



Low cost carriers in Southeast Asia: How does ticket price change the way passengers make their airline selection?

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ABSTRACT

The purpose of this paper is to develop an extended Theory of Planned Behavior (TPB) model to examine how Southeast Asian passengers' internal behavioral factors and external stimuli affect their buying intention and actual purchase of Low-Cost Carrier (LCC) tickets. In addition, how ticket price changes the behaviors of those factors in that model is also examined. A survey of 781 passengers was conducted in two major airports in Thailand to test the hypotheses. The results indicate the important role of passengers' attitudes, social norms, and perceived behavioral control in LCC passenger's buying behavior. More importantly, the presence of the ticket price does change how other factors predict the behavioral intention and actual use of LCCs in Southeast Asia.

1. Introduction

Evidence shows that Low Cost Carriers (LCCs) have achieved tremendous success across the world and become an important driver to the growth of air transportation and economy (Choo and Oum, 2013). Southeast Asia is a growing market that fully embraces the LCC concept (Hanaoka et al., 2014). Countries in this region contain large numbers of islands, which makes air travel essential for transportation. Additionally, passengers in this region are price sensitive and would prefer simple, low-fare service provided by LCCs (Bowen, 2016). Finally, the aviation policies, especially the creation of ASEAN Single Aviation Market (ASAM), greatly promote the proliferation of LCCs in Southeast Asia (Wang et al., 2017). LCCs have achieved a strong presence in Southeast Asia, accounting for nearly half of the market in the region (Bowen, 2016). This number is significantly higher than in the U.S. and Europe, the two major LCC markets in the world (Klophaus et al., 2012; Kwoka et al., 2016).

Southeast Asia has a remarkably high LCC presence, with half of its total seats sold by LCCs, i.e., travelers in this region would frequently encounter the decision-making of selecting LCCs as a transport mode (Bowen, 2016). The growing number of LCCs in this market increases the competition among airlines, which leads to a question: How do passengers in this region choose to select an LCC for travel? Passengers in this region have different characteristics and attitudes compared to passengers in Western countries, indicating different buying behaviors.

Understanding their buying attitudes and behaviors is a key success factor for airlines in this growing region. LCC studies in Southeast Asia focused mainly on the impacts of the ticket price and other factors, such as safety consideration, airline image, in-flight services, booking convenience, and schedule (Buaphiban and Truong, 2017). However, they found contradicting findings regarding the impacts of these factors. While the ticket price is consistently the most dominant impact factor, existing studies found that the impacts of service quality, safety, and airline image changed from one study to another (Chang and Hung, 2013; Davison and Ryley, 2010). Additionally, these studies mainly examined the direct impacts of these external factors on the LCC selection but not the differences in passengers' behaviors and attitudes toward LCCs in this region. The lack of focus on attitude and behavioral factors is the major gap in the LCC literature, which requires further understanding of the passengers' buying behaviors to help the carriers expand their market share (Buaphiban and Truong, 2017).

Theory of Planned Behavior (TPB) is a popular theory for understanding buyers' attitudes and behaviors in the purchasing process. It has been applied widely in many areas, including the transportation domain, but rarely in the LCC context, in general, and in the LCC in Southeast Asia, in particular. Buaphiban and Truong (2017) used the traditional TPB model to examine the effect of attitudes, subjective norms, and perceived behavioral control in Southeast Asian passengers' intentions and behaviors. However, this study only examined passengers' internal behavioral factors, including attitudes, subjective norms,

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and perceived behavior control. External stimuli and their interaction with the TPB factors have not been studied. Given the distinctive demographics of passengers in Southeast Asia, internal behaviors are not sufficient to explain how they decide to choose airlines for travel. Research shows that extended TBP models, incorporating external stimuli, provide more useful information about the buying behavior and increases the predictive power for the selection decision (Chen and Tung, 2014; Donal et al., 2014; Hsieh, 2015). As such, an extended TBP model for LCCs in Southeast Asia is much needed to provide a holistic understanding of the factors underlying passengers' buying decisions in this important LCC market.

Additionally, existing literature of LCC passengers in Southeast Asia, especially in Malaysia and Thailand, stressed the predominant impact of airfares on the decision to use LCCs (Sai et al., 2012; Chan, 2014; Chanruthai et al., 2014). While the low-price effect reasonably reflects the behaviors of low-income populations in these countries, the over-emphasis on airfares could weaken or distort the importance of other underlying factors for selecting LCCs. Research shows that simply competing by lowering the price does not guarantee sustainable success (O'Connell and Williams, 2005); hence, further exploration of the impacts of other factors is critical. It is still unknown how internal behavioral and extended factors would behave differently in a prediction of passengers' choice of LCCs with or without the presence of the ticket price. This comparison has not been made in the LCC literature, which only examined the direct effect of the ticket price as a dominating factor independently from other factors. In order to have a clear understanding of these scenarios, it is vital to examine and compare the effects of behavioral and external factors and their inter-correlations with TPB factors when the ticket price is presented and when it is absent in the extended TPB model. To the best of our knowledge, no study has performed a comparative analysis based on the presence of the ticket price in the LCC literature.

In order to fill these gaps in the LCC literature, this study proposed and tested an extended TPB model engaging both internal behaviors and external stimuli in order to gain a better understanding of the LCC selection in Southeast Asia. Additionally, to compare the effects of these factors on the passengers' buying behavior, two extended TPB models, with and without the presence of the ticket price as a predicting factor, were tested and compared. The results of this paper promise both theoretical and practical contributions. Theoretically, the extended TPB model for LCCs in Southeast Asia adds a rich understanding of how passengers in this region select LCCs for air travel, from both internal behavioral and external stimuli perspectives. The comparison of two extended TPB models shows how these factors behave differently in predicting the passengers' buying behavior with and without the presence of the ticket price. Given the different behaviors and demographics of Southeast Asian travelers, these findings add significant contributions to the current LCC literature. Practically, the findings of this study provide airlines with a clear picture of how Southeast Asian travelers behave and select LCCs for air travel, based on which they can have appropriate marketing and operational strategies to attract more passengers in this competitive market.

The paper is organized as follows. The next section presents the existing literature in passenger choice in LCCs in Southeast Asia, the ground theory, and the research model, along with the proposed hypotheses. Then, the research methodology and data collection process are described, followed by detailed results of the measurement model, the full structural model, and results of the hypothesis testing. The last section will discuss the theoretical and practical implications of the research and recommendations for future research.

2. Literature review and RESEARCH framework

2.1. Existing studies of LCC passengers

Over the years, LCCs have received substantial attention from

academics, with passenger behaviors in the LCC context being an expanding research interest. In the U.S. and Europe, where the LCC concept is widely accepted, there is clear evidence of price effect on LCC passenger behaviors. LCC passengers in these markets are price sensitive, and they differ from Full-Service Carrier (FSC) passengers in important factors that drive them to select an airline. Studies show that LCC passengers generally placed the greatest value on low fares while for FSC passengers service attributes such as frequency, on-time performance, and professionalism of airline employees were significant in airline selection (Forgas-Coll et al., 2015; Mikulić and Prebežac, 2011; O'Connell and Williams, 2005). Recent years have seen some LCCs adopt a hybrid business model blending both FSC and LCC characteristics, which is likely to change the behavior of LCC passengers (Klophaus et al., 2012). While the price is still the most important reason to use LCCs, service-related factors can also affect the decision of LCC passengers (Akamavi et al., 2015; Birolini et al., 2019). This finding has changed the passenger mix of LCCs, as evidenced by more business travelers selecting LCCs (Martínez-García et al., 2012).

Compared to the U.S. and Europe, Asia represents an emerging, fast-growing LCC market with unbalanced LCC development due to divergent aviation policies and liberalization progress across countries. Substantial research has been conducted on LCC passengers in Asia, indicating the importance of both low price and service factors in the use of LCCs. For example, LCC travelers in South Korea and Taiwan found low airfares important while service quality such as in-flight ambient conditions also play a role in their selection of LCCs (Kim and Lee, 2011; Han and Hwang, 2017; Yang et al., 2012). In China, where the LCC development is at an early stage, passengers demonstrated similar behavioral patterns. Both the low price and service-related factors, such as airport access and onboard service, were important in the choice of LCCs (Pan and Truong, 2018).

Among all the regions in Asia, Southeast Asia stands out with the highest acceptance of LCCs, which captured substantial academic attention (Poon and Waring, 2010; Forgas-Coll et al., 2015; Hanaoka et al., 2014; Bowen, 2016; Wang et al., 2017). There is extensive research of LCC passengers in major Southeast Asian countries such as Malaysia (O'Connell and Williams, 2005; Wong and Musa, 2011; Sai et al., 2012; Ariffin et al., 2010; Ong and Tan, 2010; Yeoh and Chan, 2011; Chan, 2014; Kalaiarasan et al., 2015), Thailand (Saha and Theingi, 2009; Thanasupsin et al., 2010; Charoensettasilp and Wu, 2013; Chanruthai et al., 2014; Lerrthairakul and Panjakajornsak, 2014; Kuosuwat, 2015; Buaphiban and Truong, 2017), Vietnam (Sung et al., 2013; Yang et al., 2017), and Indonesia (Sihite et al., 2015). In these markets, the intention to travel by LCCs is primarily determined by price, but the influence of service-related factors is also evident. Of all the Southeast countries, Thailand is a crucial LCC market, with over half of its annual passengers traveling by LCCs. Given the intense competition in the Thai air travel market, price is often the determining factor for passengers to choose an airline (Law, 2017; Kuosuwat, 2015) and between LCCs and HSR (Chanruthai et al., 2014). In addition to price, studies also found service factors to be important in the selection of LCCs in Thailand. Lerrthairakul and Panjakajornsak (2014) suggested that three service dimensions - assurance, reliability, and empathy - affected the behavioral intention of LCC passengers. The finding means that Thai passengers expect LCCs to provide safe flight and caring customer service in addition to low fares.

Table 1 lists the selected LCC studies reviewed in Section 2.1 and the major factors affecting the use of LCCs in these studies. Ticket price, as expected, was the major determinant of passengers' decisions to use LCCs in all markets. Service-related factors were also important, and this pattern is more evident in the emerging LCC markets in Asia. Lawton and Solomko (2005) captured this phenomenon, indicating that there is likely a market space in Asia for LCCs to offer low prices and higher than average services. A similar conclusion was made by Kim and Lee (2011), indicating that the emerging LCC market in Korea, compared to the mature LCC market in the U.S., paid more attention to tangible services.

Table 1
Selected LCC studies in Southeast Asia and reported impact factors for using LCCs.

Author	Market	Context	Methodology	Major Impact factors on passenger perception and/or airline selection
The U.S. and Europe				
O'Connell and Williams (2005)	Europe and Malaysia	LCCs and FSCs	Survey	FSC: reliability, quality, flight schedules, connections, FFP, comfort; LCCs: fares, age
Forgas-Coll et al. (2015)	Spain	LCC and FSCs	SEM	FSCs: professionalism, brand image LCCs: Value for money, trust, brand image
Davison and Ryley (2010)	UK	LCCs	Chi-square	Price sensitivity
Mikulic and Prebezac (2011)	Europe	LCCs and FSCs	Path mode	FSCs: flight frequency, service quality, food and beverages services, on-time performance, loyal program LCCs: ticket prices
Akamavi et al. (2015)	UK	LCCs	SEM	Service recovery, self-efficacy of employee, trust
Asia Pacific				
Kim and Lee (2011)	Korea	LCCs	SEM SERVQUAL model	Tangibles and responsiveness affect satisfaction Price sensitivity
Yang et al. (2012)	Taiwan	LCCs	SEM	Service quality
Lin and Huang (2015)	Taiwan	LCCs	Analytic network process	Price, service quality
Kim and Park (2017)	S. Korea	LCCs and FSCs	Mann Whitney U test and Wilcoxon signed rank test	Price, service quality
Pan and Truong (2018)	China	LCCs	SEM	Price, service quality, frequency, access, self-efficacy, uncertainty avoidance, attitude, subjective norms, perceived behavioral control
Southeast Asia				
Wong and Musa (2011)	Malaysia	LCCs and FSCs	EFA	FSCs: tangible, core service, reputation, employee; LCCs: price, publicity, word-of-mouth
Ong and Tan (2010)	Malaysia	LCCs and FSCs	Logit analysis	fares, schedules, routes, booking method, purpose of trip, ethnicity and education level
Ariffin et al. (2010)	Malaysia	LCCs	SERVQUAL model, multiple regression	Caring and tangibles
Sai et al. (2012)	Malaysia		Multiple regression	FSCs: safety, service quality;

Table 1 (continued)

Author	Market	Context	Methodology	Major Impact factors on passenger perception and/or airline selection
Chan (2014)	Malaysia	LCCs and FSCs	Interview	LCCs: Price, strategic alliance, loyalty fares, promotion, reliability, convenience, smooth flying, service safety, social connectedness
Kalaiaresan et al. (2015)	Malaysia	LCCs	Regression analysis	service environment
Saha and Theingi (2009)	Thailand	LCCs	SEM	Flight schedules, flight attendants, tangibles, ground staff
Thanasupsin et al. (2010)	Thailand	LCCs and FSCs	Logit model	Group size, fare, waiting time, punctuality, safety
Charoensettasilp and Wu (2013)	Thailand	LCCs	t-test, ANOVA, Turkey's multiple comparison	Place, product, people, process, physical evidence, price, promotion
Chanruthai et al. (2014)	Thailand	LCCs and HSR	logit regression	fare, travel time, occupation, income, education level, trip purpose
Lerrthaitrakul and Panjakajornsak (2014)	Thailand	LCCs	SERVQUAL model, regression analysis	Assurance, reliability, empathy
Kuosuwan (2015)	Thailand	LCCs	Interview and questionnaire	Price, channel of buying ticket, promotion
Buaphiban and Truong (2017)	Thailand	LCCs	SEM	Attitudes, subjective norms, perceived behavioral control
Sung et al. (2013)	Vietnam	LCCs	ANOVA, case study	Booking service, cabin facility, crew member efficiencies
Yang et al. (2017)	Vietnam	LCCs	Factor analysis, Multiple regression	Price, service quality, perceived value, reliability, subjective norms
Sihite et al. (2015)	Indonesia	LCCs	SEM	Price, trust, promotion

Thus, passenger decision toward LCCs in Asia could be a more complicated process, and it could be formed by multiple factors rather than a single price factor. An important question to ask is how the price would interact with other factors in shaping the passenger decision to use LCCs in Asia, especially in the fast-growing Southeast Asian market. To answer this question, multiple impact factors and their interaction effect on passenger intentions and behaviors should be examined.

2.2. TPB and related LCC studies

This study expanded the theory of planned behavior (TPB) to identify important factors in passengers' intention and behavior toward LCCs in Southeast Asia. The TPB is a social-psychological framework focusing on a multi-step procedure of decision-making. The rationale behind the theory is that individuals do not make decisions spontaneously, but rather, they go through an evaluation process in which important factors are taken into consideration and eventually contribute to the forming of the decision (Ajzen, 1991). Specifically, the TPB proposes that attitudes toward the behavior, social pressure from significant others, and

perceived control over the behavior are important antecedents of the intention, which in turn determines the occurrence of the actual behavior (Ajzen, 1991). Over the years, the TPB has been successfully used as a conceptual framework to explain socially significant behaviors (Armitage and Conner, 2001).

While the TPB has been widely used in tourist markets (Jalilvand and Samiei, 2012; Al Ziadat, 2015), public transport (Chowdhury and Ceder, 2013), and high-speed rail (Jing and Juan, 2013; Jing et al., 2014; Hsiao and Yang, 2010), it has limited applications in air transportation (Davison et al., 2014; Pan and Truong, 2018; Buaphiban and Truong, 2017). Pan and Truong (2018) developed an extended TPB model, and the results indicated the combined influence of attitudes, subjective norms, price, service, access, self-efficacy, and uncertainty avoidance on passengers' use of LCCs in China. To our best knowledge, only one study applied the TPB to the LCC context in Southeast Asia. In the study of Buaphiban and Truong (2017), the original TPB model was used to test the relationships between the TPB components and passengers' use of LCCs in Thailand (N = 791). Based on an SEM analysis, the study indicated that attitudes and subjective norms significantly affected the purchase intention, while PBC directly influenced actual purchase behaviors of LCC passengers in Thailand (Buaphiban and Truong, 2017).

The study review in Section 2.1 and 2.2 pointed to important gaps in the research of LCC passengers, especially in Southeast Asia. First, despite the growing TPB studies in the transportation context, the TPB has rarely been used to study LCC passengers. Although Buaphiban and Truong (2017) applied the TPB to the LCC market in Thailand, it only examined the original predicting factors. Further examination considering multiple factors is needed to gain a deeper understanding of passenger decisions in the fast-growing LCC market in Thailand. Current research in sociology, psychology, and management show extended TPB model covering external factors provide more useful information about the buying behavior and increase the predictive power of the model (Chen and Tung, 2014; Donal et al., 2014; Hsieh, 2015). This study aimed to enhance this understanding by developing an extended TPB model for LCCs in Southeast Asia. TPB can best serve the purpose of this study because it does not only consider the impact of cognitive and behavioral factors but also allows for the addition of external stimuli to the model, which makes it particularly suitable for understanding different factor impact on LCC passengers' decision-making process. Second, existing LCC literature in Southeast Asia stressed the impact of fares and some service-related factors on the decision to use LCCs. Thus, compared to mature LCC markets in the U.S. and Europe where price has a predominant impact on passengers, LCC passengers in Asia may consider multiple factors and go through a more complex decision-making process in selecting an LCC. There is a lack of understanding of the interaction effect of price and other potential predictors of passenger behaviors and how this interaction would affect passenger selection of LCCs. Specifically, it is unclear if cognitive and service-related factors would influence passenger decisions in different ways when the price factor is or is not presented. This study aims to fill this research gap.

2.3. Research models and hypotheses

In order to gain a holistic understanding of the factors underlying the passenger decisions toward using LCCs, this study developed an extended TPB model that includes both attitude/behavioral and external factors in order to examine passenger intention and behavior toward LCCs in Southeast Asia. Additionally, this research tested two extended TPB models, one with and another without ticket price as a predicting factor, in order to understand how price may change the effects of other factors on the way LCC passengers make decisions. Fig. 1 and Fig. 2 illustrate the two research models.

Table 2 presents the relationships and hypotheses for these two models. The centers of both models are five original TPB constructs, namely attitude, subjective norms, perceived behavior control, behavior

intention, and buying behavior in the LCC context. External factors include price, service quality, airline safety, and airline reputation. The selection of the five TPB factors and the four external factors were based on the literature, which was explained in the remainder of Section 2.3.

2.3.1. TPB original factors

Attitude, subjective norms, perceived behavioral control (PBC), behavioral intention, and actual behavior are the five constructs in the original TPB model. In the transportation domain, these factors were often found to be important in predicting passenger intentions and behaviors. Attitude reflects a feeling of favorableness or unfavorableness toward performing a behavior (Ajzen, 1991). The literature shows that cognitive feelings are often an essential motivator for air passenger behaviors (Hsiao and Yang, 2010; Al Ziadat, 2015). In the LCC context, attitude can be a determinant of the intention to use LCCs in China (Pan and Truong, 2018) and Thailand (Buaphiban and Truong, 2017). Additionally, subjective norms in this study refer to the pressure an individual feels from his/her important others, such as friends and family, who desire the individual to use or not use LCCs (Ajzen, 1991). In the area of transportation, pressure from social referents can promote or hinder travel decisions, and such influence has been reported in studies of HSR passengers (Jing et al., 2014; Jing and Juan, 2013; Hsiao and Yang, 2010), although with mixed results. Existing research of LCC passengers produced more consistent findings, suggesting a significant effect of subjective norms in the passenger choice of LCCs in China, Vietnam, and Thailand (Pan and Truong, 2018; Buaphiban and Truong, 2017; Yang et al., 2017). The third TPB component is PBC, which refers to the perceived control of resources necessary to successfully perform a behavior. Having access to essential resources such as time, money, and opportunity can increase PBC, which could be related to the increased travel intention and behavior (Ajzen, 1991; Hsiao and Yang, 2010). In Asia, existing findings revealed inconsistent impacts of PBC on the intention and behavior of LCC passengers. PBC was not important for passenger intentions to use LCCs in China (Pan and Truong, 2018) but was a significant factor influencing the actual buying behavior of LCC passengers in Thailand (Buaphiban and Truong, 2017). Given the importance of the five TPB constructs in passenger decisions as revealed by previous studies, they were included in Model 1 and Model 2 to test the following hypotheses.

H1. Subjective norms positively influence passengers' attitude toward LCCs.

H2. Subjective norms positively influence passengers' behavior intention toward LCCs.

H3. Perceived behavioral control positively influence passenger attitudes toward LCCs

H4. Perceived behavioral control positively influences passengers' behavior intention toward LCCs (Model 1)

H5. Perceived behavioral control positively influences passengers' buying behavior toward LCCs (Model 2)

H12. Attitudes toward LCCs positively influence passengers' behavior intention toward LCCs

H13. Behavior Intention to use LCCs positively influences the buying behavior toward LCCs

2.3.2. External factors

In addition to the primary factors of TPB, this study added several external factors to the model based on factor importance in the LCC literature. Four factors, namely price, service quality, airline safety, and airline reputation, were added to the TPB model. Price was added to the TPB model because LCC fares are 40%-60% lower than typical FSC fares (Lawton, 2002; O'Connell and Williams, 2005), and they are often the most important reason for passengers to choose LCCs. Interestingly,

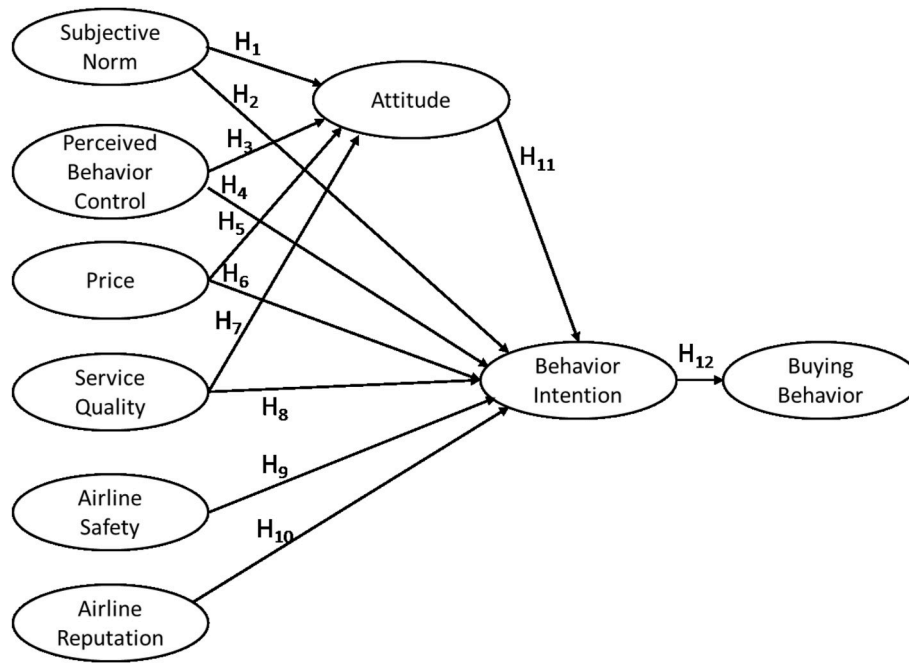


Fig. 1. Model 1 - Research model with the presence of the ticket price.

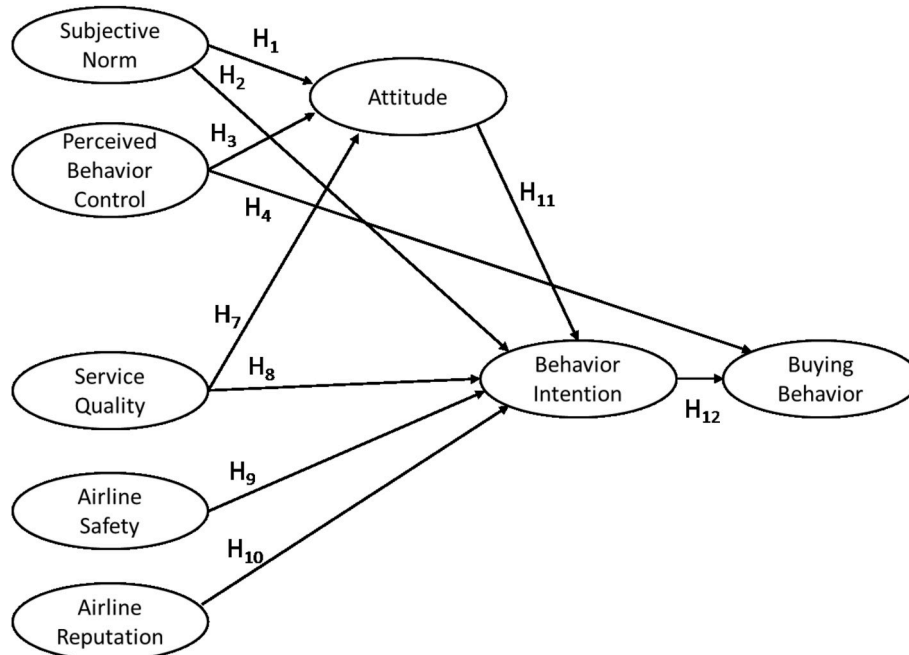


Fig. 2. Model 2 - Research model without the presence of the ticket price.

other studies such as (O'Connell and Williams, 2005; Fourie and Lubbe, 2006) found that other factors, such as service quality and airline safety, have higher effects than price, indicating the importance of including other factors in the model. In addition to the ticket price, service quality, airline safety, and airline reputation are the factors that receive the most attention from the literature and tend to show mixed findings regarding their effects on airline selection. Service quality is an important and complex factor, and passengers often find satisfactory service quality essential to their airline selection decisions (Jou et al., 2008). However, service quality is not deterministic, and airlines may be under a pressure to balance price and service quality since better service quality usually comes with a higher price. Additionally, numerous studies have

indicated airline safety as one of the factors associated with airline choice (Graham and Bansal, 2007; Jou et al., 2008; Mikulic and Prebezak, 2011; Oyewole et al., 2007; Zhang, 2011). In some cases, airline safety could be even considered more important for LCC passengers than FSCs, because a common perception is that LCCs may be less safe than traditional, large carriers (Mikulic and Prebezak, 2011). Finally, airline reputation is another significant factor for the research because, unlike the other factors, since it cannot be directly controlled or manipulated by the airline. Large, national, and international airlines are likely to have a better reputation, which may affect passengers' perception of LCC's reputation and how they choose an airline (Dolnicar et al., 2011). In addition, airline customers, such as package tour companies, are

Table 2
Relationships and hypotheses.

Relationships	Model with Price Hypotheses	Model without Price Hypotheses
Subjective Norms positively influences Attitude	H ₁	H ₁
Subjective Norms positively influences Behavior Intention	H ₂	H ₂
Perceived Behavior Control positively influences Attitude	H ₃	H ₃
Perceived Behavior Control positively influences Behavior Intention	H ₄	–
Perceived Behavior Control positively influences Buying Behavior	–	H ₄
Price positively influences Attitude	H ₅	–
Price positively influences Behavior Intention	H ₆	–
Service Quality positively influences Attitude	H ₇	H ₇
Service Quality positively influences Behavior Intention	H ₈	H ₈
Airline Safety positively influences Behavior Intention	H ₉	H ₉
Airline Reputation positively influences Behavior Intention	H ₁₀	H ₁₀
Attitude positively influences Behavior Intention	H ₁₁	H ₁₁
Behavior Intention positively influences Buying Behavior	H ₁₂	H ₁₂

highly sensitive to airline reputation (Chiam and Soutar, 2009). Given the literature's attention and mixed findings of these factors, they are added to the extended TPB model in this study. The following justifies hypotheses regarding the effects of these external factors.

The dominant effect of the ticket price on LCC passenger behaviors is evidential in all markets. In Europe, Mikulić and Prebežac (2011) identified drivers of passenger loyalty toward FSCs and LCCs. The findings indicated a strong effect of price on LCC passengers, while FSC passengers focused more on service elements such as frequency and on-time performance. In Asia, ticket price exhibits a significant effect on passengers in the new LCC market in China (Pan and Truong, 2018) and fast-growing LCC markets in Southeast Asia (Sai et al., 2012). It is especially the case in Thailand, where fares are the primary factor for LCCs to attract passengers from FSCs (Kuosuwan, 2015) and HSR (Chantrathai et al., 2014). While these studies revealed the importance of ticket price, the question is how this dominance may limit the understanding of the effect of other factors for passengers to choose LCCs. In other words, the strong effects of the ticket price in the analysis may reduce or even distort the effects of other factors on behavioral intention. This study thus presented two models. In Model 1, the effects of the ticket price on both attitude and behavioral intention toward LCCs were examined. In Model 2, the price was removed to allow a comparison of the effects of the remaining factors in the two models. The following hypotheses are stated for Model 1.

H6. Price of LCCs positively influence passengers' attitudes toward LCCs

H7. Price of LCCs positively influence passengers' buying intention toward LCCs

LCCs typically provide simplified, non-frill service to reduce costs and achieve low fares. For this reason, service is often considered unimportant for LCC passengers, especially in the mature LCC markets in Europe and North America (Mikulić and Prebežac, 2011). LCCs in the emerging Asian countries tend to offer both low prices and above-average service, which could change the LCC image from "low-cost, low quality" to "low-cost, high quality" (Lawton and Solomko, 2005; Kim and Lee, 2011; Yeung et al., 2012). Accordingly, passengers in Asia have higher expectations on service quality of LCCs. Kim and Park (2017) identified the difference in the perception of LCC service

between the emerging LCC countries and developed LCC countries. The findings indicated that passengers in mature LCC markets focused more on fares, whereas passengers in South Korea had higher demands for service quality (Kim and Park, 2017). Service factors also affected the decision of LCC passengers in Thailand, although ticket price remains the principal reason for selecting LCCs. Specifically, LCC passengers in Thailand found tangibles, assurance, reliability, and employee services important (Saha and Theingi, 2009; Lerrthairakul and Panjakajornsak, 2014). Given the increasing importance of service to LCC passengers in Thailand, service quality was added to the TPB model. H7 and H8 are tested for Models 1 and 2.

H8. Service quality of LCCs positively influence passengers' buying intention toward LCCs

H9. Service quality of LCCs positively influence passengers' attitudes toward LCCs

Safety is a critical factor in air travel decisions (Milioti et al., 2015; Sandada and Matibiri, 2016), and it can influence the selection of both FSCs (Sai et al., 2012) and LCCs (Yeung et al., 2012). Mikulić and Prebežac (2011) identified important factors in passenger loyalty toward FSCs and LCCs in Europe and found that LCC passengers emphasized more on safety than on-time performance. Similar findings are noted in the South Korean market, although passengers appeared to focus on both safety and on-time performance in their choice of LCCs (Kim and Park, 2017). In Thailand, airline passengers attached great importance to safety standards, and they often rely on their perceptions to assess airline safety (Law, 2017). Thai passengers also value airline safety of LCCs (Thanasupsin et al., 2010; Lerrthairakul and Panjakajornsak, 2014). Studies found that while LCC passengers understood the limitations of the service they would get for the low fares, they still expected the flight to be on-time, safe, and reliable (Lerrthairakul and Panjakajornsak, 2014). Given the importance of safety in the LCC literature, safety was included in the extended TPB model. The models tested the relationship between safety and passenger intentions in two scenarios - with and without the presence of the ticket price as a predicting factor.

H10. Safety of LCCs positively influence passengers' buying intention toward LCCs

A company's reputation reflects consumers' perception of service quality and brand name, which can affect consumer behaviors (Gounaris and Stathakopoulos, 2004; Sengupta et al., 2015; Liu and Lee, 2016). Studies in air transport have produced mixed results on the impact of reputation on airline selection. Airline reputation as perceived by friends, among other impact factors, affected airline loyalty in Europe (Dolnicar et al., 2011) while in China, airline reputation did not appear to have a significant impact on a travel decision (Zhang, 2012). In Southeast Asia, airline reputation is important to both FSC and LCC passengers (Wong and Musa, 2011). For LCC passengers, airline reputation can be particularly important because of the low-cost, low-fare strategies of LCCs, which could bring uncertainties. Studies showed that LCCs with a good reputation gain favors from passengers. The success of AirAsia, for example, can be partially attributed to the airline establishing a strong brand reputation and successfully embedding it into the minds of consumers (Poon and Waring, 2010; O'Connell and Williams, 2005). A similar pattern could be witnessed in Thailand, given the intense competition in the Thai LCC market. Airline reputation is therefore added to the model, and its relationship between the intentions of LCC passengers was tested in Model 1 and Model 2.

H11. Reputation of LCCs positively influence passengers' buying intention toward LCCs.

3. Methodology

The population of interest for this study is Southeast Asian travelers departing from Thai airports using any LCC. This group included

international and domestic passengers of all airlines operating out of the target airports. Data was collected through a survey of airline passengers in two major airports in Thailand, Don Mueng Airport and Suvarnabhumi International Airport. Suvarnabhumi International Airport serves mainly international traffic, and Don Mueng Airport which serves mainly domestic traffic. These two airports together accounted for 74.6% of total passenger movements in Thailand (including international and domestic full-service and LCC flights) along with 75% of passenger movements (AOT, 2014). Ten LCCs operating in Thailand were included in the study, including Air Asia, Lion Air, Malindo, Nok Air, and Scoot departing from Don Mueang Airport and Cebu Pacific Air, Jet Star, Lao Central Airline, Thai Smile, and Tiger Air departing from Suvarnabhumi International Airport. Using Westland's sample size calculation formula, it was determined that for the proposed research model, the recommended minimum sample size should be 460 (Westland, 2010).

The survey used a 5-point Likert scale from 1 ("strongly disagree") to 5 ("strongly agree") for questions about nine factors: Attitudes, Subjective Norms, Perceived Behavioral Control, Price, Service Quality, Airline Safety, Airline Reputation, Behavior Intention, and Buying Behavior. Table 3 shows the factors, variables, and questions. The questions were designed based on the current literature review. Since the survey was conducted in Thailand, a double translation process was performed to ensure the validity of the questions. The questionnaire was translated to Thai, and then another translator translated it back to English. This version was compared with the original questionnaire to check the accuracy and fine-tune the translation (Harkness et al., 2004).

The survey was conducted in the check-in areas for LCCs on a variety of different days and times from both airports in order to increase the randomness of the sample. In order to reduce the sampling bias, random sampling was used by selecting every tenth passenger and asking them to participate in the survey. The survey resulted in a total of 905 responses. After removing incomplete responses and extreme outliers, 781 responses remained, representing 86.3% of the total responses.

4. Results

4.1. Passenger Demographics

Fig. 3 presents the demographics of survey respondents. It appears that a majority of respondents are young travelers with the age range from 21 to 30 years (32%), followed by a range from 31 to 40 years (19%). In addition, 61% of respondents are female. This demographic shows that more women travel by air than men and LCCs seem to attract more young travelers, so the results of this study will be interpreted and generalized to this group of passengers.

As for the education level, 57% of the respondents have at least a Bachelor's degree, and 25% of them have a Master's degree or higher. This result is similar to other airline studies in Thailand, which also show a relatively high education level (Charoensettasilp and Wu, 2013). The income level is at the average income in Thailand, with 28% of respondents have an income of 25,000 baht (about \$500)/month or less, and 24% have the income between 15,000 and 25,000 baht (\$500-\$833)/month. Among these passengers, 54% of them travel for leisure or vacation while 16% travel to attend conferences or training. As for travel experience, thirty-five percent of the passengers travel more than three times a year, and twenty-five percent of them travel two to three times a year. Infrequent or first-time LCC passengers account for 40% of the passengers.

4.2. Measurement model

AMOS 24 was used to construct the Confirmatory Factor Analysis (CFA) and test the measurement model. Model fit was assessed using the goodness-of-fit index (GFI), the adjusted goodness of fit index (AGFI), the normed fit index (NFI), the comparative fit index (CFI), Normed Chi-

Table 3

Factor and item descriptions.

Factors	Variables	Description
Attitudes toward	A1	Low cost airline is another good alternative choice of airline
LCCs (AT)	A2	I have a good perception toward low cost airline
	A3	My overall attitude toward low cost airline is positive
Subjective norms (SN)	S1	I fly with low cost airline because my friend/family recommended it
	S2	I feel more confident with the service of low cost airline because my friend/family uses it
	S3	Most of my friends use low cost airline
Perceived behavior control (PBC)	PB1	I have no difficulty to buy the ticket from low cost airline
	PB2	The choice of selecting a type of airline ticket is entirely up to me
	PB3	I feel the choice of airline selection is under my control
Price (P)	P1	The price of a low cost airline is reasonable for me
	P2	The price of a low cost airline meets my needs
	P3	I am satisfied with the price of a low cost airline
Service Quality (SQ)	SQ1	I think service quality provided by a low cost airline is great compared to the price they offer
	SQ2	I am satisfied with the service quality provided by low cost airlines
	SQ3	Overall service quality of low cost airlines is good
Airline Safety (AS)	AS1	Safety system is the most significant factor that I consider when buying an airline ticket
	AS2	I only use the airline that has a good reputation on its safety system
	AS3	I believe that low cost airlines have a good safety system
Airline Reputation (AR)	AR1	I usually perceive good information about low cost airlines
	AR2	I believe that low cost airlines have a good reputation
	AR3	I think low cost airlines have good public reputation
Passengers' buying intention (PBI)	BI1	I would go for low cost airline when I look for the airline ticket
	BI2	Low cost airline is the first choice for me when thinking to buy the air ticket
	BI3	My intention to purchase a ticket from low cost airline is high
Passengers' buying behavior (PBB)	BB1	I am a regular passenger of low cost airline
	BB2	I always purchase a ticket from low cost airline
	BB3	I would continue to buy a ticket from low cost airline in the future

Squares, and Root Mean Square Error of Approximation (RMSEA). Byrne (2010) recommended a good model fit should be achieved with GFI, AGFI, and NFI higher than 0.9, CFI higher than 0.93, and RMSEA lower than 0.06. Then, the construct validity, convergent, and discriminant validity were assessed using Average Variance Extract (AVE) and Maximum Shared Variance (MSV) methods following guidelines provided by Fornell and Larcker (1981) and Hair et al. (2010). Additionally, the construct reliability was assessed using Cronbach's alpha and Composite Reliability (CR) (Nunnally, 1978; Hair et al., 2010).

As shown in Table 6 the fit indices of the CFA model showed good model fit: GFI = 0.933, AGFI = 0.911, NFI = 0.940, and CFI = 0.961. Normed Chi-square is 2.698, and RMSEA is 0.047, also indicating a good model fit. As a result, the measurement model has a good model fit. Table 4 also presents the reliability results. Both Cronbach's alpha values and CR values are above the suggested values (0.7) for all factors, indicating good reliability (Nunnally, 1978; Hair et al., 2010). Measured variables have high factor loadings to the corresponding factors (above 0.7), and all factors have average variance extracted (AVE) values being higher than 0.5, indicating good convergent validity (Hair et al., 2010).

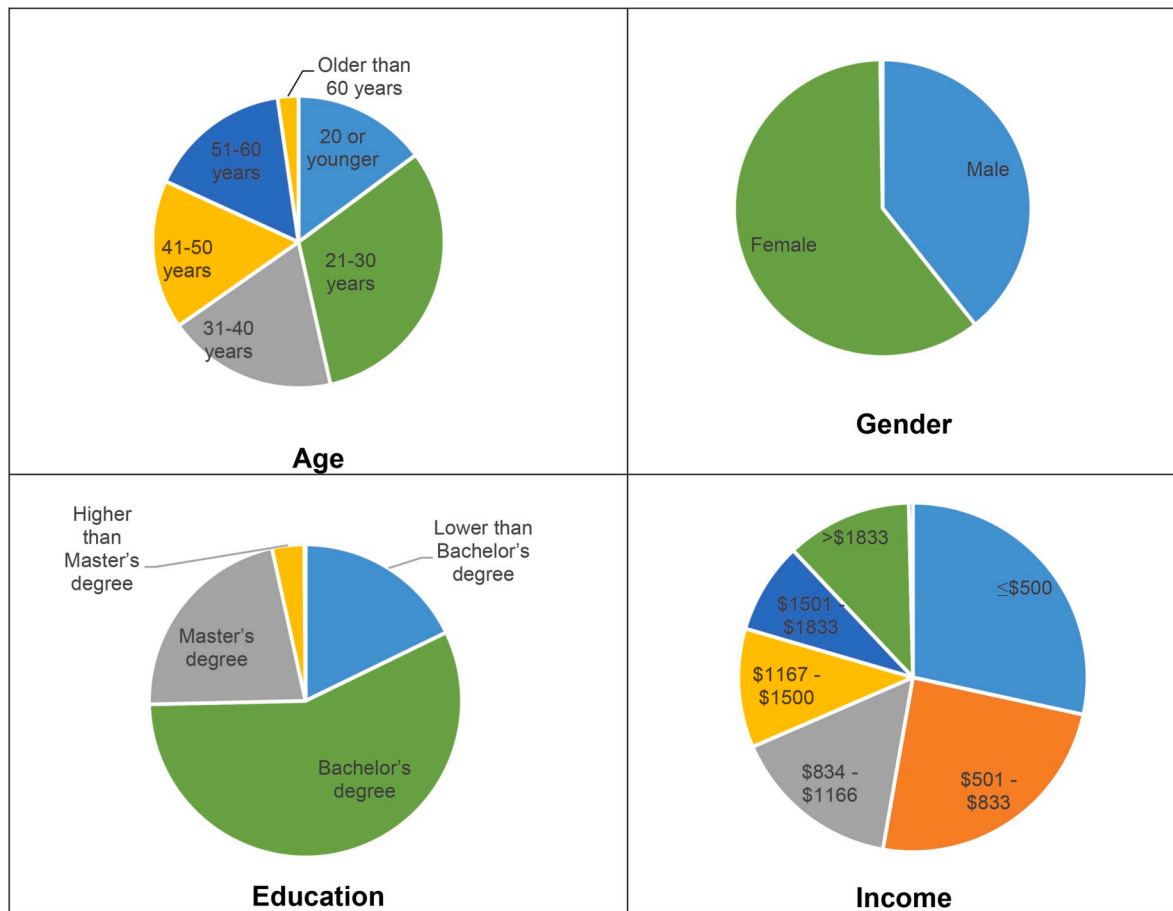


Fig. 3. Passenger demographics.

Table 4
Confirmatory factor model fit and reliability and validity assessment.

Factors	Items	Standardized Factor Loading	Cronbach's alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)	Maximum Shared Variance (MSV)
Attitude (AT)	A1	0.658	0.870	0.85	0.657	0.55
	A2	0.65				
	A3	0.756				
Subjective norms (SN)	S1	0.409	0.862	0.72	0.52	0.52
	S2	0.634				
	S3	0.743				
Perceived behavior control (PBC)	PB1	0.458	0.815	0.84	0.65	0.30
	PB2	0.863				
	PB3	0.817				
Price (P)	P1	0.808	0.835	0.93	0.80	0.36
	P2	0.861				
	P3	0.83				
Service Quality (SQ)	SQ1	0.756	0.875	0.92	0.79	0.57
	SQ2	0.859				
	SQ3	0.793				
Airline Safety (AS)	AS1	0.548	0.872	0.76	0.63	0.62
	AS2	0.486				
	AS3	0.818				
Airline Reputation (AR)	AR1	0.692	0.888	0.89	0.72	0.35
	AR2	0.814				
	AR3	0.746				
Passenger buying intention (PBI)	BI1	0.865	0.892	0.94	0.85	0.78
	BI2	0.911				
	BI3	0.884				
Passenger buying behavior (PBB)	BB1	0.882	0.852	0.94	0.84	0.78
	BB2	0.928				
	BB3	0.833				

Fit indices: Chi square/df = 2.698; GFI = 0.933; AGFI = 0.911; NFI = 0.940; CFI = 0.961; RMSEA = 0.047.

Finally, using the guidance by [Fornell and Larcker \(1981\)](#), the AVE value was compared with the MSA value for each construct. Since the AVE value for a given construct is higher than the MSA value for that construct, the discriminant validity is achieved ([Fornell and Larcker, 1981](#); [Hair et al., 2010](#)). In conclusion, the measurement model has a good fit, and the instrument has good construct reliability and validity.

4.3. Structural modes and hypothesis testing

In this section, the research hypotheses were tested with the structural equation model. [Tables 5 and 6](#) show the hypothesis results with standardized regression coefficients, t-values, and p-values for Model 1 and 2, respectively. The fit indices also show a good fit of the structural model with the data for both Models 1 and 2. It can be seen that most of the proposed hypotheses are supported. In Model 1, [H4](#), [H8](#), and [H10](#) are not supported, whereas, in Model 2, [H8](#) and [H11](#) are not supported. Overall, hypotheses regarding five major TRB factors in both models are supported, except for the relationship between PBC and behavior intention in Model 1. This result is consistent with the findings in TRB related papers and also confirms Buaphiban and Truong's finding that PBC tends to have a direct relationship with buying behavior ([Buaphiban and Truong, 2017](#)). As for external factors, Price, in Model 1, has significant relationships with both attitude and behavior intention, whereas service quality, in both models, only as a significant relationship with attitude. Finally, airline reputation, in Model 1, and Airline Safety, in Model 2, have significant relationships with behavioral intention.

[Table 7](#) shows the result comparison between the two models in terms of effect sizes of relationships. It appears that the relationships between subjective norms and attitude and behavior intention have substantially larger effect sizes when the ticket price is absent (0.427 versus 0.297 and 0.419 versus 0.158). This result shows that the presence of the ticket price has negatively affected the effects of subjective norms in passengers' buying decisions. As for PBC, the effect size of its relationship with attitude in Model 2 (without Price) is a little lower than in Model 1 (0.245 versus 0.26) but not substantial. However, it is worthy to note that in Model 2, PBC has a significant relationship with buying behavior. As shown in [Buaphiban and Truong \(2017\)](#), without the appearance of price, PBC has a direct effect on buying behavior without an indirect impact through behavior intention. On the other hand, the effect of attitude on behavior intention is substantially lower when the price is not present (0.206 versus 0.306). Furthermore, while behavior intention has a strong relationship with buying behavior in both models, as shown in the current literature, this effect is considerably lower when the price is not present (0.826 versus 0.897). Overall, the appearance of price does change the relationships and the effect sizes of these relationships among five core TPB factors.

As for external factors, when the ticket price is absent, service quality

has a higher effect on attitude (0.292 versus 0.259), indicating the effect of price on how service quality drives passengers' attitude toward LCCs. It can also be seen that price does affect how airline safety and airline reputation drive passengers' behavior intentions. When the ticket price is considered, airline reputation plays an important role in passengers' intention to use LCCs, whereas airline safety does not seem to be a critical factor. On the other hand, without considering the price, airline safety is a key factor that drives passengers' intention to use LCCs.

5. Discussions and conclusions

5.1. Discussions of the findings

The increasing air traffic in Southeast Asia has been driving the competition among LCCs in this region. Given the different attitudes, behaviors, and demographics of passengers in this region, it is important to study how they select LCCs for travel. This paper developed and tested two extended TPB models for LCC passengers, one with the presence of price and one without price. In addition to five TPB original factors, these models incorporate four external factors identified from the literature that acted as external stimuli or driving factors. The inclusion of external factors in TPB models helps improve the contextual relationship and increases the predictive capability of the models ([Ajzen, 2005](#)).

The statistical results show that relationships among five original TRB factors are supported in both models (Hypotheses 1–4, and Hypotheses 11–12), confirming the TPB theory in the LCC context. An exception is a nonsignificant relationship between PBC and behavior intention in Model 1. This result is consistent with Buaphiban and Truong's finding that PBC tends to have a direct relationship with passengers' buying behavior instead of behavioral intention ([Buaphiban and Truong, 2017](#)). Since passengers in Southeast Asia feel they can afford the LCC services and have full control of their decisions, they decide to move forward directly to purchasing the ticket instead of having to go through an intermediary step of intention. This finding further confirms the importance of TPB in LCC studies, especially in Southeast Asia, as the theory can help airlines better understand the attitudes and buying behaviors of passengers in this region. In comparing two models, it is noted that when the price is absent, subjective norm has substantially higher effects on passenger attitude and behavioral intention (Module 2). Thus, the presence of the ticket price does distort the effect of the subjective norm. When the ticket price is not considered, the positive effects of subjective norm on passengers' attitude and behavioral intention become clearer. Due to the Asian culture, passengers in Southeast Asia tend to seek advice and recommendations from family or friends about airlines. Positive observations that their family and friends have used and satisfied with the airline services would create positive attitudes toward the airline and encourage the

Table 5
Hypothesis testing results for Model 1 (Price included).

Hypotheses	Relationships	Standardized regression coefficients	t-values	p-values	Hypothesis Results
H ₁	Subjective Norms → Attitude	0.297	6.285	<0.01**	Supported
H ₂	Subjective Norms → Behavior Intention	0.158	3.29	<0.01**	Supported
H ₃	Perceived Behavior Control → Attitude	0.260	5.718	<0.01**	Supported
H ₄	Perceived Behavior Control → Behavior Intention	0.042	0.921	0.357	Not supported
H ₅	Price → Attitude	0.232	5.00	<0.01**	Supported
H ₆	Price → Behavior Intention	0.106	2.387	<0.05*	Supported
H ₇	Service Quality → Attitude	0.259	4.895	<0.01**	Supported
H ₈	Service Quality → Behavior Intention	0.073	1.122	0.262	Not supported
H ₉	Airline Safety → Behavior Intention	0.061	0.909	0.363	Not supported
H ₁₀	Airline Reputation → Behavior Intention	0.156	2.117	<0.05*	Supported
H ₁₁	Attitude → Behavior Intention	0.306	4.051	<0.01**	Supported
H ₁₂	Behavior Intention → Buying Behavior	0.897	28.849	<0.01**	Supported

Fit indices: Chi-square/df = 2.698; NFI = 0.915; GFI = 0.905; AGFI = 0.879; CFI = 0.936; RMSEA = 0.049.

** significant at the 0.01 level.

* significant at the 0.05 level.

Table 6
Hypothesis testing results for Model 2 (Price excluded).

Hypotheses	Relationships	Standardized regression coefficients	t-values	p-values	Hypothesis Results
H ₁	Subjective Norms → Attitude	0.427	6.09	<0.01**	Supported
H ₂	Subjective Norms → Behavior Intention	0.419	4.98	<0.01**	Supported
H ₃	Perceived Behavior Control → Attitude	0.245	5.058	<0.01**	Supported
H ₄	Perceived Behavior Control → Buying Behavior	0.138	5.14	<0.01**	Supported
H ₇	Service Quality → Attitude	0.292	5.097	<0.01**	Supported
H ₈	Service Quality → Behavior Intention	0.068	1.10	0.314	Not supported
H ₉	Airline Safety → Behavior Intention	0.140	1.815	<0.05*	Supported
H ₁₀	Airline Reputation → Behavior Intention	0.033	0.42	0.675	Not supported
H ₁₁	Attitude → Behavior Intention	0.206	2.792	<0.01**	Supported
H ₁₂	Behavior Intention → Buying Behavior	0.826	25.276	<0.01**	Supported

Fit indices: Chi-square/df = 2.85; NFI = 0.942; GFI = 0.935; AGFI = 0.915; CFI = 0.961; RMSEA = 0.049.

** significant at the 0.01 level.

* significant at the 0.05 level.

Table 7
Model comparison.

Relationships	Model with Price Standard Regression Coefficients	Model without Price Standard Regression Coefficients
Subjective Norms → Attitude	0.297	0.427 ^b
Subjective Norms → Behavior Intention	0.158	0.419 ^b
Perceived Behavior Control → Attitude	0.260	0.245 ^a
Perceived Behavior Control → Behavior Intention	0.042 ^o	–
Perceived Behavior Control → Buying Behavior	–	0.138 ^b
Price → Attitude	0.232	–
Price → Behavior Intention	0.106	–
Service Quality → Attitude	0.259	0.292 ^b
Service Quality → Behavior Intention	0.073 ^o	0.068 ^o
Airline Safety → Behavior Intention	0.061 ^o	0.140 ^b
Airline Reputation → Behavior Intention	0.156	0.033 ^o
Attitude → Behavior Intention	0.306	0.206 ^a
Behavior Intention → Buying Behavior	0.897	0.826 ^a

^o Non-supported relationships.

^b Higher effect size.

^a Lower effect size.

passengers to consider that airline for travel.

The results also indicate significant impacts of external stimuli on passengers' behavioral intentions. The first external factor is *ticket price*, which is often considered one of the most influential factors, or even the most dominating factor, that influences the decision of LCC passengers. Hypotheses 5 and 6 in Model 1 confirm that price has significant correlations with attitude and behavioral intention, respectively. This result is consistent with findings in the LCC literature (Chan, 2014; Davison and Ryley, 2010; Dolnicar et al., 2011; Hess and Polak, 2006; Jou et al., 2008; Kuosuwan, 2015; Yang et al., 2017). With a high percentage of the low-income population in Southeast Asia, it is understandable that a reasonable ticket price would motivate passengers to consider a particular airline. However, the dominance of the ticket price in the literature necessitates an investigation on what other factors that may affect their decisions and how the ticket price may affect the impacts of these factors.

The second external factor included in the extended TPB model is *airline service quality*. Hypothesis 7 is supported in both models, indicating that service quality has a positive effect on passenger attitude. It is also noted that Hypothesis 8 is not supported in either model, indicating there is insufficient evidence to prove that service quality has a direct relationship with behavioral intention. This result further confirms the

importance of service quality to passenger attitude toward LCCs. In comparing effect size, it is noted that this impact in Model 2 (without price) is higher than in Model 1 (with price). It is usually a challenge for airlines to balance price and service quality since increased service quality also drives up the ticket price. This research found that the effect of service quality is somewhat distorted by the presence of the ticket price. This result is consistent with findings in the literature, which found differences in fare classes and service quality expectations (Park, 2007; Chan, 2014). This is an important implication since LCCs are *not* expected to meet the same level of quality as a full-service carrier, but rather to provide satisfactory service quality at their price levels. Thus, it is vital that LCCs manage their service offerings effectively to provide a balance between service quality and base ticket prices. Additionally, the result shows a new knowledge that service quality has an indirect relationship with behavioral intention through passenger attitude. In other words, attitude acts as a mediator, and higher service quality would motivate a positive attitude toward an LCC, which leads to an intention to use the airline.

The third external factor is *airline safety*. Hypothesis 9 in Model 2 is supported, indicating that airline safety positively influences behavioral intention when the ticket price is absent. The result of this study contributes to the literature by showing that while the perception of airline safety is vital to passenger choices, the impact of this factor is somewhat negated by the dominating influence of the ticket price. When the price is present in the model, its dominating effect deteriorates the effect of airline safety. On the other hand, when the price is excluded in the analysis, airline safety has proven to be significantly related to behavioral intention. There is an explanation for this. Due to limited flight routes offered by LCCs, especially to some of the rural or border areas, it is possible that airline safety perceptions may become secondary to the ticket price to passengers. Nonetheless, it is critical for airlines to understand that while LCC passengers tend to focus on the ticket price when selecting an airline, airline safety is still among their top concerns. Accordingly, airlines should still invest in ensuring the safety of their operations.

The last external factor is *airline reputation*. Hypothesis 10 in Model 1 is supported, indicating a significant relationship between airline reputation and passenger behavioral intention when the ticket price is present. However, when the ticket price is absent, there is insufficient evidence to prove that airline reputation has an impact on behavioral intention (Hypothesis 10 in Model 2 is not supported). Unlike the other factors, airline reputation is an external stimulus that is not within the direct control of the airline nor can be directly manipulated. The results of this study add value to the mixed literature regarding this factor by confirming that in the context of LCCs, the effect of airline reputation on passenger behavioral intention cannot be ignored. Additionally, the presence of the ticket price does affect the role of airline reputation in passengers' buying intention. Airline reputation has a direct effect on passenger behavioral intention only when the ticket price is present in

the analysis. Thus, passengers tend to consider airline reputation in conjunction with the ticket price when they select LCCs. LCCs with lower ticket prices and higher reputation will attract more passengers to their services. This finding is a new knowledge discovered that is not known in the LCC literature.

5.2. Conclusions

5.2.1. Theoretical contributions

Perhaps the most important implication of this study is that it is clear that LCC passengers in Southeast Asia are not merely driven by price, as proposed by some economic models of LCC choice. Instead, it confirms that the extended TPB model explains well the LCC passengers' attitudes and buying behaviors in this region. TPB original factors, including attitude, subjective norm, and perceived behavioral control, have proven to significantly influence passenger behavioral intention and actual buying behavior in selecting LCCs. External factors including price, service quality, airline safety, and airline reputation are shown to have significant impacts on the LCC buying intention. This model provides a comprehensive picture of how passengers in Southeast Asia make their airline selection based on their internal behaviors and external stimuli. Additionally, by comparing two extended TPB models, the results show that while ticket price may still be the most significant factor to LCC passengers in Southeast Asia, it distorts the effects of subjective norm, PBC, service quality, airline safety, and airline reputation on behavioral intention. This comparison has not been done in the LCC literature, which only examined the direct effect of the ticket price as a dominating factor independently from other factors. An important implication of this research is that factors such as service quality, airline safety, and airline reputation are also important stimuli to LCC passengers' buying intention, and their impacts can only be understood more correctly when the ticket price is not included in the analysis. Besides, while airline safety and airline reputation have direct impacts on buying intention, service quality plays the role of a mediator and indirectly impacts the intention through the passengers' attitude toward LCC. These new knowledge discoveries provide researchers with a holistic view of how LCC passengers make their decisions in selecting an airline for travel.

5.2.2. Practical contributions

Airlines can benefit from this study by realizing how internal behavioral factors and external stimuli affect Southeast Asian passengers in their airline selection decisions. The intense competition among LCCs in this region requires airlines to have a holistic view of how passengers choose an airline. Serious marketing strategies and social communication are needed to improve passengers' attitude toward LCCs, subjective norms, and perceived behavior control since they have significant impacts on passengers' intention to select LCCs for travel. Additionally, the study found that the price could distort the effects of these factors, especially the external factors. Airlines should realize that ticket price is not the only reason passengers choose an airline. Due to the different behaviors and demographics of passengers in Southeast Asia, competing solely by low ticket prices may not help an airline gain sustainable competitive advantages in this competitive LCC market. Airlines still need to focus on keeping the ticket price reasonable but should be mindful that it is no longer the only and most important factor. More investment is still needed to enhance the airline's service quality, airline safety, and airline reputation. When selecting an airline, LCC passengers tend to consider these factors along with the ticket price. Good strategies to increase the quality of ground and in-flight service, ensure the safety performance, and enhance the airline reputation while offering reasonable ticket prices would be the key to LCCs' success.

5.2.3. Recommendations for future research

Future research can focus on conducting the comparison in other regions, such as East Asia, Europe, and America, and compare the results

with this study findings. The results would shed more light on how LCC passengers in different regions make their airline choice. While the ticket price has some effect on how other factors are related to passenger choice in Southeast Asia, this may not be the case in Europe or America, where the FSCs are competitive. In addition, cultural factors can be added to the analysis to examine how they would affect the Southeast Asian passengers in making their airline choice. Southeast Asia consists of a small number of countries in a unique region, which forms an interesting travel culture. Finally, the moderating effects of demographic variables such as gender, age, education, income, and travel purpose, on the relationships among TPB factors and behavioral intention could be examined. These follow-up studies will help shed more light on LCC passenger attitudes and behaviors and how they affect the way passengers make their decisions.

CRedit authorship contribution statement

Dothang Truong: Conceptualization, Methodology, Software, Formal analysis, Writing - original draft, Supervision. **Jing Yu Pan:** Writing - review & editing. **Thapanat Buaphiban:** Investigation.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jairtraman.2020.101836>.

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