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# Voice of Academia

*Academic Series of Universiti Teknologi MARA Kedah*

**VoA 2021**  
Volume 17 Issue 1



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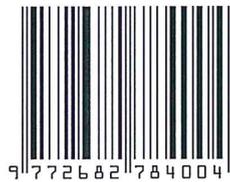
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e-ISSN: 2682-7840



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# THE IMPACT OF PERFORMANCE EXPECTANCY ON PURCHASING TRAVEL PRODUCTS VIA ONLINE TRAVEL AGENTS WEBSITES: GENDER AS MODERATOR

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ARTICLE INFO	ABSTRACT
<p><b>Article history:</b></p> <p>Received July 2020</p> <p>Received in revised form Aug 2020</p> <p>Accepted Oct 2020</p> <p>Published Jan 2021</p>	<p>Online travel purchasing can be made via online travel agents' websites (OTAs). While online travel agents (OTAs) keep leveraging their services to various segments of the travel and tourism industry, OTAs face a great problem of consumers' rejection from purchasing directly via their websites. Therefore, OTAs are striving to remain sustainable and profitable in the highly competitive online travel market. To mitigate this challenge, OTAs are striving to serve their customers by offering them superior service performance to attract them to purchase via their platform. This calls for a thorough understanding of the performance or usefulness factors related to the OTA context. Attempted to fill this gap, this study aims to investigate the relationship between performance expectancy and customer intention to purchase travel products via OTAs websites. By using Unified Theory of Acceptance and Use of Technology (UTAUT) as a base model, this study also examined the moderating role of gender in affecting the relationship between performance expectancy and purchase intention. The findings show that performance expectancy has positive effect on intention to purchase tourism products via OTAs websites. However, gender is found to have no moderation effect on the relationship between performance expectancy and purchase intention.</p>
<p><b>Keywords:</b></p> <p>Online Travel Agents Websites (OTAs), Performance Expectancy, Purchase Intention, Unified theory of Acceptance and Use of Technology (UTAU)</p> <p><b>Corresponding Author:</b></p> <p>marwin@uum.edu.my</p>	

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## 1. INTRODUCTION

Rapid development of information communication technology has tremendously affected the way consumer purchase travel products. Consumers nowadays are moving towards online or digital platforms to purchase travel products. Consumers can perform online travel purchasing directly through the travel suppliers website (website of a service provider e.g., purchasing a flight ticket directly via AirAsia.com) or through online travel agents website (OTAs), which combines various tourism products provided by various travel and tourism-related companies. Consumers could effortlessly browse and purchase tourism products through OTAs websites as OTAs sell various types of tourism related products which includes hotel rooms, airline tickets, car rentals, and holiday packages through websites and apps (Rezgo, 2019). Globally, the online travel services have gained high market shares. It is projected that the online travel services will reach more than USD1091 billion by 2022 (Allied Market Research, 2019)(Allied Market Research, 2019).

Since the introduction of OTAs, consumer acceptance of this platform is a worldwide phenomenon. For example, since their first launch in the United States in 1995, OTAs have gained huge share in the online travel purchasing market up to 39 per cent which will further expected to increase to 41% by 2020 (Feinstein, 2019). Likewise, this trend also occurred in China which in the first half of 2019, OTAs earned approximately 70% of the total online travel purchasing (ChinaTravelNews, 2019). Even though it seems that OTAs are doing well in the market, the use of the Internet technology also allows tourism suppliers to sell and promote tourism products directly to consumers via their websites. It cannot be denied that more and more consumers seek information about tourism products through OTAs websites, but perform the purchase through suppliers' websites (CNBC, 2015; Murad & Aziz, 2019; Toh, Raven, & DeKay, 2011; E. H. C. Wu, Law, & Jiang, 2013). As a result, OTAs face significant profit reduction make it a struggle to survive in the highly competitive online travel market.

The growing popularity of OTAs, as well as increasing competition in the online travel market, has triggered scholars to further investigate consumer behaviour related to OTAs. For instance, previous studies have examined different parts of consumer behaviour in the context of OTAs, such as customer loyalty (Bernardo, Marimon, & Alonso-Almeida, 2012; Dwikesumasari & Ervianty, 2017), customer satisfaction (Agustin, 2018), and customer innovativeness (Lee, Han, & Hwang, 2017). Purchase intention is an important part of consumer behaviour, yet very few empirical studies have examined consumers online purchasing intentions especially in tourism context (Amaro & Duarte, 2015; Herrero & San Martín, 2012; Law, Buhalis, & Cobanoglu, 2014; Law, Qi, & Buhalis, 2010; Murad & Aziz, 2019). To the best of our knowledge, this aspect has been scarcely investigated especially in the context of OTAs. Since the areas of purchase intention and OTAs have not been sufficiently investigated, this study will significantly contribute to the existing knowledge in this area of concern. Therefore, the objective of this study is to investigate the effect of performance expectancy on customer intention to purchase travel products via OTAs websites. This study also examined the moderating role of gender affecting the relationship between performance expectancy and purchase intention.

## **2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **2.1 Online Purchase Intention**

Behavioural intention is the most accurate predictor of actual behaviour (Ajzen, 2005). Behavioural intention consists of several dimensions and one of the prominent dimensions is purchase intention (Zeithaml, Bitner, & Gremler, 2006). Since actual purchase behaviour is established by purchase intention (Wang, Law, Guillet, Hung, & Fong, 2015) hence understanding consumers' purchase intention is crucial. The term online purchase intention in the literature is defined as willingness to perform purchases in online channels or medium (Li & Zhang, 2002; Wu, 2003). In this study, online purchase intention is defined as consumers' willingness to purchase tourism products directly via OTAs websites. Online purchase intention in this study will be explained by performance expectancy.

### **2.2 Theoretical Background**

A number of theoretical models have been used to study individuals' technology acceptance behaviour. Among the leading technology related models utilised by most of previous researches includes theory developed by Ajzen (1991), called as Theory of Planned Behaviour (TPB) (figure 1) and Technology Acceptance Model (TAM) (figure 2) developed by Davis (1989). This study utilises the Unified Theory of Acceptance and Use of Technology (UTAUT), which integrates eight prominent models to the formulation of consumer's online purchase intentions. Developed by Venkatesh, Morris, Davis, and Davis in 2003, this technology model contains the main factors or variables to predict individual intention to accept technology. Due to this factor, this model can be considered as one of the most comprehensive technology related models in explaining user's technology acceptance and use. Based on the UTAUT model, performance expectancy, effort expectancy, social

influence, and facilitating conditions are the four main drivers of technology adoption. Out of the four variables, performance expectancy has been found to have the most prominent factor of individual's intention to adopt technology. According to Venkatesh, Thong, and Xu (2012), performance expectancy is known to be one of the vital determinants of behavioural intention in technology acceptance and adoption field. Detailed analysis from previous studies of these four variables revealed that performance expectancy had the most significant influence on user intention to adopt technology (Celik, 2016; Murad & Aziz, 2019; Rahi, Othman Mansour, Alghizzawi, & Alnaser, 2019). Hence, this study focusses on the effect of performance expectancy on consumers' intention to purchase tourism products via OTAs websites.

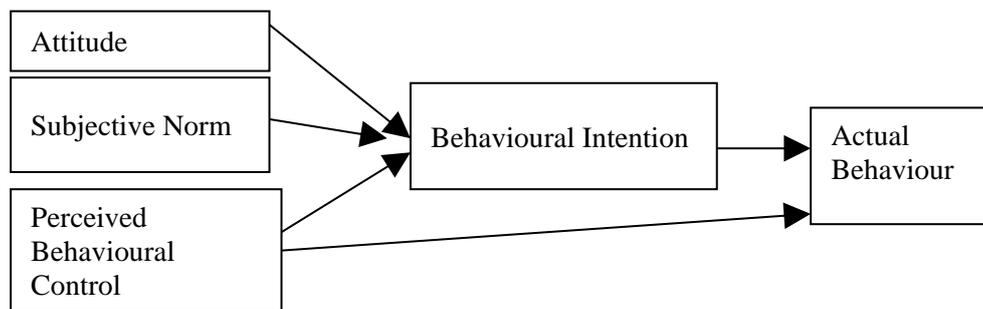


Figure 1: Theory of Planned Behaviour

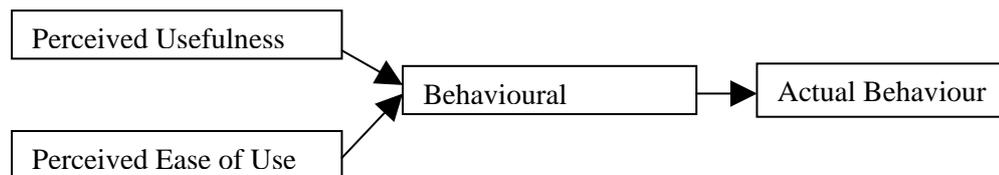


Figure 2: Theory of Planned Behaviour

### 2.3 Performance Expectancy

Performance expectancy is the degree to which individuals perceive using technology will assist him or her to attain gains while performing an action (Venkatesh et al., 2012). The formation of performance expectancy was based on several constructs from a number of technology related models and theories. Performance expectancy is comparable with perceived usefulness from Technology Acceptance Model, extrinsic motivation from Motivational Model, job-fit from Model of PC Utilisation, relative advantage from Innovation Diffusion Theory, and outcome expectations from Social Cognitive Theory (Venkatesh et al., 2003). Among these constructs, perceived usefulness is the most precise or the most comparable to performance expectancy. This is due to most of the items measuring performance expectancy derived from Technology Acceptance Model's (TAM) perceived usefulness (Alwahaishi & Snásel, 2013). Perceived usefulness is defined as individual's perception of using technology to improve his or her performance while performing an action (Davis, Bagozzi, & Warshaw, 1989).

Performance expectancy is recognised as one of the vital psychological construct influencing individual's technology acceptance behaviour (Venkatesh et al., 2012). Performance expectancy in the context of this study refers to the extent to which individuals perceive using OTAs websites improve the performance of purchasing tourism products online. The concept of performance expectancy emphasizes the extent of individual's perception of the usage of technology that could improve their performance while performing an action.

For example, if users have a positive perception pertaining to the usage of a technology or a system, this will develop positive behavioural intention, which consequently increases the likelihood the users will use or adapt the technology or system. A number of scholars have presented evidence of the significant relationship between performance expectancy and user behavioural intention in technological settings.

For instance, Lai, Wang, Li, and Hu (2016) postulated a positive relationship between performance expectancy and users behavioural intention to use technology for language learning outside the classroom and the results is significant. Rahi et al (2019) had confirmed the importance effects of performance expectancy on user's behavioural intention in the context of technology adoption in the Internet Banking sector. Similarly, the significant effects of performance expectancy on behavioural intention have been recognized in several technological contexts. Murad and Aziz (2019) found that performance expectancy positively affects individual's online purchase intention. Likewise, Celik (2016) study showed that performance expectancy was positively related to consumer behavioural intentions to use online shopping channels.

Despite the fact that performance expectancy has received attention in several technology related studies, the effects between these two constructs (performance expectancy and behavioural intention) should further be considered by researchers in different context or field of studies. To assume performance expectancy has the same effect in the different context of the study is wrong according to Venkatesh et al. (2012). This is because, the relationship between these two constructs might be difference on different technologies, different countries, and different groups context Venkatesh et al. (2012). In the light of reported evidence, this study proposes performance expectancy as a vital determinant that affect user's behavioural intention to purchase tourism products via OTAs websites. Thus, the following hypothesis is proposed:

*H1. Performance expectancy will be positively related to user's behavioural intention to purchase tourism products directly via OTAs websites.*

#### **2.4 Gender as a Moderating Variable**

A number of studies have tested the moderating effects of gender across several different contexts, such as Internet Banking technology, information technology, health and medical technology, educational technology, and mobile services. Yet, the moderating effect of gender on technology adoption in a variety of online contexts has demonstrated inconsistent results in previous studies. For instance, gender has been found to have significant moderation effect on the relationship between performance expectancy and behavioural intention in the context of online shopping study conducted by Dharmawirya and Smith (2012). Assaker (2020) found that the relationship between perceived usefulness comparable with performance expectancy and behavioural intention is stronger among male than female users. Similarly, the results of Venkatesh et al. (2012) study indicated that the effects of performance expectancy on behavioural intention is more prominent in men compared to female users.

On the other hand, a number of scholars failed to show significant moderation effect of gender on performance expectancy and behavioural intention. For instance, in the context of social network sites (SNS), Sharifi Fard, Tamam, Hassan, Waheed, and Zaremohzzabieh (2016) and Kaba and Touré (2014) found that gender does not moderate the relationships between performance expectancy and behavioural intention. Likewise, the results of the study carried out by Celik (2016) failed to confirm the significant moderation effect of gender on the relationship between performance expectancy and behavioural intention. These mixed results suggest that males and females have different patterns of intention and behaviour. As a result, there is lacking empirical evidence to state hypotheses regarding gender.

To explain the differences between the role of genders in an individual's behaviour, among the prominent sources that need to be referred are gender role studies as well as social

psychological studies. Social psychological studies revealed that compared to women, men are more rational, practical, and highly focuses on task and result (Nunkoo & Ramkissoon, 2012). According to the literature of the gender role studies, while females are prone towards routine and easy task, as well as risk avoidance in nature which reflects femininity traits, males are prone towards risk-takers and adventurous, which relates to maleness or masculinity traits (Lynott & McCandless, 2000). Therefore, in the OTAs acceptance and usage context, it can be expected that the positive relationship between performance expectancy and online purchase intention will be stronger for male consumers compared to female consumers. This is based on the nature of the masculinity traits which male users stresses more on the benefits or usefulness that they gain from the use of OTAs to purchase tourism products. Based on the discussion above, it is expected that:

*H2. The positive effects of performance expectancy on user's behavioural intention to purchase tourism products directly via OTAs websites will be stronger for male consumers than female consumers.*

## 2.5 Proposed Research Framework

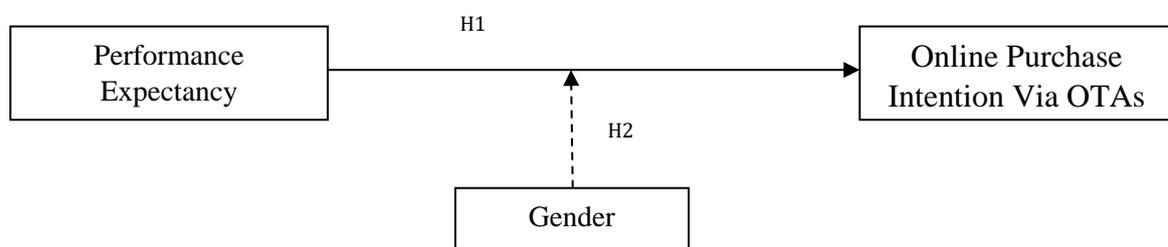


Figure 3: Research framework

## 3. METHODS

A quantitative research method was adopted in this study. By using the self-administered questionnaire, 300 copies were distributed, and 243 completed and usable copies were collected in a month's time in September 2019, suggesting that non-response bias was not the main issue. All statements pertaining to performance expectancy and behavioural intention were adapted from past literature (Martín & Herrero, 2012). To ensure the data would be free from common method bias, a post hoc Harman single-factor analysis was executed (Chang, Van Witteloostuijn, & Eden, 2010; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Except for independent variable and demographic information, a 7-point Likert scale where 1 demonstrating strongly disagree to 7 demonstrating strongly agree was used to measure the statements of performance expectancy as an independent variable. For the dependent variable, 5-point Likert-scale was adopted to measure the behavioural intention's statement. Pre-test was performed using the target respondents to confirm the usability and to identify potential issues of the items used in the questionnaire (Hunt, Sparkman, & Wilcox, 1982).

By adopting purposive sampling technique, questionnaires were distributed at several universities, colleges, and other public places in Malaysia. As such, two criteria were set to ensure the respondents have used online channels, either to find specific information or to make online purchases. Previous use of online channels is essential to ensure respondents have the appropriate level of knowledge and interest relating to the subject under investigation, which is online purchasing, thus improving the prediction of online purchase intention (Nguyen, Lobo, & Greenland, 2017). First, the data were entered into SPSS then imported to SmartPLS for latent variable analysis (Ringle, Wende, & Becker, 2015). This study utilized structural equation modelling software of partial least squares (PLS-SEM) approach to improve predictive relevance by maximizing the variance of the main target variables by different explanatory

variables (Hair, Hult, Ringle, & Sarstedt, 2014; Henseler, Ringle, & Sinkovics, 2009). PLS-SEM turn out to be increasingly effective and useful in explaining complex consumer behaviour in marketing research (Hair, Sarstedt, Ringle, & Mena, 2012). This approach is considered more appropriate for data analysis of this study as opposed to covariance-based SEM. It is because, since this study only focuses on respondents who have used online channels, either to find specific information or to make online purchases as the sample of the study, PLS-SEM is more suitable because it requires fewer demands on sample size and data normality (Astrachan, Patel, & Wanzenried, 2014; Barnes, Cote, Cudeck, & Malthouse, 2001). Therefore, PLS-SEM is employed in this study to perform latent variable and moderation analyses.

## 4. FINDINGS

### 4.1 Respondents Demographic

Table 1 illustrates the demographic information of 254 respondents for this study. Most of the respondents are college or university students.

Table 1: Respondents Demographic Profile

Characteristics	Frequency	%
<b>Gender</b>		
Male	134	52.8
Female	120	47.2
<b>Ethnicity</b>		
Malay	137	53.9
Chinese	96	37.8
Others	21	8.26
<b>Age Range</b>		
18 - 30	127	50.0
31 - 40	57	22.4
41 - 50	49	19.3
51 and above	21	8.3

### 4.2 Measurement Model

Table 2 shows the calculation of construct reliability and convergent validity for the variables of this study. The composite reliability (CR) values of 0.897 (PE) and 0.936 (OPI) demonstrate that these constructs have high levels of internal consistency. Likewise, the variables in this study demonstrate acceptable convergent validity. All the constructs achieve above threshold value of 0.5 for average variance extracted (AVE) which is a sign that the items explain more than 50 per cent of the construct's variances (Hair et al., 2014).

Tables 3 and 4 show the assessment of discriminant validity utilizing the Fornell and Larcker (1981) criterion as well as HTMT criterion by Henseler, Ringle, and Sarstedt (2015). As shown, the square root of AVE of each construct is larger than the correlation estimates of the constructs hence this prove that all the constructs are noticeably different from one another, indicating that each construct is unique and not represented by other constructs in the model (J. F. J. Hair et al., 2014). Similarly, the results prove that the correlation values corresponding to the respective constructs do not contravene the stricter HTMT0.85 criterion for assessing discriminant validity (Henseler et al., 2015). Furthermore, the standardized root mean square residual (SRMR) is employed to assess the model fit in PLS-SEM analysis (Henseler et al., 2014). The SRMR is an unequivocal measure of fit and is defined as the standardized difference between the observed correlation and the predicted correlation. As the result shows 0.056, which is less than 0.08, the model is considered to have a good fit (Hu & Bentler, 1999).

Table 2: Respondents Demographic Profile

Construct	Item	Loading	CR	AVE
Performance Expectancy	PE1	0.830	0.897	0.686
	PE2	0.835		
	PE3	0.818		
	PE4	0.830		
Online Purchase Intention	BI1	0.911	0.936	0.830
	BI2	0.907		
	BI3	0.916		

Table 3: Fornell and Larcker criterion

	Behavioural Intention	Performance Expectancy
Online Purchase Intention	0.911	
Performance Expectancy	0.557	0.828

**Notes:** Diagonal elements represent the square root of AVE. Off diagonal elements are simple bivariate correlations between the constructs

Table 4: HTMT criterion

	Behavioural Intention	Performance Expectancy
Online Purchase Intention		
Performance Expectancy	0.626	

**Note:** Criteria: discriminant validity is established at HTMT0.85

#### 4. 3 Structural Model

Before evaluating the structural model, first it is vital to confirm that the data used in the study are free from collinearity issues (in the structural model). Table 5 indicates the result of the collinearity assessment. Since the VIF value of the constructs is lower than the offending value of 3.3 (Diamantopoulos and Siguaaw, 2006), hence signifying no issue with collinearity in the study. Table 6 explains the results of path coefficient assessment utilising the bootstrapping procedure for each of the hypothesized relationship in the structural model. The results prove that the proposed relationship is found statistically significant at 99 per cent confidence interval (PE→OPI,  $\beta=0.557$ ,  $t=11.399$ ; LL=0.458, UL=0.626). Hence, it is deduced that performance expectancy has a positive effect on intention towards purchasing tourism products via OTAs websites. As such, H1 is supported.

Table 5: Collinearity assessment

	Behavioural Intention
Online Purchase Intention Performance Expectancy	1.00

Table 6: Path coefficient assessment

	Direct effect ( $\beta$ )	SE	t-statistics	P-Values	Interval estimate		Decisions
					LL	UL	
PE -> OPI	0.557	0.049	11.399**	0.000	0.458	0.626	Supported

**Notes:** LL, lower limit; UL, upper limit at 95 and 99 per cent confidence interval. \* $p < 0.05$ ; \*\* $p < 0.01$  (one-tailed)

Table 7 shows the assessment of coefficient of determination ( $R^2$ ), the effect size ( $f^2$ ) and the predictive relevance ( $Q^2$ ) of exogenous variable on endogenous variable in this study. The value for coefficient of determination ( $R^2$ ) is 0.307. This suggests that the exogenous variable in this study, namely performance expectancy explain 30.7 per cent of variances in online purchase intention. Overall, the  $Q^2$  value of 0.449 for online purchase intention, which is larger than 0 (Hair et al., 2014) signify that exogenous variable has predictive ability over the endogenous variable. The exogenous variable (PE,  $f^2 = 0.241$ ) has medium to substantial effect size on the endogenous variable.

Table 7: Determination of coefficient ( $R^2$ ), effect size ( $f^2$ ) and predictive relevance ( $Q^2$ )

	Coefficient of determination ( $R^2$ )	Predictive relevance ( $Q^2$ )	Effect size ( $f^2$ )	
			Intention	Effect size
Online Purchase Intention Performance Expectancy	0.307	0.449	0.241	Medium to Substantial

Table 8 explains the moderating effect of gender on the relationship between performance expectancy and online purchase intention ( $\beta = -0.017$ , ns). It is found that gender did not moderate the relationship between performance expectancy and intention to purchase tourism products via OTAs websites. As such, H2 is rejected.

Table 8: Results of moderating effect of gender

	Standard $\beta$	SE	t-statistic	P-Values	Decisions
Performance Expectancy*Gender -> Online Purchase Intention	-0.017	0.16	0.107	0.457	Not Supported

## 5. DISCUSSIONS AND CONCLUSION

While the effects of the direct hypothesis (performance expectancy on the intention to purchase tourism products via OTAs websites) is significant, the moderating effect of gender on the relationship between performance expectancy and online purchase intention is found not significant. In general, performance expectancy is useful to explain the magnitude of intention to purchase tourism products via OTAs websites. Performance expectancy is found to have strong effect highlighting the importance of benefits or performance of the technology offered to users. This finding is consistent with the previous studies. For instance, Murad and Aziz (2019), Palau-Saumell, Forgas-Coll, Sánchez-García, and Robres (2019), Okumus, Ali, Bilgihan, and Ozturk (2018) found performance expectancy has strong positive effect compared to other variables in the UTAUT model. Considering the findings obtained, the greater the performance perceived by users, the more likely they have a positive intention to purchase tourism products via OTAs websites.

This study also presents interesting findings on the moderating role of gender in the relationship between performance expectancy and online purchase intention. Prior research has demonstrated an inconsistent moderating role of gender in acceptance of technology context. While some of the previous studies have shown a different level of strengths in the relationship between performance expectancy and behavioural intentions for different gender (male and female), (Assaker, 2020; Dharmawirya & Smith, 2012; Venkatesh et al., 2012), others failed to prove such a moderating role (Celik, 2016; Kaba & Touré, 2014; Sharifi Fard et al., 2016). Contrary with most of the prior studies which found stronger effects of performance expectancy among male than female users, the results from moderation analysis revealed that there were no significant differences in the relationship strengths for users across different gender, male and female. These findings contribute to the ongoing dispute about the moderating role of gender towards the acceptance and adoption behaviour of online technologies.

The non-significant moderation effect of gender on the relationship between the independent variable and dependent variable in this study suggests that the use of online travel agents' websites to purchase tourism products online show no differences between male and female users. These findings could be reasonably interpreted based on few reasons or factors. First, stages of adoption. Individuals are evolving to become more and more digital-savvy in today's modern societies. Online technologies are not a new concept for most individuals especially those who are in millennials cohort (age 18 to 40 years old), hence these technologies have become common in their daily lives. Therefore, both male and female users have no different towards the acceptance and adoption behaviour of online technologies. Another possible explanation is that since performance expectancy was found to be a critical factor in determining behavioural intention in most of technology acceptance studies, the effect of performance expectancy on online purchase intention will be no different for male as well as female users. In summary, previous assumptions about the role of gender, in terms of technology acceptance and use, may need to be revised considering the current development of the technology.

The results of this study imply some relevant implications to both practitioners and scholar in the digital tourism field. However, there are a few limitations which require continuous attempts to further validate and extend the use of the model. First, the sample of the study is largely made up by college, university students as well as young adults in Malaysia who are believed to be more technologically savvy as they are more familiar with online technologies compare to other groups of respondents. Secondly, quantitative instead of qualitative research approach has been heavily used in most of online technologies studies. As such, future research in this field should consider using heterogeneous sample (include all age/generation cohort) and utilise qualitative research approach to better explain user's technology acceptance behaviour especially in the context of digital tourism.

## ACKNOWLEDGEMENTS

We would like to thank the VOA UiTM and the anonymous review panel for their many helpful suggestions. This project was fully self-funded.

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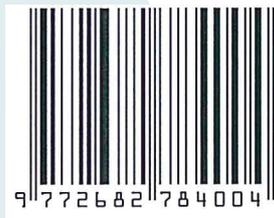
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