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Analysis of the Extended Technology Acceptance Model in Online Travel Products

Online seyahat ürünlerinde genişletilmiş teknoloji kabul modelinin analizi

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This study integrates perceived enjoyment and perceived trust into a technology acceptance model (TAM) to understand consumer's acceptance of online travel products. The data were collected by e-mail questionnaire technique. Furthermore, partial least squares structural equation modelling was applied for data analysis because of the data were non-normally distributed and sample size was small. Structural equation model reveals that perceived ease of use, perceived enjoyment and perceived trust influence consumers's attitudes toward online shopping. Perceived enjoyment has strong effect on perceived usefulness. Moreover, perceived usefulness has a stronger influence on behavioral intention than on attitudes toward online shopping.

Keywords: *Extended technology acceptance model, Perceived enjoyment, Perceived trust, Online travel products*
Jel Codes: *M31, M10, Z30.*

Bu çalışmada tüketicilerin online seyahat ürünleri kabulunun anlaşılmasında, teknoloji kabul modeli (TAM) algılanan eğlence ve algılanan güvenlik boyutları ile genişletilmiştir. Çalışmanın verileri e-mail yoluyla anket tekniği ile toplanmıştır. Verilerin normal dağılmaması ve örneklem boyutunun küçük olması nedeniyle verilerin analizi için kısmi en küçük kareler tekniği kullanılmıştır. Yapısal eşitlik modeli ile, algılanan kullanım kolaylığı, algılanan eğlence ve algılanan güvenin tüketicilerin online alışverişe yönelik tutumlarını etkilediği ortaya çıkarılmıştır. Algılanan eğlence, algılanan kullanışlılık üzerinde güçlü bir etkiye sahiptir. Ayrıca, algılanan kullanışlılık, online alışverişe karşı tutuma göre davranışsal niyet üzerinde daha güçlü bir etkiye sahiptir.

Anahtar Kelimeler: *Genişletilmiş teknoloji kabul modeli, Algılanan eğlence, Algılanan güven, Online seyahat ürünleri*
Jel Kodları: *M31, M10, Z30.*

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1. INTRODUCTION

The phenomenon of online shopping is increasingly making its presence and importance essential for today's economic, commercial and social life. In almost every sector, thousands of businesses engage in online retailing via the Internet. Every year, the number of people who purchase goods and services over the Internet increases, and consumers dedicate a greater share of their overall shopping budgets to online shopping. In 2016, 1,61 million people worldwide are estimated to have purchased goods and services over the Internet and global e-retail sales are estimated at $ 1,9 trillion, and by 2020 this figure is expected to reach $ 4,06 trillion. Online shopping spending in 2015 in Turkey was 55 billion TL 284 million TL. However, this figure increased by 24,6% in 2016 to 68 billion 884 million TL. Income from domestic transactions was 63 billion 479 million TL while income from international transactions was 5 billion 405 million TL (Altan, 2017).

Online retailing, which is now used by many different sectors all over the world, has found a place for itself in the tourism industry. New technologies used in the online retailing sector have provided the information infrastructure required by the tourism industry and facilitated the exploitation of the full potential of tourism destinations. In addition to promoting, distributing, regulating and delivering tourism products to consumers, technology and innovation in the tourism sector also provide competitive advantages by the rational use of resources for businesses (Karataş and Babür, 2013).

Online services for travelers include obtaining information about the place of the planned visit, assessing alternative accommodation and transport facilities, making reservations, and making quick and secure payments. Online travel products cover booking flight tickets, cruise tickets, hotel rooms, renting cars and accommodation services offered by websites and applications, such as Airbnb. Nowadays, the Internet has become one of the important distribution channels of travel companies. In 2016, online travel sales in the US reached $ 189,62 million, and 40% of these sales were made via mobile phones (e-marketer, 2017). Online retailing expedites the acquisition of services, offers a variety of price alternatives to consumers, fortifies security precautions, and rapidly increases the use of online technologies in the tourism industry (Türker and Türker, 2013). The use of technology in the tourism industry and the increase in online shopping are among the leading reasons to conduct research on this subject. The studies that are conducted in these topics that used models that reveal how consumers have accepted technology (Amaro and Duarte, 2015; Lu et al., 2009). The most popular models are the Theory of Reasoned Action (TRA) (Ajzen and Fishbein 1980), Technology Acceptance Model (TAM) (Davis, 1989), Theory of Planned Behaviour (TPB) (Ajzen, 1991), Decomposed Theory of Planned Behaviour (PDT) (Taylor and Todd, 1995). In this study, consumers' buying behavior for online travel products will be examined based on the Technology Acceptance Model. Technology Acceptance Model (TAM) (Davis, 1989) constitutes the conceptual framework of this study. In the previous studies, the findings showed that enjoyment and trust factors are important for consumers to accept online shopping (Ha and Stoel, 2009; Bruner and Kumar, 2005). Considering the findings of previous studies, a model for this study was developed through adding the constructs of enjoyment and trust to the Extended Technology Acceptance Model e –TAM.

1.1. Technology Acceptance Model (TAM) and Extended Technology Acceptance Model (e –TAM)

The aim of the TAM is to understand the acceptance of technology by consumers, particularly consumers' computer use behavior. The Technology Acceptance Model has emerged as a very powerful model for adopting the information systems by consumers and has become the most used model by researchers (Venkatesh, 2000). Building on social psychology theories along with the reasoned action theory (TRA) (Ajzen and Fishbein, 1980) and theory of planned behaviour (TPB) (Ajzen, 1991), the TAM suggests the use of causal relations between belief-attitude and intention-behavior to predict and explain the technology acceptance among potential users. TAM is a simpler model than the other theoretical models applied to describe the adoption of technologies, which has a high level of descriptive characteristics with a few variables. The TAM is a specialized model for information systems and the measurement tools for this model have become generalizable.

In TAM, for the user to know the technology and find it easy to use are essential. The consumer also needs to know what kind of benefits the innovations brought by the technology that serves in a certain field. TAM proposes two fundamental factors, namely the perceived usefulness and perceived ease-of-use, that play a role in the acceptance of, and decision to use new technology (Davis, 1989). These perceptions of ease-of-use and (Perceived Ease of Use) and usefulness of technology (Perceived Ease of Use) are the most important features that determine the users' attitudes towards technology. The personal attitudes will determine people's intention to use or not to use the technology.

In the subject field of tourism, numerous studies (Lu et al., 2009) have applied the TAM to understand and explain the acceptance of technology in hotel front-office services, in consumers' online travel booking intentions (Amaro and Duarte 2015) and restaurant computer systems (Ham, Kim, and Forsythe 2008) which have shown that the ease-of-use (Perceived Ease of Use) and usefulness (Perceived Usefulness) of technology are important determinants of the consumers' acceptance of the new technology.

TAM has been developed by the studies of Venkates and Davis (2000). This theory is referred to as the Extended Technology Acceptance Model (e-TAM). Behavior of adopting online purchasing can be affected by social and environmental factors in a significant manner.

1.2. Perceived Ease-of-Use

In TAM, perceived ease-of-use is an essential determinant for the acceptance of a given technology. Perceived ease-of-use could be defined as a physical and mental concentration effort that occurs when a user is deemed as able to use a given technological system without any effort (Davis, 1989; Chen et al., 2002). According to Buton-Jones and Hubona (2005), the elements that make common technologies easy-to-use, including the technologies and interfaces of online shopping sites, are the ability to learn quickly and acquire skills. Selamat et al., (2009) suggest that the easier it is perceived by a person to use a given technology, the easier it is for others to accept the technology, and the more complex the technology is perceived, the lower the acceptance rate of technology. Teo (2001) noted that users often put less effort on an easy-to-use system, thereby increasing the likelihood of adopting and using a particular technology. Childers et al., (2001) have found out that consumers wish to use

easily understood and uncomplicated online shopping websites that do not require too much mental effort, and that they are more occupied by these kinds of websites and re-visit them for shopping.

Some studies revealed that perceived ease of use has a positive effect on consumers' online shopping attitudes (Ha and Stoel, 2009; Yulihasri & Daud, 2011; Lim and Ting, 2012). The perceived ease of use directly affects the consumers' attitude towards the use of technology. When the user can manage to use the application without difficulty, then he/she will think that the application is easy to use. As a result, they will be inclined to use that application regularly. The hypothesis developed based on this theoretical background is as follows:

H_1: The perceived ease of use of websites/applications that sell online travel products positively affects the attitudes towards online shopping.

1.3. Perceived Usefulness

The perceived usefulness is the degree to which the person believes that using the technology will increase their work performance (Davis, 1989). Perceived usefulness in online shopping is associated with perceived benefits of online shopping, including reduction of costs, reduction of the labor required to obtain the product, the increase of comfort and the short duration of operations, which suggests that consumers evaluate online shopping regarding efficiency based on the costs and benefits it offers. There are many studies that investigate the relationship between perceived ease-of-use and perceived usefulness (Ha and Stoel, 2009; Chen et al., 2002; Moon and Kim, 2001). The presence of a relationship between perceived ease-of-use and perceived usefulness is crucial for the functioning of the model. The users' perception of ease-of-use is a precondition for the perception of the usefulness of the object. The perception of a user adopting the new technology towards its usefulness depends on the presence of perceived ease-of-use. The same results have been obtained in many studies supporting this conclusion (Ha and Stoel, 2009). Consequently, the following hypothesis has been established:

H_2: The perceived ease-of-use of websites/applications that sell online travel products positively affects the perceived usefulness.

There are many studies proposing the perceived usefulness of TAM as a behavioral intention determinant (Ha and Stoel, 2009: Venkatesh, et al., 2003; Davis, 1989). The availablestudies found out that the perceived usefulness has direct and indirect positive effects on the users' behavioral intentions (Ha and Stoel, 2009; Venkatesh et al., 2003; Shih, 2004). Based on the results of these studies, the following hypothesis was derived:

H_3: The perceived usefulness of websites/applications that sell online travel products positively affects behavioral intentions towards online shopping.

1.4. Perceived Trust

Trust is defined as the state comprising positive expectations of a party regarding the intentions or behavior of the other, which do not include any harm, abuse or damage being inflicted (Rousseau et al., 1998). Trust has a complex composition and a multi-dimensional structure. The trust developed during the online shopping process between the buyer and seller plays a critical role in the completion of shopping process and the maintenance of

relationships. Trust is a fundamental requirement for any business relationship and transaction. However, trust is a relatively more important requirement in online shopping than in conventional retailing. This is because consumers feel a higher level of uncertainty and increased risk in making decisions when shopping online due to the unique features of the online shopping setting (e.g., inability to see and feel the products in real life, and no face-to-face interaction). Thus, consumers' trust in online retailers and Internet technology plays a vital role in online shopping behavior (Ha and Stoel, 2009; Kim et al., 2008). In the previous studies that employed the TAM, findings showed that perceived trust positively affects ease-of-use and consumers' attitude. (Ha and Stoel, 2009; Dahlberg et al., 2003; Pavlou, 2003). Chircu et al., (2000) have found strong correlations between perceived trust and perceived usefulness. In their studies investigating the intentions of online banking customers to use online banking by employing the TAM, Chau et al. (2006) incorporate the trust factor to the model. As a result, the study concluded that trust factor has a direct effect on perceived usefulness. Within this framework, the following hypothesis has been formed:

H_4: Perceived trust towards websites/applications that sell online travel products positively affects perceived usefulness.

Consumers' perception of trust directly and strongly influences the attitude towards online shopping. The level of trust perceived by consumers against online shopping sites or practices makes shopping easier by reinforcing their attitude towards online shopping. The studies found out that consumers' perception of trust is influenced by attitudes towards online shopping. In many studies, the perceived trust factor has been defined as a variable affecting the attitude. Eagerness to purchase is determined by attitudes (Ha and Stoel, 2009; Kim et al., 2008). Chen and Tan (2004) found out that the perceived trust of consumers towards an online store positively affects the attitude of using online store. Considering all these findings in the relevant literature, the hypothesis describing the relationship between perceived trust and attitudes towards online shopping is presented below:

H_5: Perceived trust towards websites/applications that sell online travel products positively affects attitudes towards online shopping.

1.5. Perceived Enjoyment

Another important variable that influences the acceptance of technology by the user is perceived enjoyment. Davis et al., (1992) and Vankatesh (2000) defined the scale of a user's bias and liking regarding the use of technology as perceived enjoyment. Childers et al., (2001) proposed that perceived enjoyment is the determinant of attitudes in online retailing. Some studies revealed that there is a strong correlation among perceived usefulness and perceived ease-of-use, and perceived enjoyment dimension, as incorporated to the TAM (Ha and Stoel, 2009; Pavlou, 2003; Venkatesh, 2000). Kubaş et al., (2016) study indicated that perceived enjoyment, perceived usefulness, and perceived ease of use directly and positively affect one another. In this context, it is possible to put forward the following two hypotheses:

H_6: The perceived enjoyment towards online websites/applications that sell travel products positively affects the perceived ease-of-use in online shopping.

H_7: The perceived enjoyment towards websites/applications that sell online travel products positively affects the perceived usefulness in online shopping.

1.6. Attitudes

According to the TAM, intentions are what determine individuals' behavior to use technology. Intentions, in turn, are determined by attitudes. Attitude is the positive or negative value of exhibiting a behavior. The personal attitudes will determine individuals' intention to use or not to use that technology. Individuals tend to use technology if they have positive attitudes. Negative attitudes, on the other hand, do not compel individuals to use technology. (Davis et al., 1989). To this extent, it is plausible to suggest the following hypothesis:

H_8: Attitudes towards websites/apps selling online travel products positively affect behavioral intention.

2. METHODOLOGY

2.1. Sample and Measures

In this study, non-probability convenience sampling approach was used to collect the data. Questionnaires were sent to all academicians in Anadolu University and Bilecik Şeyh Edebali University via email. A total number of 238 questionnaires were collected and screened for missing responses. 36 responses were identified as outliers, yielding a total of 202 responses deemed usable for further analysis.

In this study, perceived usefulness, perceived ease of use constructs, perceived trust, shopping enjoyment, attitude toward e-shopping and behavioral intentions constructs were measured as a formative constructs. Six items of perceived usefulness, four items of perceived ease of use were adopted and modified from Davis (1989) and Chen et. al. (2002). Perceived trust, shopping enjoyment, and attitude toward e-shopping constructs adopted and modified from Ha and Stoel (2008). Behavioral intentions was measured with four items adopted and modified from, Davis (1989), Venkatesh and Davis (1996), Ha and Stoel (2009). Except the demographic questions and online shopping behaviours of participants in the questionnaire, all variables were constructed with a 5-point Likert scale structured (1=strongly disagree to 5=strongly agree).

An exploratory factor analysis (EFA) was performed for purposes to identify the underlying dimensions of virtual destination environment and reducing the number of variables in the constructs. After eliminating items that showed poor psychometric properties such as communality, factor loadings and cronbach alpha were examined to ensure acceptable reliability. The analysis yielded four factors comprised of 18 items including perceived usefulness, perceived ease of use constructs, perceived trust, shopping enjoyment, attitude toward e-shopping and behavioral intentions.

2.2. Data Analysis Process

In this study, SPSS 21.0 was used in the analysis of demographic and descriptive data, and SmartPLS 2.0 was used in the analysis of the measurement model and the structural model. PLS-SEM is frequently used by many researchers today and is claimed to be a powerful method to analyze research data (Ali, Amin and Cobanoglu, 2016; Simkin and McLeod, 2010). PLS-SEM is primarily shown to be suitable to use in the analysis of abnormally-distributed data. Hair et al., (2013) reported that using PLS-SEM yields more robust results,

especially when the data are skewed. When univariate normality is examined, the skewness values of the items in the model range from -2,005 to 4,249; and kurtosis values from -0,085 to 3,644. Thus, PLS-SEM was used in this study model analysis.

In light of the previous studies, a sampling threshold for PLS-SEM in the order of 100 samples, the current sample sizes of 202 would generally be seen as adequate for PLS-SEM (Reinartz et al., 2009). PLS-SEM requires a sample size of 10 times the number of indicators of the construct with the largest number of indicators in the model (Hair et al., 2011). The "Behavioral Intention" dimension in the theoretical model of the study is the dimension that has the most variables with four expressions. The number of samples in the current model, 202, is above the minimum required number of samples.

Because dependent and independent variables were gathered via a single questionnaire, self-evaluation method was used, and evaluations on different variables were completed by the same evaluator in the same time period, to evaluate the common variance extracted trend is necessary (Podsakoff, 2003). One of the most common methods of determining whether this tendency is present or not is Harman's factor test. Thus, with variables of perceived usefulness, perceived ease of use, perceived enjoyment, attitudes towards online shopping, perceived trust and behavioral intention, and as a statistical model, Harman's single factor test were applied. First of all, all the items used in this study were subjected to acyclic factor analysis. As a result of the analysis, a total of six dimensions, with eigenvalue over 1, were identified. The total explained variance of the six dimensions was found to be 72,426%, and the explained variance of the largest dimension was found to be 24.165%, thus indicating method bias is not a serious issue in this study. In this study, SmartPLS software was used by applying the bootstrapping technique (300 resample) to evaluate factor loads and method coefficients. A two-stage analysis approach was applied following Anderson and Gerbing (1988). First, the measurement model was tested by performing validity and reliability analyses on each of the measures of the model, and then the structural model was tested by estimating the paths between the constructs in the model, determining their significance as well as the goodness of fit (GoF) of the model.

3. ANALYSIS AND FINDINGS

3.1. Demographic profile of respondents

The gender breakdown for the sample is 52% of female and 48% of male. Regarding the age distribution of the respondents; 44% of the sample is in 20-29 age range, 35% in 30-39 age range and 11% in 40-49 age range. The ratio of respondents 50-59 and over 60 age ranges are 6% and 5%. When examined the payment types of travel and holiday products, %70 of participants use credit card while %23 of participants use debit card while shopping internet (Table 1).

Table 1. Demographic characteristics of respondents

Group	Variables	Frequency	Percent (%)
Gender	Female	104	52
	Male	98	48
Age	20-29	87	44
	30-39	71	35
	40-49	23	11
	50-59	12	6
	60 and over	9	5
Paying type for online shopping	Credit Card	141	70
	Debit Card	47	23
	Money Order	14	7

3.2. The Assessment of Measurement Model

The measurement model used in this study includes six constructs: perceived usefulness (PU), perceived ease of use (PEU), perceived enjoyment (PE), attitudes toward online shopping (AT), perceived trust (PT), and behavioral intention (INT). Assessment of the reflective measurement model requires examining the validity and reliability of all latent variables in the model (Chin, 2010; Hair et al., 2012; Hair et al., 2017). First, to evaluate the convergent validity of the measurement model, factor loadings, composite reliability (CR) and average variance extracted (AVE) were assessed following Hair et al., (2010).

In evaluating the reliability of a model, calculating the loading values of each indicator associated with a latent variable and compare these calculations with threshold values are necessary. In general, the loadings be above 0,70 indicates reliability (Hair et al., 2010). The loadings of all indicator variables in this study (0,83-0,94) are above the threshold value of 0,70.

Convergent validity of structures has been tested by examining the average variance extracted (AVE). The value of AVE should exceed 0,5 to suggest adequate convergent validity (Bagozzi and Yi, 1988); all the constructs included in this study exceeded the recommended level to enhance validity of the present study. The internal consistency of all the constructs in the model was measured by employing Cronbach alpha and composite reliability, and the threshold criterion was taken as 0,70, as following Hair et al., (2010). Cronbach alpha and CR values of all the latent variables in the theoretical model of this study were determined to be over the suggested value of 0,70. These results indicate that the measurement model possessed acceptable reliability. Table 2 shows the factor loadings, cronbach alpha, CR and AVE for all the constructs.

Table 2. Assessment results of the measurement model

Constructs	Items	Loadings	CR	AVE	Cronbach Alpha
	Perceived Usefulness		0,921	0,796	0,871
PU1	The e-shopping websites are useful for shopping	0,862			
PU2	Using the e-shopping web sites increases my shopping performance	0,886			
PU3	Using the e-shopping websites enhances my shopping effectiveness	0,927			
	Perceived Ease of Use		0,942	0,844	0,907
PEU1	My interaction with "the virtual store" was clear and understandable	0,945			
PEU2	Learning to use "the virtual store" was easy for me	0,920			
PEU3	I found it easy to use "the virtual store" to find what I want	0,891			
	Perceived Enjoyment		0,909	0,770	0,851
ENJ1	I find shopping over the Internet to be interesting	0,901			
ENJ2	I have fun shopping over the Internet	0,855			
ENJ3	For me, using e-shopping web sites is pleasant	v,876			
	Attitudes Toward Online Shopping		0,898	0,746	0,829
AT1	Using websites save me money	0,885			
AT2	Using websites save me time	0,834			
AT3	I think using online shopping is beneficial for me	0,872			
	Perceived Trust		0,904	0,825	0,788
PT1	These products as shown on the websites are reliable	0,915			
PT2	Using websites are authentic and dependable in their claims	0,902			
	Intention		0,918	0,738	0,881
INT1	I will make more online shopping than traditional shopping in the future	0,898			
INT2	I intend to increase the quantity of online shopping	0,881			
INT3	I intend to use e-commerce as soon as possible	0,791			
INT4	Online shopping is better than traditional shopping	0,864			

One of the most commonly used methods for examining discriminant validity is the Fornell-Larcker criterion (Henseler et al., 2015). Fornell and Larcker (1981) argued that if a latent variable has more variance than the indicator variables, it shares with other constructs in the same model, a discriminant validity is established. Table 3 shows that the square root of the AVE (diagonal values) of each construct is larger than its corresponding correlation coefficients pointing towards adequate discriminant validity.

Table 3. Discriminant Validity*

	AT	ENJ	INT	PEU	PT	PU
AT	**0,863**					
ENJ	0,550	**0,877**				
INT	0,631	0,653	**0,859**			
PEU	0,665	0,557	0,480	**0,918**		
PT	0,574	0,460	0,653	0,381	**0,908**	
PU	0,602	0,692	0,641	0,587	0,494	**0,892**

*Values on the diagonal (bolded) are square root of the AVE while the off-diagonals are correlations.

3.3. Evaluation of Structural Model

After the validity and reliability assessment of the measurement model, the structural model was examined to test the hypotheses proposed for conceptual modelling in this study. Similar to the CB-SEM, the PLS-SEM approach utilizing SmartPLS software does not provide a conventional assessment of the overall model match. Thus, basic measures, such as R^2, β and t-values along with the predictive relevance (Q^2) and effect size (f^2) measurements and the bootstrapping process with 300 resamples, were examined to evaluate the structural model, as proposed by Hair et al., (2013). Following Tenenhaus et al., (2005), with the corrected R^2 values of all constructs, GoF index was calculated. This criterion is defined by the geometric mean of the average communality and the model's average R^2 value (Tenenhaus et al., 2005). Wetzels et al., (2009) reported the following cut-off values for assessing the results of the GoF analysis: $GoF_{small} = 0,1$; $GoF_{medium} = 0,25$; $GoF_{large} = 0,36$.

As shown in Table 4, the 0,615 GoF value for the structural model indicates very good global model fit. However, since Hair et al., (2012) and Henseler and Sarstedt (2013) argue that GoF does not represent a true global fit measure, the corrected R^2 values and t-values of the structural model are analyzed in Figure 1. Hair et al., (2017) recommended that the primary criterion for inner model assessment is the coefficient of determination (R^2), which represents the amount of explained variance of each endogenous latent variable. Perceived enjoyment of customers explains 31% of their perceived ease of use ($R^2 = 0,310$). Perceived enjoyment, perceived ease of use and perceived trust explain 56.3% of perceived usefulness ($R^2 = 0,563$). Perceived trust explain 56.3% of attitudes towards online shopping ($R^2 = 0,563$). On the other hand, perceived usefulness and attitudes towards online shopping explain 50.5% of customers' behavioral intentions ($R^2 = 0,505$).

Table 4. Goodness of Fit Index

Constructs	**AVE**	**R^2**
PU	0,796	0,563
PEU	0,844	0,310
ENJ	0,738	----
AT	0,746	0,563
PT	0,825	---
INT	0,738	0,505
Average Scores	0,781	0,485
$AVE * R2$	0,378	
$\sqrt{AVE * R2}$	**0,615**	

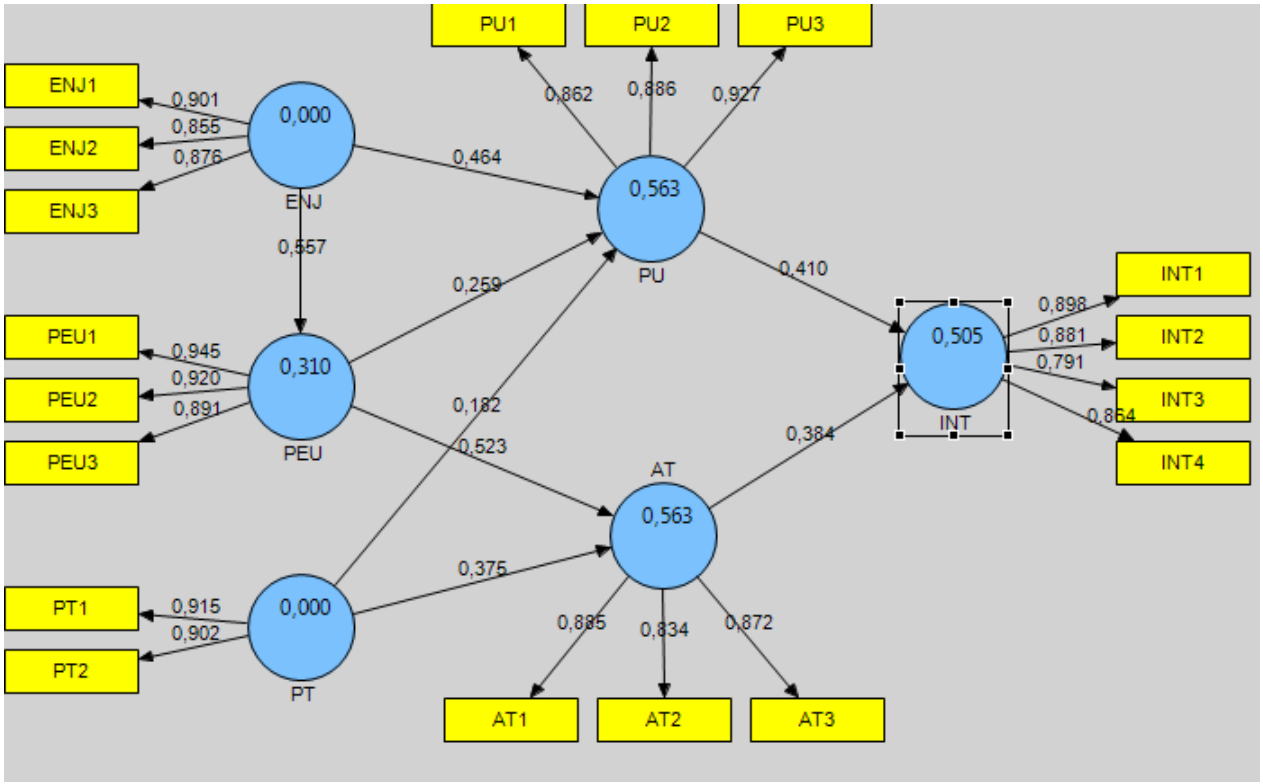

Figure 1. Structural results of the proposed model

According to Hair et al., (2017), examining Q^2, f^2 and multicollinearity in addition to R^2 when evaluating the reflective inner model is necessary. Peng and Lai (2012) recommended that researchers can evaluate the effect size of the predictor constructs using Cohen's f2. The effect size is computed as the increase in R^2 relative to the proportion of variance that remains unexplained in the endogenous latent variable. The following equation is used in the calculation of the f^2: $f2 = (R^2_{included} - R^2_{excluded})/(1 - R^2_{included})$. According to Cohen (1988), f^2 values of 0,35, 0,15 and 0,02 are considered large, medium, and small, respectively. In this study, behavioral intentions are predicted by perceived usefulness and attitudes towards online shopping. Therefore, relative effect sizes (f^2) of the predicting (exogenous) constructs were calculated and are shown in Table 5. As for predicting behavioral intentions, perceived usefulness had small effects, whereas attitudes towards online shopping had a medium effect size (Peng and Lai, 2012).

In addition to f^2, the predictive sample reuse technique (Q^2) could be used effectively as a criterion for predictive relevance (Chin et al., 2008). Based on blindfolding procedure, Q^2 evaluates the predictive validity of a complex model by omitting data for a given block of indicators and then predicts the omitted part based on the calculated parameters (Ali et al., 2006). Hair et al., (2017) recommended using the cross-validated redundancy as a measure of Q^2 since it includes the key element of the path model and the structural model to predict eliminated data points. Thus, for this study, Q^2 was obtained using cross-validated redundancy procedures. If $Q^2 > 0$, then, the model is viewed as having predictive relevance (Peng and Lai, 2012). As shown in Table 5, Q^2 for perceived usefulness, attitudes towards online shopping, and behavioral intentions are 0,435, 0,411, and 0,262, respectively, indicating acceptable predictive relevance.

Due to unstable construct weights potential, inter-construct multicollinearity is another criteria for the evaluation of structural (inner) model, and it is principally examined via the tolerance value and variance inflation factor (VIF). As shown in Table 5, the VIF values for all three predictor constructs 1,609 (ENJ), 1,301 (PT), and 1,487 (PEU), which are below the cut-off value of 3,3 (Diamantopoulos and Siguaw, 2006), indicating that there is the absence of multicollinearity.

Table 5. f^2 ve Q^2 ve VIF values (blindfolding process)

Constructs	Q^2	f^2 (Behavioral Intentions)	VIF
ENJ	-	-	1,609
PT	-	-	1,307
PEU	-	-	1,487
PU	0,435	0,057	-
AT	0,411	0,274	-
INT	0,262	-	-

After estimating the structural model, the complete results are summarized in Table 6. When examined the relationships, perceived enjoyment positively and significantly affected perceived usefulness ($\beta = 0{,}464$, $p < 0{,}01$) and perceived ease of use ($\beta = 0{,}557$, $p < 0{,}01$). Perceived ease of use positively and significantly affected perceived usefulness ($\beta = 0{,}259$, $p < 0{,}01$) and attitudes toward online shopping ($\beta = 0{,}523$, $p < 0{,}01$); perceived trust positively and significantly affected perceived usefulness ($\beta = 0{,}182$, $p < 0{,}01$) and attitudes toward online shopping ($\beta = 0{,}410$, $p < 0{,}01$). In addition to, perceived usefulness and attitudes toward online shopping positively and significantly affected intentions ($\beta = 0{,}410$, $p < 0{,}01$; $\beta = 0{,}384$, $p < 0{,}01$). Thus H1-H8 were all supported.

Table 6. Results of the structural model

Hypothesis		β	t-statistics	Decision
H1	Perceived enjoyment → perceived usefulness	0,464	4,206	Supported
H2	Perceived enjoyment → perceived ease of use	0,557	6,451	Supported
H3	Perceived ease of use → perceived usefulness	0,259	3,195	Supported
H4	Perceived ease of use → attitudes toward online shopping	0,523	7,090	Supported
H5	Perceived trust → perceived usefulness	0,182	2,133	Supported
H6	Perceived trust → attitudes toward online shopping	0,410	4,609	Supported
H7	Perceived usefulness → behavioural intentions	0,410	3,948	Supported
H8	Attitudes toward online shopping → behavioural intentions	0,384	3,541	Supported

4. CONCLUSION

The study explored factors influencing customer acceptance of online shopping within travel products context. The study proposes perceived trust, perceived enjoyment, and attitudes about online shopping, and the test the impact of these concepts using a modification Technology Acceptance Model (TAM). Based on e-TAM, the current study proposed a theoretical model and tested it in travel products context. According to model, we examine the relationships among perceived enjoyment, perceived trust, perceived usefulness, ease of use, attitudes toward online shopping and behavioral intentions.

Results of the study suggest that a consumer's perception of ease of use, enjoyment and trust are predictive of his/her attitude toward online shopping. The finding that trust and enjoyment perceptions play considerable roles in consumers' adoption of e-shopping supports previous research (Chirou, et. al. 2000; Venkatesh, 2000; Childers, et. al., 2001; Pavlou, 2003; Chen and Tan, 2004; Chau, et. al. 2006). In comparing path coefficients of antecedent of perceived uselfulness, enjoyment emerges as he most powerful predictor of perceived uselfulness. This support prior TAM research findings enjoyment to be the primary determinant of consumer's use of a technology while trust, ease of use are secondary components (Venkatesh, 2000; Childers et. al., 2001; Bruner and Kumar, 2005). In addition to, perceived uselfulness has stronger effect on consumer's behavioral intentions then attitude toward online shopping.

Several limitations of the present study should be mentioned. Firstly, the use of a convenience sampling approach could decrease external validity. Thus, future studies should consider developing a systematic design to better represent the population. Future research needs to replicate the study using different product categories to improve generalizability of the research model.

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