

Behavioural Intention of Online Mobile Hotel Booking: Analyzing The Moderating Effect of Perceived Cost

¹Mohamad Amiruddin Mohamad, ²Muhammad Safuan Abdul Latip, ³Ainnin Sofea Azeman, ⁴Nurhafizah Anis Muhammad Yew

^{1,2,3}Faculty of Hotel and Tourism Management, Universiti Teknologi MARA Cawangan Terengganu Kampus Dungun, ⁴Academy of Language Studies, Universiti Teknologi MARA Cawangan Melaka Kampus Alor Gajah

Corresponding Author Email: amiruddinmohamad@uitm.edu.my

To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v13-i5/16908> DOI:10.6007/IJARBSS/v13-i5/16908

Published Date: 20 May 2023

Abstract

This paper aims to investigate customer intention to adopt online mobile hotel booking. This study integrated perceived cost as moderating effect in the Technology Acceptance Model (TAM). A total of 386 valid responses were collected from individuals that use mobile phone to book a hotel. Structural Equation Modelling (SEM) through AMOS and PROCESS was applied in the data analysis. Results from the analysis confirm that only perceived usefulness and perceived enjoyment significantly affect customer behavioural intention to use mobile hotel booking. Moreover, only perceived enjoyment was found to be moderated by perceived cost toward intention to tested variables. The finding also implied that TAM is still valid to use in the research to examine mobile booking technology acceptance in the hotel industry. The results could be used as a benchmark for future research in the field of technology. This study also provides necessary information for key players in the hospitality industry specifically for those that rely upon the mobile platform as their business channel.

Keywords: Technology Acceptance Model (TAM), Behavioural Intention, AMOS, Mobile Booking, Perceived Cost

Introduction

Mobile phone has brought various changes in the hospitality industry including mobility and broad reach function which facilitates customers to engage in the business (Mo Kwon et al., 2013). Furthermore, the expansion of the mobile application market such as Apple's app store alone which has millions of apps proved that the competitiveness of the market is steadily increasing and this number does not include another competitor, Google Play (Khalid, 2014). Indeed, advances in technology have changed how individuals conduct daily activities (Latip et al., 2022).

Through the use of technology, customers have the opportunity to engage in a range of options pertaining to travel products and services, such as making a room booking via their mobile devices (Ozturk et al., 2015). According to the report published by the China Internet Network Information Center, mobile device bookings for travel products had reached 392 million users, accounting for 49% of all travellers by December 2018 (Tian et al., 2021).

The growth of mobile technology is undeniably benefiting market players and customers, however, does the shift toward online booking and online application on daily activities done conventionally facilitate customer needs and preferences? Correspondingly, the situation also illustrated that is it really customer engage in mobile-based services for hotel booking because Bakar and Hashim (2008) in their research stated that there are still customers that prefer to use the traditional method of room reservation. Consistently, a study by Linton Kwornik (2015); Bae et al (2020), concluded that customers still preferred to use the computer to do bookings. Moreover, previous studies indicate that most customers still hesitate to use mobile devices and it has been suggested to build a more responsive e-booking platform that is optimised for mobile usage (Suki & Suki, 2017). This implied that people are reluctant to use mobile devices due for booking due to the challenging nature related to the process involved.

Moreover, Ozturk et al (2015) explained that the existence of a knowledge gap in the field of mobile hotel booking and customer preferences is due to the inadequate empirical research conducted on this subject. Some of the studies investigated mobile technology acceptance that centred on user perception of technology. The study includes variables such as perceived ease of use and perceived usefulness (Ha et al., 2007; Yang et al., 2013), trust (Ozturk et al., 2015; Shaw, 2016), subjective norm (Kim, 2016) and compatibility (Chen et al., 2009; Rodzi et al., 2016). Apart from this, very few studies in the same area of study have been conducted in developing countries as highlighted by Saw et al. (2015). Considering this, it is crucial to analyse the key drivers of customers' adoption of mobile hotel booking, particularly their intention to utilize the technology provided.

To better understand customer intention to adopt mobile services, Moorthy et al. (2017) recommended examining the cost factor as the potential barrier, as cost has been recognized as a main factor in consumer adoption of online hospitality and travel products by previous studies (Yang et al., 2013). Wang et al (2006) outlined that cost comprises several components including the initial purchase price of mobile devices, ongoing usage and maintenance cost as well as the cost of upgrading. Venkatesh et al (2012) stated that if using technology proved to be beneficial and perceived as greater than monetary cost or price value can give a positive impact towards user intention.

While mobile booking has its advantages, cost remains a hindrance for some individuals within the age group. For instance, even though many young users, such as fresh graduates, have access to mobile phones and the internet, they may face financial limitations that prevent them from utilizing mobile booking services life (Yang et al., 2013). These costs may include transaction fees, data charges, and other hidden fees associated with the mobile booking. As such, it is important to consider the moderating effect of perceived cost when examining factors that influence online booking intentions.

By considering the moderating effect of perceived cost, researchers can gain a better understanding of the factors that influence online booking intentions among different groups of users. This information can then be used to develop more effective marketing strategies that cater to the needs and preferences of diverse user groups. Subsequently, this research is expected to provide relevant information into the cost perspective of mobile hotel booking including its impact on customers.

Also, given that the hotel industry anticipates mobile devices to be a key distribution channel (Rodzi et al., 2016), it is essential to understand the factors that affect mobile hotel booking behaviour. The present study is expected to offer valuable insights into this area

which can be beneficial to customers and industry key players. Hence, this has resulted in the development of the following research objectives:

1. To examine factors that influence consumer mobile online hotel booking intention.
2. To examine the moderating effect of perceived cost on consumer mobile online hotel booking intention.

Literature Review

Technology Acceptance Model (TAM)

With the increasing advancements and popularity of mobile technologies, mobile devices have become ideal companions for travellers, allowing them not only to access information and services (Murphy et al., 2016). To understand user acceptance of new technology, the Technology Acceptance Model or known as TAM developed by Davis (1989) has been the main underlying theory chosen by researchers to conduct the research. TAM was established based on the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975), which clarifies how a person's beliefs can shape their attitude and lead to the development of a behavioural intention towards a particular action. Moreover, the updated TAM includes external variables towards perceived ease of use (PEOU), perceived usefulness (PU), in addition to PEOU, which is related through the PU, attitudes (A), and behavioural intention (BI) towards the person's actual technology acceptance. As mentioned by Ooi and Tan (2016), TAM was first introduced as a method to analyze what factors influence the acceptance of the use of technology.

Extended Technology Acceptance Model

In the original TAM, there are two known constructs that may influence user intention, which have been mentioned before and are known as PEOU and PU (Davis, 1989). Since TAM has been widely used by various researchers in various settings, many of these researchers have introduced new external variables to use in conjunction with TAM and extend the model. The main reason why they add new constructs to TAM is that researchers want to have a better understanding and explanation of user acceptance of new technology (Hahn et al., 2014).

Introducing external variables is important as it can influence PEOU and PU to predict the demand for information technology, and this is why TAM should be extended (Ooi & Tan, 2016). Thus, this model seems to be a fitting theory for this study as the only difference is the field of study since the researcher intends to focus on the hotel field. Therefore, this study adopted this framework to predict the intention to use mobile hotel booking.

Behavioural Intention of Mobile Hotel Booking

Previous studies on the technology acceptance model have described behavioural intention (BI) as an individual's willingness to use a technology system (Venkatesh et al., 2012). In line with this study, Venkatesh et al (2012) also viewed behavioural intention as the individual willingness to use and continue using particular technology, with the individual being the technology user in this context. Furthermore, behavioural intention can be interpreted as an individual's interest or desire to perform certain behaviours and how long they will use the technology (Nelwan et al., 2021).

Several studies have shown that there is a relationship between the intention to use a certain technology and the actual behaviour of using the technology. This construct has always been a key predictor of the actual use of technology (Dabholkar & Bagozzi, 2002;

Vijayasarathy, 2004) and this is why it has become the foundation of TAM (Ajzen, 1992; Taylor & Todd, 1995; Venkatesh et al., 2003).

Perceived Usefulness and Behavioural Intention Online Mobile Hotel Booking

PU refers to the degree to which an individual perceives that using a particular technology will improve their job performance (Davis, 1989). From the mobile perspective, perceived usefulness refers to the extent to which users expect technology to increase work effectiveness (Su et al., 2018). In addition, mobile perceived usefulness also leads to the perception of increased usability given to users when adopting technology (Al-Debei et al., 2015).

In the context of this study, PU refers to a person's belief that mobile hotel booking is useful for them. If it is perceived as useful for them, then it will positively influence their job performance, which can lead to improvement in terms of user productivity. Many previous studies have revealed that perceived usefulness is an important determinant of individual acceptance of information technology (Ibrahim et al., 2017; Le & Cao, 2020; Mohamad et al., 2021; Saad & Ehsan Rana, 2019). In TAM, individuals accept information technology if they believe in its positive performance. As a result, the perceived usefulness of mobile hotel booking could directly influence behavioural intention. Therefore, the following hypothesis is formulated

H1: Perceived usefulness will have a positive influence towards behavioural intention to adopt online mobile hotel booking.

Perceived Ease of Use and Behavioural Intention of Online Mobile Hotel Booking

Within the scope of mobile hotel booking, PEOU denotes an individual's perception of the effort involved in adopting the technology. Previous studies have shown that customers are more likely to adopt online hotel booking if they perceive it as easy to use (Abdullah et al., 2016). The perception of ease of use also influences the willingness of individuals to learn and continue to use the technology (Saadé & Bahli, 2005). PEOU, along with PU are primary predictors of behavioural intention to use in the TAM (Davis, 1989).

Several previous studies in the hospitality industry have shown the importance of PEOU and the adoption of mobile technology (Mohamad et al., 2021; Mohd Suki & Mohd Suki, 2017; Morosan, 2014). Subsequently, perceived ease of use plays a critical role in consumer adoption of technology and for this study, the following hypothesis is formulated:

H2: Perceived ease of use will have a positive influence towards behavioural intention to adopt online mobile hotel booking.

Perceived Enjoyment and Behavioural Intention of Online Mobile Hotel Booking

Adams et al (1992) provided the definition of perceived enjoyment (PE) as the level to which the activity associated with technology usage is considered enjoyable, irrespective of any performance outcomes that may arise. Other researchers have defined PE as intrinsic motivation that emphasizes the usage process and reflects the pleasure and enjoyment associated with using a system (K, 2014). Moreover, the user's intention to use a new

application is predominantly influenced by the development of enjoyment towards a new technology (Adams et al., 1992; Davis et al., 1992; Latip et al., 2022). When some users use a new application or technology, they are induced by a particular feeling of enjoyment and delight that leads them to switch to these new technologies (Nguyen, 2015). According to Gao et al., (2014) individuals with strong personality characteristics that include perceived enjoyment may strongly boost customers' perceptions and are most likely to have the intention to use mobile services. In this study, PE was incorporated to investigate its effect on BI for utilizing mobile hotel booking and to determine whether this impact is statistically significant.

Several studies have examined the factors that affect the adoption of mobile applications or services and have found that enjoyment has a positive impact on the intention to use a particular technology (Gurtner et al., 2014; Jun et al., 2022; Nguyen, 2015). Also, earlier research that integrated perceived enjoyment as a variable was found to have a very important role in the adoption of various information systems (Thong et al., 2006) and this factor has been included in the extended versions of the TAM model (Ko & Kim, 2011). Therefore, the hypothesis for perceived enjoyment is proposed as follows

H3: Perceived enjoyment will have a positive influence towards behavioural intention to adopt online mobile booking hotel booking.

The Moderating Effect of Perceived Cost toward Behavioural Intention of Online Mobile Hotel Booking

Cost is essential when it comes to the delivery of mobile commerce. Mobile hotel booking is a part of mobile commerce since it involves the purchase of services using remote devices and in this research, services refer to the hotel room to be booked by the customer. According to Ko and Kim (2011), one of the important criteria that influence internet usage in online tourist-related transactions is cost. (Luarn & Lin, 2005) explained that costs include initial purchase price, ongoing usage cost, maintenance cost and upgrade cost. In correspondence with Moorthy et al (2017), they explained that perceived cost was adopted in the studies because the variable can be considered as a hindrance for an individual to adopt new technologies. Previous studies suggest that providing lower costs in online transactions positively affects the online purchase behavioural intention (Vijayasathy, 2004) and in mobile commerce study, cost also is considered one of the predictors of intention to use particular technology (Wu & Wang, 2005).

Saito et al (2019) explained that many hotel customers book a hotel room through an online channel as it enables them to compare prices. Since cost is related to price, it can be explained that price can be a determinant of purchase intention and an essential characteristic of a product or service (Xue, 2019). Given the cost factor was utilised as it can influence the online hotel booking (Özbek et al., 2015) cost can be employed as the moderating variable towards perceived usefulness, perceived ease of use, and perceived enjoyment on online mobile hotel booking. Hence, the following hypotheses were proposed

H4: The moderating effect of perceived cost will have a positive influence towards the relationship between perceived usefulness and behavioural intention of online mobile hotel booking.

H5: The moderating effect of perceived cost will have a positive influence towards the relationship between perceived ease of use and behavioural intention of online mobile hotel booking.

H6: The moderating effect of perceived cost will have a positive influence towards the relationship between perceived enjoyment and behavioural intention of online mobile hotel booking.

Methodology

Research design

In this study, a correlational research design was adopted to examine the relationship between perceived usefulness, perceived ease of use, perceived enjoyment, and mobile hotel booking intention, and to investigate the moderating effect of perceived cost.

The data was collected through a survey questionnaire that was distributed to a sample of mobile phone users who had made hotel bookings through their mobile devices. The survey included questions on the perceived usefulness, perceived ease of use, perceived enjoyment, perceived cost, and intention to use mobile booking services in the future.

The collected data was then analyzed using various statistical techniques, including IBM SPSS statistics, Structural Equation Modelling (SEM) through IBM AMOS software, and PROCESS by Andrew F. Hayes. These tools were used to examine the relationships between the variables, to test the hypotheses, and to investigate the moderating effect of perceived cost.

The study population and sampling

The study was conducted in Malaysia and carried out in the capital city of Kuala Lumpur, Malaysia's most developed city. The study's target population was consumers with experience in mobile hotel booking, as this group of population attempted mobile hotel booking before. A data from the Department of Statistics Malaysia revealed that 91.0 per cent of Malaysian household have access to a smartphone in 2019 compared to 89.0 per cent in 2018. Moreover, there is 87.1 per cent. Moreover, 84.2 per cent of Malaysian household use the internet in the year 2019 compared to 81.2 per cent in 2018 (Department of Statistics Malaysia, 2020). To ensure a generalised finding, the minimum sample size of the targeted population is a must (Sekaran & Bougie, 2016). A minimum of 170 sample size was required based on 17 items tested by the study as supported by (Hair et al., 2010). For each 1 of item tested, 10 sample size are needed. Thus, 170 sample size is required. The study employed a purposive sampling technique to obtain a correct respondent because no sampling frame can access this group of population. The data was collected using an online survey parallel with the context of the study. Pilot data was conducted involving 30 respondents to get an insight from the respondent point of view of the items tested. There are a total of 386 valid responses were received and fulfil the minimum sample size (Hair et al., 2017).

Overall, the study's methodology was well-designed and executed, using appropriate techniques and sample sizes to ensure accurate and reliable results. The use of a purposive sampling technique allowed for the selection of a specific target population, ensuring the relevance and validity of the study's findings

Respondents' profile

Based on the descriptive analysis conducted, most of the respondents were female

(56.2 per cent) with a total of 208 respondents, while 162 respondents were male (43.8 per cent). The majority of the respondents were aged between 20 to 30 years old (81.4 per cent), followed by 14.6 per cent aged between 31 to 40 years old. Meanwhile, 3.2 per cent of respondents were aged between 41 to 50 years old, 0.5 per cent were aged between 51 to 60 years old, and 0.3 per cent were aged 61 years old and above.

Regarding education, the majority of respondents were bachelor's degree holders (64.1 per cent), followed by master's degree holders (17.6 per cent) and diploma holders (14.6 per cent). In terms of income level, 40.5 per cent of respondents earned between RM2,001.00 to RM3,000.00 monthly, followed by 26.2 per cent earning below RM2,000.00 monthly. Additionally, 20.3 per cent of respondents earned between RM3,001 to RM4,000 monthly, and 13.0 per cent earned a monthly income of RM4,000.00 and above.

Data Analysis and Results

A minimum and maximum analysis is a crucial step in any data analysis process. It helps identify any missing values and ensure that data is decoded accurately. This analysis involves checking the minimum and maximum values of each variable to ensure that there are no errors in data entry or data processing.

After conducting the minimum and maximum analysis, an outlier analysis through Mahalanobis analysis was conducted through AMOS. The Mahalanobis distance measures the distance between an observation and the mean of the sample in a multidimensional space. Any observations that have a Mahalanobis distance greater than a critical value is considered outliers.

Outliers and extreme responses can have a significant impact on the results of statistical analyses, and therefore, it is essential to remove them prior to analysis. Outliers can skew the data and lead to inaccurate results. Extreme responses, on the other hand, can create bias and reduce the accuracy of the results.

By removing outliers and extreme responses, the researchers can ensure that the results are valid and reliable. The removal of outliers is a standard practice in data analysis, and it is done to ensure that the results accurately represent the population being studied as supported by (Hair et al., 2017)

Data Analysis and Finding

Full measurement model

The Confirmatory Factor Analysis (CFA) together with scores of model fitness, can be accessed in Figure 1. The CFA reported a good model fit score with minimum discrepancy (CMIN/DF) = 2.566; comparative fit index CFI = .963; goodness of fit index (GFI) = .918 and the root mean square error of approximation (RMSEA) = .064 (Awang et al., 2018).

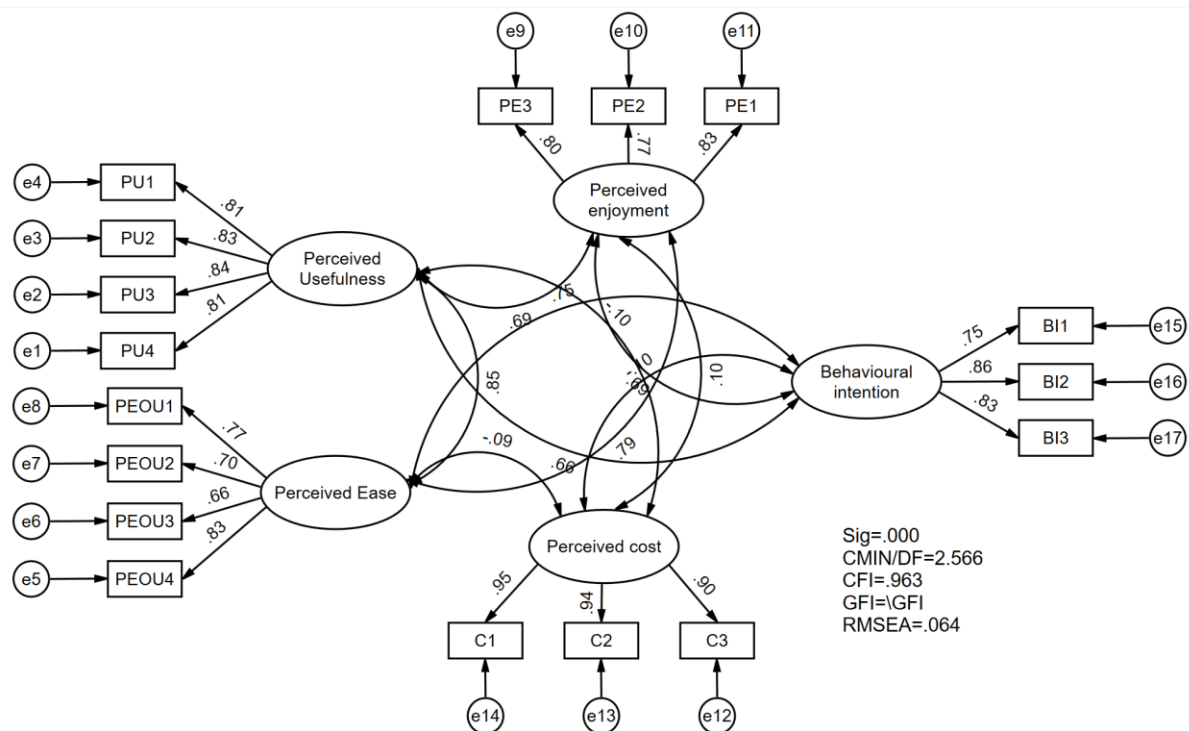


Figure 1. Full measurement model

The validity of the construct in Table 1 indicates a good validity and composite reliability (CR). CR of all construct achieved a minimum requirement of 0.60 and above that measure a good internal consistency of the items. Meanwhile, the AVE of all constructs achieved a minimum score required of 0.50 and above (Awang et al., 2018). Thus, convergent validity is achieved.

Heterotrait-monotrait (HTMT) been used to access the discriminant validity of the construct (Table 2). The HTMT value close to 1 indicates a lack of discriminant validity (Ab Hamid et al., 2017). Table 2 showed no discriminant validity problems based on HTMT<0.85 criteria and no collinearity problems are detected.

Table1
CR, AVE, and MSV of the constructs

Construct	CR	AVE	MSV
Perceived usefulness (USE)	0.894	0.679	0.725
Perceived ease of use (EASE)	0.833	0.557	0.725
Perceived enjoyment (ENJOY)	0.840	0.637	0.617
Behavioural intention (BI)	0.856	0.666	0.568
Perceived cost (COST)	0.952	0.869	0.010

Table 2
HTMT analysis for validity

	USE	EASE	ENJOY	BI	COST
USE	1				
EASE	0.843	1			
ENJOY	0.704	0.782	1		
BI	0.679	0.749	0.686	1	
COST	0.094	0.088	0.096	0.100	1

Structural Equation Modelling (SEM) Analysis

SEM was used to examine the direct relationships of the study. As illustrated in Figure 2, the result of model fitness shows a good fitted model. The minimum fitness required was achieved with CMIN/DF =2.224; CFI=.976; GFI .941 and RMSEA = .058 (Awang et al., 2018). Therefore, further analysis can be administered using the structural model.

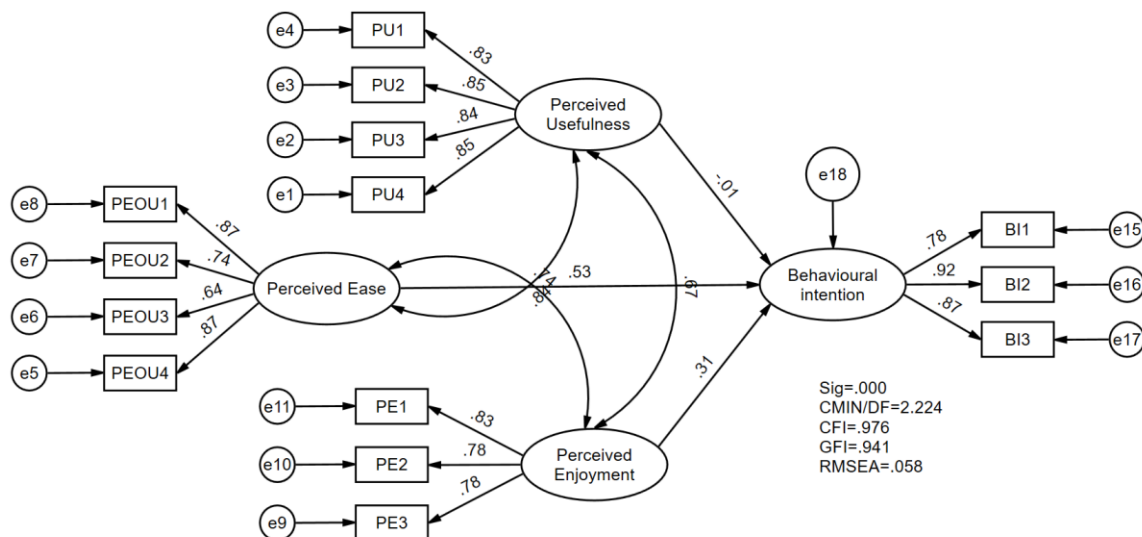


Figure 2. Structural model of the study

Direct hypothesis of the study

The summary of the can be accessed in Table 3. The results revealed that perceived usefulness had not statistically significant toward the behavioural intention of mobile hotel booking as the p-value is more than 0.05 ($\beta = -.013$; C.R = -.1441; $p = .888$). Thus, H1 is not supported. Meanwhile, the results of the analysis show a positive and statistically significant effect of perceived ease of use toward mobile hotel booking ($\beta = .527$; C.R = 4.720; $p = .001$). When perceived ease of use went up by 1 standard deviation, mobile hotel booking went up by .527. Thus, H2 was supported. H3 of the study also supported ($\beta = .307$; C.R = 1.165; $p = .001$). When perceived enjoyment went up by 1 standard deviation, mobile hotel booking rose by .481.

Table 3.

Direct hypothesis testing

H	Relationship tested	β	std. est.	E.	R.	p
1	Perceived usefulness	-.013	.013	.85	.141	.88
2	Perceived ease of use	.527	.527	.94	.720	.01
3	Perceived enjoyment	.307	.307	.52	.165	.01

The hypothesis testing of the moderation effect

Moderation implied an interaction effect, as well as changes the direction of the relationship between two variables. In order to carry out the moderating analysis, the dependent and independent variables must be significant. Therefore, based on the finding in Table 3, H4 is not supported as there is no statistically significant relationship between

perceived usefulness and mobile hotel booking. Thus, there is no moderating effect of perceived cost between perceived usefulness and behavioural intention.

The summary outcome of the moderating analysis can be accessed in Table 4. PROCESS analysis was used for moderating analysis (Hayes, 2013, 2018). Based on the finding, only perceived enjoyment had a moderating effect as the p-value of interaction effect is less than 0.05 (at 0.041). Meanwhile, perceived ease of use does not moderate the relationship between perceived ease of use and purchase intention as the p-value score on the interaction effect is more than 0.05 (at 0.223). Therefore, H5 is not supported.

Table 4
Summary of moderating analysis

Summary of Moderating Analysis					
Perceived ease of use	Model summary	<u>R-sq</u>	<u>df1</u>	<u>df2</u>	<u>p-value</u>
		0.414	3.00	326.00	0.000
	Interaction effect	<u>Coeff.</u>	<u>LLCI</u>	<u>ULCI</u>	<u>p-value</u>
0.060		-0.036	0.156	.223*	
Perceived enjoyment	Model summary	<u>R-sq</u>	<u>df1</u>	<u>df2</u>	<u>p-value</u>
		0.378	3.00	326.00	0.000
	Interaction effect	<u>Coeff.</u>	<u>LLCI</u>	<u>ULCI</u>	<u>p-value</u>
0.095		0.004	0.186	0.041	

Note: *The p-value of interaction effect is more than 0.05, thus no moderation effect

Examining the interaction plot of perceived cost on the relationship between perceived enjoyment and mobile hotel booking intention showed an enhancing effect (Figure 4). The moderating analysis concluded that the behavioural intention to perform mobile hotel booking is increasing corresponded to perceived enjoyment at the low, moderate and high perceived cost. However, there are significant differences in the behavioural intention of mobile hotel booking related to low perceived enjoyment in responding to the perceived cost. At low perceived enjoyment, when the perceived cost is high, the behavioural intention of mobile hotel booking even lowest compared to moderate and low perceived cost.

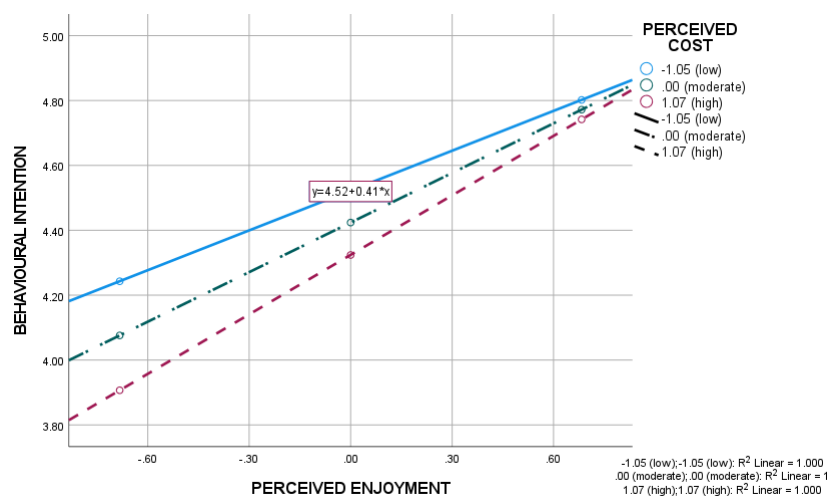


Figure 3: Interaction plot of moderating analysis of the study

Discussion

The finding revealed an insignificant relationship between perceived usefulness and behavioural intention of online mobile hotel booking. Based on the respondent's profile, majority of the respondents (81.4 per cent) aged between 20 to 30 years old which can be classified as a savvy user of technology. Thus, online platform and transaction had been norm and it is no longer perceived as useful due to daily interaction with online and digital transaction. Thus, it is probably justified the finding.

Meanwhile, perceived ease of use was found to be statistically significant toward behavioural intention of online mobile hotel booking. The finding supported previous research conducted within the same area (Abdullah et al., 2016). When individuals believe that the online hotel booking is easy to use, the tendency for the use of the online booking tends to be high. The barriers such as difficulty to use and understand the online booking website or apps, minimize the tendency of users to use the platform. The effect theoretically to be stronger for elderly group of consumers which technology use is not their daily routine. Thus, it is justified the finding. Additionally, as most of the respondents are Millennials generation range between 20 and 30 years old, their fluency and comfort with technology strengthen their use of technology in hotel booking.

Additionally, perceived enjoyment significantly influences behavioural intention of online mobile hotel booking. The notion that people are inclined towards enjoyable activities was supported by Suki and Suki (2017), who also noted that adopting recent technology that provides a pleasant experience can result in positive outcomes for the user. The more enjoyable, pleasant, and useful the process of online mobile hotel booking, the higher consumer likely to use the mobile hotel booking. The attractiveness of websites and apps interface contributes towards the enjoyment of website and apps experience. Thus, the tendency for the users to use mobile hotel booking are increasing significantly.

Lastly, perceived cost found to be only moderate the relationship between perceived enjoyment and behavioural intention. Behavioural intention to perform mobile hotel booking is increasing corresponded to perceived enjoyment at the low, moderate, and high perceived cost. Interestingly, the effect is stronger when the consumer perceived the cost to be low. Besides, 40.5 percent of respondents had an income level between RM2,001.00 to RM3,000.00, followed by 26.2 percent earned below RM2,000.00 monthly. Thus, it can be concluded that majority of the respondent are earn below RM3,000.00 which considered as medium low-income consumers. The figures probably justified the finding.

Limitation

It is important to acknowledge that the scope of this research is limited to examining the influence of perceived ease of use, perceived usefulness, perceived enjoyment and cost as moderating variables on mobile hotel booking intention. Therefore, other variables that may affect customer intention to book hotels using mobile phones have not been considered. Future studies could explore additional variables, such as social influence, trust, or customer satisfaction, to gain a more comprehensive understanding of the factors that influence mobile hotel booking intention.

Another limitation of this study is that it was conducted solely in Kuala Lumpur, which may not be representative of other cities or regions in Malaysia. Therefore, caution should be taken when generalizing the findings to the larger population. Future studies could expand the scope of the research to include other cities or regions to provide a more accurate representation of the Malaysian population.

Furthermore, it should be noted that the majority of the participants were from the younger generation, and this may not accurately reflect the opinions and behaviours of other age groups. It is possible that older individuals may have different perceptions and attitudes towards mobile hotel booking, which were not captured in this study. Future research could explore the perceptions and attitudes of different age groups to gain a more comprehensive understanding of the factors that influence mobile hotel booking intention across different age groups.

Lastly, this study did not have an exact figure for the Malaysian population that utilizes mobile phones, making it difficult to determine the representativeness of the sample. Future research could include a more representative sample to ensure that the findings can be generalized to the larger population. Despite these limitations, this study provides valuable insights into the factors that influence mobile hotel booking intention in Kuala Lumpur, which can inform the development of strategies and interventions to promote mobile hotel booking among customers.

Future Research Direction

It is suggested that future research examine other variables that may influence mobile hotel booking intentions such as trust, social influence, and brand image. The effect of cultural differences on the variables should also be explored, as cultural differences may influence the perception of variables and the decision-making process.

Furthermore, future research can explore other types of accommodations such as homestays, vacation rentals, and hostels to see if the framework can be applied in those contexts. It is also recommended that future research use a larger sample size and more diverse sample to increase the external validity of the study.

Thus, it is suggested that future research explore the potential of integrating technology such as virtual reality and artificial intelligence in mobile hotel booking and see if it affects the framework in any way. This is important as technology advances rapidly and it is crucial to understand how it influences customer behaviour and intentions.

Implication

This study offers several implications for future research in the field of mobile hotel booking. To expand the generalizability of the research findings, future studies could apply the same framework in different cities in Malaysia to explore the moderating effect of cost on the relationship between independent variables and behavioural intention. Furthermore, it is recommended that future research distribute responses evenly among different age groups to achieve more generalized outcomes since perceptions may differ throughout generations.

Additionally, future research should consider determining the exact population that utilizes mobile phones to ensure an appropriate sample size and generalized findings. A longitudinal study design could also be beneficial as perceptions and behavioural intentions may eventually change over time. As a result, conducting a longitudinal study could yield different results, allowing researchers to explore the evolution of perceptions and behavioural intentions.

In terms of practical implications, the results of this study are valuable for hotel businesses that offer mobile booking platforms. The findings suggest that hotels need to embrace mobile booking as a platform for hotel booking, as it is the current trend. Hotel

stakeholders should take full advantage of this technology in their business to enhance customer satisfaction and increase revenue.

Overall, this study provides a valuable contribution to the field of mobile booking and technology adoption in the hotel industry. The extended TAM framework proposed in this study could be utilized to explain the behaviour of customers and could be beneficial for stakeholders in the hotel industry to improve their business strategies.

Conclusion

In conclusion, this study contributes to the existing literature on mobile hotel booking adoption by introducing perceived enjoyment and cost as moderating variables in the TAM framework. The results show that perceived ease of use and perceived enjoyment significantly influence consumers' behavioural intention to use mobile hotel booking, whereas perceived usefulness does not. Furthermore, cost was found to moderate the relationship between perceived enjoyment and behavioural intention.

The practical implications of this study are significant for stakeholders in the hotel industry who operate in the mobile hotel booking market. The findings suggest that the hotel industry should focus on enhancing the ease of use and perceived enjoyment of their mobile booking platforms to encourage customers to use them. Additionally, cost is a crucial factor that should be considered when promoting the usage of mobile hotel booking. Therefore, hotel key players can use the insights from this study to develop strategies that increase the adoption of mobile hotel booking and ultimately achieve their business goals.

However, this study has some limitations, such as the sample size and the geographical scope of the study. Therefore, future research could expand the sample size and include participants from various age groups and locations to enhance the generalisability of the findings. Furthermore, a longitudinal study could be conducted to observe changes in perceptions and behavioural intentions over time. Overall, this study provides valuable insights for researchers and practitioners in the hotel industry to understand and promote the adoption of mobile hotel booking.

References

- Ab Hamid, M. R., Sami, W., & Sidek, M. H. (2017). Discriminant Validity Assessment: Use of Fornell & Larcker criterion versus HTMT Criterion. *Journal of Physics: Conference Series*, 890(1). <https://doi.org/10.1088/1742-6596/890/1/012163>
- Abdullah, D., Jayaraman, K., & Kamal, S. B. M. (2016). A Conceptual Model of Interactive Hotel Website: The Role of Perceived Website Interactivity and Customer Perceived Value Toward Website Revisit Intention. *Procedia Economics and Finance*, 37(16), 170–175. [https://doi.org/10.1016/s2212-5671\(16\)30109-5](https://doi.org/10.1016/s2212-5671(16)30109-5)
- Abdullah, D., Jayaraman, K., Shariff, D. N., Bahari, K. A., & Nor, N. M. (2016). The Effects of Perceived Interactivity, Perceived Ease of Use and Perceived Usefulness on Online Hotel Booking Intention: A Conceptual Framework. *International Academic Research Journal of Social Science*, 3(1).
- Adams, D. A., Nelson, R. R., & Todd, P. A. (1992). Perceived usefulness, ease of use, and usage of information technology: A replication. *MIS Quarterly: Management Information Systems*, 16(2). <https://doi.org/10.2307/249577>
- Ajzen, I. (1992). The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes*, 50, 179–211. <https://doi.org/10.1080/10410236.2018.1493416>

- Al-Debei, M. M., Akroush, M. N., & Ashouri, M. I. (2015). Consumer attitudes towards online shopping: The effects of trust, perceived benefits, and perceived web quality. *Internet Research*, 25(5), 707–733. <https://doi.org/10.1108/IntR-05-2014-0146>
- Awang, Z., Hui, L. S., & Zainuddin, N. F. S. (2018). *Pendekatan mudah SEM - Structural equation modelling*. MPWS Rich Resources Sdn. Bhd.
- Bae, S., Mo Kwon, J., & Bosley, A. (2020). Factors influencing consumers' rejection to smartphone transactions in the lodging industry. *International Hospitality Review*, 34(1), 29–40. <https://doi.org/10.1108/ihr-09-2019-0020>
- Bakar, A. R. A., & Hashim, F. (2008). The determinants of online hotel reservations among university staffs. *Innovation and Knowledge Management in Business Globalization: Theory and Practice - Proceedings of the 10th International Business Information Management Association Conference*, 1–2, 682–690.
- Chen, J. V., Yen, D. C., & Chen, K. (2009). The acceptance and diffusion of the innovative smart phone use: A case study of a delivery service company in logistics. *Information & Management*, 46(4), 241–248. <https://doi.org/https://doi.org/10.1016/j.im.2009.03.001>
- Dabholkar, P. A., & Bagozzi, R. P. (2002). An attitudinal model of technology-based self-service: Moderating effects of consumer traits and situational factors. *Journal of the Academy of Marketing Science*, 30(3). <https://doi.org/10.1177/0092070302303001>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.1016/j.cell.2017.08.036>
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and Intrinsic Motivation to Use Computers in the Workplace. *Journal of Applied Social Psychology*, 22(14). <https://doi.org/10.1111/j.1559-1816.1992.tb00945.x>
- Department of Statistics Malaysia. (2020). *ICT use and access by individuals and households survey report Malaysia 2019*. Department of Statistics Malaysia.
- Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*. Addison-Wesley.
- Gao, S., Krogstie, J., & Siau, K. (2014). Adoption of mobile information services: An empirical study. *Mobile Information Systems*, 10(2). <https://doi.org/10.3233/MIS-130176>
- Gurtner, S., Reinhardt, R., & Soye, K. (2014). Designing mobile business applications for different age groups. *Technological Forecasting and Social Change*, 88. <https://doi.org/10.1016/j.techfore.2014.06.020>
- Ha, I., Yoon, Y., & Choi, M. (2007). Determinants of adoption of mobile games under mobile broadband wireless access environment. *Information & Management*, 44(3), 276–286. <https://doi.org/https://doi.org/10.1016/j.im.2007.01.001>
- Hahn, S., Yoon, J. H., & Kim, J. M. (2014). Extending the technology acceptance model to examine the intention to use tourism applications on smartphone. In *Hotel Management Research*.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis: Global edition*. NJ: Pearson Higher Education Upper Saddle River.
- Hair, J. J. F., Hult, G., Ringle, C., & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (2nd ed.). SAGE Publication, Inc. <https://doi.org/10.1080/1743727x.2015.1005806>
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Press.

- Hayes, A. F. (2018). Partial, conditional, and moderated moderated mediation: Quantification, inference, and interpretation. *Communication Monographs*, 85(1), 4–40. <https://doi.org/10.1080/03637751.2017.1352100>
- Ibrahim, R., Leng, N. S., Yusoff, R. C. M., Samy, G. N., Masrom, S., & Rizman, Z. I. (2017). E-Learning Acceptance Based on Technology Acceptance Mode (TAM). *Journal of Fundamental and Applied Sciences ISSN*, 9(4S), 871–889. <https://doi.org/10.4314/jfas.v9i4S.50>
- Jun, K., Yoon, B., Lee, S., & Lee, D. S. (2022). Factors influencing customer decisions to use online food delivery service during the covid-19 pandemic. *Foods*, 11(1), 1–15. <https://doi.org/10.3390/foods11010064>
- K, P. (2014). Continuance Intention to Use Facebook: A Study of Perceived Enjoyment and TAM. *Bonfring International Journal of Industrial Engineering and Management Science*, 4(1). <https://doi.org/10.9756/bijiems.4794>
- Khalid, N. (2014). The role of perceived usefulness and perceived enjoyment in assessing Students' intention to use LMS using 3-Tum. *Global Summit on Education GSE, 2014*(June 2018), 425–432.
- Kim, J. (Sunny). (2016). An extended technology acceptance model in behavioral intention toward hotel tablet apps with moderating effects of gender and age. *International Journal of Contemporary Hospitality Management*, 28(8), 1535–1553. <https://doi.org/10.1108/IJCHM-06-2015-0289>
- Ko, Y.-K., & Kim, K.-H. (2011). Analysis on the Factors that Affect the User's Intention of Reusing Mobile App-based Tourism Contents. *The Journal of the Korea Contents Association*, 11(12). <https://doi.org/10.5392/jkca.2011.11.12.844>
- Latip, M. S. A., Tamrin, M., Noh, I., Rahim, F. A., & Latip, S. N. N. A. (2022). Factors affecting e-learning acceptance among students: The moderating effect of self-efficacy. *International Journal of Information and Education Technology*, 12(2), 116–122. <https://doi.org/10.18178/ijiet.2022.12.2.1594>
- Le, O. T. T., & Cao, Q. M. (2020). Examining the technology acceptance model using cloud-based accounting software of Vietnamese enterprises. *Management Science Letters*, 10(12), 2781–2788. <https://doi.org/10.5267/j.msl.2020.4.032>
- Linton, H., & Kwortnik, R. J. (2015). *The Mobile Revolution Is Here: Are You Ready?*
- Luarn, P., & Lin, H. H. (2005). Toward an understanding of the behavioral intention to use mobile banking. *Computers in Human Behavior*, 21(6). <https://doi.org/10.1016/j.chb.2004.03.003>
- Mo Kwon, J., Bae, J. (Stephanie), & Blum, S. C. (2013). Mobile applications in the hospitality industry. *Journal of Hospitality and Tourism Technology*, 4(1), 81–92. <https://doi.org/10.1108/17579881311302365>
- Mohamad, M. A., Amron, M. T., & Noh, M. N. H. (2021). Assessing the Acceptance of E-Learning via Technology Acceptance Model (TAM). *2021 6th IEEE International Conference on Recent Advances and Innovations in Engineering, ICRAIE 2021, 2021*. <https://doi.org/10.1109/ICRAIE52900.2021.9704019>
- Suki, M. N., & Suki, M. N. (2017). Flight ticket booking app on mobile devices: Examining the determinants of individual intention to use. *Journal of Air Transport Management*, 62(July), 146–154. <https://doi.org/10.1016/j.jairtraman.2017.04.003>
- Morosan, C. (2014). Toward an integrated model of adoption of mobile phones for purchasing ancillary services in air travel. *International Journal of Contemporary Hospitality Management*, 26(2). <https://doi.org/10.1108/IJCHM-11-2012-0221>

- Murphy, H. C., Chen, M.-M., & Cossutta, M. (2016). An investigation of multiple devices and information sources used in the hotel booking process. *Tourism Management*, 52, 44–51. <https://doi.org/https://doi.org/10.1016/j.tourman.2015.06.004>
- Nelwan, J. Z. C., Yasa, N. N. K., Sukaatmadja, I. P. G., & Ekawati, N. W. (2021). Antecedent behaviour and its implication on the intention to reuse the internet banking and mobile services. *International Journal of Data and Network Science*, 5(3), 451–464. <https://doi.org/10.5267/j.ijdns.2021.4.003>
- Nguyen, D. (2015). Understanding Perceived Enjoyment and Continuance Intention in Mobile Games. *ICFAI Journal of Systems*.
- Ooi, K.-B., & Tan, G. W.-H. (2016). Mobile technology acceptance model: An investigation using mobile users to explore smartphone credit card. *Expert Systems with Applications*, 59, 33–46. <https://doi.org/https://doi.org/10.1016/j.eswa.2016.04.015>
- Ozbek, V., Gunalan, M., Koc, F., Sahin, N. K., & Kas, E. (2015). The Effects of Perceived Risk and Cost on Technology Acceptance: A Study on Tourists' Use of Online Booking. *Celal Bayar Universitesi Sosyal Bilimler Dergisi*, 13(2). <https://doi.org/10.18026/cbusos.49782>
- Ozturk, A. B., Bilgihan, A., Nusair, K., & Okumus, F. (2015). Mobile Hotel Booking Technology in the Hotel Industry. In *The 3rd International Academics Conference on Social Sciences* (pp. 295–301).
- Rodzi, F. N. A., Nasir, E. A. M., Azmi, A. L. M., Abdullah, D., Azmi, A., & Kamal, S. B. M. (2016). The Role of Compatibility, Information Quality and e-Service Quality in Predicting Mobile Hotel Booking Adoption: A Conceptual Framework. *International Academic Research Journal of Business and Technology*, 2(2), 123–128.
- Saad, O., & Rana, E. M. (2019). *Cloud Computing Adoption for Software Engineering Learning Environment: Set of Guidelines derived through Primary Research*. September.
- Saade, R., & Bahli, B. (2005). The impact of cognitive absorption on perceived usefulness and perceived ease of use in on-line learning: An extension of the technology acceptance model. *Information and Management*, 42(2), 317–327. <https://doi.org/10.1016/j.im.2003.12.013>
- Saito, T., Takahashi, A., Koide, N., & Ichifuji, Y. (2019). Application of online booking data to hotel revenue management. *International Journal of Information Management*, 46, 37–53. <https://doi.org/https://doi.org/10.1016/j.ijinfomgt.2018.11.003>
- Saw, S. L., Goh, Y. N., & Isa, S. M. (2015). Exploring consumers' intention toward online hotel reservations: Insights from Malaysia. *Problems and Perspectives in Management*, 13(2), 249–257.
- Sekaran, U., & Bougie, R. (2016). *Research Methods For Business: A Skill Building Approach, 7th Edition*. John Wiley & Sons Ltd.
- Shaw, N. (2016). *Adoption of Smartphone Apps by Hotel Guests: The Roles of Trust and Word of Mouth BT - HCI in Business, Government, and Organizations: Information Systems* (F. F.-H. Nah & C.-H. Tan, Eds.; pp. 457–468). Springer International Publishing.
- Su, P., Wang, L., & Yan, J. (2018). How users' Internet experience affects the adoption of mobile payment: a mediation model. *Technology Analysis and Strategic Management*, 30(2), 186–197. <https://doi.org/10.1080/09537325.2017.1297788>
- Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: A test of competing models. *Information Systems Research*, 6(2). <https://doi.org/10.1287/isre.6.2.144>

- Thong, J. Y. L., Hong, S. J., & Tam, K. Y. (2006). The effects of post-adoption beliefs on the expectation-confirmation model for information technology continuance. *International Journal of Human Computer Studies*, 64(9). <https://doi.org/10.1016/j.ijhcs.2006.05.001>
- Tian, Z., Shi, Z., & Cheng, Q. (2021). Examining the antecedents and consequences of mobile travel app engagement. *PLOS ONE*, 16(3), e0248460.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly: Management Information Systems*, 27(3). <https://doi.org/10.2307/30036540>
- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology. *MIS Quarterly*, 36(1), 157–178. <https://doi.org/10.2307/41410412>
- Vijayarathay, L. R. (2004). Predicting consumer intentions to use on-line shopping: The case for an augmented technology acceptance model. *Information and Management*, 41(6). <https://doi.org/10.1016/j.im.2003.08.011>
- Wang, Y.-S., Lin, H.-H., & Luarn, P. (2006). Predicting consumer intention to use mobile service. *Information Systems Journal*, 16(2), 157–179. <https://doi.org/https://doi.org/10.1111/j.1365-2575.2006.00213.x>
- Wu, J. H., & Wang, S. C. (2005). What drives mobile commerce? An empirical evaluation of the revised technology acceptance model. *Information and Management*, 42(5), 719–729. <https://doi.org/10.1016/j.im.2004.07.001>
- Xue, P. (2019). *Hotel Online Booking Decisions Based On Price Complexity, Alternative Attractiveness and Confusion* [University of Guelph]. <https://doi.org/10.1016/j.jhtm.2020.08.013>
- Yang, Y., Zhong, Z., & Zhang, M. (2013). Predicting Tourists Decisions to Adopt Mobile Travel Booking. *International Journal of U- and e- Service, Science and Technology*, 6(6), 9–20. <https://doi.org/10.14257/ijunesst.2013.6.6.02>