be concluded that the TAM model has strong implications on technology adoption from theoretical and conceptual perspectives (Gangwar *et al.*, 2013; Lee, Cheung and Chen, 2005).

2.2.1 Perceived ease of use

The definition of perceived ease of use is the degree to which a user believes that it would be free of effort to use a particular technology (Davis *et al.*, 1989, p.985). Davis *et al.* (1989) also proceeded that when a particular system is easy to operate, users are more likely to accept and use that system. The consideration of perceived usefulness has been widely recognised in the context of tourism industry. Furthermore, there are many other researches indicated that perceived ease of use is the considerable stimulation of customers purchase intention (Lallamahomood, 2007; Lee *et al.*, 2011, Chen *et al.*, 2013).

2.2.2 Perceived usefulness

The definition of perceived usefulness is the subjective probability of a potential user that applying a specific system will enhance his or her job performance at work (Davis *et al.*, 1989, p.985). This definition points out that a user becomes aware that a certain technology is useful when the technology or system applied takes less time to do a job while simultaneously increasing efficiency and accuracy (Teo *et al.*, 2008). According to Davis (1989) and Pavlou (2003), perceived usefulness strongly impacts not only the intention of usage but the behavioural intention to transact online as well. Similarly, Meuter *et al.* (2005) studied that creating a using intention towards self-service technology also requires perceived usefulness.

2.2.3 Customer attitude in e-CRM features

Attitude towards using refers to users' assessment of the desirability of using a specific information system's application (Ajzen and Fishbein, 1980). Agarwal and Prasad (1998) believed that attitude is a person's affective response towards using new technology. Consequently, e-CRM attitude can be considered as a customer's influential response towards using e-CRM features. On the research of Al-kwafi (2015) about the importance of destination images on customer's intention, attitude does have a significant impact. Stockdale (2006) also investigated that e-CRM feature attitude strongly effect customer intention

3. Methodology

3.1 Questionnaire design

Quantitative method is qualified by a survey given to 417 randomly selected tourists

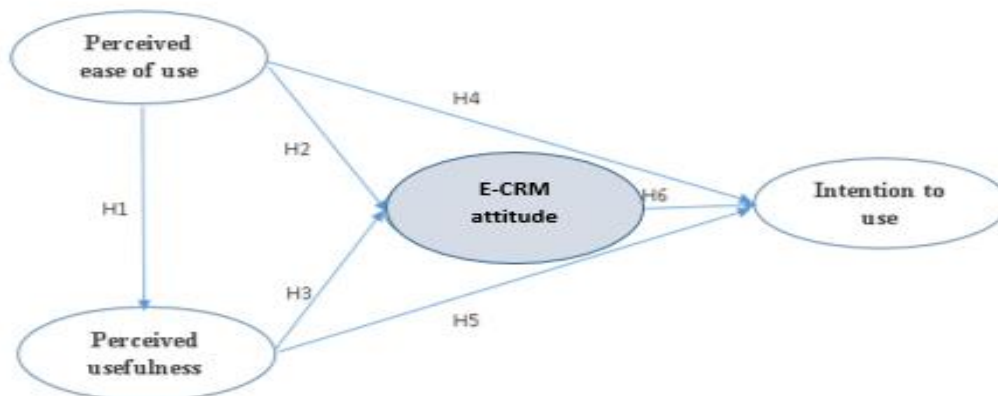


Figure 1: The proposed research model

Base on the proposed research model, this study is going to test the following hypotheses:

- H1: Tourists' perceived usefulness is affected by their perceived ease of use
- H2: E-CRM features attitude is affected by perceived ease of use
- H3: E-CRM features attitude is affected by perceived usefulness
- H4: Intention to use is affected by perceived ease of use
- H5: Intention to use is affected by perceived usefulness
- H6: Intention to use is affected by E-CRM features attitude
- H7: Tourists' intention is affected by their attitude (H6), perceived usefulness (H5) and perceived ease of use (H4).
- H8: E-CRM features attitude is affected by their perceived usefulness (H3) and perceived ease of use (H2)

The questionnaire with 20 items is designed as Table 1, based on the previous study. More 4 questions are added to identify demographic attributes of the respondents namely gender, age, transport, nationality. To ensure the face validity, we conducted a pilot test on 85 Vietnamese customers at Hanoi capital. After the pilot test, some items were revised and the final questionnaire is presented as Table 1. The form of the questionnaires for tourist survey was determined by Google docs and hard copy delivered directly to individual tourists. The languages of questionnaires are set in three languages: English, Chinese, and Vietnamese.

Table 1: Measurement scale of research

Construct	Item code	Item description	Source
Perceived ease of use (PE)	PE1	- It is easy to access tourism websites	Davis (1989); Lee, Cheung and Chen (2005); Park (2009)
	PE2	- Payments can be made easily	
	PE3	- It is easy to find what I want on online Logistics service	
	PE4	- My interaction with online Logistics service would be clear and understandable	
	PE5	- Online customer service is available all the time	
	PE6	- Learning to operate the online Logistics system is easy for me	
	PE7	- The online Logistics system is flexible to interact with	
Perceived usefulness (PU)	PU1	- Using online Logistics services gives me greater control over my travel journey	Davis (1989); Lee, Cheung and Chen (2005); Park (2009)
	PU2	- Using online Logistics services improves my journey	
	PU3	- Using online Logistics services allows me to accomplish more work than would otherwise be possible	
	PU4	- Using online Logistics services reduces the time I spend on unproductivity activities	
	PU5	- Using online Logistics services enables me to accomplish tasks more quickly	
	PU6	- Using online Logistics services supports critical aspects of my journey	
	PU7	- Using online Logistics services makes it easier to get information to travel	
E-CRM attitude (AT)	AT1	- Using online Logistics services is a good idea	Lee, Cheung and Chen (2005); Malhotra and Galletta (1999)
	AT2	- Using online Logistics services is a wise idea	
	AT3	- Using online Logistics services is beneficial	
	AT4	- Using online Logistics services is pleasant	
Intention to use (TU)	TU1	- I intend to use online Logistics system for planning journey	Malhotra and Galletta (1999); Lee, Cheung and Chen (2005)
	TU2	- I intend to be a heavy user of online Logistics system	

Respondents were asked to rate their opinion using a 5-point Likert scale ranging from 1=Strongly disagree, 2=Disagree, 3=No comment, 4=Agree and 5=Strongly agree.

3.2 Sample size

The population in this research consist of foreign tourists travelling to Vietnam and Vietnamese customers. According to Vietnamese National administration of tourism, there are 1.024.899 international arrivals estimated in October 2017 (statistics, 2017), and 57 thousand domestic trippers (statistics, 2015). In order to collect data, a random sample was conducted in this research. The Simple random sampling method allows choosing any member randomly from a list of customers who have similar opportunities of selection. It is almost impossible to collect all tourists because there are a large number of tourists in Viet Nam and over the world. Therefore, with this method, it was necessary to select a small group from the list of all tourists. The sample size is 700 including international and domestic customers.

There are 10 Departments of Culture, Sports and Tourism in Vietnam, however, 7 Departments are chosen for launching surveys such as Hanoi, Haiphong, Quangninh, Hue, Danang, Vung tau and Hochiminh city. In order to form random sample at 700, statistics distribution was conducted by 7 classes basing on 7 Departments above in which each Department carries out 100 surveys.

Online survey was mailed to 500 tourists at 6 places such as Haiphong, Quangninh, Hue, Danang, Vung tau and Hochiminh city which resulted in 331 respondents. Printed survey was launched directly to 100 tourists in Hanoi captial and the respondents were 86. Thus, the total number of respondents collected only 417/700, and the return rate at 59.57%.

3.3 Statistical procedure

Data collection by the coded questionnaires took place over 45 days. The data was recorded firstly in Excel program from 86 printed answers and 331 online answers from automatic excel in Google document. SPSS 20.0 was conducted secondly for analysing Cronbach' Alpha and EFA. The results of EFA analysing was used for structural equation modelling analysis (SEM) in AMOS 20.0 program lastly in order to test hypotheses.

4. Findings and implication

4.1 Findings

The results show that out of 417 respondents 198 (47.5%) are male and 219 (52.5%) are female customers. In terms of age group, 216 (51.7%) respondents has the age group of 19-40, followed by 122 (29.3%) to age from 40 to 60, 59 (14.4%) are above 60 and only 20 (4.6%) respondents below age of 18. In terms of transport, airline route accounts for 301 (72.2%) respondents, road route is at 116 (27.8%). For Nationality, foreign countries (England, Australia, Taiwan, China, Singapore, Russia, Germany, Korea, Indonesia, Thailand, Laos) account for 304 (72.9%) respondents and Vietnam account only for 113 (27.1) respondents.

Using the Cronbach' Alpha coefficient to measure the reliability of the tourist' acceptance and intention to use Logistics services with 4 constructs and 20 observed variables, the Cronbach'Alpha values of PE, PU, TA and IU are 0.871, 0.852, 0.825 and 0.806 respectively (>0.7), and the Corrected items (Total Correlation coefficient) of 20 observed variables are higher than 0.3. It can be concluded that there are 20 good reliability variables from 4 constructs because only variables with a Corrected Item (Total Correlation) greater than 0.3 and having Alpha coefficients greater than 0.6 will be accepted for analysis in the next steps (Nunnally, J. and Bernstein, I., 1994).

By conducting an EFA with the principal axis factoring of component method, the model has not reached convergence value (Table 3-Pattern matrix: first) even though KMO is high at 0.903 and sig is 0.000. Continuously removing the inappropriate variables from the model (PE7, PU3, PU7, TA3, TA4), the

model is conducted at third time and the results get convergence factor at four group components (PE, PU, TA and IU) with KMO is 0.880 and sig is 0.000. In the extraction sums of squared loadings, the percentage of cumulative is 59.936% and the total of initial eigenvalues is 1.021.

Table 2: EFA analysis

KMO and Bartlett's Test: First					KMO and Bartlett's Test: Third				
KMO Measure of Sampling Adequacy				0.903	KMO Measure of Sampling Adequacy				0.880
Approx. Chi-Square				4287.488	Approx. Chi-Square				3211.815
Bartlett's Test of Sphericity				190	Bartlett's Test of Sphericity				105
Sig.				0.000	Sig.				0.000
Pattern Matrix: First					Pattern Matrix: Third				
Factor	1	2	3	4	Factor	1	2	3	4
PE1		.624			PE1	.630			
PE2		.739			PE2	.753			
PE3		.827			PE3	.834			
PE4		.718			PE4	.723			
PE5		.801			PE5	.802			
PE6		.683			PE6	.674			
PE7					PU1		.520		
PU1	.532				PU2		.649		
PU7					PU4		.709		
PU2	.720				PU5		.681		
PU3					PU6		.747		
PU4	.755				TA1			.932	
PU5	.695				TA2			.722	
PU6	.735				IU1				.873
TA1			.813		IU2				.776
TA2			.845		Extraction sums of squared loadings				
TA3			.549		Cumulative %: 59.936				
TA4					Initial Eigenvalues				
IU1				.900	Total: 1.021				
IU2				.747					

Confirmatory factor analysis (CFA) is conducted to identify the relationship between 4 constructs and 20 observed variables and is examined two times. The results for the first running CFA show that Chi-square/df are 4.471, the covariance M.I ($e1 \leftrightarrow e2$) and ($e5 \leftrightarrow e6$) are high at 63.205 and 25.902. Thus, CFA is conducted the second time to adjust the absolute value by linking $e1$ with $e2$ and $e5$ with $e6$. Consequently, the GFI (goodness-of-fit index), TLA, CFI (comparative fit index) are higher value than the first one.

CFI and GFI values greater than 0.90 indicate good model fit (Hu, L.T. & Bentler, P.M., 1999). GFI values greater than 0.70 indicate good model fit (Schumacker, R.E. & Lomax, R. G., 2004). RMSEA (root mean squared error) values less than 0.06 also indicate a good model fit (Hu, L.T. & Bentler, P.M., 1999) while values ranging from 0.08 to 0.10 indicate model fit and those greater than 0.10 indicate poor fit (Byrne, 2001). It is also observed that the RMSEA and Chi-square/df value of the second time are lower than the

value of the first one. Further, all indicator variables load on highly and significantly to their respective constructs which show the model fit (Figure 2).

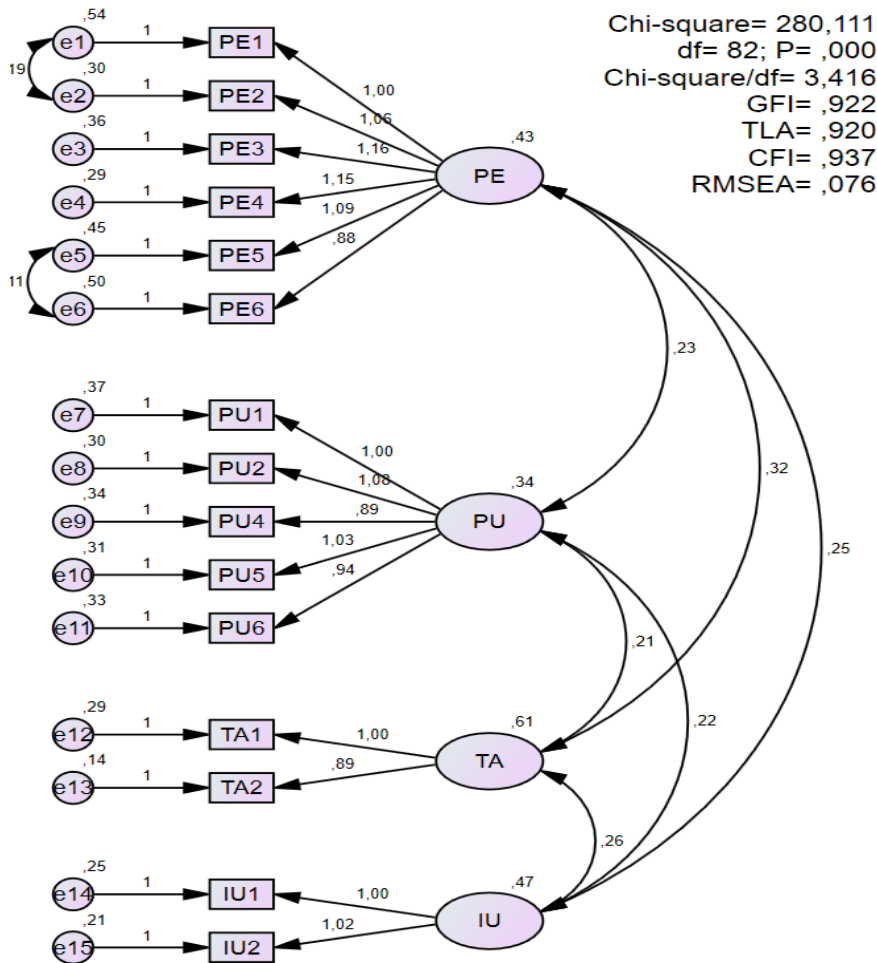


Figure 2: CFA testing secondly results

Structural Equation Modelling (SEM) procedures were used to determine the impact of PE, PU and TA on IU and were also used to determine the relationship between PE and PU (H1); PE and TA (H2); PU and TA (H3); PE and IU (H4); PU and IU (H5); TA and IU (H6); PE, PU, TA and IU (H7); PE, PU and TA (H8). The results of SEM analysis are showed at Figure 3.

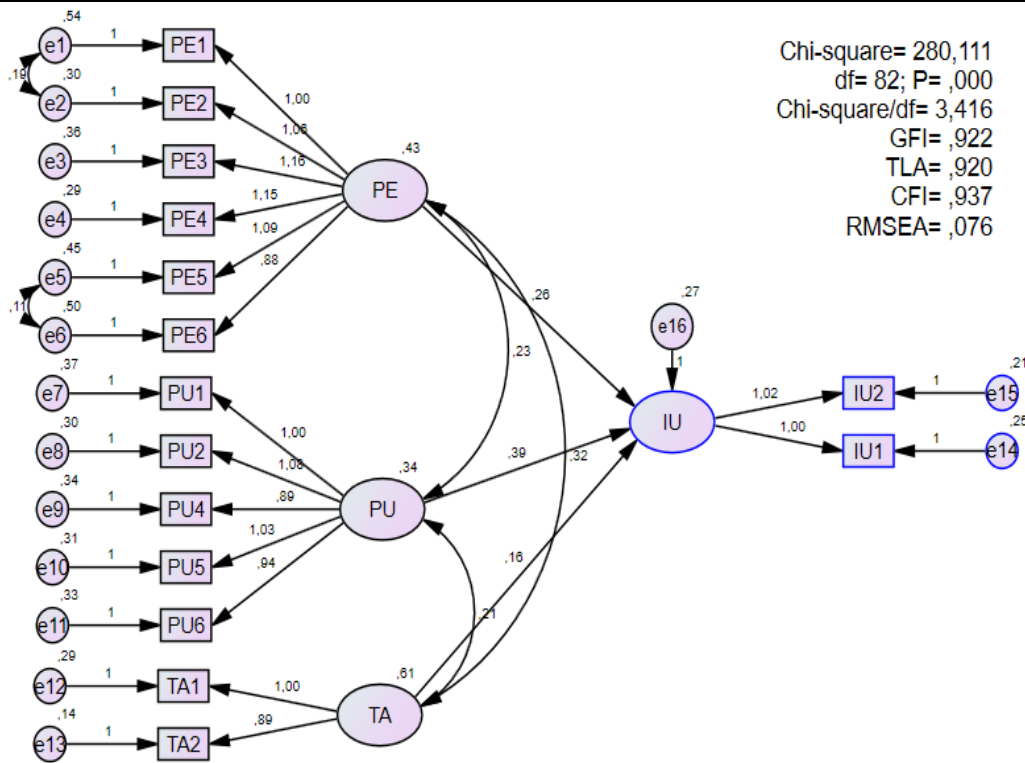


Figure 3: SEM testing results

The SEM showed the direct effect between TA and IU (0.162), PU and IU (0.988), PE and IU (0.258) whereas PU has strongest impact on IU. However, The SEM analysis did not show an indirect effect link from PE and TA to IU, an indirect effect link from PU and TA to IU.

The findings in Table 3 indicates that PE, PU and TA have a significant and positive influence on Intention to use (IU) with Beta at 0.247, 0.331 and 0.185, p value <0.05. Thus, H4, H5 and H6 are asserted. Besides, H7 is also asserted because Intention to use is predicted positively by Perceived ease of use, Perceived usefulness and E-CRM attitude in which PU is the largest determinant on IU (Beta=0.331). Perceived ease of use has a significant and positive link with perceived usefulness (Beta=0.590, p<0.05), thus, H1 asserted. Perceived ease of use also significantly and positively affect E-CRM attitude (Beta=0.633, p<0.05), thus, H2 asserted. Perceived usefulness significantly and positively impact on E-CRM attitude (Beta=0.460, p<0.05), thus, H3 asserted. Additionally, E-CRM attitude is positively influenced by perceived ease of use and perceived usefulness, hence, H8 is asserted.

Table 3: Parameter estimates, p-value, and results of hypothesis

Hypothesized path	Parameter estimates	Regression weights		Result of hypotheses
		C.R	P-value	
PE->PU (H1)	0.225	7.464	0.000	Supported
PE->TA (H2)	0.324	7.926	0.000	Supported
PU->TA (H3)	0.209	6.381	0.000	Supported
PE->IU (H4)	0.247	3.082	0.002	Supported
PU->IU (H5)	0.331	4.802	0.000	Supported
TA-> IU (H6)	0.185	2.536	0.011	Supported

Consequently, eight hypotheses are examined by confirming the presence of a statistically significant relationship in the predicted direction. Intention to use Logistics service is significantly and positively impact by the largest determinant Perceived usefulness, following by Perceived ease of use and E-CRM attitude.

4.2 Implication

The results of the study revealed that the perceived usefulness and perceived ease of use and e-CRM attitude are factors that directly affect tourist's intention to use Logistics service, whereas perceived usefulness is the strongest and most significant determinant of tourist's intention. This means that tourists like to use Logistics service if they have good feelings about the usefulness of e-CRM features in getting better journey.

First of all, Logistics enterprises should provide full content in their website, specialized portals, electronic brochures, audio travel guides, real-time images or videos, and travel diaries through web 2.0 (youtube.com, facebook.com, pinterest.com).

Secondly, online booking services must comply with the legal requirements which have their source in the regulations that refer to Internet services in general, and the e-commerce and distance contracting, in particular as online bookings are mostly used in Logistics area, airline and resorts.

Thirdly, the web of Logistics enterprises should be secured strongly and provide full method of payment such as credit cards, electronic checks, digital cash. The effectiveness of e-CRM can be determined pretty fast and accurate by providing statistics, obtained through online technologies, which helps to create the profile and actions of the tourists, finally leading to a better knowledge and adaptation to the target's necessities.

Last but not least, the web services like content, online booking and e-payment should be integrate into an information system. Thus, Vietnamese Logistics enterprises have to research the suitable framework to their information system in order to highly satisfy their customers and attract more tourists.

5. Conclusion

The present study resulted in the empirical validation of the TAM research model in the context of Logistics industry and therefore contributes to the body of research in the field of e-CRM application. The results showed that the perceived usefulness and perceived ease of use and e-CRM attitude are factors that directly affect tourist's intention to use Logistics service in which perceived usefulness is the most important factor. In all empirical research, this study has limitations that need to be identified. First, the sample is limited to tourists. Although the results from this research are useful for describing the characteristics of a large population of tourists, the generalizations of the results are limited to Vietnamese tourists who do not access to Logistics service. An average tourists come from foreign countries and already possesses technical skills when it comes to internet use. In our future work, we will try to examine new variables in context of Vietnam economy development that could be used to extend the TAM model Logistics service in Vietnam. Together with future information technology developments in the world, new technologies and services will enable the creation of new and innovative e-CRM system, hence here are many constructs related to the user, technology and information system. Such constructs can have a direct or indirect impact on tourists' attitudes and intention for using Logistics services. Our future research will therefore find and examine these constructs.

Acknowledgement

This study is funded by Foreign Trade University with the grant number NTCS2021-32.

References

- Agarwal, R. and Prasad, J. (1998), "A conceptual and operational definition of personal innovativeness in the domain of information technology", *Information Systems Research*, Vol.9 No. 2, pp. 204-215.
- Ajzen, I. and Fishbein, M.. (1980.), *Understanding Attitudes and Predicting Social Behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Al-Kwafi, O. (2015), "The impact of destination images on tourists' decision making A technological exploratory study using fMRI", *Journal of hospitality and tourism technology*, Vol. 6 No. 2, pp. 174-194.
- Autry, C.W., Grawe, S.J., Daugherty, P.J. and Richey, R.G. (2010), "The effects of technological turbulence and breadth on supply chain technology acceptance and adoption", *Journal of Operations Management*, Vol. 28 No. 6, pp. 522-536.
- Buhalis D. and Law R. (2008), "Twenty years on and 10 years after the Internet: The state of eTourism research", *Tourism Management Reviews*, Vol. 29 No. 4, pp. 609-623.
- Buhalis, D. and Jun, S. H. (2011), "E-tourism", *Contemporary tourism reviews*, Vol. 1, pp. 2-38.
- Byrne, B. M. (2001), *Structural equation modeling with AMO*, Mahwah, NJ: Lawrence Erlbaum Associates.
- Cardoso J. and Lange C. (2007), "A framework for assessing strategies and technologies for dynamic packaging applications in e-tourism", *Information Technology & Tourism*, Vol. 9, pp. 27-44 .
- Chen, S.C; Liu, S.C and Li, S.H. (2013), "Understanding the Mediating Effects of Relationship Quality on Technology Acceptance: An Empirical Study of E-Appointment System", *Journal of medical systems*, Vol. 37 No. 6, pp. 1-13.
- Eric, N. and Cassidy, F. Brown, L. (2006), "Exploring The Major factors Influencing Consumer Selection of Travel Agencies in a regional Setting", *Journal of Hospitality And Tourism Management* , Vol. 13 No. 1, pp. 26-42.
- Gangwar H., Date H. and Raoot A.D. (2013), "Review on IT adoption: insights from recent technologies", *Journal of Enterprise Information Management*, Vol. 27 No. 4, pp. 488-502.
- Hu, L.T. and Bentler, P.M. (1999), "Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives", *Structural Equation Modeling: A Multidisciplinary Journal*, Vol. 6, pp. 1-55.
- Iliachenko, E. Y. (2006), *Customer needs with tourism websites: Tourism consumer requirements for Electronic Service Quality (E-SQ) characteristics of tourism websites*, Lulea University: Department of Business Administration and social Science .
- Internetworldstat, 2017. *The internet users*. [Online] Available at: <http://www.internetworldstats.comstats.htm> [Accessed 12 12 2018].
- Jain K. and Sharma J. (2013), "Drivers affecting e-tourism services adoptability", *International Journal of Advanced Research in IT and Engineering* , Vol. 2 No. 10, pp. 87-97.
- Khasawneh, A. (2008), "Concepts and measurements of innovativeness: the case of information and communication technologies", *International Journal of Arab Culture, Management and Sustainable Development*, Vol. 1 No. 1, pp. 23-33.

- Lallamahamood (2007), "An Examination of Individual's Perceived Security and Privacy of the Internet in Malaysia and the Influence of This on Their Intention to Use E-Commerce: Using An Extension of the Technology Acceptance Model", *Journal of Internet Banking and Commerce*, Vol. 12 No. 3, pp. 1-26.
- Lee, M.K.O., Cheung, C.M.K and Chen, Z. (2005), "Acceptance of Internet-based learning medium: the role of extrinsic and intrinsic motivation", *Information & Management*, Vol.42, pp. 1095–1104.
- Lee, H.-H. and Chang, E. (2011), "Consumer attitudes toward online mass customization: An application of extended technology acceptance model", *Computer Mediator Communication*, Vol. 16 No. 2, pp. 171-200.
- Legris, P., Ingham, J. and Collette, P. (2003), "Why do people use information technology? A critical review of the technology acceptance model", *Information & Management*, Vol. 40, pp. 191–204.
- Lin, J.C. and Lu, H. (2000), "Towards an understanding of the behavioral intention to use a website", *International Journal of Information Management*, Vol. 20 No. 3, pp. 197-208.
- Malhotra Y. and Galletta D.F. (1999), *Extending the Technology Acceptance Model to Account for Social Influence: Theoretical Bases and Empirical Validation*. Hawaii, Hawaii, International conference on System Sciences.
- Mokraf, M. (2013), "Framework for e-tourism development in libya", *Metaluriga international*, Vol. 8 No. 8, pp. 161-165.
- Murphy P., Pritchard M.P. and Smith B. (2000), "The destination product and its impact on traveller perceptions", *Tourism Management*, Vol. 21 No. 1, pp. 43-52.
- Musawa, M.S. and Wahab, E. (2012), "The adoption of electronic data interchange (EDI) technology by Nigerian SMEs: a conceptual framework", *Journal of Business Management and Economics*, Vol. 3 No. 2, pp. 055-068.
- Ndubisi, N. O. (2006), "Factors of online learning adoption: A comparative juxtaposition of the theory of planned behavior and the technology acceptance model", *International Journal on E-Learning*, Vol. 5 No. 4, pp. 571–591.
- Nunnally, J. and Bernstein, I. (1994), *Psychometric Theory*, New York: McGraw-Hill.
- Papińska-Kacperk, J. (2013), "e-tourISm SerViceS IN PolISH tourIStS' oPINIoNS", *Problems of management in the 21st century*, Vol.7, pp. 33-38.
- Park, S. Y. (2009), "An Analysis of the Technology Acceptance Model in Understanding University Students' Behavioral Intention to Use e-Learning", *Educational Technology & Society*, Vol. 12 No. 3, pp. 150–162.
- Pavlou, P. (2003), "Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model", *International Journal of Electronic Commerce*, Vol. 7 No. 3, pp. 101-134.
- Phutela N. and Dasgupta H. (2014), "Study on factors influencing consumer trust for e-tourism companies in india", *Journal of Research in Commerce & Management*, Vol. 3 No. 9, pp. 24-343.
- Porter, C.E. and Donthu, N. (2006), "Using the technology acceptance model to explain how attitudes determine Internet usage: The role of perceived access barriers and demographics", *Journal of Business Research*, Vol. 59 No. 9, pp. 999-1007.

- Rouhani S., Ravasan A.Z, Hamidi H. and Vosough S. (2013), "Identification and Classification of Affecting Factors on E-Tourism in Iran", *Middle-East Journal of Scientific Research*, Vol. 16 No. 10, pp. 1361-1368.
- Schillewaert, N., Ahearne, M.J., Frambach, R.T. and Moenaert, R.K. (2005), "The adoption of information technology in the sales force", *Industrial Marketing Management*, Vol. 34 No. 4, pp. 323-336.
- Schumacker, R.E. and Lomax, R. G. (2004), *A beginner's guide to structural equation modeling*, New Jersey: Lawrence Erlbaum Associates.
- Sebastian L., Garcia I., Onaindia E. and Guzman C. (2009), "E-tourism: a tourist recommendation and planning application", *International Journal on Artificial Intelligence Tools* , Vol. 18 No. 5, pp. 717–738 .
- Smith, S. (1994), "The Tourist Product", *Annals of Tourism Research*, Vol. 1 No. 3, pp. 582-595.
- statistics, T. (2015), *Domestic visitors (2000 – 2015)*. [Online] Available at: <http://vietnamtourism.gov.vn/english/index.php/items/10259> [Accessed: 1 8 2019].
- Statistics, T. (2017), *International visitors to Viet Nam in October and 10 months of 2017*. [Online] Available at: <http://vietnamtourism.gov.vn/english/index.php/items/12282> [Accessed 1 8 2017].
- Stockdale, R. (2007), "Managing customer relationships in the self-service environment of e-tourism", *Journal of Vacation marketing*, Vol. 13 No. 3, pp. 205-211.
- Teo, T., Luan, W.S. and Sing, C.C. (2008), "A cross-cultural examination of the intention to use technology between Singaporean and Malaysian pre-service teachers: An application of the Technology Acceptance Model (TAM)", *Educational Technology and Society*, Vol. 11 No. 4, pp. 265-280.
- UNWTO (2017), *Tourism market trends*, World Tourism Organization: UNWTO.
- UNWTO (2017), *UNWTO tourism highlights*, NY: UNWTO.