

An Investigation of Purchase Intention of Using Mobile Apps for Online Traveling and Booking Service

Wing Sze Yip and Wing Ying Mo

Abstract—This study is to analyse EWOM, perceived ease of use, information quality, and perceived risk and trust how to influence purchase intention for Hong Kong customers. Quantitative research is used in this study. Primary data and secondary data are also collected for the research. Final survey data were collected through face-to-face interview and online from 123 participants. Performing SPSS, the results showed that EWOM, information quality and perceived risk has significant relationship to purchase intention. Whereas, perceived ease of use and trust has not support in this study. The results provide advises for online travel agents to enhance performance attract travelers use mobile apps for purchase travel service. The number of academic journals about Hong Kong tourism and hospitality industry and the online travel services is limited and the further research recommended adopting the contents of the industry for test the customers.

Index Terms—Mobile application, EWOM, information quality, perceived risk, trust, perceived ease of use, purchase intention.

I. INTRODUCTION

Nowadays, smart phone brings a new trend and a great convenience in tourism industry by mobile devices. Also, the users of smart phone are growing up rapidly and they use their mobile application for booking their flights, hotels, rental car, etc. [1]. Mobile application has become a new platform to increase the use of hotel or flight tickets booking. Besides, there are offered travel related companies a direct channel to create and maintain the conversation with customer before, during, or after a trip for increasing sales [2], [3]. Tourism is a dynamic system, also it is strongest and largest industry in the global economy world [4]. So, it must react quickly to significant environmental changes. And it is stably increasing in the world. The aim of study is to investigate how to drive visitors to use the mobile application for making a reservation and transaction. Particularly the relationship between online travel agents of a tourism chain and tourists in order to increase purchase intention of travel mobile application.

II. INITIAL REVIEW OF LITERATURE

A. Constructs of the Conceptual Research Model

1) EWOM

EWOM has long been considered an influential

marketing instrument [5]. It is included electronically based forums, social media, and newspaper group and so on. It provided an ability for customers to share experiences. Moreover, EWOM defined it is easy to affect customers purchase decision during making online purchase process after they review the other customers' comments about the service performance and accommodation environment [6].

2) Perceived ease of use

Researchers defined perceived ease of use as customers believe that no need to give effort when people using a particular level system [7]. Also, it is important to tourism information systems research [8]. Moreover, it affects the intentions to use the mobile application [9]. Tao, *et al.* [10] mentioned that people use mobile application for hotel booking would be easy.

3) Information quality

Information quality provided from different format such as sound, pictures, text, video, etc. [11]. Also, it is conceived as the customer's general perception about the usefulness, accuracy, relevant and completeness of the products or services provided by website or mobile application [12]. Further, customers will depend on the quality of information on the mobile apps to decide it is suitable for making online purchase correctly [13].

4) Perceived risk

The concept of perceived risk explains it is related to customer's purchasing behavior that involves risk with uncertainly and negative consequences [14]. In addition, it is related to financial, social, psychological, performance, opportunities and so on [15]. Also, it is lack of evidence and actual products qualities in mobile shopping, especially, there are totally different from traditional and online shopping for purchasing travel products [16].

5) Trust

Trust is important for any business relationship and it includes three beliefs: ability, integrity and benevolence [17]. Research has shown that travelers are willing to purchase online if they perceived higher trust in online travel shopping [18]. In addition, trust is the key element of successful in online travel shopping which is giving confident expectation for customers in e-commerce [19].

6) Purchase intention

The concept of purchase intention is a result of pre-purchase satisfaction and the online information could be affected customers purchase decision [20]. In addition, purchase intention not only can be used important indicator to estimate the customer's behavior, but it also indicated possibility that consumer will plan or be willing to buy the products or services in the future [21].

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B. Formulation of Hypotheses

1) EWOM and purchase intention

Travelers like to share their experiences and make comment for their trip through different channel such as Facebook and related to mobile application of travel products. According to Jalilavand & Samiei [22] ’s findings showed that EWOM has a strong positive on purchase intention and it can create a favorable image of the company. With the trends of electronic media as strong and reliable sources of information [23].

H₁: EWOM has a strong positive influence on purchase intention.

2) Perceived ease of use and Purchase Intention

According to previous studies, there are many researches indicated that perceived ease of use has a positive effect on the customers’ online purchase intention and also customers would like to purchase products or service through online platform if the purchase process is easy to use [24].

H₂: Perceived ease of use has a positive influence on purchase intention.

3) Information quality and purchase intention

The contents of travel information still the key issues in purchase intention. Especially online environment, if the information has a high quality, it will increase the purchase intention. With references indicated information quality has positive and direct effect on purchase intention [25].

H₃: Information quality has a positive impact on purchase intention using a mobile application.

4) Perceived risk and purchase intention

Tourists face unstable and uncertain risk during in conducting transaction via mobile apps. Also, consumers are care of the private and financial information which will be illegal diffusion. Moreover, some researchers indicated perceived risk has negative impact on purchase intention of e-commerce [26].

H₄: Perceived Risk has a negative effect on purchase intention towards mobile application.

5) Trust and purchase intention

Trust is the most important factors for online transaction and e-business environment in the global world. Also, trust is the key factor in this e-commerce context and confirms that strongly affect customers intention to purchase products at online shopping site [27]. Also, Elwalda, et. al. [28] ’s findings clearly confirm trust is a key factor of purchase intention for purchase travel service.

H₅: Trust has a positive influence on purchase intention.

After reviewing all the literature, the final conceptual research model has been set as Fig. 1.

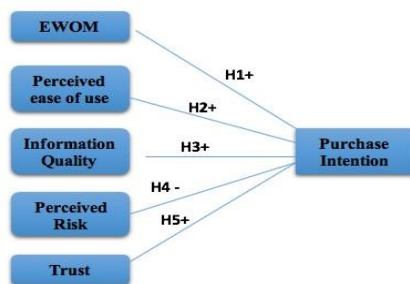


Fig. 1. Final conceptual research model.

III. RESEARCH METHODOLOGY

A. Data Collection

Primary and secondary data will be collected in this research. It would help better understanding on issue of mobile application in tourism industry and reviews the affecting factors of purchase intention, EWOM, perceived ease of use, information quality, perceived risk, and trust, as well as between them.

B. Survey Instrument

Quantitative research would be adopted online survey and face-to-face survey in this study. Also, it would be applied 7-point scales and classification questions which is included extra questions for collecting personal information (Table I).

TABLE I: QUESTIONNAIRE DESIGN

Question Categories	Type of Variables	Type of Questionnaire	Type of Data	Researcher
Target Questions	Independent Variables	EWOM	7-pt Likert Scale (Wilson, et al., 2010)	Mishra, et al. (2018)
		Perceived ease of use		Tien, et al. (2018)
		Information Quality		Assemi, et al. (2018)
		Perceived Risk		Hsc, et al. (2017)
		Trust		Chang & Wu (2012)
	Dependent Variables	Purchase Intention		Chiu, et al. (2012)
				Zheng et al. (2017)
Classification Questions		Personal Information	Categorical Data (Sokes, et al. 2012)	Preston, et al. (2015)

The questionnaire will aim to the potential generation 80s and 90s customers of Hong Kong who would like to purchase travel services via mobile application. Also, the sample size is 118 for this research but it totally found 123 interviewees for the questionnaire.

IV. RESULTS

A. Final Survey

In this survey(Table II), the sample has 123 respondents from Hong Kong people, and the response rate was 89.6%. It was to investigate the relationship between purchasing intentions of using travel mobile application in Hong Kong and EWOM, perceived ease of use, information quality, perceived risk, trust, by analyzing customers of mobile application’s frequency distribution of gender, age, and income.

TABLE II: SUMMARY OF 123 SAMPLE RESPONDENTS

Variables	Information	Frequency	Percent (%)
Survey Methods	Online	62	50.4%
	Face-to-face interview	61	49.6 %

Age	➤ Under 20	❖ 12	❖ 9.8%
	➤ 20-24	❖ 30	❖ 24.4%
	➤ 25-29	❖ 35	❖ 28.5%
	➤ 30-35	❖ 29	❖ 23.6%
	➤ 36-38	❖ 17	❖ 13.8%
Gender	➤ Male	❖ 65	❖ 52.8%
	➤ Female	❖ 58	❖ 47.2%
Income	➤ Under \$ 5000	❖ 12	❖ 9.8%
	➤ \$5001 - 6000	❖ 7	❖ 5.7%
	➤ \$6001 - 8000	❖ 4	❖ 3.3%
	➤ \$8001 - 10,000	❖ 6	❖ 4.9%
	➤ \$10,001-15,000	❖ 23	❖ 18.7%
	➤ 0	❖ 43	❖ 35%
	➤ \$15,001-20,000	❖ 18	❖ 14.6%
	➤ \$20,001 - 30,000	❖ 10	❖ 8.1%
	➤ \$30,001 or above		
How often do you book hotel or flight through mobile application ?	➤ Never	❖ 14	❖ 11.4%
	➤ Once a month	❖ 9	❖ 7.3%
	➤ Once per three months	❖ 29	❖ 23.6%
	➤ Once per half year	❖ 41	❖ 33.3%
	➤ Once per year	❖ 3	❖ 2.4%
	➤ Others		
How many trips for a year?	➤ 0	❖ 3	❖ 2.4%
	➤ 1-3 times	❖ 57	❖ 46.3%
	➤ 4-6 times	❖ 39	❖ 31.7%
	➤ More than 6 times	❖ 24	❖ 19.5%
Total		123	100%

A. Reliability Test

TABLE III: RELIABILITY TEST RESULT OF SURVEY METHODS (N=123)

Factors	Cronbach's Alpha	N of Items
EWOM	0.817	3
Perceived ease of use	0.842	3
Information Quality	0.929	3
Perceived Risk	0.94	3
Trust	0.907	3
Purchase Intention	0.88	3
Total	0.702	18

There are six factors of the reliability test result in Table III. Also, the all factors Cronbach's Alpha are above 0.8. Thus, the questions in all the factors are highly truthful and reliable.

B. Correlation Test for H1 to H5

TABLE IV: THE PEARSON CORRELATION RELATIONSHIP BETWEEN VARIABLES

	The Research (N = 123)	
	R*	Strength of correction
H1 : EWOM & PI	0.226	Positive
H2 : PEOU & PI	NS	NS
H3: IQ & PI	0.188	Positive
H4: PR & PI	0.207	Positive
H5: Trust & PI	NS	NS

There are five hypotheses related with purchase intention. After correlation test, the Person Correlation coefficients (r) of this research are listed in Table IV. There are only three factors has a significant positive correlated to purchase intention (H1, H3 & H4) has clearly show in Table IV.

D. Hypothesis Testing by Using Correlation Test

Before it mentioned the relationships between the variables in the previous sections. After integrating the result of correction and regression model. In other to test the hypothesis, it needs to analysis the correlation test as the following Fig. 2.

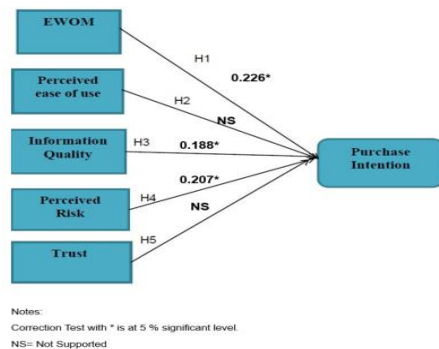


Fig. 2. Research model with analysis results.

TABLE V: RESULT OF THE RESEARCH HYPOTHESES

Hypotheses	r*	Test Result
H1 EWOM has a strong positive influence on purchase intention	0.226	Supported
H2 Perceived ease of use has a positive influence on purchase intention	-	Not Support
H3 Information quality has a positive impact on purchase intention using a mobile application	0.188	Supported
H4 Perceived Risk has a negative effect on purchase intention towards mobile application	0.207	Supported
H5 Trust has a positive influence on purchase intention	-	Not Supported

Notes: * are at 5 % significant level

V. CONCLUSION AND RECOMMENDATIONS

A. Conclusion

This research aims to understand the mobile application development and situation in Hong Kong tourism. And analysis the relationship between these factors. For achieves these objectives, the research model including five variables (EWOM, PEOU, IQ, PR, Trust), and one dependent variable (PI) was suggested.

From this study, it found out Hong Kong travelers mostly use mobile apps for purchase travel products or services (Table II). EWOM, IQ and PR have strong positive significant affect the purchase intention for use mobile apps (Table V). But PEOU and Trust has not support in the result. However, the hypothesize of perceived risk was negative impact on purchase intention and the result is positive. Therefore, it could summarize the result is not consistent. However, the result of EWOM and information quality is definitely consistent (Table IV).

B. Recommendations

EWOM activities are attractive and impact. It includes positive and negative shares. For the marketers could use these trends as promotion tools for their services or products. They can invite potential customers enjoy their hotel facilities with discount. By adopting the power of Youtuber who like to share reviews of travel, products through their page such as hotel service or airline service [29]. It would drive potential customers to buy the services via the apps.

Also, the majority of information are full in the internet and apps. For the travelers, they would like to search relevant information such as flight, hotel, etc. before making a reservation. If the information does not update and irrelevant, it would affect the purchase intention via the mobile apps. Thus, company need to make sure the authenticity and quality of information. For instance, they can regularly update the information on their apps. It would directly affect purchase intention of travel products via mobile application.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

Yip Wing Sze and Wing Ying Mo conducted the research; Wing Ying Mo analyzed the data; Yip Wing Sze wrote the paper; all authors had approved the final version.

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