

Safety and Technology Acceptance Affecting the Decision Making of Thai Tourists in Airline Ticket Booking via Online Travel Agency

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Abstract

This study aims to examine the safety and technology acceptance factors for increasing decision making of Thai tourists in airline ticket booking which will help build on the strengths of the competitiveness to online travel agency. This paper is quantitative research. The sample was 400 Thai tourists using the airline ticket booking via online travel agency, using purposive sampling. Data was gathered by questionnaires and statistical hypothesis testing was run through multiple regression analysis.

The results showed that the most respondents were female, aged 31-40 years old, and most of them worked as government officials, state enterprise employees, with bachelor's degree, and earn average monthly income of more than 25,001 baht. The safety and technology acceptance influencing on the decision-making of Thai tourist, which are customers' perceptions of online safety and technology acceptance were safety, the ease of use, and the usefulness. Therefore, the online travel agent should pay intention and give an importance to the safety and technology system for increasing confidence of Thai tourists in using online travel from booking.

KEYWORDS: Safety and Technology, Decision Making, Airline Ticket Booking, Online Travel Agency

1 INTRODUCTION

The tourism industry is one of Thailand's main economic sectors. As stated by Economics Tourism and Sports Division 2022, Ministry of Tourism and Sports in January – July 2022, the Tourism statistics has shown a record number of 110,957,071 visitors, resulting in 200.10% increase, and generated revenue of 349,932.15 million bath, showing 179.98% increase, both compared to the same period of 2021. Besides, the primary transport mode among Thai tourists is air travelling, according to the Aviation Economics Division, Aviation Industry Promotion Department of the Civil Aviation Authority of Thailand, the Quarterly Air Transportation

Statistics of 2022 showing that there were 16.62 million air passengers in the second quarter, 5.27 million air passengers more than the first quarter and approaching 31.8% increase, which consisted of 2.69 domestic passengers or increased by 21.5%.

The mission of Thai tourists to do before travelling by air is to book an airline ticket, either booking an airline ticket directly through the airline's website, or booking an airline ticket through an Online Travel Agency. An Online Travel Agency or OTAs is a website or online service, which sells air tickets on behalf of airlines, and charges commission fees to airlines. OTAs also create convenience for Thai tourists (Wutthapong Lapcharoen, 2021), resulting in a 53% growth in the OTAs market, meaning that OTAs have attracted a lot of attention from Thai tourists due to their familiarity and the view that OTAs are useful in finding information in making purchasing decisions and being comfortable in purchasing products. Furthermore, as reported by Southeast Asia's Digital Economy 2021, it is found that 90% of internet users in Thailand have purchased products or used online services at least once. As a result, consumer behavior has clearly changed from the offline world to the online world, where consumers in Thailand who use new digital platforms in 2021 increased to 9 million people, compared to 2020, which means consumers are becoming more accustomed to using online systems in deciding to buy or use services through online channels.

Since airline ticket booking via OTA needs to be performed through internet network, personal information of each OTA user must be recorded before accessing so that the secure booking can be made. The survey found that 9 out of 10 Thai tourists would be interested in paying through applications if they had reliable security measures as well. (Worawut Rayasakul and Somruthai Sunthayathorn, 2019) Therefore, the researcher raised a study question regarding safety and technology acceptance, what factors affect Thai tourists in deciding to book airline tickets via OTAs? And for the benefit of OTAs in increasing competitiveness in a new format called the BCG Economy Model, which will additionally help build on the strengths of the country to increase the value.

2 RESEACH OBJECTIVES

To study safety and technology acceptance factors affecting the decision making of Thai tourists in airline ticket booking via online travel agency.

3 LITERATURE REVIEW

Concept and Theory of Safety and Technology Acceptance

As Worrawoot Rayasagool and Somruthai Soontayatraton (2019) have stated in Charnurai (2005), presenting the concept of safety in the use of various technologies is always a concern, including; Physical Security: the electronic protection against loss or damage from natural disasters unauthorized access to electronic data, Personal Security: the creation of standards for keeping personal data safe, in which Thailand has announced The Personal Data Protection Act B.E. 2562 (2019) as a law on granting rights to personal data subjects, effective on 1 June 2022, and Information Security: the protection in every step of data preparation process.

As Orathai Luanwan (2013) have stated in Davis (1985) defines acceptance of technology as behavior or action that is directly influenced by one's attitude towards the use of information

systems. Indirectly influenced perceived ease of use, Perceived Usefulness will show behavior in any form, depending on their attitude.

According to Technology Acceptance Model (Davis,1985), there are 3 factors that affect acceptance or decision to use new technology as follow; Perceived Usefulness: the level of user belief in using technology can improve the performance of the work, Perceived Ease of Use: the level of user belief in using technology can be effortless or easy, and Attitude: behavioral intention in using technology can influence intention to use and actual use of technology.

Concept of Consumer Decision Making

As stated in Chatayaporn Samerjai (2007), decision making is a process in considering available alternatives in which a consumer decides on choosing a product or service based on information and situations. Decision making, therefore, is a key and intrinsic process in consumer’s mind.

As Ornanong Thongkrajang (2018) stated in Kotler and Keller (2012), the stages of the Buying Decision Process 5 steps, there are Problem recognition, Information search, Evaluation of alternative, Purchase decision and Post purchase behavior.

Research Conceptual Framework

The researcher has defined independent variables and the dependent variables corresponding to the objectives as in Figure 1.

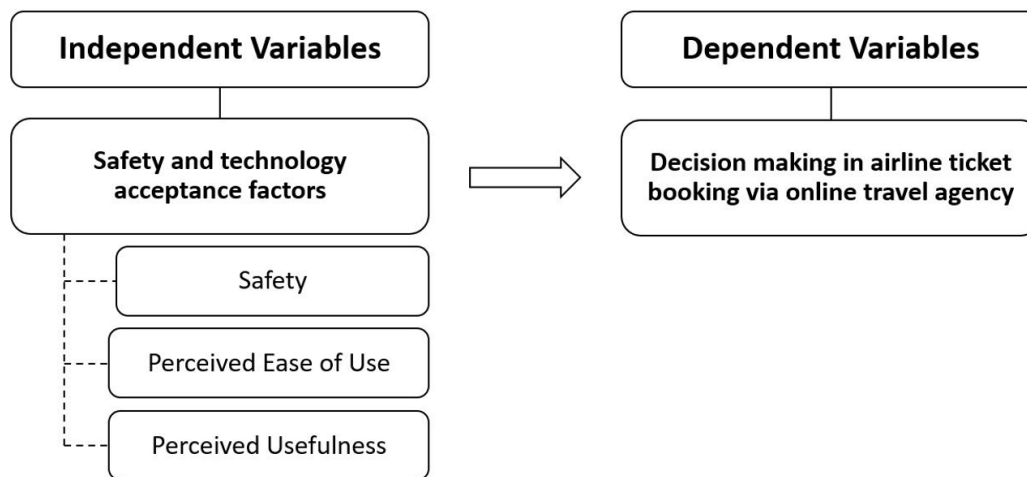


Figure 1: *Conceptual Framework*

4 RESEARCH METHODOLOGY

4.1 Sample Size Formula of Cochran

This research is a Quantitative Research. The researcher has conducted the process of collecting and analyzing numerical data gathered by online questionnaires from 400 Thai Tourists, who had experience using Online Travel Agent services. As the exact number of the total population cannot be determined, in addition, there are a large number of Thai tourists, hence, in this research, the Sample Size Formula of Cochran (1963) was used for calculation by applying the maximum variance, in which, $p = 50\%$ or 0.5 and $q = 50\%$ or 0.5 at confident level of 95% and allowable error of 5% or 0.05 .

In this case, the governing system of equations can be written, as shown in Eq.(1), where n represented the sample size, Z represented the desired level of confidence at 95% ($Z = 1.96$), p represented the estimated proportion of population having given attribute, q represented the proportion of the population not having given attribute ($q = 1-P$), and e represented the desired level of precision of the sample size at 5% or 0.05 .

$$n = \frac{Z^2 pq}{e^2} \tag{1}$$

4.2 5-Point Likert Scale

The researcher collected data from a questionnaire that consisted of 3 parts as follows:

Part 1: Pre-screening questions concerning the decision making of Thai tourists in airline ticket booking via online travel agency in the form of close ended question in checklist format, namely gender, age, education level, occupation, and average monthly income.

Part 2: Questions regarding safety and technology acceptance factors affecting the decision making of Thai tourists in airline ticket booking via online travel agency in the form of close ended question representing respondent feedback in 5-level rating scale format, such as, safety, perceived ease of use, and perceived usefulness.

Part 3: Questions concerning the decision making of Thai tourists in airline ticket booking via online travel agency in the form of close ended question in 5-level rating scale format.

Criteria for determining the weight of the assessment to classify the average score ranges and qualitative interpretation according to 5-Point Likert Scale are shown in Table 1 – 2.

Table 1: *The Weight of the Assessment*

Scale	Description
5	Strongly Agree
4	Agree
3	Neutral
2	Disagree
1	Strongly Disagree

Table 2: Scale Measurement

Range	Description
4.21 – 5.00	Strongly Agree
3.41 – 4.20	Agree
2.61 – 3.40	Neutral
1.81 – 2.60	Disagree
1.00 – 1.80	Strongly Disagree

4.3 Data Analysis and Hypothesis Testing

Hypothesis is Safety and technology acceptance positively affects the decision making on airline ticket booking.

In data analysis and hypothesis testing phase of this research of safety and technology acceptance factors affecting the decision making of Thai tourists in airline ticket booking via online travel agency, the collected survey data was then processed by statistical analysis which were examining questionnaires by sorting out incomplete questionnaires, only complete questionnaires were selected, saving data obtained from questionnaires into computer, and analyzing data with SPSS software packages in various ways namely, Descriptive Statistics, which are Percentage, Mean, Frequency and Standard Deviation or SD, and Inferential Statistics which is Multiple Linear Regression for analyzing the relationship between the independent variables and the dependent variables by having more than one independent variable and one dependent variable to study which dependent variables were jointly predicted in the hypothesis of safety and technology acceptance factors affecting the decision making of Thai tourists in airline ticket booking via online travel agency.

5 RESULTS

5.1 Demographic Information

The analysis result regarding demographic information that affects the decision making of Thai tourists in airline ticket booking via online travel agency found that most of the Thai tourists who responded to the questionnaire were female, aged 31-40 years old, and most of them worked as government officials, state enterprise employees, with bachelor's degree, and earn average monthly income of more than 25,001 baht.

5.2 Safety and Technology Acceptance

The analysis result regarding safety and technology acceptance affecting the decision making of Thai tourists in airline ticket booking via online travel agency is shown in Table 3.

Overall, the analysis result regarding safety and technology acceptance affecting the decision making of Thai tourists in airline ticket booking via online travel agency was in range of "Strongly Agree." If considering each issue in descending order, the result shows, perceived ease of use was at a strongly agree level with an average of 4.16, perceived usefulness was in range of "Strongly Agree" with an average of 3.96, and safety was in range of "Strongly Agree" with an average of 3.93, respectively.

Table 3: The Analysis Result of Safety and Technology Acceptance

Safety and technology acceptance affecting the decision making of Thai tourists in airline ticket booking via online travel agency	x	S.D.	Description
Safety	3.93	0.789	Strongly Agree
Perceived ease of use	4.16	0.719	Strongly Agree
Perceived usefulness	3.96	0.734	Strongly Agree

5.3 Thai Tourists' Decision Making

The analysis result regarding Thai tourists' decision making in airline ticket booking via online travel agency is shown in Table 4.

Table 4: The Analysis Result of Thai Tourists' Decision Making

Thai tourists' decision-making in airline ticket booking via online travel agency	x	S.D.	Description
You decided to book an airline ticket via OTA because it was convenient	4.23	0.915	Strongly Agree
You decided to book an airline ticket via OTA because it was safe to use	3.91	0.928	Agree
You decided to book an airline ticket via OTA because it was cheaper than booking directly with an airline	3.95	0.981	Agree
Total	4.03	0.829	Agree

The overall result was in range of "Agree". Considering each reason effecting Thai tourists' decision-making in descending order, the result shows, it was firstly convenient, it was secondly cheaper than booking directly with an airline, and it was lastly safe to use.

5.4 Correlation Coefficient of Safety and Technology Acceptance Factors

The correlation coefficient of safety and technology acceptance factors affecting the decision making of Thai tourists in airline ticket booking via online travel agency, where p-value was equal to 0.01, is shown Table 5.

From the analysis, it was found that the p-value was all 0.001, which was less than 0.05 ($\alpha = 0.05$). It then can be concluded that safety and the technology acceptance were highly correlated with the decision making of Thai tourists in airline ticket booking via online travel agency. The criteria of Davis (1971) were taken into account, with the correlation coefficient (r) being equal to 0.7 or higher, there was a very high correlation. But perceived ease of use and safety were highly correlated because the correlation coefficient (r) was between 0.5-0.69. Therefore, multiple regression analysis can be performed.

Table 5: Correlation Coefficient of Safety and Technology Acceptance Factors

	Safety	Perceived ease of use	Perceived usefulness	Thai tourists' decision making
Safety	1			
Perceived ease of use	0.693	1		
Perceived usefulness	0.824	0.756	1	
Thai tourists' decision making	0.716	0.737	0.765	1

6 Relationship Between Safety and Technology Acceptance and Thai Tourists' Decision Making

The relationship between safety and the technology acceptance and Thai tourists' decision making in airline ticket booking via online travel agency, where Durbin-Watson represented 2.131, R represented 0.787, R² represented 0.620, F represented 215.186, Sig. of F represented 0.001, and * represented 0.05 is shown in Table 6.

Table 6: Relationship Between Safety and Technology Acceptance and Thai tourists' Decision Making

Safety and technology acceptance factors	B	Std. Error	Beta	t	Sig.
Constant	0.168	0.157		1.075	0.283
Safety (χ_1)	0.21	0.059	0.2	3.561	0.001*
Perceived ease of use (χ_2)	0.34	0.055	0.295	6.142	0.001*
Perceived usefulness (χ_3)	0.409	0.07	0.362	5.876	0.001*

The Durbin-Watson statistic was 2.131 which ranged from 1.50 to 2.50, indicating the error was independent. So, it can be concluded that the groups of independent variables used in the test were not correlated with each other.

The R value, R = 0.787, which is close to 1, indicating the above independent variables group has a correlation with Thai tourists' decision making in airline ticket booking via online travel agency with a correlation size of 0.787. The R² value equaled 0.620 indicated that the group of independent variables above can explain 62% of Thai tourists' decision making in airline ticket booking via online travel agency.

The F value equaled 215.186 indicated that the Multiple Regression had 215.186 times more explanatory proportions, for the Thai tourists' decision making in airline ticket booking via online travel agency change, than the inexplicable proportions.

The Sig. of F value equaled 0.001 indicated that at least one aspect of the marketing mix is related to the Thai tourists' decision making in airline ticket booking via online travel agency.

The B value represented the constant and regression coefficients of the independent variables group which used to explain the change in the dependent variables, where constant was equal to 0.168, regression coefficients of safety was equal to 0.210, perceived ease of use was equal to 0.340, and perceived usefulness was equal to 0.409, respectively.

The t-value indicated the causal relationship between the constant and the independent variable and the dependent variable, where the t-value of the constant was 1.075 (p-value > 0.05), safety was 3.561 (p-value < 0.05), perceived ease of use was 6.142 (p-value < 0.05), perceived usefulness was 5.876. (p-value < 0.05), respectively. The regression equation can be written as shown in Eq.(2), where, y represented the decision making in airline ticket booking via online travel agency, represented the safety, represented the perceived ease of use, and χ_1 represented the perceived usefulness.

$$Y = 0.210(\chi_1) + 0.340(\chi_2) + 0.409(\chi_3) \quad (2)$$

7 DISCUSSION AND CONCLUSION

Factors of safety and technology acceptance affecting the decision making of Thai tourists in airline ticket booking via online travel agency overall was in range of "Agree" thanks to Thai tourists' attention in perception of ease of use in online travel agency. Thai tourists valued the perception of usefulness and safety in airline ticket booking via online travel agency as well, which corresponded to the Davis's concept (1989), as stated that the perceived ease of use and usefulness from actual use affected the acceptance and decision making of user in new technologies regarding use and duration of use or acceptance of technology. In addition, as reported in Charnurai (2005), physical security, personal security, and information security were always major concerns when using technologies. It was also consistent with the research of Worrawoot Rayasagool and Somruthai Soontayatron (2019), studied safety and technology acceptance affecting the decision making of Thai tourists to buy airplane tickets through online application, found that the safety and technology acceptance factors affected the decision making of Thai tourists to buy airplane tickets.

The safety and acceptance of technology were accepted by Thai tourists and helped to increase confidence of Thai tourists in using online travel agencies, resulting in gaining more profits from booking via online travel agency, and increasing competitiveness among online travel agencies. Moreover, Thailand has nowadays promulgated The Personal Data Protection Act B.E. 2562 (2019) (PDPA), enforced on 1 June 2022, which is a provision that protects personal Data of "natural persons" by granting data subject, such as, the rights of correction, access, or deletion of personal data provided to the data controller, and defined the data controller for responsibilities and penalties for non-compliance. As a consequence of PDPA Act, it has prescribed guidelines for online travel agencies to comply with and also has fulfilled the needs of Thai tourists in the modern society.

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