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## Determination of Factors That Influence Passengers' Airline Selection: A Study of Low Cost Carriers in Thailand

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**Determination of Factors That Influence Passengers' Airline Selection: A Study of  
Low Cost Carriers in Thailand**

by

Thapanat Buaphiban

A Dissertation Submitted to the College of Aviation  
in Partial Fulfillment of the Requirements for the Degree of  
Doctor of Philosophy in Aviation

Embry-Riddle Aeronautical University  
Daytona Beach, Florida  
April 2015

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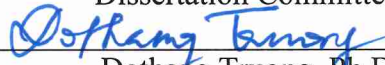
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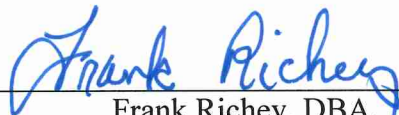
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This Dissertation was prepared under the direction of the candidate's Dissertation Committee Chair, Dr. Dothang Truong, Associate Professor, Daytona Beach Campus; and Dissertation Committee Members Dr. Frank Richey, Professor, Daytona Beach Campus; Dr. Haydee Cuevas, Assistant Professor, Daytona Beach Campus; and Dr. Somchanok Tiamtiabrat, External Member, and has been approved by the Dissertation Committee. It was submitted to the College of Aviation in partial fulfillment of the requirements for the degree of  
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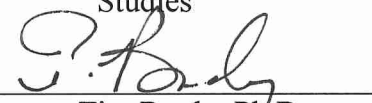
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## **ABSTRACT**

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Institution: Embry Riddle Aeronautical University

Degree: Doctor of Philosophy in Aviation

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This research examined the factors that influenced the airline selection of Low Cost Carriers (LCCs) in Thailand. The research was justified based on the rapid growth of LCC travel in Thailand, particularly in domestic and regional travel. There is a relative lack of successful explanation of the choice of LCCs in Thailand, with only a few studies addressing topics like passenger satisfaction and perceptions of service quality.

Following an extensive literature review, the author used a theoretical framework based on the Theory of Planned Behavior (TPB) (Ajzen, 1991) in order to explain passenger behavioral intentions. This framework was supplemented by airline operational and marketing factors identified from the literature, including Price, Service Quality, Airline Reputation, Airline Safety, Route Availability and Convenience, and Frequent Flier Programs. A large scaled survey was sent to Thai LCC passengers at major airports in Thailand. The final sample ( $n = 781$ ) was predominantly working-age, female, highly educated, and with average incomes. In general, they flew frequently (two to three times a year or more). In order to test the relationship among the external factors, TPB factors, behavioral intentions, and actual behavior, Structural Equation Modeling (SEM) was

conducted. Results showed that Subjective Norms, Perceived Behavioral Control, Airline Reputation, Price, and Service Quality had a positive impact on Behavioral Intentions, while Behavioral Intentions positively influenced Buying Behavior. This research has important implications both in academia and industry. It indicates that LCC passengers are not merely driven by price as concluded by economic studies in LCC selection. Instead, factors like service quality, airline reputation, and social acceptability implied by subjective norms play a significant role in the choice of LCCs over Full Service Carriers (FSCs). Additionally, the results of this research provide LCCs with useful guidance to form appropriate strategies to attract more passengers: protecting price leadership, improving service quality, enhancing public image, and maintaining route diversity.

## **DEDICATION**

I dedicate this dissertation to my beloved family (mom, dad, Gammy, and Golf) and dear friends (Mason, Pato, Jeerasak, Waragorn, and Chanchai) who always support and encourage me. I would also like to dedicate my dissertation to all faculty members, my advisor (Dr. Truong), and classmates who have supported me throughout the process.





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## **CHAPTER I**

### **INTRODUCTION**

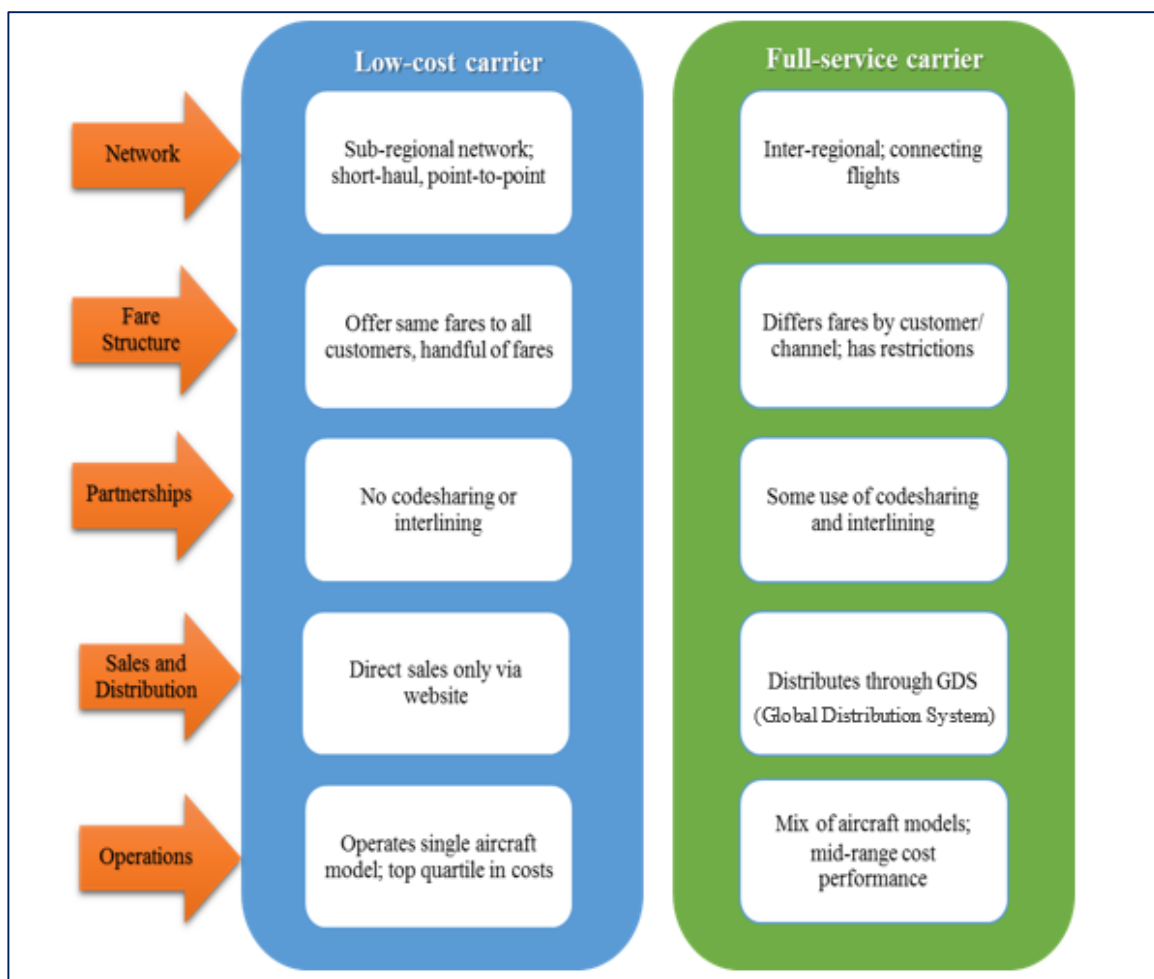
This research focused on examining factors that influence a passenger's decision to select a low-cost carrier (LCC) for travel. An LCC, or no-frills carrier, is an airline that differentiates itself in the market through reduced ticket prices (Civil Aviation Authority, 2006). The low-cost carrier manages to reduce ticket prices below competitors through a variety of strategies such as: fuel efficiency, careful management of revenue, and yield management. Revenue management and yield management are strategies that use ticket pricing to achieve higher load factors and/or the achievement of specific earnings targets. However, the typical low-cost carrier also offers a different package of goods and services to those of traditional carriers including a single service class, charging for in-air amenities such as: checked baggage, seat selection, on-board refreshments, and reduced ground services (e.g., eliminating business or premium lounges and reducing, or even eliminating staffed check-in areas) (Civil Aviation Authority, 2006). These service changes reduce operational costs and allow the airline to pass on this reduction in the form of a cheaper ticket which, in turn, allows passengers to choose between a higher service level and lower ticket price. These airlines have grown increasingly popular, especially on regional and secondary routes in Europe and Asia since the 1990s (Civil Aviation Authority, 2006).

This chapter introduces the topic of the study and provides background information on the LCC industry, both around the world and in Thailand, and discusses the significance of this study in terms of its contribution to the academic and aviation industries. The chapter then summarizes the literature gap and reasons for conducting the

study. The final section presents the study's statement of purpose, research questions, delimitations, limitations and scope, and definitions of terms used in the study.

### **Background of the Study**

The LCC business model is one of the most recent changes in the general business model of airlines (Sabre, 2010). Figure 1 shows a comparison of the business models between an LCC and full-service carrier (FSC). It appears that LCCs use short-haul flights (usually point-to-point among secondary destinations), a flat and straightforward fare and class structure, no partnerships, direct sales, and new, single-model aircraft fleets (Sabre, 2010). In contrast, FSCs use a hub-and-spoke network, complex fare structures, and price discrimination (including multiple service classes), partnerships with other airlines such as code sharing, multiple sales channels, and mixed aircraft fleets (Sabre, 2010). LCCs and FSCs also offer different service levels (Civil Aviation Authority, 2006). For example, an FSC will offer a two-class or three-class service (including economy, business, and first class), while most LCCs only offer a single class of service. These two fundamentally different business models attract different types of travelers. Moreover, LCCs may be more likely to attract infrequent or leisure travelers traveling domestically or regionally, while business travelers and long-haul travelers may be more likely to choose a FSC (Fourie & Lubbe, 2006).



*Figure 1.* Summary of business models for LCCs and FSCs. Source: Adapted from Sabre (2010).

The LCC business model has proven to be strong competition for the traditional full-service model. Although the impact varies globally, evidence shows that the LCC segment has been growing substantially and has an important effect on the airline industry. A report on annual airline traffic from Europe found that in 2012, the total number of flights fell 2.67% from 2011 but the low-cost segment grew by 1.4% (Eurocontrol, 2013). The low-cost carrier segment, with an average 6,537 flights a day within the European Union, totaled 25% of the total market share in 2012 (Eurocontrol,

2013). Similar growth has been seen in the Asian market (Harbison, 2013). The total LCC capacity share (percentage of total seats in the market) has grown from 3.3% in 2001 to 57.6% in October 2013 (Harbison, 2013). This includes a relatively small but growing low-cost, long-haul segment, which is not common in Europe. Thailand, along with the Philippines, is considered to be one of the friendliest countries for LCC operation and is projected to be a major growth market (Teng & Perry, 2013).

Questions have been raised about whether the LCC segment is actually delivering lower costs to consumers. While passengers perceive the costs of LCCs are lower because of the advertised fares, typically LCCs use a fare structure that includes only a few tickets at this price (Vidovic, Steiner, & Babic, 2006). Thus, only a few passengers actually receive the very low prices advertised. Nonetheless, it is clear that the LCC segment has grown significantly in the European market. The same is also true in Asia, where the cost gap between full-service airlines and LCCs was 60% to 70% (substantially higher than the 36% gap in U.S. carriers and 40% to 50% in European carriers) (Smyth & Pearce, 2006). Currently, the biggest LCCs operating in Southeast Asia are AirAsia (which has operations around Asia, including Thailand) and Indonesia's LionAir (Bland, 2014). Conditions in countries including Indonesia, Malaysia, and Thailand are considered ideal for the expansion of LCCs because of a growing middle class and a densely populated (though international) geography, with few land transportation options (Bland, 2014). The total number of planes operating for low-cost carriers in the region is expected to more than double in 2012 based on current aircraft orders, which total 1,200 aircraft, compared to 1,050 currently operating in the Southeast Asian region (Bland, 2014).

While the LCC model promises lower costs than the full-service model, LCCs may be losing this cost advantage over time as FSCs become more efficient, and LCCs come up against the limits of cost controls (KPMG, 2013). This narrowing of the gap between carriers is not likely to be reduced much further, according to KPMG (2013); however, the fact remains that LCCs will need to be more aggressive in the future in order to maintain their competitive nature. This raises the question of understanding why passengers select LCCs, and what kinds of characteristics passengers value, which will provide more insight into how LCCs can continue to compete. Understanding perceptions and behaviors of LCC passengers will help carriers improve their services and offerings, thus improving the passenger experience.

The passenger experience and LCC competitiveness is important because of the size and growth of LCCs in Thailand. Statistics indicate that the LCC segment in Thailand is very strong. Airports of Thailand (AOT) is a government approved body which controls domestic commercial airports in Thailand and publishes airline statistics for the region. Table 1 summarizes key statistics for LCCs in Thailand in FY2013 and Q1/Q2 2014. According to AOT statistics, LCC traffic accounted for 20.9% of the traffic at Thailand's airports. A majority of LCC passenger arrivals (57.4%) are from domestic flights. Table 1 shows the growth rate between the first half of 2013 and 2014, demonstrating significant growth in the market.

Table 1. *Summary of AOT Transport Statistics.*

Airport Metric	FY2013	FY2014 (Q1 and Q2)	Growth Rate (Q1/2 13 to Q1/2 14)
Departures (international and domestic)	125,753	65,942	33.8%
Total passengers (including embarkations, disembarkations and transit)	17,870,607	8,726,330	23.6%

*Note:* Adapted from “Air transport statistics,” by AOT, 2014, Retrieved from Airports of Thailand Plc.: <http://aot.listedcompany.com/transport.html>.

There has been some research into how passengers make decisions about the choice of airlines. Airline industry literature often assumes that price is the only factor in the LCC decision (e.g., Bland, 2014 and CAA, 2006). However, consumer decision theory suggests that consumers will choose an LCC based on a number of factors, including, but not limited to price (Blythe, 2013). Most of the academic research has not focused on consumer behavior factors, and there also has not been much research into the Southeast Asian region. This is surprising because the Southeast Asian region, with an LCC seat capacity of almost 58%, is one of the largest regions in the world for LCCs (Harbison, 2013).

Some studies into consumer choice of LCCs have gone beyond price as a determining factor. One study compared passengers on LCC and FSC routes between Taipei and Singapore (Chang & Hung, 2013). Chang and Hung (2013) used a survey approach to find how price, convenience, and airline image positively affects LCC adoption. A study of South African business passengers found that a number of factors,

like seat comfort, schedule, frequency of flights, and high cancellation charges (negative effect), influenced carrier choice (Diggines, 2010). A third study has also confirmed that price was a major factor in LCC selection, especially for family travel (Davison & Riley, 2010). The study by Davison and Riley (2010), conducted in the English West Midlands, confirmed the importance of price, especially for family travelers seeking interesting locations on limited budgets. However, it also identified factors in the choice of airlines such as location, which demonstrates that there are other elements of the decision that need to be considered.

### **Statement of the Problem**

This research studied the problem of how consumers choose low-cost carriers and what factors play a role in that decision. The study is meant to fill a gap in understanding of the Asian LCC market. Research on LCCs in Southeast Asia is limited to a few noteworthy examples. One study has been conducted in Thailand on passenger satisfaction for LCC passengers (Saha & Theingi, 2009). This study examined service quality as one of the determinants of passenger satisfaction as well as indirect influences on word of mouth and feedback. The study found that elements of service, including tangibles (plane, seats, and air condition system), schedule, flight attendants, and ground staff, were factors in the consumer decision. This study is helpful in that it identifies the importance of key service variables for Thai LCC passengers. However, it does not explain why an LCC was the initial choice. The study is also older (with data collected in 2006), which could mean the findings are somewhat out of date.

The research on LCCs suggests that low price is an important factor in the choice of LCC rather than FSC carrier. LCC passengers are price-sensitive and value low priced tickets. However, a number of other factors also may play a role in the choice of LCC such as service level, safety programs, and safety evidence. These factors can be an inhibiting factor in the choice of LCC since consumers may perceive them to be less ideal than FSCs. However, no prior research has directly examined and empirically tested all of these factors. In order to fully understand how passengers decide to choose an LCC, it is important to study the issue from a multi-dimensional point of view, although it is not realistic to cover all possible factors since the number of possible decision points is far too large. Finally, despite the rapid growth of LCCs in South East Asia and especially Thailand, adequate studies have not been conducted in this growing market.

### **Purpose Statement**

The purpose of this research was to investigate factors influencing the selection of airlines in Thailand from the passenger point of view based on research at Suvarnabhumi International Airport (BKK) and Don Mueng International Airport (the airport only for LCCs).

### **Research Questions**

The specific research questions include:

- What factors influence passengers' airline selection toward LCCs in Thailand's airports?



- How do these factors affect passengers' airline selection toward LCCs in Thailand's airports?

### **Hypotheses**

- H1: Consumer's attitude is positively related to consumer buying intention toward LCCs.
- H2: Social norms are positively related to consumer buying intention toward LCCs.
- H3: Perceived behavioral control is positively related to consumer buying intention toward LCCs.
- H4: Airline reputation has a positive influence on consumer's attitude.
- H5: Airline reputation has a positive influence on consumer buying intention toward LCCs.
- H6: Price has a positive influence on consumer buying intention toward LCCs.
- H7: Airline service quality has a positive influence on consumer buying intention toward LCCs
- H8: Airline safety has a positive influence on consumer buying intention toward LCCs.
- H9: Route availability and convenience has a positive influence on consumer buying intention toward LCCs.
- H10: Frequent flier programs have positive influence on consumer buying intention toward LCCs.

- H11: Buying intention is positively related to consumer buying behavior toward LCCs.

### **Significance of the Study**

This research has significant contributions for academic and business readers, specifically contributing to knowledge about consumer motivations of low-cost carriers. The main focus of this study was to examine consumer views on LCCs and factors that lead to their decision to select an LCC. Under a rational economic model, the only reason for the consumer to accept the reduced package of services associated with the LCC is the reduction in price. Many airlines operate on that assumption as well and attempt to compete solely on price (Civil Aviation Authority, 2006). However, passengers make their LCC selection decision based on various factors.

By examining the factors in the choice of LCC selection in Thailand, this research also helps show what factors play a role for consumers in developing countries. It is already known that LCC passengers are not always entirely driven by price differences – for example, a comparison of factors for Irish and Malaysian LCCs and FSCs showed that price was more important for passengers on the Irish airlines (O'Connell & Williams, 2005). It is reasonable to consider the idea that Asian passengers and passengers in developing countries may have different decision processes or a different set of factors than those in Western countries, where most such research has been performed. This is one of the main gaps in the research, despite the predominance of low-cost carriers in developing countries. Thus, this research could potentially be of value to the academic literature since most extant literature focuses on the economic decision (price), while ignoring the other consumer decision factors involved. The results of this study may also

be useful for airlines operating in Thailand by helping to identify issues and factors in the passenger selection of LCCs. This information could be used to refine services and business practices, potentially making companies more competitive. It could also help new entrants into the market through the description of consumer requirements for LCCs.

### **Delimitations**

The research collected data from Thailand because this limits the effect of route and destination issues and airline availability. Airline passengers face a two-stage decision process. The first stage being points of origin and destination, and the second stage being the choice of airline (Hess & Polak, 2006). Since all passengers leaving from Suvarnabhumi International Airport (BKK) have the same choice of airlines and routes, this reduces the influence of the two-stage choice process by ensuring one stage (the destination point) is already decided. The research included passengers on domestic and international flights to all destinations originating from BKK.

Several choices could have been made in this study that were not examined. The target respondent was a traveler departing from Bangkok, including both international and domestic passengers of all nationalities. This limitation was placed for practical reasons, namely to facilitate data collection since it is the country's largest airport and handles the largest bulk of Thailand's air travel (AOT, 2014). BKK is likely to yield the most generalized and pertinent information while controlling travel costs.

The literature review only focused on the factors involved in LCC travel and not those involved in all air travel. The body of knowledge regarding full-service airline travel is deeper in the literature, owing to it being an older business model. However, it

does not take into account the relatively recent introduction of LCCs, which could have changed the consumer decision process. As a result, only more recent literature was included that dates from the formation of LCCs.

### **Limitations and Assumptions**

There were a number of assumptions that were made when conducting this research. One of these assumptions was that consumers in Thailand have similar consumer decision processes to those described in the literature (especially those in other domains of consumer study in Thailand and other countries in Southeast Asia). This was a reasonable assumption considering the research surrounding the theory of planned behavior (TPB), which forms the basis of the theoretical model of this research. Specifically, the TPB has been shown to be an accurate representation of decision-making in different cultures (Ajzen, 2005). A second assumption was that consumers have mainly made their own travel decisions, and thus they were responsible for the choice of an LCC. This may not have applied in some cases, such as business travelers whose tickets are booked by third parties, but since LCCs do not use secondary sales channels (Sabre, 2010), most consumers will have made an active choice for an LCC.

The cross-sectional nature of the research could be a limitation given the rapid growth of the LCC sector in Thailand. However, this was only likely to affect the study after some years, so it would need to be repeated but does not present an immediate challenge to generalizability. A second limitation was that this study does not compare the factors in the choice of LCCs to the choice of FSCs. This limitation was outside the

scope of this research (as explained in the delimitations above), but it did mean that only a limited number of assertions could be made.

### **Definition of Terms**

*Brand reputation* is the position a company brand occupies.

*Consumer attitude* refers to individual motivation which can be positive or negative (Ajzen, 1991).

*Consumer buying intention* refers to the individuals' intentions to perform a certain behavior (Ajzen, 2005).

*Perceived behavioral control* refers to the person's perception of the ease or difficulty of performing a particular action (Ajzen, 1991).

*Price* is the amount of money expected, required, or given in payment for something (Business Dictionary, 2014).

*Safety system* is the managerial system for managing, monitoring, and controlling safety and security throughout the firm (Galotti et al., 2006).

*Service quality* refers to the difference between the level of service that is expected from consumers and the perception of the service that is actually received (Caruana, 2002).

*Subjective norms* refers to impacts or pressures from social group of references such as friends, family, and people around them toward their intention (Ajzen, 1991).

*Theory of planned behavior* is a model that can be used to examine the intention of a person to engage in a specific behavior (Ajzen, 1991).

**List of Acronyms**

AOT	Airport Authority of Thailand
BI	Buying intention
CFA	Confirmatory factor analysis
EFA	Exploratory factor analysis
FAA	Federal Aviation Administration (USA)
FNSA	Full network service airline
FSC	Full service carrier
ICAO	International Civil Aviation Organization
LCC	Low cost carrier
PBC	Perceived behavioral control
PCE	Perceived consumer effectiveness
RQ	Relationship quality
SEM	Structural equation modeling
SN	Subjective norms
TAM	Technology Acceptance Model
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action

## **CHAPTER II**

### **REVIEW OF THE RELEVANT LITERATURE**

This chapter includes four key sections. First, the basic idea of LCCs is examined followed by previous studies on selection of LCCs. Next, the theoretical basis of the research (consumer decisions and the theory of planned behavior) is discussed. The bulk of the chapter is devoted to identifying key factors in airline selection based on previous research. Finally, this literature is brought together to state hypotheses and propose a research framework for use in the present study.

#### **Low-cost carriers (LCCs)**

The main industry sector in this study is the LCC. LCCs are no-frills airlines that focus on cost leadership, rather than a service experience, for short-haul and medium-haul routes (Vidovic, Stimac, & Vince, 2013). This can be contrasted to the full network service airlines (FNSAs) which typically operate hub-and-spoke network services, coordinate with other carriers, and offer higher and differentiated service classes. Vidovic et al. (2013) identify the third major airline business model as the charter airline, which offers unscheduled (charter) services to various destinations, typically in conjunction with holiday or tour operators.

The LCC business model is typified by several cost reduction strategies (Vidovic et al., 2013). One cost reduction strategy is using a new, homogeneous fleet of medium-range, medium-size aircraft (like Airbus A320 or Boeing 737), which enables the airline to reduce its operational and maintenance costs as well as realizing economies of scale. Other cost reduction and increased revenues include increased seat density, single-class

service, elimination of on-board amenities such as free food and drink, and charging for ground amenities like check-in or checked baggage. Furthermore, the LCC typically operates short-haul or medium-haul routes directly between destinations and often uses secondary destinations, such as smaller airports within a city or smaller cities located near major cities (Vidovic et al., 2013). These differences can result in 50% reduction in per-passenger costs, which are then passed on in the form of lower fares.

Asia is one of the fastest-growing regions for LCCs with fierce competition between national and regional competitors such as LionAir (Indonesia) and AirAsia (Bland, 2014). Part of this growth can be attributed to current under-service of large parts of Asia, despite its large population. However, the price of LCCs is also attractive in the region, with FNLCs rapidly losing ground to their lower-priced competitors (Bland, 2014). This has resulted in rapid growth of LCCs in many countries, including Thailand. Thai LCC passengers (including international and domestic flights) have increased from about 10 million in 2009 to more than 20 million in 2012 (AOT, 2014). This market grew even more rapidly in 2013, with a recorded of more than 26 million passenger in the LCC segment (CAPA, 2014). Major LCCs in Thailand include Thai AirAsia, Nok Air, and Thai Lion Air (CAPA, 2014). Thai AirAsia reached 10.5 million passengers in 2013, including 4.1 million international and 6.5 million domestic passengers (CAPA, 2014). Currently, political unrest is causing uncertainty in the LCC market, but the market is still expected to keep growing (CAPA, 2014).



## **LCCs and Airline Selection**

Some previous studies have been conducted on consumer choice of low-cost carriers. However, since most of these studies focus on price and service quality as well as Western LCC passengers, this research area still has room for improvement. In particular, few studies of LCCs and passenger choice in Thailand have been conducted. This section expands on the brief discussion of the existing literature in Chapter 1, further examining the methods and findings of the studies reported earlier.

Some studies have focused on perceptions of LCCs, often in comparison to their perception of full-service airlines, and the impact of perceptions on airline choice. One study examined cross-cultural perceptions across four airlines: Ryanair, Aer Lingus, AirAsia and Malaysia Airlines (O'Connell & Williams, 2005). The authors used a survey of LCC and full-service passengers. The main reason for choosing an LCC (65%) was the lower price of LCCs compared to full-service airlines. However, 65% of LCC passengers also did not check the cost of the ticket, which suggests that the LCC's lower cost may be perceived instead of actual. An exploratory study in China suggested that perception of the service levels of the airline influenced the choice of a full-service airline but had much less influence on the LCC (Chiou & Chen, 2010). Instead, Chinese LCC passengers preferred service value perceptions (Chiou & Chen, 2010). A study in South Africa suggests that these perceptions may be limited in their usefulness (Diggin, 2010). This study used a questionnaire of airport passengers in Cape Town and Johannesburg. It found that most passengers actually do not perceive much difference between LCCs and FSCs except for price. One study compared passengers on LCC and FSC routes between Taipei and Singapore (Chang & Hung, 2013). Chang and Hung

(2013) (n = 338 business passengers) used a survey approach to collect data about the factors that encouraged and discouraged the consumer selection of LCCs. Price was found to be a significant positive factor in the selection of LCCs, with the lower cost associated with LCCs encouraging selection. Convenient booking also influences the selection of LCCs. However, the safety considerations factor can reduce the intention to select LCCs (along with airline image). Another group of authors studied passenger LCC choice in Turkey (Atalık & Özel, 2007). This study surveyed passengers of Pegasus Airlines (n = 100). It found that the most important factors in choice of LCC included price, schedule convenience, on-time performance, and safety. Factors that were not as important were found to be travel agent recommendations, type of aircraft, and food and drink (Atalık & Özel, 2007). Factors including the origin-destination pair, the need to transfer, the duration of the trip, and weekend travel can also influence the choice of LCCs (Castillo-Manzano & Marchena-Gómez, 2010). A study from Malaysia had similar findings (Ong & Tan, 2010). This study found that desire to control routes and bookings as well as journey purpose and booking method were determining factors in choice of LCC.

Some studies have examined consumer behavior in regard to LCCs and full-service airlines. For example, one study examined records held by the U.S. Department of Transportation and determined that LCC passengers were actually less likely to complain about service quality than full-service airlines passengers (Wittman, 2014). The authors attributed this to lower service expectations, lack of information about how to complain, or differences in qualitative service perceptions (Wittman, 2014). Another study found that LCC passengers were more price-sensitive than full-service passengers;

while LCC passengers would readily switch airlines for a cheaper ticket; this was not the case for full-service passengers (Diggins, 2010). A third study found that price offered the highest utility for airline passengers, while direct itineraries between destinations was the second most important (van Eggermond, 2007). This study used a complex methodology and a sociological framework (network analysis and actor network theory), making it difficult to directly apply the method used in this study. Finally, a study of passenger loyalty for German full-service airlines and LCCs identified two key factors in the formation of passenger loyalty for both airline business models: service quality and price satisfaction (Mikulic & Prebezak, 2011).

One area that has not been successful is demographic variable profiling. For example, an attempt to profile LCC passengers in Spain did not find any significant demographic or behavioral differences from full-service airlines passengers except nationality (non-Spanish) and frequent travelers who have taken more than 12 flight in one year (Castillo-Manzano & Marchena-Gómez, 2010). This was also true for passengers traveling on AirAsia and Malaysia Airlines from Penang International Airport in Malaysia (Ong & Tan, 2010).

This research has shown both an active area of research and some research gaps. Some of the most important issues in terms of research gap are an over-intensive focus on price and a lack of focus on Asian carriers (especially Thai carriers). As one study has shown, Asian passengers view price as a less important factor in the choice of LCC over full-service airlines than European passengers (O'Connell & Williams, 2005). However, the reasons for these perceptions have not been examined in detail. Additionally, the LCC choice for Thai passengers has not been investigated. The lack of empirical

information on LCC choice generally, as well as in Thai passengers, indicates that referral to theories of consumer choice and consumer decision-making would be helpful. The following section identifies critical theories and how they apply to the current study.

### **Foundational Theories**

The summary of empirical studies in the preceding section has provided a wide-ranging and seemingly disparate selection of factors in the choice of LCCs, including price, consumer demographics (though this area is under-examined), perceptions of safety and service, and so on. In order to draw a unifying theme between these theories, the literature has been examined to identify foundational theories that can explain consumer choice in the domain of LCCs. A theoretical basis will help make sure the study is grounded in a broader understanding of the context and individual and social processes that inform consumer decisions.

Two foundational theories are relevant for this research. These theories include 1) the consumer decision model and buying behavior, and 2) the TPB. Theories related to the consumer decision and buying behavior were selected because the choice of LCC is a consumer decision, and, therefore, is expected to be consistent with other, similar consumer decisions. The TPB was selected because it has been shown to be generally reliable for understanding the decision-making process in consumer and other domains (Ajzen, 2005). These two theories are related because while the consumer decision and buying behavior model explains the type of decision to be made, the TPB explains the process by which consumer decisions are made (Bray, 2008). Both the consumer decision process model and the TPB are cognitive models, which relate the external

situation and stimuli of the consumer, their internal processes and previous learning (cognition), and the eventual outcomes (Bray, 2008). By using both models, it is possible to take into account the external stimuli (from the buying behavior process) and the consumers' internal cognitions and emotional states as well as prior learning (through the TPB) to understand the full decision. These foundational theories are discussed next.

**Consumer decision and buying behavior.** The basis of this research is the consumer decision. The consumer decision can be understood first as the choice to purchase goods or services, and then as the choice of which of a set of available goods or services will meet the consumer's needs (Lantos, 2010). While this evaluation may be simple if the need is relatively straightforward, in other situations it becomes highly complex (Lantos, 2010). For example, situations where the purchase is high-involvement (expensive, heavily loaded with social or emotional meaning, or complex and requiring a lot of assessment and/or technical understanding) are typically situations where the consumer decision becomes far more complicated (Dahlen, Lange, & Smith, 2010). Most purchases are low-involvement, meaning they are inexpensive, simple, habitual, and do not have any particular social or status implications (Dahlen et al., 2010). Other factors can influence the consumer buying decision, such as culture and income (Lantos, 2010). Other factors, like availability of alternatives, price, and other external factors, can also affect the consumer decision.

Although consumer decision processes vary, a common model of the decision process is a five-stage model (Lantos, 2010). The stages of this model include:

- *Problem recognition:* The consumer identifies a problem or a gap between their current state and their desired state. This gap can be caused by needs (such as use or wear and tear on an existing item, boredom with existing items, or changed financial status) or opportunities (such as release of a new class of product, life changes, or reaction to external stimulus).
- *Search for solution:* The consumer searches out solutions that could fill the need. They may rely on what they already know or products they already own (internal search), or seek recommendations, marketing, or reviews (external search).
- *Alternative evaluation:* The consumer evaluates the alternatives identified against a set of criteria (such as price, aesthetics, previous satisfaction, and social and status meanings) to determine how well each alternative will fill his or her need.
- *Selection and purchase:* The consumer selects the best alternative and purchases. Often, the consumer may be *satisficing* rather than *satisfying* their need – that is, choosing the solution that is “good enough” rather than holding out for a perfect solution.
- *Post-purchase evaluation and action:* The consumer assesses the outcome of the purchase against the ideal state. If there is still a gap, he or she may be dissatisfied and make actions like complaining or making a different purchase. If the gap is filled, he or she is likely to be satisfied and make actions like recommending and repurchasing.

Figure 2 summarizes the five-stage model. However, it should be noted that this is an idealized model, rather than an explanatory model for every purchase (Darley, Blankson, & Luethge, 2010). This means that although the model is widely accepted and

used broadly in consumer decision studies, not all decisions will follow this approach (Darley et al., 2010). For example, routine purchases are more likely to be guided by habit with consumers buying products they have already established meet their needs (Lantos, 2010). Consumers may also stop evaluation of alternatives if it becomes clear that none of the existing alternatives is suitable, decide the need does not need to be filled, or find another way to fill their need (like borrowing, repurposing an existing item, or purchasing second-hand) (Kardes, Cronley, & Cline, 2010; Lantos, 2010). Thus, this model can only be taken as a general guide to the consumer decision and will not describe all decisions or all situations.



*Figure 2.* The five-stage consumer decision model. Source: Adapted from Lantos (2010).

The consumer decision model is relevant for this research because the decision to purchase an airline ticket (as well as which airline ticket to purchase) is a consumer decision. In this case, it may be understood as a high-involvement decision since it involves a potentially risky activity, can be expensive, and requires some research and pre-planning, which are characteristics of high-involvement decisions (Lantos, 2010). Since this is the case, it is likely that consumers will go through all five stages of the consumer decision unless they are frequent travelers who already have established airline preferences (Kardes et al., 2010). This makes the consumer decision model relevant because it identifies the issues and factors involved in the consumer decision, including the external factors as well as internal cognitive processes of decision-making (Lantos, 2010). This makes it a highly relevant model for understanding the consumer decision for LCCs. However, the stage model is not in itself enough to understand the consumer decision because it only addresses the process associated with the decision. It is also necessary to take into account the external and internal stimuli that cause the consumer to make a decision at all, as well as to make a particular decision (Bray, 2008). This dual approach is acknowledged to be highly useful for understanding the consumer decision. Consideration of external stimuli and internal states is the reason for including the TPB, which is a prescriptive model that identifies these specific factors (Bray, 2008). The use of both models will add depth and explanatory power, while the use of only one will eliminate some of the possible insights that could be gained.

**TPB.** The theoretical basis for understanding the consumer decision for LCCs is the TPB. The TPB is an attitude-behavioral model, which explains individual behaviors



as a result of attitudes (Ajzen, 2005). *Attitude* can be a difficult concept to define, and in fact the definition has changed significantly during the period the TPB and its predecessor models have been in place (Ostrom, 2014). Today, attitude can be defined as “a person’s evaluation of an object of thought” (Pratkanis, 2014, p. 72). This evaluation can occur on a number of different bases including external information, previous experience, or application of related experience. Attitudes can also be formed through cognitive (thought) or affective (emotion) processes or through social influences (Pratkanis, 2014). The TPB model states that various kinds of attitudes are one of the main factors in individuals forming behavioral intentions, which are then followed by behaviors (Ajzen, 2005).

In this section, the history and development of the TPB model is discussed, followed by an assessment of its purpose and components and relationships. This is followed by an assessment of its effectiveness and discussion of application to this study and an examination of the use of TPB in related areas. External variables will then be identified that can be included to improve the predictive capability of the model.

**History and development of the TPB.** The TPB was developed from earlier attitude-behavioral models developed throughout the 20<sup>th</sup> century. Attitude-behavioral models have a long history beginning with theorists such as Allport (1935, cited in Ostrom, 2014), who argued that attitudes were precipitating factors to encourage specific actions. However, the main relationships that the TPB uses were established with formalization of attitudinal-behavior models in the 1960s and 1970s (Ajzen & Fishbein, 1977). The definition of attitude in use at the time, as well as a lack of additional

variables, meant that the early attitude-behavioral models only had strong predictive power in situations that tended to provoke very strong attitudes (Ajzen & Fishbein, 1977).

The theory of reasoned action (TRA) was proposed during the late 1970s in order to try to improve the explanatory and predictive power of attitude-behavioral actions (Ajzen & Fishbein, 1980). The TRA added *subjective norms* (SN), which introduced the problem of social attitudes rather than the purely internal individual attitudes. It also added the behavioral intention as an intermediate outcome; the reasoning for this is that the important factor is formation of behavioral intentions which might not be followed by actual actions for a number of reasons (Ajzen & Fishbein, 1980).

The TPB was proposed as an extension to the TRA, maintaining the existing components relationships and adding a third variable of *perceived behavioral control* (PCB) (Ajzen, 1991). PCB was modeled to affect both outcomes (behavioral intentions and actual intentions). A meta-analysis of the earliest research showed that the TPB did increase predictive power compared to the TRA, especially when the decision-maker had a significant control issue or potential control issue (Madden, Ellen, & Ajzen, 1992). The TPB was also designed to be readily extensible, allowing researchers to add external variables to improve predictive capability (Ajzen, 2005).

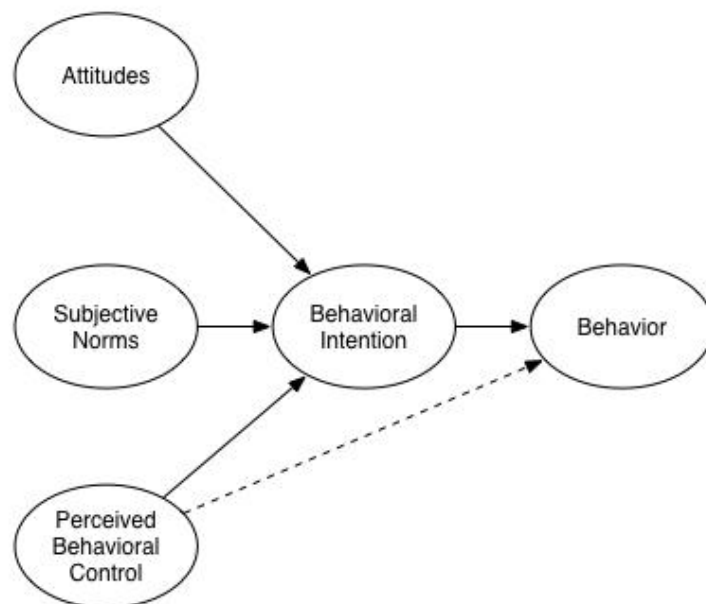
**Purpose of TPB.** The purpose of the TPB is to explain actual behaviors of individuals with respect to behavioral intentions they form (Ajzen, 2005). In turn, these behavioral intentions are influenced by various kinds of cognitions and emotions related to attitudes, understanding of social practices and rules (social norms), and how much control the consumer believes they exercise over the situation (perceived behavioral

control) (Ajzen, 2005). The TPB was designed initially to explain health and social behaviors, but has since been extended to consumer, technology-related, and relational decisions (Ajzen, 2005). This flexibility is allowed by the model's open framework. The TPB allows for ready extension through inclusion of context-appropriate external variables, which increase the predictive and explanatory value of the model (Ajzen, 2005). Some other models can be used for specific decision processes, such as technology adoption (Technology Acceptance Model or TAM), and health decisions (Bosworth et al., 2007; Ho, Hung, & Chen, 2012). TAM is a model that helps investigate factors that lead to technology adoption such as perceive usefulness, perceived ease of use, and attitude toward the technology (Ho, Hung, & Chen, 2012). This means that the main purpose of the TPB is to explain more general decisions, though they can and have been used for technology and health situations (Ajzen, 2005). This flexibility is the reason the TPB has been selected for use in this study.

**Components and relationships of the TPB.** The classical TPB model consists of five components. Attitudes, Subjective Norms, and Perceived Behavioral Control are the independent variables, while Behavioral Intention is an intermediate variable (Ajzen, 2005). Behavioral Intention is the outcome variable for the three attitude-related variables, while it is the predictor variable for the Behavior. See Table 22 in Appendix B for a brief definition of these components.

Figure 3 shows the relationships between the components in the TPB model. These are derived from Ajzen (1991, 2005). This model is typically used as the framework for other studies in the TPB, usually with external variables that provide

specific context (Ajzen, 2005). These contextual variables increase the predictive capability of the model significantly. The core relationships can be defined briefly as follows. First, Attitudes, Subjective Norms, and Perceived Behavioral Control exert an effect on the Behavioral Intention. Perceived Behavioral Control can also affect Behavior. In the second stage of the model, Behavioral Intention affects the actual Behavior. This is not a perfect correspondence because other factors can intervene, but typically a strong relationship exists between these two variables (Ajzen, 2005). There are additional relationships between variables; for example, all three of the dependent variables can affect each other (Ajzen, 1991). However, in this research, the simplified model that is most common was used, and these relationships were not tested for reasons of controlling the scope of the study.



*Figure 3.* Components and relationships of the TPB. Source: Adapted from Ajzen (2005).

**Effectiveness of the TPB.** Different rates of effectiveness are associated with the TPB depending on the situation it is measured within. For example, a general study of TPB studies showed effectiveness rates between 27% and 39% in predicting actual behaviors (Armitage & Conner, 2001). A meta-analysis on environmental behaviors suggested a stronger effect (Klößner, 2013). This study showed that 36% of general environmental behavior was predicted by the TPB variables, although the author did state that more specific behaviors had stronger correlations (Klößner, 2013). Although some studies have found up to 70% prediction of the behavioral intention, this usually translates to somewhat lower actual behavior (around 30% to 40%) (Ajzen, 2005). However, some studies showed weaker effects. A meta-analysis of studies of health behaviors found that the rate of behavioral prediction varied between 13.8% and 23.9% on average, depending on the health behavior tested (McEachan, Conner, Taylor, & Lawton, 2011).

Studies have also compared the TPB to other models. One study already mentioned found that the TPB had a higher effectiveness rate than the TRA (Madden et al., 1992). Another study compared the TPB and TAM for online tax services, finding the additional factors used by the TPB increased predictive outcomes (even though the TAM is nominally designed to test technology adoption) (Wu & Chen, 2005). Thus, although the predictive outcomes vary, the TPB is moderately to highly predictive and often (though not always) outperforms alternative models.

**Application of the TPB to this study.** The TPB is the appropriate model for this study because it is a highly-accepted, general-purpose model for predicting behavior based on existing attitudes and perceptions. Its relatively high predictive value can be

increased by adding additional variables that relate to the area of study, as well as carefully formulating the measured attitudes (Ajzen, 2005). Thus, the already relatively high predictive capability (perhaps as high as 40%) was enhanced by including additional external variables. As the next section will show, this model has been used in other studies related to the subject matter. As a result, the next section of the chapter examines the literature on airline selection and identifies some of the factors that could be applied as external variables.

**Previous studies of TPB.** A wide range of studies have applied the TPB to various consumer decision situations. In this section, a selection of these studies that demonstrated a range of techniques and approaches to using the model are shown. While a preference for airline selection-related studies was used for selection, there were actually relatively few studies in this area. As a result, the studies used also include related areas of consumer decision.

*Airline choice-related studies.* A few studies were strongly related to airline choice or related areas. One study related to the purchase of airline tickets online (Bigné, Sanz, Ruiz, & Aldás, 2010). This study used a quantitative study of Internet users who do not purchase their airline tickets online. It compares the TAM and TPB models and also included two additional variables (trust and perceived risk). The authors used regression analysis to identify the relationship between these variables. It found that the TPB variables including subjective norms and attitudes had a significant impact on the purchase intention, which was then translated to not buying a ticket online. Perceived

behavioral control, as well as perceived risk and trust had an indirect effect on behavioral intentions through attitudes. This study generally showed that the choice of where to purchase the airline ticket can be modeled through the use of the TPB.

*Other related studies.* Since airline choice is a high-involvement decision, other high-involvement purchases were also examined. One study examined the deliberate choice of counterfeit luxury consumer products (Penz & Stöttinger, 2005). This study sampled Austrian consumers (n = 1040), examining why consumers chose to deliberately buy counterfeit copies of high-involvement luxury goods (such as fashion items). The study used the TPB as the framework for understanding this choice. It used additional factors including Self-identity and Personality Traits in order to extend the model. The authors also distinguished by price, with one scenario using a slightly cheaper bag, and the other using a significantly cheaper one. They found that Attitudes (Counterfeit Defender, Embarrassment, and Smart Shopper), Subjective Norms, Perceived Behavioral Control, and Access to Counterfeits had a significant impact on the decision to purchase a significantly cheaper counterfeit. A slightly cheaper counterfeit purchase was also influenced by Self-consciousness but not by Embarrassment.

Another study used the TPB as the basis for examining the attitude-behavior gap in consumption of sustainable food (Vermeir & Verbeke, 2006). This area is known to be one where the TPB and other attitude-behavioral models do not work well because a significant gap exists between positive attitudes and actual intentions. The authors used a survey (n = 465) to test their model. They found that availability of sustainable food negatively affected the intention to buy sustainable food, while attitudes and involvement

with sustainable food, certainty, and perceived consumer effectiveness (PCE) (a formulation of perceived behavioral control) positively affected positive decisions. This study is valuable because it shows some of the reasons the TPB may *not* be effective, such as lack of perceived availability. A related study has been conducted on sustainable tourism behavior, since this area also has a similar attitude-behavior gap (Budeanu, 2007). This study used a secondary approach to examining the existing literature on attitudes and their effects on consumer behavior. Results revealed a number of different attitudes related to the choice of decisions. They found that attitudes about holidays (such as enjoyment and escape) were generally stronger in their impact on holiday destination choice than environmental sustainability behaviors. However, the authors also noted that the intention to protect holiday locations (in terms of environment) and intention to visit are not the same behavioral intention. Thus, the attitude-intention gap could suffer from some inconsistent measurement of attitudes and other values.

Another study examined the use of credit cards using the TPB (Rutherford & DeVaney, 2009). This study used a national study ( $n = 3,476$ ) to test the impact of attitudes and norms on the credit card convenience users (who pay their credit cards off immediately). This study identified a number of attitudinal differences between non-convenience users and convenience users. For example, convenience users were more likely to plan longer, have higher incomes and believe holding credit was a bad idea. Revolvers (who carry a balance month to month) have poor risk tolerance and were more likely to take advice from others and to be late with payments. The study by Rutherford and DeVaney (2009) is valuable because it shows the importance of having specific attitudes to measure that are related to the study.



A third study used the TPB to examine apparel purchasing behavior (De Canniere, De Pelsmacker, & Geuens, 2009). The research used a questionnaire distributed in a popular Belgian apparel retailer and by mail (n = 1,226) in order to test the TPB variables and the importance of Relationship Quality (RQ) to the purchase decision. RQ variables tested included Trust, Commitment, and Satisfaction. The outcome showed that the RQ variables and TPB variables were both important. This study demonstrated the importance of integrating context-appropriate external variables. It also demonstrated the ways that additional conceptual frameworks could be integrated into the TPB in order to increase its predictive capability. Finally, the inclusion of mail respondents showed the importance of collecting a balanced sample.

A final study examined student intentions for car commuting based on the TPB (Kerr, Lennon, & Watson, 2010). This study distributed a questionnaire to university students in Australia (n = 186) about commuting to campus by car. The questionnaire found that behavioral intention and previous habit were the strongest predictors of actual car commuting. Subjective norms (especially descriptive norms) and perceived behavioral control (whether or not the consumer could make another choice) were significant in the relationship to behavioral intentions, but attitudes were not. This study is important because it shows that attitudes are not always the strongest factor in the behavioral decision. However, subjective norms and PCB were still significant predictors. Thus, it cannot be assumed in the present study that the standard hierarchy of TPB predictors beginning with attitude will hold; instead, it must be tested independently.

### **Airline Characteristics Influencing Passengers' Airline Selection**

The TPB is a prescriptive model of the consumer decision which addresses the consumer decision from a particular point of view (Bray, 2008). However, it is widely acknowledged that the use of prescriptive models needs to take into account the specific context of the decision being studied, in this case, the specific context of the consumer decision (Bray, 2008). The TPB is routinely extended with external factors in order to take into account these external differences in context, which can change the way consumers respond to specific situations (Ajzen, 2005). This is the point where the five-stage model of the consumer decision becomes relevant to the study since it posits that consumers make their decisions based on comparison and analysis of the characteristics of the choices under consideration (Lantos, 2010). Thus, the inclusion of external variables is appropriate for extending the TAM and further explaining consumer behaviors.

The preceding sections above have identified consumer attitudes and behaviors that influence the passengers' airline selection. However, it is clear that the consumer bases this decision on a perception of what the airline itself offers. The consumer decision process indicates that the airline is assessed and weighed based on its characteristics and how well these characteristics meet the consumers' need prior to making a choice (Lantos, 2010). This decision is made based on congruence between the consumer's needs and the airline's characteristics, although passengers may not demand full satisfaction on all points (Lantos, 2010). This raises the question of which characteristics of the airline influence the consumer decision and how this influence can be measured and studied.

The final aspect of this research is identifying factors that influence airline passenger selection. These factors can come from the academic literature on FSCs or LCCs, though preference has been given to previous research on LCCs. Evidence from all regions and countries is included for depth. While not all of these factors were tested in the current research due to scope considerations and practical limitations, this section provides an overview of how passengers may select a particular airline, which will inform and contextualize the remainder of the research. Airline characteristics that have the most support in the literature include price, service quality, airline reputation, safety, route availability and convenience, and frequent flier programs. These factors are discussed next and were included in the research framework. However, some factors were not included. Specifically, passenger characteristics (demographics) were excluded from the scope of this study because research has consistently shown that this is only sporadically important, and with limited effect for airline choice (Castillo-Manzano & Marchena-Gómez, 2010; Ong & Tan, 2010). These factors were discussed only briefly in order to demonstrate that they are not likely to be relevant to this study.

**Price.** The first airline characteristic considered is price. Price is an obvious candidate for choice of airline, especially given the variance of as much as 50% between LCCs and FSCs. A theoretical economic study of passenger airline choice showed that price was one of the main determinants of airline choice (though airlines did not respond by reducing the cost of airline tickets, but instead by increasing safety and convenience) (Jou, Ham, Hensher, Chen, & Kuo, 2008). This finding was in the context of additional market entrants, such as LCCs. Thus, it is particularly relevant for the current study.

The theoretical position of price as a major factor in airline choice is also supported by empirical studies. One study found that it was one of the most important factors in airline choice (Dolnicar, Grabler, Grun, & Kulnig, 2011). This study, which surveyed a group of airline passengers (n = 687) found that price was the second most important factor in the formation of passenger loyalty (or whether or not the passenger repeatedly chose to fly the same airline). Park (2007) also found that price was one of the main determining factors of airlines for Korean and Australian passengers, especially as compared to the perceived service received. A study of airline passengers in multi-airport regions (Hong Kong) found that price was the most important factor in selection of the departing airport and destination (Loo, 2008). This study shows that the price of the ticket can actually be the supportive factor for the first stage of the decision as well as the second stage (Loo, 2008). Another study of LCCs confirmed the importance of price in the choice of LCCs (Davison & Ryley, 2010). This sample (n = 361 travelers in the West Midlands of England) examined destination preferences for LCC travelers. The study showed that LCC travelers were highly price-sensitive and selected destinations based partly on the price of the trip and associated destination costs. This price sensitivity is viewed as being indicative of the need to balance tight household budgets with the desire for family holidays in interesting destinations.

A recent study on LCC choice examined the impact of low prices and low service quality promises in Malaysian LCC travelers (Chan, 2014). In this study, the sample had previously traveled on LCCs. The study examined the impact of two factors, including low price (non-promotional low prices) and low service quality experience. Chan (2014) found that quality problems that caused dissatisfaction included cramped cabins, poor

seating, and crowding, but dissatisfaction did not persist in the face of low prices. Low prices were associated with increased satisfaction, and consumer quality expectations were low and easily met. This suggests that while service quality does influence the consumer's choice of LCC, it may not be as strong an influence as price.

Although it might be assumed that price is the determining factor in LCC choice, in fact this is not always the case. A study of Irish and Malaysian full-service and LCC airlines found that while price was a major factor for the Irish airlines, this was not the case for Malaysian airlines (O'Connell & Williams, 2005). Instead, the Malaysian airline passengers were more driven by factors like service quality (although price was also important). A study of South African passengers suggested that LCC passengers were highly price-sensitive and would readily switch to a full-service airline if the price was lower (Diggines, 2010). However, passengers on full-service airlines were price-insensitive and were reluctant to switch even in cases where the price was up to 30% less. This study also showed that LCC passengers did not search out more information or compare prices before choosing their airline (Diggines, 2010). A second study of South African passengers revealed that full-service and LCC passengers ranked price as being about the same level of importance (Fourie & Lubbe, 2006). This finding does contradict previous studies which indicated that price was a major difference between LCC and full-service airlines (Fourie & Lubbe, 2006). A study of airline choice in the San Francisco Bay Area found that fare prices were important, but that these factors were also affected by the two-stage decision of flight origin (as the region has several major airports) and route convenience (Hess & Polak, 2006).

Additionally, not all kinds of passengers are driven primarily by price in their ticket selection. For example, business passengers (especially those traveling on centrally arranged itineraries) may have little knowledge or control over prices of their tickets (Evangelho, Huse, & Linhares, 2005). Instead, these passengers are likely to select their flights based on factors like frequent flier programs or schedule convenience. Corporate cultures, especially in larger organizations, may also encourage business passengers to select more expensive tickets without regard to cost (Evangelho et al., 2005). This is contrary to leisure travelers, for whom price is often (though not always) highly important.

The dominance of price as a factor in airline choice, and a factor in the differentiation between LCCs and FSCs, means it must be included in the present study. This is true even though it is a complex relationship and may not actually be the most important factor for some classes of travelers. However, this is not likely to be the only factor, and as a result, a number of other factors will also be included, as discussed next.

**Service quality.** The second airline characteristic that is considered is airline service quality. A number of aspects of service quality influence airline choice. These include on-time performance (departure and arrival), ground services (check-in, baggage handling, and boarding/disembarking), and in-flight services (such as food and drink service, comfort, and personnel behavior). A study by Jou et al. (2008) suggested that service comprehensiveness was a major factor in airline passenger choice. Thus, this is likely to be a more complex measurement than price.

Empirical research supports the importance of service quality. A study using the SERVQUAL model showed that responsiveness is the most important element of service quality for passenger choice (Huang, 2009). SERVQUAL model is used for measuring service quality (Huang, 2009). This suggests that airline passengers do have specific requirements for service quality despite the class of service. However, there are differences in service quality perceptions among passengers based on their service class, flight frequency, and airline (Park, 2007). This shows that flight service is a major factor in airline choice, although as the studies discussed next show, measuring this can be complicated.

Typically, studies show that a combination of service factors are important. For example, a study of Pegasus Air (a Turkish LCC) found that on-time service was the second-most important factor in the choice of airlines (Atalık & Özel, 2007). The authors also found that in-air services such as food and drink, comfort, and personnel behavior were moderately important (Atalık & Özel, 2007). A study of Chinese passengers found that important services included on-time operation (one of the most important factors) and accurate baggage handling (Zhang, 2011). On-time performance was a significant factor for business passengers especially, who would pay extra for guaranteed on-time performance (Zhang, 2011). South African business passengers also found in-flight service and ground service (especially lounge availability) a major factor in airline choice, which tended to draw business passengers away from LCCs (Fourie & Lubbe, 2006). Park (2007) showed that in-flight service, airline service, employee service, on-time operation, and overall service quality were important factors in the choice of airline.

Thus, it is not just one kind of service that is important; instead, the consumer considers the entire range of ground and air services offered by the airline.

Studies have also shown that consumers are willing to pay more for some services than for others (meaning they are more likely to have an impact on the LCC service quality perception). For example, one study found that consumers were most willing to pay extra for meal services, followed by booking flexibility (being able to change their tickets) (Chen & Wu, 2009). Expanded booking channels and entertainment services were much less important (Chen & Wu, 2009). A second choice experiment showed that LCC passengers would pay for service quality enhancements, including food and drink service, improved seating, and entertainment, above the cost of their ticket (Balcolme, Fraser, & Harris, 2009). However, a third study on willingness-to-pay suggests that passenger willingness to pay depends on the price initially paid for the ticket (Martín, Román, & Espino, 2008). Thus, the extent of willingness-to-pay for increased service levels may vary depending on the type of airline.

Not all studies support the importance of service quality, especially for LCCs. Some studies have suggested that the lower cost of LCCs may encourage lower service quality expectations, although this is not certain (Wittman, 2014). However, other studies have suggested that LCC passengers also have service expectations that must be met (Zhang, 2011). Other studies have suggested that previous service failures do not necessarily influence future airline choice (Suzuki, 2004). However, it should be noted that this study (Suzuki, 2004) took place in a rural region that is not served by a lot of airlines, which could limit the amount of consideration passengers can give to service quality compared to other factors.



Although service quality is complex to measure, it is clearly a factor in airline choice. It also distinguishes between LCCs and FSCs, since LCCs have lower service offerings than FSCs. For this reason, service quality was included in the final study.

**Airline reputation.** The third airline characteristic considered in this current study is airline reputation. Corporate reputation can be defined as the perception of the consumer about the airline's general operation, safety, and other factors (Graham & Bansal, 2007). A number of distinct factors influence the corporate reputation of an airline. These include (at least) financial performance, safety endorsements (such as the FAA in the United States), size and age of the airline, and safety record (particularly recent incidents) (Graham & Bansal, 2007). Of these factors, endorsements, no crashes within the past year, and financial performance were the strongest factors in a regression on reputation ( $r^2 = 0.60$ ) in Graham and Bansal's (2007) study of airline passengers ( $n = 568$ ). This study also examined consumer willingness to pay based on airline reputation and it found an increased willingness-to-pay for these aspects of the airline's reputation. For example, an FAA operational safety endorsement increased the price the passenger was willing to pay by \$36 (Graham & Bansal, 2007). Overall, a 1% increase in airline reputation assessment increased the ticket price the consumer was willing to pay by \$18 (Graham & Bansal, 2007). Graham and Bansal (2007) did not directly examine the influence of airline reputation in passenger choice, but since it does determine how much a consumer is willing to pay, this is likely to be related.

The airline's public reputation or image contributes to the choice of the airline according to a number of empirical studies. For example, one study found it was a

moderately important factor in airline choice (Atalık & Özel, 2007). A second study found that reputation (as perceived by social reference groups such as friends and family) was a major factor in behavioral loyalty or repeated airline choice (Dolnicar et al., 2011). National carriers, which were perceived to have a better reputation than regional or local carriers, also increased loyalty based on this study (Dolnicar et al., 2011). However, not all studies have supported the importance of airline reputation or brand image. For example, a study of Chinese passengers found that these passengers were far more concerned about on-time performance than airline reputation otherwise (Zhang, 2011). This study also found that Chinese domestic carriers did not generally have strong brand identities or significant public reputations (Zhang, 2011). A study in Saudi Arabia, however, identified airline reputation as one of a cluster of factors that were related to the consumer's airline choice (Bukhari, Ghoneim, & Dennis, 2012). This study focused on a specific distribution channel (online sales). The authors used airline reputation because it is one of the main signals passengers have about the airline's reliability and credibility, particularly in online sales. Their research model was based on the TAM components, making it similar to the current study. The authors found that airline reputation was highly correlated with other factors such as perceived ease of use and perceived usefulness. Furthermore, airline reputation is also a factor in the selection of package deals from tour operators regardless of destination or other factors, according to a study of online travel sales (Chiam & Soutar, 2009). This study revealed that airline reputation is one of the few external signals available to the passenger about the quality of the tour. Thus, along with price and some other factors, this is one of the main choice factors for

online tour packages. This is consistent with findings from Bukhari et al. (2012) about the importance of reputation cues in an online world.

Passenger perceptions of the reputation of an airline are integral with its safety record and procedures, prices, and service quality. The research described previously highlights the complex relationship between airline reputation and airline choice. However, the research does generally support the inclusion of this factor in the current research. This could be particularly important for Thailand (although research in this area is lacking) because of the widely varying reputation of LCCs in the market, including some that are considered to have a very poor reputation.

**Airline safety.** The fourth airline characteristic is airline safety. Airline safety is a factor in the choice of LCCs. A theoretical study determined that airline safety was one of the main factors in the choice of airline in the Chinese market (Jou et al., 2008). This study also showed that airlines responded to safety demands by making safety improvements and marketing them in order to inform consumers about them (Jou et al., 2008). Airline safety is also one of the major components of airline reputation (Graham & Bansal, 2007). In fact, it is one of the most important components, both on its own and when recognized by external endorsement from a safety agency such as the FAA (Graham & Bansal, 2007). In general, airline safety is increasing with a reduction in the rate of accidents despite a significant increase in passenger figures since the 1970s (Barros, Faria, & Gil-Alana, 2010). This is probably due to improved engineering and airline safety improvements because of increased competition. Thus, it can be expected that airline safety will play a role in airline choice.

Despite the importance of airline safety, only a few studies have examined it as a factor in airline choice. This makes it difficult to resolve the discrepancies that do emerge in this area. One study of Turkish airline Pegasus found it to be the most important factor of those measured (Atalık & Özel, 2007). Chinese passengers also rated safety as the most important factor in their choice of airline (Zhang, 2011). Perceptions of airline safety may also not act in the expected fashion. For example, a study of American perceptions of airline service quality showed that safety perceptions did not fall after the September 11<sup>th</sup> attack, although the perceived risk of air travel did increase substantially (Cunningham, Young, & Lee, 2004).

Interestingly, airline safety is one of the areas where LCC passengers have different priorities than full-service airline passengers. One study found that airline safety was more important to LCC passengers than on-time operation of the flight (another dimension of service quality) (Mikulic & Prebezak, 2011). In FSCs, this relationship was reversed, with on-time operation being preferred. This could be because of perceptions of reduced safety for LCCs compared to FSCs, although the safety records of airlines do not always bear out this supposition (Mikulic & Prebezak, 2011). A study of airlines in Malaysia suggests that there may also be a gap between passenger perceptions of airline safety and airline and regulatory safety assessments (Oyewole, Sankaran, & Choudhury, 2007). This study found that passengers routinely rated airlines as being less safe than their actual safety records suggested. Thus, passenger perceptions of safety systems may differ substantially from the actual safety of the airline, but it may still influence the airline choice.

In general, it is clear that airline safety perceptions are part of the decision process for airline choice. However, the exact role this problem plays is uncertain because of the lack of specific information about airline safety and perception of airline safety operations. This is a gap in the research that could be filled by the current study. Thus, airline safety perceptions was included as part of the research framework for this study.

**Route availability and convenience.** The fifth factor that is considered is route availability and convenience. A number of studies have shown that route availability and convenience is a major factor in the choice of airlines. This is an obvious factor because of the way airline networks are structured; with only a limited number of airlines operating from any one airport and with varying routes from that airport, the passenger's choice of airlines is actually constrained (Hess & Polak, 2006). Typically, passengers will have the choice of only one or a few airlines at the origin and desired destination and may have to accept transfers for some services (Hess & Polak, 2006). Thus, the choice of airline is actually a two-stage problem, with the origin and destination selected first, and a choice of satisfying or satisficing (good-enough) airline selected afterward (Hess & Polak, 2006).

Empirical evidence exists for the importance of these factors. One study showed that origin/destination pairs, transfer requirements, and departure times were one of the main reasons for selection of an airline (van Eggermond, 2007). Schedule convenience was also a factor in a study of Turkish airlines (Atalık & Özel, 2007). Chinese passengers are known to place a high value on a large network, which maximizes their choices (Zhang, 2011). Transfers and itineraries can also affect choice; for example, passengers

that are highly risk-averse are likely to avoid transfers and short connections if possible (Theis, Adler, Clarke, & Ben-Akiva, 2006). This is because of the anticipated risk of missing a flight and the stress of a short connection. A study of South African passengers indicated that flight frequency was significantly more important for full-service passengers than LCC passengers (Fourie & Lubbe, 2006). This suggests passengers make a tradeoff between frequency and price. A study of Spanish passengers showed that route timings (such as weekend or weekday travel), as well as route availability, were major factors in the choice between an LCC and a FSC, as was the requirement for a transfer (Castillo-Manzano & Marchena-Gómez, 2010).

The empirical evidence is highly complex and suggests a number of factors can influence the importance of route beginning from the two-stage decision and moving through specifics such as direct flights or transfers, departure and arrival time, and requirement to transfer, and even down to the time of day. This would be an extremely difficult problem to examine in this study. For this reason, route availability will not be examined.

**Frequent flier programs.** The final airline characteristic included in this study is frequent flier programs. Frequent flier programs are incentive programs offered by the airline which offer benefits (such as free tickets, enhanced service levels, or routing and ticket preferences) to passengers who consistently choose the airline or its partners (Carlsson & Löfgren, 2006). A frequent flier program influences passenger choice because it increases the switching costs by introducing opportunity costs for selecting another airline. Simply put: if a frequent flier chooses a different airline, he or she will

not earn frequent flier points and subsequent benefits. This means that where they are routine, especially in full-service carriers, frequent flier programs are a major factor in the passenger's airline choice (Carlsson & Löfgren, 2006). Frequent flier programs are also known to be a key driver in airline behavioral loyalty or routine selection of the airline by the passenger (Dolnicar et al., 2011). A study on South African business travelers indicated that frequent flier programs influenced airline choice as well (Fourie & Lubbe, 2006). However, this loyalty is not absolute since the passenger still selects origin and destination pairs (Hess & Polak, 2006).

Frequent flier programs could be difficult to analyze in this study because they affect a number of other factors including price, satisfaction, airline image or reputation, and airline choice for participants (though not non-participants) (Park, 2010). They also have different effects depending on implementation, which varies between airlines and culture (Park, 2010). Furthermore, LCCs do not ordinarily have significant frequent flier or loyalty programs, although a few do (Vidovic et al., 2013). For these reasons, although frequent flier programs are generally important for passenger choice, at least for passengers that belong to the programs, this factor will not be examined in this study. However, this could be important for future studies in Thailand, especially if Thai LCCs introduce frequent flier programs.

**Summary of airline selection factors.** The final task of this section is operationalizing a definition for the airline characteristics that influence selection. The factors that were tested in the literature review include price, service quality, airline reputation, airline safety, route availability, and frequent flier programs. Table 22 (in

appendix B) offers a brief description and summary of each of these factors and the expected relationships to airline selection, as well as the authors whose previous work supports the relationships. These definitions are all based on *perceived* assessments of the airline's offering, which means that it was assessed on the passenger's internal view of how well the offering meets their needs instead of on strictly objective criteria. This is common in other service measurements including SERVQUAL since consumers do not have a single set of criteria for assessment (Zeithaml, Parasuraman & Berry, 2010). In the final section of the chapter, a research framework is developed that expresses the specific relationships that are expected to emerge in the choice of LCCs.

### **Research Theoretical Framework and Hypotheses**

Following the literature review, a theoretical framework has been established and a set of hypotheses that can be tested using quantitative research has been stated based on this framework. The theoretical framework is shown in Figure 4. The rationale of the theoretical framework is that it combines two distinct views on the consumer decision. The first set of elements is the consumer decision elements (as expressed within the TPB, including Attitude, Subjective Norms, and Perceived Behavioral Control). These can be considered the process elements of the decision, identifying how the consumer made the decision. The second set of elements is the consumer perception of the airline service offering (with various dimensions identified through empirical research as discussed previously, including airline reputation, price, service quality, airline safety, route availability and convenience, and frequent flier programs). Table 2 provides a summary operational definition of how these variables are defined.

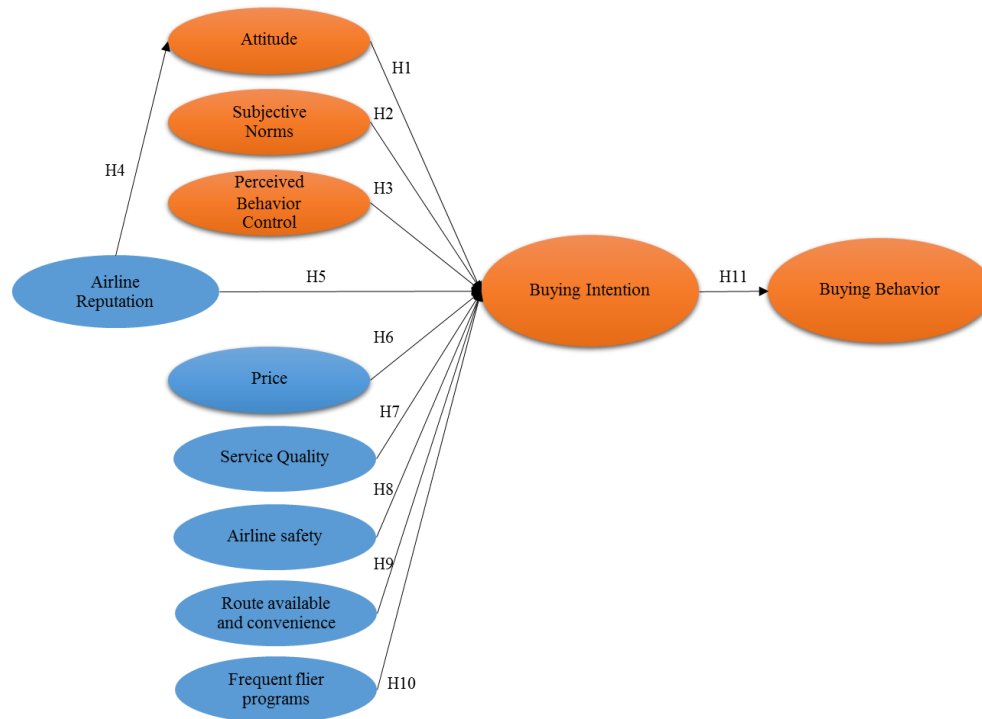


Table 2. *Operational definitions of study constructs.*

Construct	Operational Definition
Airline Reputation	The perception of the passenger that the airline has a good public reputation.
Airline Safety	The perception of the passenger about the airline's operational safety record.
Attitude	The value and weight a passenger places on the LCC offering.
Frequent Flier Programs	The perception of the passenger that frequent flier program offerings are valuable.
Perceived Behavioral Control	The extent to which the passenger feels able to control choice of LCC or other airline (such as charter, full-service, or regional.)
Price	The perception of the passenger about the price of the ticket and how well it meets his or her needs.
Route Availability and Convenience	The perception of the passenger about how well the airline's route availability, timing, and other convenience factors meet his or her needs.
Service Quality	The perception of the passenger about the service provided compared to the price paid.
Subjective Norms	The extent to which the passenger feels it is socially acceptable to use a LCC.

This framework encapsulates two different aspects of the consumer decision, including what the consumer values (through attitudes and subjective norms) and what the airline offers (through the airline characteristics). Also, one connection between the two dimensions is suggested. Specifically, airline reputation is proposed to influence consumer attitude toward the airline (H4). This is based on previous research about the formation of attitudes which suggests that public reputation of the organization as well as the experience of family and friends will influence attitudes even of those with no personal experience (Ajzen, 2005). It is also based on the empirical evidence, as discussed below. While there may be other relationships between the variables, these relationships were not directly suggested by the literature. Since the scope of the research

does need to be limited for pragmatic as well as reliability reasons, the choice was made to test only a single such relationship in this study.



*Figure 4.* Research theoretical framework and hypotheses.

The first aspect of the theoretical framework is the consumer decision process and how it is formulated. This aspect of the theoretical framework captures the decision from the consumer's internal perspective. The basis for the consumer process is the TPB model proposed by Ajzen (1991, 2005). This framework has been selected because it has generally been shown to be effective at identifying relationships between attitudes and actions, especially in some kinds of behaviors and actions (Ajzen, 2005). Previous studies have shown that the TPB on its own predicts between 13% and 40% of the actual

behaviors assessed across a wide variety of topics, such as health, the environment, and so on (Armitage & Conner, 2001; Klöckner, 2013; McEachan et al., 2011). The framework also compares favorably to alternative models such as the TRA when considering how well it predicts various behaviors (Madden et al., 1992; Wu & Chen, 2005). A limited number of studies have used the TPB specifically in the context of airline or flight choice (Bigné et al., 2010). However, it has been extensively used in other consumer decision contexts (Budeanu, 2007; De Canniere et al., 2009; Kerr et al., 2010; Penz & Stöttinger, 2005; Rutherford & DeVaney, 2009; Vermeir & Verbeke, 2006). These studies do generally support the use of the TPB in consumer decision-making, although as Kerr et al.'s (2010) study showed, it is not always the best model to understand the decision. Based on this existing research, hypotheses are proposed. The first three hypotheses (H1, H2, and H3) relate to the influence of Attitude, Subjective Norms, and Perceived Behavioral Control respectively on the formation of intention to buy tickets on an LCC airline. As shown in Figure 4, these hypotheses are stated as follows:

H1: Consumer's attitude is positively related to consumer buying intention toward LCCs.

H2: Social norms are positively related to consumer buying intention toward LCCs.

H3: Perceived behavioral control is positively related to consumer buying intention toward LCCs.

The TPB model gains a lot of predictive ability with the use of appropriate external or conceptual variables (Ajzen, 2005). For this research, the most appropriate

choice of external variables was airline characteristics. While the TPB describes the process by which the consumer makes her decision, the airline characteristics identified in the literature are essentially the differences between airlines that the consumers' decision is based on. This provides information for the evaluation stage of the consumer decision, with the consumer choosing among preferences for airline characteristics in order to make the best choice (Lantos, 2010). Six of these factors are considered in this research, including: airline reputation, price, airline service quality, airline safety, route availability and convenience, and frequent flier programs.

The first airline characteristic considered is airline reputation which is tested in H4 and H5. Airline reputation refers to how passengers and the public see the airline in terms of its financial stability, safety, service quality, and other aspects (Graham & Bansal, 2007). Previous studies have shown that this is one of the main factors related to airline choice (Atalık & Özel, 2007; Bukhari et al., 2012; Chiam & Soutar, 2009; Dolnicar et al., 2011; Zhang, 2011). The theoretical and empirical evidence behind the TPB also suggests that public image or reputation of companies, practices, and so on also influence individual attitudes toward the actions (Ajzen, 2005). Thus, airline reputation can influence the consumer in two possible ways. In this research, two relationships were studied for this factor, including an indirect relationship (through attitude) as well as a direct relationship to behavioral intention. These hypotheses are stated as follows:

H4: Airline reputation has a positive influence on consumer's attitude.

H5: Airline reputation has a positive influence on consumer buying intention toward LCCs.

The second airline characteristic considered in this research is price (especially ticket price). H6 is related to the price of the ticket. Price is routinely found to be one of the most important factors in airline and route selection (Dolnicar et al., 2011; Jou et al., 2008; Loo, 2008; Park, 2007), though some consumers do find it more important than others (Evangelho et al., 2005; O'Connell & Williams, 2005). Additionally, price is important for LCC and FSC passengers (Diggines, 2010; Fourie & Lubbe, 2006). Thus, H6 is stated as:

H6: Price has a positive influence on consumer buying intention toward LCCs.

The third airline characteristic, airline service quality, is measured in H7. Several studies have been conducted related to service quality, most of which demonstrate that service quality is an important factor in airline choice (Atalık & Özel, 2007; Fourie & Lubbe, 2006; Huang, 2009; Park, 2007; Zhang, 2011). These studies point to three types of service: Ground service (check-in, baggage handling, embarkation/disembarkation, and lounges), in-flight service (comfort, entertainment, food and drinks, and general service quality), and on-time operations. Thus, H7 is stated:

H7: Airline service quality has a positive influence on consumer buying intention toward LCCs.

Airline safety is the fourth airline characteristic considered in this study. This characteristic is also identified in the literature as being important to the choice of airline, as well as being one of the main components in airline reputation (Atalık & Özel, 2007; Graham & Bansal, 2007; Zhang, 2011). Airline safety may be particularly important for LCC passengers, since LCCs may be perceived as less safe (Mikulic & Prebezak, 2011). This makes it worth considering as the last component in this model. H8 is stated:

H8: Airline safety has a positive influence on consumer buying intention toward LCCs.

The fifth airline characteristic considered is route availability and convenience. This is a two-dimensional characteristic: 1) whether the airline travels between the desired origin/destination pair or an acceptable alternative route; and 2) the extent of difficulty the passenger will have with the schedule (for example, early morning or late evening arrival or departure or requiring rush-hour travel). This is one of the most fundamental aspects of the consumer decision since it will determine whether the airline can meet the basic needs of the consumer (Lantos, 2010). It is one of the most supported factors in the literature surrounding choice of airlines, as well (Atalık & Özel, 2007; Castillo-Manzano & Marchena-Gómez, 2010; Fourie & Lubbe, 2006; Hess & Polak, 2006; Theis et al., 2006; van Eggermond, 2007; Zhang, 2011). Based on this evidence, H9 is stated:

H9: Route availability and convenience has a positive influence on consumer buying intention toward LCCs.

The final airline characteristic is the offering of a frequent flier program. Frequent flier programs offer incentives such as free travel and special access to services like passenger lounges depending on how often a passenger chooses to fly with the airline. Some evidence indicates that the availability of frequent flier programs is one determinant of LCC choice, particularly for some classes of travelers (such as business travelers) (Carlsson & Löfgren, 2006; Fourie & Lubbe, 2006; Hess & Polak, 2006; Park, 2010; Vidovic et al., 2013). While frequent flier programs are not as routinely tested for LCCs, they may influence the market. Thus, the hypothesis is stated:

H10: Frequent flier programs have positive influence on consumer buying intention toward LCCs.

The final hypothesis (H11) relates to the influence of behavioral intention on the actual behavior (buying the airline ticket). This hypothesis steps through the influences on the consumer decision proposed by the TPB as well as the final consumer process (ticket purchase). The final hypothesis is stated as follow:

H11: Buying intention is positively related to consumer buying behavior toward LCCs.

### **Chapter Summary**

The LCC segment of the airline industry is increasingly important in most markets around the world, including Asia. However, this is almost always studied as a function of cost, with most studies suggesting that selection of a LCC is always because of the lowest cost. This raises the question of what other factors may influence the choice of airline carrier for passengers. Even though price may be a significant concern, clearly other factors may be considered in the choice.

This research takes the theoretical position of consumer decision and the consumer decision-making process, combining aspects of the consumer decision with aspects of airline characteristics. The framework that is used to understand the consumer decision is the TPB. The TPB formulates the consumer decision as the result of attitudes, social norms, and perceived behavioral control. The TPB model also allows for extension through external variables that are specific to the decision context. A number of previous studies have shown how this model can be used effectively to explain and predict

consumer decisions. Airline selection factors have been chosen as the most appropriate way to extend the research.

The final section was an extensive review of studies on airline selection, which identified external factors related to the consumer decision. Six external variables were identified for inclusion in the study, including: airline reputation, price, service quality, airline safety, route availability and convenience, and frequent flier programs. These were included in the research framework and hypotheses that are tested in the present study. The next chapter describes the approach used for primary research in order to test the hypotheses.



## **CHAPTER III**

### **RESEARCH METHODOLOGY**

In the previous chapter, a theoretical framework was formulated that related consumer decision processes (through the TPB model) and airline characteristics and the consumer decision for LCCs. This theoretical framework was designed for a quantitative research study. A suitable method was constructed for the study through reference to other studies that examined similar topics, as well as the literature on research design.

In this chapter, the method used for testing the theoretical framework is presented, discussed, and critiqued. The chapter includes discussion of the research philosophy and approach, the research strategy, and specifics of the research including population and sampling procedures, data collection, and data analysis. The chapter also discusses the ethical concerns of the study and its methodological limitations. This provides a comprehensive discussion of the reasons for specific methodological choices, as well as identifying potential weaknesses and problems in the methodology that could not be eliminated.

#### **Research Approach**

In this research, the purpose was to apply existing theories to a novel situation (LCC choice in Thailand). As the literature review showed, a theoretical framework already exists that can be constructed and applied to the research situation; this framework is explained in detail in Chapter 2. The existing research framework, along with the positivist philosophy (Grix, 2010), means that the deductive approach was the most appropriate choice for this research.

Structural equation modeling (SEM) was the statistical analysis technique used for the study. SEM was selected because it is ideal for identifying and confirming full models of relationships between variables (Bollen, 1989). SEM is a set of techniques (including factor analysis, path analysis, and other approaches) that are based on the general linear model (Ullman & Bentler, 2003). SEM was also determined to be appropriate because it helps to identify latent variables and eliminate irrelevant variables from the proposed research model (Bollen, 1989). Extraction of latent variables from observed variables means that SEM can identify the underlying structure of the research phenomenon (Ullman & Bentler, 2003). This statistical approach was more advanced than most similar studies which primarily used single or multiple regression in order to test relationships. However, this provided a more comprehensive analysis than the simpler analysis techniques by considering all the factors in combination.

### **Research Strategy and Design**

The research strategy is the approach used in the study to collect and analyze data (Rugg & Petre, 2006). There are three main research strategies that could have been used for this study. Qualitative research uses non-numeric data and analysis techniques, while quantitative research uses numeric data and analysis techniques (Creswell, 2009). The third technique is mixed methods research which combines aspects of qualitative and quantitative research to examine complex problems.

This research used a quantitative research design. Quantitative research designs are consistent with deductive research approaches (though they do not have to be used) (Grix, 2010). They are also appropriate for hypothesis testing, which cannot really be

done qualitatively (Creswell, 2009). Quantitative research uses standardized instrumentation and data collection techniques and established statistical analysis tools to generate knowledge and draw conclusions (Rugg & Petre, 2006). This is consistent with the positivist philosophy (Grix, 2010). It is also the only approach where findings can be generalized to some extent across populations (Trochim & Donnelly, 2006). Quantitative research is a better approach to testing hypotheses than a qualitative approach (Vogt, Gardner, & Haefele, 2012). The choice of quantitative research design did impose some limitations, but it also helped to ensure the research could be completed on time. Thus, this was the most appropriate choice.

There are two main research designs that could have been used in the quantitative study (Saunders, Lewis, & Thornhill, 2009). The first research design is a survey, where the author measures the dependent and independent variables and tries to relate them without manipulating them. The second research design is an experiment, where the author manipulates the independent variable(s) and measures the effect of this manipulation on the dependent variable. This study used a survey research design, both for practical reasons and because there was no reasonable way to design an experiment for the research question. The author also wanted a broader and more generalized view of the factors involved in LCC choice, which required a larger sample than could be collected using an experiment. The majority of the existing empirical literature on airline choice also supported the use of a survey rather than an experiment, as explained in Chapter 2.

Survey designs are best used when data can be collected directly from respondents using brief responses, and respondents can answer reliably (Vogt et al., 2012). These

conditions were in place in the research population. Response rate adequacy and being able to use the data are also important criteria for using a survey (Vogt et al., 2012).

Given the extremely common use of surveys in consumer and passenger research and the existing surveys that implement short answer, structure designs, there was no reason to believe the first three conditions would not hold. In fact, all three of these conditions were met during the research. The author designed the survey with the final two criteria in mind as well in order to prevent problems.

A standardized instrument (questionnaire) was used to collect the data from the population, which is explained below.

### **Population and Sampling**

The population of interest for this study was travelers departing from Thai airports using any LCC. This group included international and domestic passengers of all airlines operating out of the target airports. A sampling frame was placed on the sample in order to reduce the complexity of data collection. The data collection was limited to include only Bangkok airports (Suvarnabhumi Airport, which serves mainly international traffic and Don Mueng Airport, which serves mainly domestic traffic). This limitation on the sample was placed for pragmatic reasons, since it would be difficult for the author to travel to multiple airports. Since these two airports account for the majority of air traffic in Thailand, this was not considered a significant limitation. For example, in the current fiscal year up to the point of data collection (October 2013 to July 2014), Suvarnabhumi and Don Mueang 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, 2014b).

The precise number of passengers was unknown, but outbound LCC passengers had already reached above 18 million at Suvarnabhumi and Don Mueang airports in 2014 by the time of data collection (AOT, 2014c). Estimation of the sample size was based on estimation techniques for SEM, which is a complex approach. The minimum sample size in SEM can be determined based on a relationship between minimum effect size, statistical power, and statistical significance, as a ratio of observed to latent variables (Westland, 2010). Westland (2010) presented the calculation of the minimum sample size in SEM as  $n = g(H, p)$ . The restatement of the function to calculate SEM sample size established by Westland (2010) is seen in equation 1:

$$n = \frac{1}{2}H(A\left(\frac{\pi}{6} - B + D\right) + \sqrt{(A\left(\frac{\pi}{6} - B + D\right) + H)^2 + 4AH\left(\frac{\pi}{6} + \sqrt{A} + 2B - C - 2D\right)} \quad (1)$$

where:

$$B = \rho \arcsin(\rho/2),$$

$$B = \rho \arcsin(\rho),$$

$$D = \frac{A}{\sqrt{3-A}},$$

$$\text{and } H = \left(\frac{\delta}{z_{1-\alpha/2} - z_{1-\beta}}\right)^2.$$

This results in a larger sample size than estimated using standard sampling techniques. Westland's (2010) meta-analysis using a-posteriori sample estimation technique on a sample of studies found that about 80% of samples were insufficient using

this calculation technique. The average sample size was only about 50% of the lower bound required to establish statistically reliable results.

Using a sample size calculator based on this equation to determine the appropriate sample size (the most reliable approach given the complexity of the calculation), with the assumptions of effect size = 0.1, latent and observed variables = 11, and statistical power level of 0.8, yielded a desirable minimum sample size of 736 members (Soper, 2014). A comparison with a standard sampling technique offered by Devore, Farnum and Doi (2013), which resulted in a sample size of  $n = 385$ , shows that Westland's (2010) estimate of about 50% of the established sample size from standard a priori techniques is suitable (with traditional sample 52.3% of the lower bound sample). The larger target sample size ( $n = 736$ ) was required for this study in order to ensure statistical significance of the findings.

The sample was selected using convenience sampling at Suvarnabhumi International Airport and Don Mueng Airport. Convenience sampling or haphazard sampling involves selecting participants for the research based on their availability (such as being in a particular area at the same time as the sampler) (Gravetter & Forzano, 2011). The convenience sampling approach is a non-random sampling technique and as a result is one of the weaker sampling techniques that can be used (Gravetter & Forzano, 2011). However, its advantages (including cost and time advantages) and the lack of knowledge about the demographics of the population made it the best choice of sampling technique for this research. The author selected participants from the check-in area of LCCs on a variety of different days and times from both airports in order to increase the randomness of the sample. Demographic characteristics were also collected for a clear description of

the sample (Gravetter & Forzano, 2011). In order to select participants, the data collectors chose a position in the check-in areas for LCCs. Using a golf counter, the collector approached each tenth passer-by to request participation in the survey. This helped reduce researcher bias, since participants were only selected based on their sequence of passage.

### **Data Collection**

There are different types of methods that can be used to collect data for a survey including online questionnaires, telephone questionnaires, self-administered questionnaires, and structured interviews (Brace, 2008). While all four use structured instruments, the method of distribution and collection varies. Questionnaires can be collected online, by telephone, or on paper using self-administration, where the participant fills out the questionnaire. The questionnaire can also be filled in as part of a structured interview where the author reads the questions and, if necessary, defines terms (Brace, 2008). This approach is helpful for situations such as nutrition and health questionnaires where questions may be complex or where there are impediments to self-administration such as illiteracy. The self-administered questionnaire was the obvious choice for this study since the data collection took place in person, and there were no anticipated barriers or problems with understanding, except for possible language barriers which could not be overcome. The impact of language barriers was recorded during the data collection process in order to understand how significant this problem was. The questionnaire was printed in English and Thai in an easy-to-read format, and the author asked participants at the collection sites (Don Mueng Airport and Suvarnabhumi

International Airport) to complete them. If a participant declined, another participant was selected. If the respondent did not complete the survey in full, the questionnaire was discarded and was not counted in the sample.

The questionnaire was distributed using ten team members, with a data collection period of two days, for a total of 200 hours data collection time spread across the period of the airports' operation. There were ten low-cost airlines included in the study that operate from Thailand, including five departing from Don Mueang and five departing from Suvarnabhumi. Table 3 summarizes the airlines included in the study. Prior to the study, the team was trained for data collection and instructions. The training included an information session and an opportunity for role-playing which was designed to improve data collection techniques. The training took approximately two hours.

At each airport, a team member was positioned at the airport's check-in counter. The team member approached every tenth passenger to ensure the randomness of selecting passengers. Counters were issued to assist in this task. However, passengers that appeared to be in a hurry to catch a flight were not approached in order to prevent potential harm of missing a flight.

Team members approached each selected potential participant after he or she had completed any business at the check-in; team members then briefly explained the research and asked whether the selectee wanted to participate. If the selectee did agree to participate, he or she was given a detailed letter of information that included the purpose of the survey as well as contact information for the author and supervisor along with the questionnaire. A pen was provided, if necessary, and the team member explained that he or she can answer any questions. Participants could not complete the survey, spoil it, or



discard it, which was taken as an indication he or she did not wish to participate. When the team member received the survey, he or she detached the information letter and gave it to the participant, and then thanked them for his or her time in participating. No significant problems were reported in the data collection process from any of the volunteer data collectors.

During the data collection process, data collectors were asked to record the number of potential participants that declined to participate because of language difficulties. There were a total of 29 such potential participants recorded. This was approximately 3.2% of the final sample. As a result, a total of 905 questionnaires were collected. Thus, the response rate was approximately 96.8%. After cleaning and elimination of incomplete or spoiled questionnaires, the sample was reduced to 881 questionnaires. Normality testing and outlier detection in AMOS led to further reduction of the sample, and the final sample size was  $n = 781$  respondents. This is about 6% higher than the target sample size and was considered appropriate for the study.

Table 3. *Low-cost airlines included in the sample.*

<b>Low cost airline (fly from Thailand)</b>	<b>Airport</b>
Air Asia	Don Mueng
Cebu Pacific Air	Suvarnabhumi International Airport
Jet Star	Suvarnabhumi International Airport
Lao Central Airline	Suvarnabhumi International Airport
Lion Air	Don Mueng
Malindo	Don Mueng
Nok Air	Don Mueng
Scoot	Don Mueng
Thai Smile	Suvarnabhumi International Airport
Tiger Air	Suvarnabhumi International Airport

**Research instrument.** The research instrument was a questionnaire. It was developed based on variables presented in Figure 4 (Theoretical Framework). The items used for each variable are presented in Table 23 (Appendix).

**Pilot Test.** Because the research instrument was designed for this study, it had to be tested for reliability and validity prior to use. The reliability and validity tests were conducted using built-in SPSS tools.

Firstly, face validity and content validity were examined using expert review and pilot testing. The expert review process involved asking the author's supervisor as well as other subject matter experts to review the instrument to make sure it reflected the intended constructs. This resulted in some suggested adaptations and changes, which were incorporated into the questionnaire before the survey was distributed for a pilot test. Participants in the pilot test were asked to fill out a brief questionnaire and identify any problems with the content, information, or wording.

The translation of the questionnaire between English and Thai was a concern for the study. The author addressed this problem by splitting the pilot test between English and Thai respondents to make sure similar results were observed. The author performed the translation but had it proofread and double-checked by two other translators and an external member (a professor from Thailand) to ensure its accuracy. A double translation process, where the author translated the questionnaire to Thai, then had another translator translate it back to English and compare the results to the original questionnaire, was used to double-check accuracy and fine-tune the translation (Harkness, Pennell, & Schoua-

Glusburg, 2004). This resulted in some modifications to the translation, which were incorporated into the final questionnaire.

There was a relatively low non-response rate (3.2%), which can mainly be attributed to language barriers between the passenger and the data collector. Ideally, non-response bias should have been assessed based on available statistics about air passenger demographics (Montaquila & Olson, 2012). However, this was not feasible because of poor data availability, particularly for the LCC segment. Although responses were compared to the general demographics of the Thai population, this is not a full proxy for the population since the study included both Thai and international passengers. While a full non-response bias assessment was not possible, the low non-response rate suggests that there would not be a major bias.

Next, the reliability of the instrument was tested using Cronbach's alpha on a random sample of the completed surveys at Don Mueng Airport (n=30). Cronbach's alpha measures internal consistency of a scale; in other words, it measures the extent to which the items in a scale are measuring the same construct (Hair, Celsi, Money, Samouel, & Page, 2011). This did not reflect on it measuring the intended construct (validity), which is measured using factor loading and is addressed next. Items could be removed from scales based on the Cronbach's alpha in order to increase internal consistency reliability. There is no fixed alpha value for acceptance of a scale, although common values include alpha = 0.6 (for exploratory research) and 0.8 (for explanatory research) (Gravetter & Forzano, 2011). This study used a basic threshold of 0.8 for acceptance of scales; if scales did not meet this requirement, they would be adjusted as needed. The results of Cronbach's alpha are presented in Chapter 4.

The construct validity of the instrument was tested using factor analysis via SPSS. Factor analysis is a statistical approach for determination of construct validity (Brown, 2012). Construct validity means that the scale or measurement is measuring what it is designed to measure. Factor analysis determines the extent of internal correlation between measured variables; a high degree of correlation between multiple measured variables means that they are all measuring the same underlying latent variable (Brown, 2012). There is no fixed threshold for acceptance, but any items that are out of place are removed.

### **Data Analysis**

Data analysis was conducted in SPSS using three techniques. The first technique was descriptive statistics, which was used only as a descriptive profile of respondents and then compared to a general population. Descriptive statistics are statistics of a single variable meant to describe characteristics of the sample (Peck, Olsen, & Devote, 2012). The descriptive statistics calculated were selected based on the data type and intended characteristic. These included mean and standard deviation (for numerical and Likert scale variables) and frequency and percent (for categorical variables). These were presented using charts, graphs, and/or tables as appropriate. Descriptive statistics are useful for understanding conditions in the sample but do not give any insight into causal mechanisms or relationships (Peck et al., 2012). As a result, additional techniques were also needed.

The second technique was confirmatory factor analysis (CFA) available via SPSS using the AMOS plug-in. In CFA, the author identifies the items that are thought to be

measuring the same underlying construct in order to determine factor loadings (indicating extent of internal correlation) (Brown, 2012). Based on Hair (2012), convergent and discriminant validity should be tested. Convergent validity was tested using Composite Reliability (CR), while divergent validity was tested using Average Variance Extracted (AVE) and Square Correlation Coefficient. In the initial CFA run, the model was not fitted properly, with acceptable CR value (indicating that convergent validity was appropriate) but AVE being too low for acceptance for two factors (Attitude and Airline Safety) and Square Correlation Coefficient being too low for acceptance for six factors (Buying Behavior, Attitude, Airline Safety, Route, Airline Reputation, and Behavioral Intention). Initially, the author tried adjusting the model by eliminating low-correlation items within the scales and then retrying CFA. However, even after several attempts, this still resulted in a poorly fitted model. Eliminating Airline Safety (one of the factors with low AVE) from the model entirely improved performance but still did not meet criteria for the Modification Index. Finally, the author eliminated Attitude as well, which resulted in a properly fitted model with an appropriate Modification Index. As a result, moving into the SEM process (the final stage of analysis), the analytical model was similar to the theoretical framework proposed with the absence of Attitude and Airline Safety factors.

The third statistical technique for this research was SEM. SEM was performed in SPSS using the AMOS plug-in, which is designed for Exploratory Factor Analysis (EFA), CFA, and SEM (Kaplan, 2009). SEM is a statistical tool that is designed to test a qualitative model of causal assumptions based on the statistical relationships shown in the research data (Kaplan, 2009). SEM can be used in two ways. First, it can be used in an

exploratory fashion to identify statistical relationships within the data and identify potential causal relationships and causal chains. Second, it can be used in a confirmatory way to test a causal model specified by the author. In this research, confirmatory SEM is used. The process of confirmatory SEM requires the author to specify and operationalize variables (which is performed using factor analysis and Cronbach's alpha, as described previously). The author then enters a hypothetical model to be tested against the data. The SEM model was then identify how well this model fits the outcomes of the data. In this research, the theoretical framework (Figure 4) was used as the foundation for the SEM test, which was used in a confirmatory approach with a specified model. However, the model was adapted as described above following CFA, which demonstrated that there was poor convergent validity for two items (Attitude and Airline Safety) as indicated by CR and subsequently poor model fit. This adapted model passed the requirements for SEM's model fitting.

Even though simple regression was the most common technique in previous studies, SEM offered a number of advantages. The SEM approach allows the author to test a full hypothetical model rather than single hypotheses (Kaplan, 2009), which is an advantage over a regression model. The approach also allowed the author to determine the strength of relationships, modify relationships and assumptions, and use latent variables (Kaplan, 2009). This was much more useful for the present study than the alternative methods such as regression, which tests only bivariate relationships. It also allowed the author to eliminate some factors that were not related to the model, as explained above.

There are a number of assumptions of SEM (Kline, 2012). One of these assumptions is directionality of the relationship, which is defined by the measurement model. There are also assumptions about the nature of the causal relationship, including that: The cause (X) occurs before the effect (Y); there is covariation between X and Y; there is isolation of this covariation (control of other factors that could cause the relationship); the directionality is established; and the distribution of the data is known (Kline, 2012). These assumptions were tested within the analysis process, and the model was adjusted based on the findings of this analysis as discussed above. The outcomes of the SEM process identified the strength of the relationships and factors associated with them.

### **Ethical Considerations**

One ethical concern of this study was preventing harm from participation. This study was anonymous consumer research and, as a result, did not pose any serious potential harm to the reputation or emotional state of its participants. Identities were not collected, and the research instrument was designed to not include items that might be considered private or sensitive. Demographics were only collected as general categories in order to prevent individual participants from being identified through these characteristics. Results were only reported in the aggregate, and no information about individuals was used.

Another possible harm that participants could have encountered is potential consequences from using the time to complete the research (such as missing their flight). In order to prevent this, the questionnaire was kept as short as possible, and participants

were given a generous estimate of the amount of time that would be required to complete the survey (15 minutes, which was about 1.5 times as long as the actual completion time for most participants based on the initial testing). They were informed of the time before the study and asked if they had time to complete it. Furthermore, data collectors avoided approaching passengers that appeared to be in a hurry or who headed straight out of the check-in area in order to prevent harm from delaying passengers who may have been in a hurry.

Another ethical concern was informed consent. Although there was no particular harm that might result, it was still important for participants to be informed about the purpose of the study (Gravetter & Forzano, 2011). The participants were given a two-sided letter of information that included a brief description of the study on the front and a fuller description of the study, including contact information for the author and supervisor on the back. This allowed them to rapidly determine whether they should participate while still having the required information.

### **Limitations of the Method**

There were some limitations to the method that could not be easily removed through changing the research design, given the resources available. One of these limitations was the language of questionnaire distribution (English and Thai). The author did not have the resources to translate the questionnaires or responses effectively into other languages. Thus, potential participants who do not speak either language were excluded, and their numbers were recorded. The impact of this potential exclusion was expected to be minimal since Thailand's major trade language is English. The author



determined this meant that English and Thai were most likely to be spoken by visitors. Additionally, adding more languages would be difficult because the data collection team did not share a consistent third language and could not answer questions or communicate in other languages routinely. In order to overcome this limitation, the author kept the survey as simply worded as possible. A deliberate effort was made to include non-native English speakers and non-Thai speakers in the pilot test to identify any problems. In practice, this had limited effect, with about 3.2% of potential participants being excluded for language barriers.

## CHAPTER IV

### RESULTS

The purpose of this chapter is to present the findings of the primary research, which were derived based on the research methodology described above. The primary research was based on a theoretical model that integrated the TPB and airline marketing and service factors (Figure 4).

The study tested 11 hypotheses based on this model using a quantitative passenger survey conducted at Bangkok's main airports, Suvarnabhumi International Airport and Don Mueng Airport. During the data collection process, a total of 905 questionnaires were collected. Following removal of questionnaires with substantially incomplete or incorrectly filled out responses, 881 questionnaires remained (a 97.3% inclusion rate). A second round of data preparation and cleaning involved deletion of 100 questionnaires based on normality testing and outlier detection in AMOS. The final analysis included 781 questionnaires which was 86.3% of those completed.

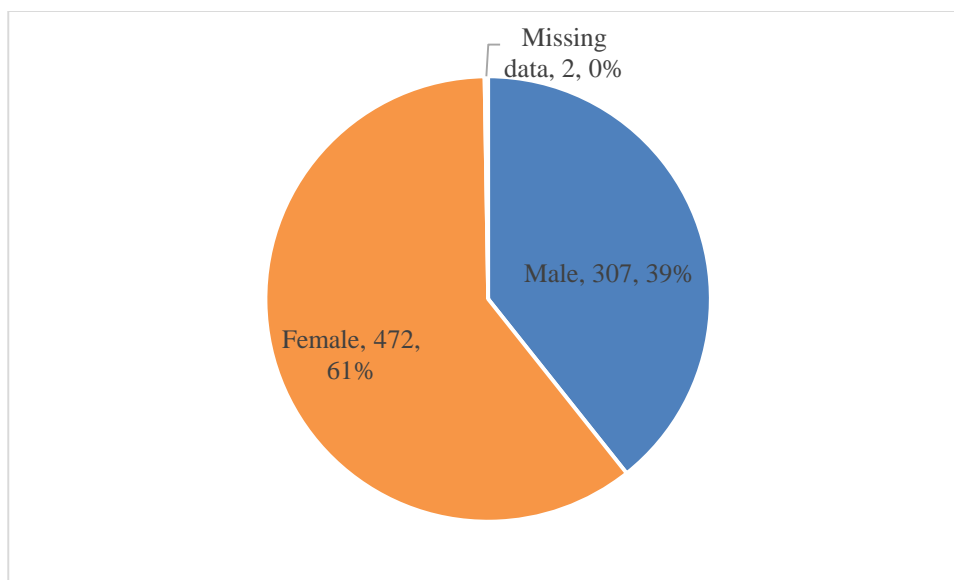
The analysis for this research was conducted in several stages using a combination of standard SPSS tools and AMOS. The analysis began with descriptive analysis of individual items and scales. This was conducted in order to provide a respondent profile and demonstrate general trends in the scales. Internal consistency reliability of the questionnaire was tested using Cronbach's alpha, which was successful. Convergent validity was tested using CR and AVE, while discriminant validity was tested using AVE and squared correlation. This process resulted in elimination of two factors (Attitude and Airline Safety) from the proposed model. Finally, the remaining hypotheses were tested

based on the SEM model. All tests were accepted at a confidence interval of +/-5% ( $p < 0.05$ ). Other acceptance thresholds were also used depending on the measurement.

### **Respondent Demographics**

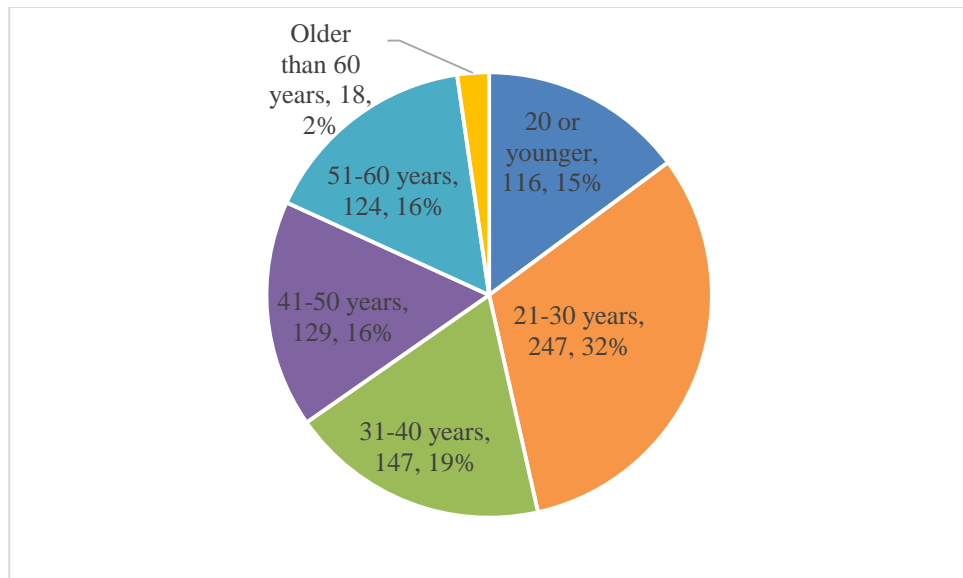
Demographic factors were collected during the course of the survey, including gender, age, education level, monthly income, and occupation. These demographics can be compared in some cases to the Thai population, though there is no specific demographic breakdown of LCC passengers in Thailand.

The basic demographic characteristics collected were gender and age. The gender of the sample (Figure 5) is imbalanced, with 61% of respondents ( $n = 471$ ) being female. This is out of proportion with the Thai sex ratio, which is 0.98 males/female (Index Mundi, 2014), equivalent to a population that is 49% male. However, other studies on passenger satisfaction have shown similar imbalances; for example, one study showed a 56% female participation rate (Charoensettasilp & Wu, 2013). Since the studies used the same technique for data collection, it is possible that there could be a difference between male and female passengers that makes women more likely to respond.



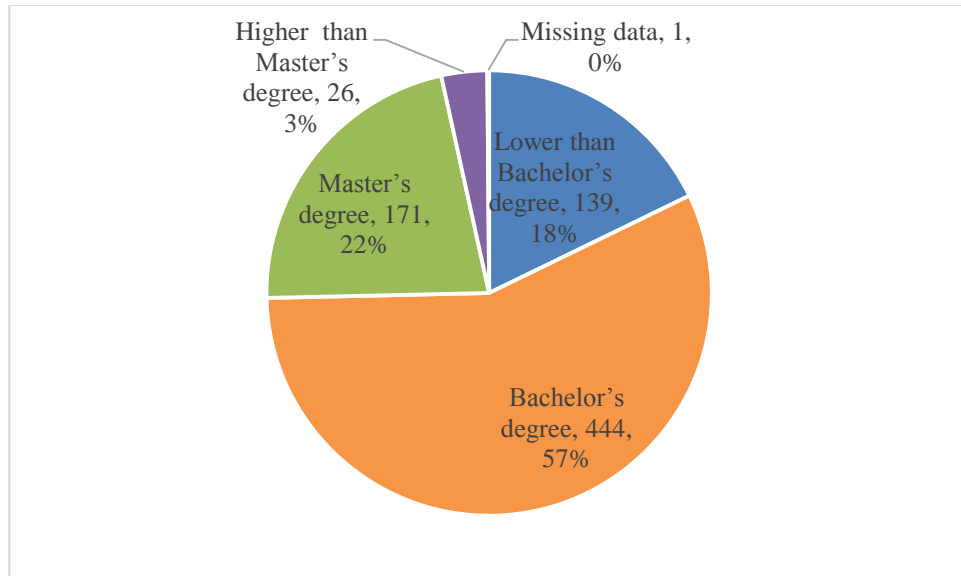
*Figure 5.* Gender of respondents.

The age distribution (Figure 6) shows that the biggest group of respondents is aged 21 to 30 years (32%) followed by 31 to 40 years (19%). Overall, the population distribution is roughly similar to Thailand's age structure, where these are the largest age groups (Index Mundi, 2014) although the youngest age groups are not represented since they were not targeted and are unlikely to be travelling on their own. This study had similar distribution to Charoensettasilp and Wu (2013) for age ranges 21-30 years and more than 50 years. However, it had a much higher number of younger passengers (15% compared to 2.5%) with commensurate reductions in travelers aged 31 to 50.



*Figure 6.* Age of respondents.

The education level of the sample (Figure 7) was relatively high, with 57% of the sample having at least a Bachelor degree and 25% having a Master degree or higher. This is significantly higher than the tertiary enrolment rate in Thailand, which is 51% as of 2013 (The World Bank, 2014). However, this can probably be attributed to the context of air travel. Other studies on LCC passengers in Thailand have also shown a relatively high education level; for example, one study showed that 91.5% of passengers surveyed had a Bachelor degree or higher, a rate even higher than the current study (Charoensettasilp & Wu, 2013).



*Figure 7.* Education level.

Income (Figure 8) was split between relatively high and relatively low. 52% of respondents had income of 25,000 baht/month or less, while 48% had income of more than 25,000 baht/month. This is about average for Thailand. The National Statistics Office (NSO) reports that the average monthly income per household in 2013 was 25,403 baht/month (NSO, 2014). However, it is lower than previous measurements of income in LCC passengers (Charoensettasilp & Wu, 2013).

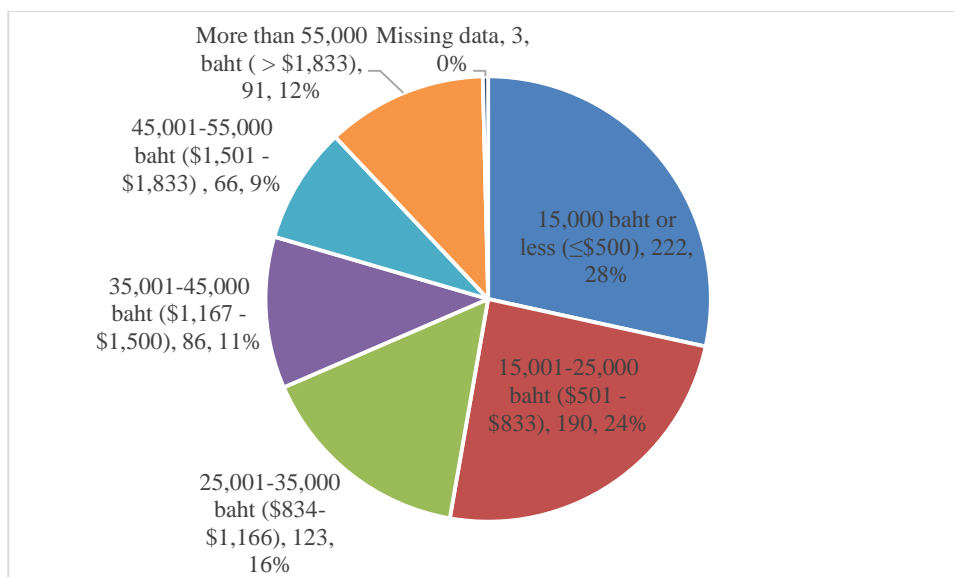


Figure 8. Monthly income of respondents.

The most frequent occupations (Table 4) included government officers (32.8%), students (27.5%), and private company employees (20.9%). This is a higher rate of students than anticipated, especially compared to private company employees. This may be due to the nature of LCCs as budget carriers.

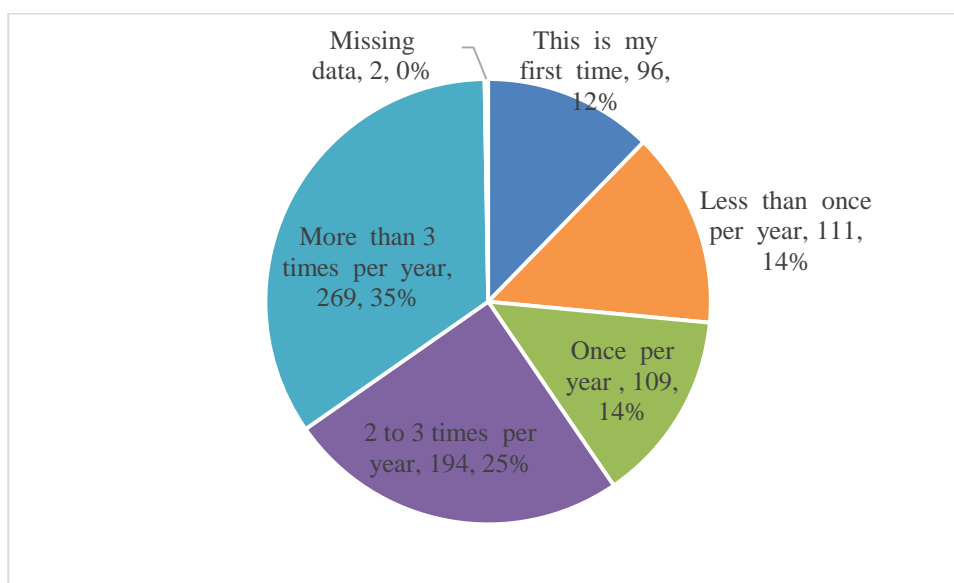
Table 4. Occupation of respondents.

Occupation	Frequency	Percent
Business owner	45	5.8
Freelance	39	5.0
Government officer	256	32.8
Other	10	1.3
Private company employee	163	20.9
Retired	12	1.5
State enterprise employee	39	5.0
Student	215	27.5
Unemployed	2	.3
Total	781	100.0

## Travel Experience

Participants were also asked questions about their previous air travel experience, including frequency of travel by LCC, LCC destinations, the main purpose of travelling by LCC, and information and purchasing channels for airlines.

Participants were asked how frequently they travelled by LCC (Figure 9). There was a very wide spread of answers for this question, but the majority of the passengers travelled more than three times a year (35%) or two to three times a year (25%). The remaining 40% could be classified as infrequent or first-time LCC passengers.

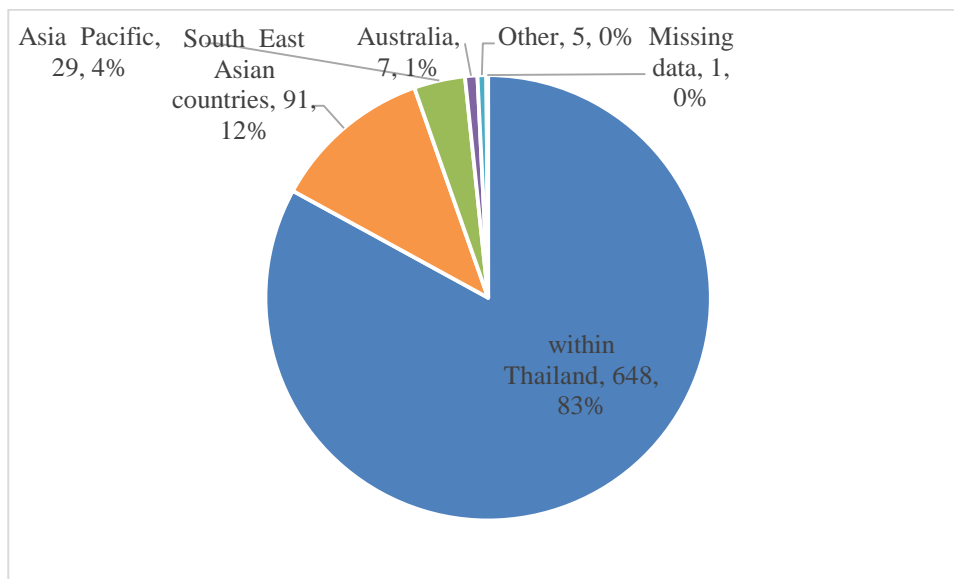


*Figure 9.* Frequency of travel via LCCs.

Figure 10 shows the location of LCC flights. Overwhelmingly, travelers used LCCs for domestic travel (83%), while 12% used LCCs to travel in the South East Asian region and 5% to the broader Asia Pacific region or Australia. This is a bit higher than

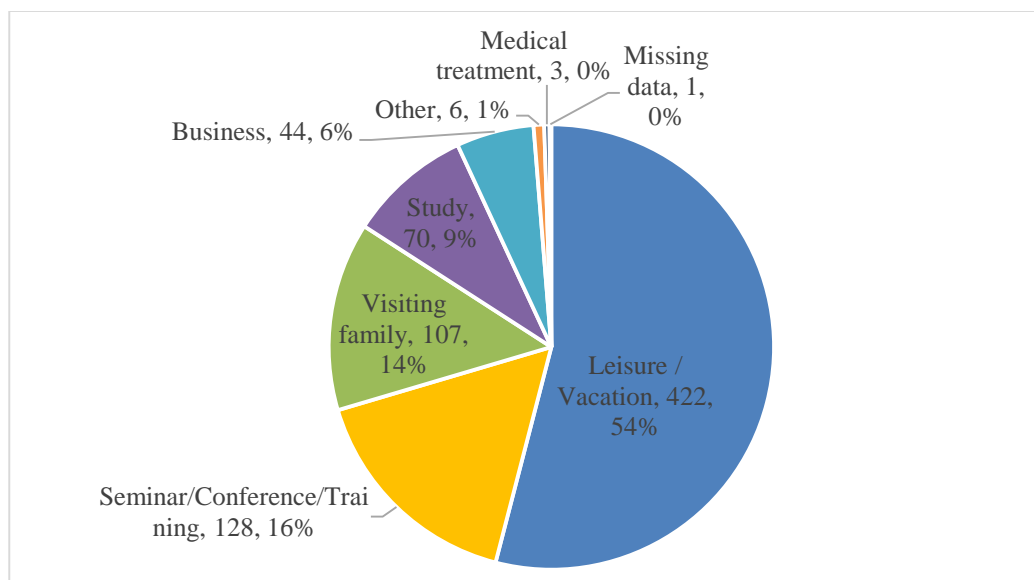


AOT data, which shows that 68% of LCC travel in Thailand is to domestic destinations (AOT, 2015).



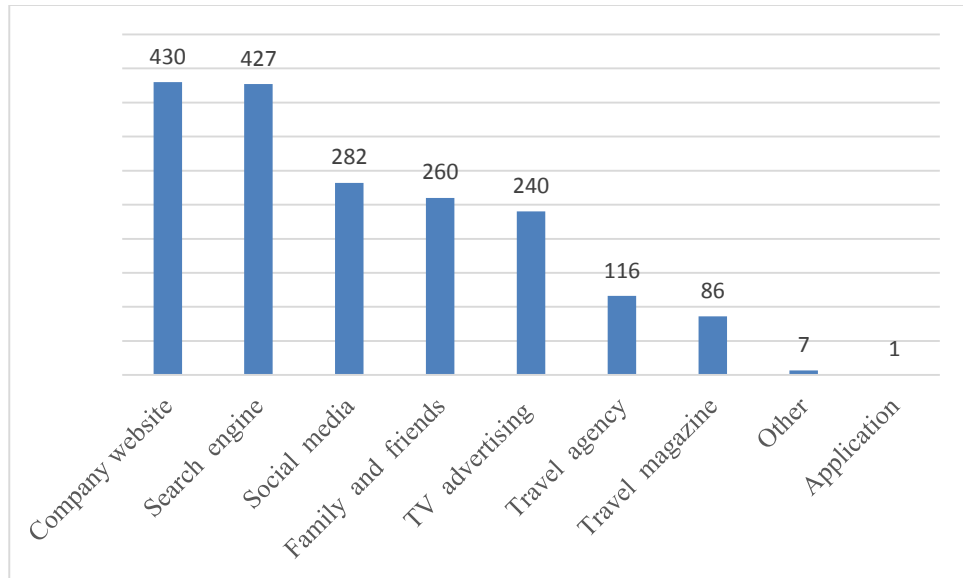
*Figure 10.* Destinations where respondents normally fly using LCCs.

The most frequent reason for LCC travel (Figure 11) was leisure and vacation travel (54%), followed by seminars, conference and training (16%), and visiting family (15%). Study (9%) and business (6%) were the least common reasons for travelling by LCC.



*Figure 11.* Main purpose of travelling by LCC.

Respondents were asked to select which (if any) information channels they used for LCC flights (Figure 12). On average, respondents selected 2.36 responses for this question. The most frequently selected items included company websites (55.1% of respondents), search engines (54.7% of respondents), social media (36.1% of respondents), family and friends (33.3% of respondents), and television advertising (30.1% of respondents).



*Figure 12.* Information channels used by respondents for information about airlines.

Choice of purchasing channels (Figure 13) was the final question. Respondents selected only 1.41 responses on average for this item, which makes sense since purchasing channels are likely to be more restrictive than information channels.

Generally, respondents bought tickets on the LCC website (75.9%). A smaller number of respondents also bought tickets through travel agencies (20.1%), at the airport (19.1%), or through an LCC call center (14.2%).

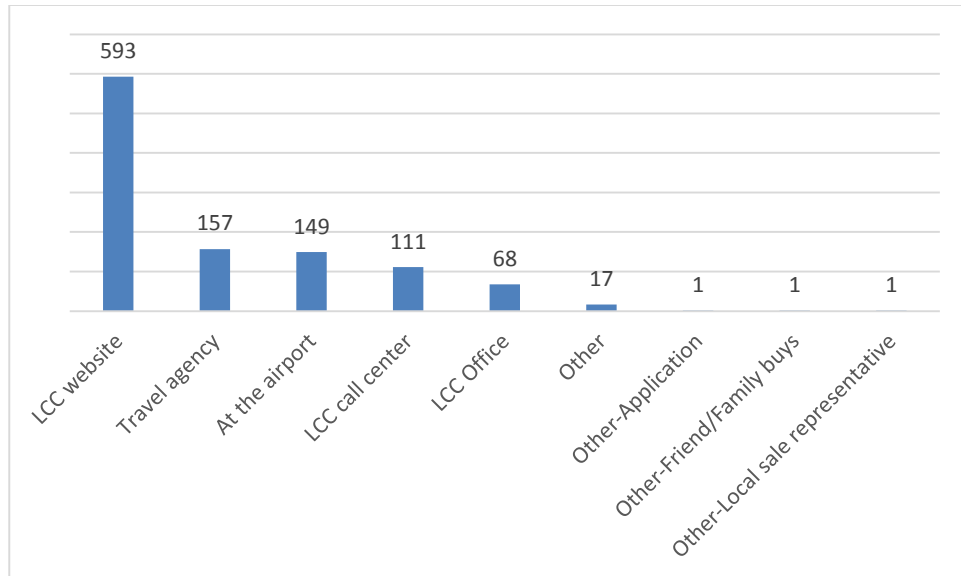


Figure 13. Purchasing channels for LCC tickets.

### Descriptive Statistics

The first findings discussed are the descriptive statistics. Descriptive statistics were calculated for all constructs (Attitude, Subjective Norms, Perceived Behavioral Control, Price, Service Quality, Airline Reputation, Airline Safety, Route Availability and Convenience, Frequent Flier Program, Buying Intention, and Buying Behavior). Mean and standard deviation were calculated for all individual items in the variable scales. Mean and standard deviation are presented here for each item.

**Passenger.** The first group of descriptive statistics is the Passenger constructs. These variables, derived from the TPB, are related to the passenger's internal cognition and existing attitudes and beliefs rather than the offering of the airline directly. They include the Attitude, Subjective Norms, and Perceived Behavioral Control scales.

Tables 5, 6, and 7 present the descriptive statistics for Attitude, Subjective Norms, and Perceived Behavioral Control, respectively. These responses range from  $M = 3.55$  (“I fly with low cost airlines because my friends/family recommend it”) to  $M = 4.14$  (“Low cost airlines are another good alternative choice of airline”). In general, results can be described as moderately positive for all items.

Table 5. *Descriptive statistics - attitude scale.*

Question items	Mean (N=781)	Std. Deviation
Low cost airlines are another good alternative choice of airline.	4.14	.70923
I have a good perception toward low cost airlines.	3.66	.69092
My overall attitude toward low cost airlines is positive.	3.80	.65832

Table 6. *Descriptive statistics – subjective norms scale.*

Question items	Mean (N=781)	Std. Deviation
I fly with low cost airlines because my friends/family recommend it.	3.55	.81920
I feel more confident with the service of low cost airlines because my friends/family use it.	3.56	.78023
Most of my friends use low cost airlines.	3.77	.80987

Table 7. *Descriptive statistics – perceived behavioral control scale.*

Question items	Mean (N=781)	Std. Deviation
I have no difficulty buying the ticket from a low cost airline.	3.89	.82971
The choice of selecting a type of airline ticket is entirely up to me.	4.00	.73116
I feel the choice of airline selection is under my control.	3.97	.74963

**Airline.** The second group of descriptive statistics is the Airline constructs. These constructs, unlike the previous group, *are* mostly under the airline’s direct or indirect control. They include elements of the marketing mix (such as Price, Route Availability and Convenience, and Frequent Flier Program) as well as service quality and execution elements (Service Quality, Airline Reputation, and Airline Safety). These elements may be one of the factors in the formation of the personal factors discussed above, but this is not directly tested. It is important to note that the measurement of these variables is not objective but is instead based on passenger perceptions of the programs. These results are shown in Tables 8 (Price), 9 (Service Quality), 10 (Airline Reputation), 11 (Airline Safety), 12 (Route Availability and Convenience), and 13 (Frequent Flier Programs).

These results were also generally positive, with the exception of Frequent Flier Programs, which were noticeably lower than other scores. The results ranged from  $M = 3.40$  (“I think that the frequent flier program offered by low cost airlines is one of the main reasons to use the service”) to  $M = 3.92$  (“The price of a low cost airline is reasonable for me”). The gap between Frequent Flier programs and the other factors was

not unexpected since, as noted in the literature review, many LCCs actually do not use frequent flier programs.

Table 8. *Descriptive statistics - price scale.*

Question items	Mean (N=781)	Std. Deviation
The price of a low cost airline is reasonable for me.	3.92	.72006
The price of a low cost airline meets my needs.	3.81	.74404
I am satisfied with the price of a low cost airline.	3.85	.73577

Table 9. *Descriptive statistics – service quality scale.*

Question items	Mean (N=781)	Std. Deviation
I think service quality provided by a low cost airline is great compared to the price they offer.	3.57	.75060
I am satisfied with service quality provided by low cost airlines.	3.60	.66694
Overall service quality of low cost airlines is good.	3.73	.65482

Table 10. *Descriptive statistics – airline reputation scale.*

Question items	Mean (N=781)	Std. Deviation
I usually perceive good information about low cost airlines.	3.54	.70148
I believe that low cost airlines have a good reputation.	3.58	.69037
I think low cost airlines have a good public reputation.	3.70	.69860

Table 11. *Descriptive statistics – airline safety scale.*

Question items	Mean (N=781)	Std. Deviation
Safety system is the most significant factor that I consider when buying airline ticket.	3.90	.80909
I only use the airline that has a good reputation on its safety system.	3.85	.77689
I believe that low cost airlines have a good safety system.	3.56	.67604

Table 12. *Descriptive statistics – route availability and convenience scale.*

Question items	Mean (N=781)	Std. Deviation
The number of routes is the main reason that influences me to use airline service.	3.80	.70640
I am satisfied with timing and flight schedule provided by low cost airlines.	3.73	.66304
The route availability offered by low cost airlines meets my expectation.	3.68	.66124

Table 13. *Descriptive statistics – frequent flier programs scale.*

Question items	Mean (N=781)	Std. Deviation
I think that the frequent flier program offered by low cost airlines is one of the main reasons that influence me to use airline service.	3.40	.82069
I think frequent flier program offerings are valuable.	3.41	.83019
I buy ticket of this airline because of benefits of flier program.	3.08	.91900



**Buying Intention and Buying Behavior.** These two constructs describe the intentions and behaviors of passengers. Results are shown in Tables 14 (Buying Intention) and 15 (Buying Behavior). These results were very close, ranging from  $M = 3.65$  (“I am a regular passenger of low cost airlines”) to  $M = 3.89$  (“I would continue to buy tickets from low cost airlines in future”). This suggests that as predicted by the TPB, behavioral intentions and buying behavior are closely related, but this does not offer direct proof.

Table 14. *Descriptive statistics – buying intention scale.*

Question items	Mean (N=781)	Std. Deviation
I would go for a low cost airline when I look for the airline ticket.	3.77	.77756
A low cost airline is the first choice for me when thinking to buy an airline ticket.	3.80	.84492
My intention to purchase a ticket from a low cost airline is very high.	3.71	.84681

Table 15. *Descriptive statistics – buying behavior scale.*

Question items	Mean (N=781)	Std. Deviation
I am a regular passenger of low cost airlines.	3.65	.83832
I always purchase tickets from low cost airlines.	3.76	.83222
I would continue to buy tickets from low cost airlines in the future.	3.89	.77199

## Reliability and Validity

Prior to conducting the actual questionnaire, 30 sets of pilot questionnaire were collected. These 30 sets of questionnaire were tested using Cronbach's alpha to see the reliability, and factor loading to test validity of the pilot questionnaire before conducting the actual questionnaire collection.

The Cronbach's alpha results (Table 16) show that the lowest score is Route Availability and Convenience ( $\alpha = 0.814$ ), and the highest score is Frequent Flier Programs ( $\alpha = 0.897$ ). All scales fell into the established acceptance band ( $0.70 < \alpha < 0.95$ ). As a result, all scales were accepted for internal consistency, and no items were eliminated at this stage.

Table 16. *Cronbach's alpha test outcomes.*

Variables	Statements	Scores
Attitude	A1 Low cost airlines are another good alternative choice of airline.	.870
	A2 I have a good perception toward low cost airlines.	
	A3 My overall attitude toward low cost airlines is positive.	
Subjective Norms	S1 I fly with low cost airlines because my friends/family recommend it.	.862
	S2 I feel more confident with the service of low cost airlines because my friends/family use it.	
	S3 Most of my friends use low cost airlines.	
Perceived Behavior Control	PB1 I have no difficulty buying the ticket from a low cost airline.	.815
	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	P1 The price of a low cost airline is reasonable for me.	.835
	P2 The price of a low cost airline meets my needs.	
	P3 I am satisfied with the price of a low cost airline.	

Table 16. *Cronbach's alpha test outcomes.(Cont.)*

Variables	Statements	Scores
Service Quality	SQ1 I think service quality provided by a low cost airline is great compared to the price they offer.	.875
	SQ2 I am satisfied with service quality provided by low cost airlines.	
	SQ3 Overall service quality of low cost airlines is good.	
Airline Reputation	AR1 I usually perceive good information about low cost airlines.	.888
	AR2 I believe that low cost airlines have a good reputation.	
	AR3 I think low cost airlines have good public reputation.	
Airline Safety	AS1 Safety system is the most significant factor that I consider when buying airline ticket.	.872
	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.	
Route availability and convenience	R1 The number of routes is the main reason that influences me to use airline service.	.814
	R2 I am satisfied with timing and flight schedule provided by low cost airlines.	
	R3 The route availability offered by low cost airlines meets my expectation.	
Frequent flier programs	F1 I think that the frequent flier program offered by low cost airlines is one of the main reasons that influence me to use airline service.	.897
	F2 I think frequent flier program offerings are valuable.	
	F3 I buy ticket of this airline because of benefits of flier program.	
Buying Intention	BI1 I would go for a low cost airline when I look for the airline ticket.	.892
	BI2 A low cost airline is the first choice for me when thinking to buy an airline ticket.	
	BI3 My intention to purchase a ticket from a low cost airline is very high.	
Buying Behavior	BB1 I am a regular passenger of low cost airlines.	.852
	BB2 I always purchase tickets from low cost airlines.	
	BB3 I would continue to buy tickets from low cost airlines in the future.	

The factor loading results (Table 17) show that the loading scores of each question are between 0.720 and 0.942. This can indicate there are no questions that need to be removed, and this questionnaire can be used to collect actual data.

Table 17. *Factor loading test outcomes.*

Variables		Statements	Scores
Attitude	A1	Low cost airlines are another good alternative choice of airline.	.862
	A2	I have a good perception toward low cost airlines.	.923
	A3	My overall attitude toward low cost airlines is positive.	.898
Subjective Norms	S1	I fly with low cost airlines because my friends/family recommend it.	.888
	S2	I feel more confident with the service of low cost airlines because my friends/family use it.	.948
	S3	Most of my friends use low cost airlines.	.824
Perceived Behavior Control	PB1	I have no difficulty buying the ticket from a low cost airline.	.752
	PB2	The choice of selecting a type of airline ticket is entirely up to me.	.919
	PB3	I feel the choice of airline selection is under my control.	.892
Price	P1	The price of a low cost airline is reasonable for me.	.819
	P2	The price of a low cost airline meets my needs.	.873
	P3	I am satisfied with the price of a low cost airline.	.909
Service Quality	SQ1	I think service quality provided by a low cost airline is great compared to the price they offer.	.873
	SQ2	I am satisfied with service quality provided by low cost airlines.	.919
	SQ3	Overall service quality of low cost airlines is good.	.903
Airline Reputation	AR1	I usually perceive good information about low cost airlines.	.915
	AR2	I believe that low cost airlines have a good reputation.	.890
	AR3	I think low cost airlines have good public reputation.	.924

Table 17. *Factor loading test outcomes. (Cont.)*

Variables		Statements	Scores
Airline Safety	AS1	Safety system is the most significant factor that I consider when buying airline ticket.	.863
	AS2	I only use the airline that has a good reputation on its safety system.	.948
	AS3	I believe that low cost airlines have a good safety system.	.877
Route availability and convenience	R1	The number of routes is the main reason that influences me to use airline service.	.782
	R2	I am satisfied with timing and flight schedule provided by low cost airlines.	.883
	R3	The route availability offered by low cost airlines meets my expectation.	.893
Frequent flier programs	F1	I think that the frequent flier program offered by low cost airlines is one of the main reasons that influence me to use airline service.	.920
	F2	I think frequent flier program offerings are valuable.	.902
	F3	I buy ticket of this airline because of benefits of flier program.	.911
Buying Intention	BI1	I would go for a low cost airline when I look for the airline ticket.	.904
	BI2	A low cost airline is the first choice for me when thinking to buy an airline ticket.	.941
	BI3	My intention to purchase a ticket from a low cost airline is very high.	.889
Buying Behavior	BB1	I am a regular passenger of low cost airlines.	.890
	BB2	I always purchase tickets from low cost airlines.	.898
	BB3	I would continue to buy tickets from low cost airlines in the future.	.882

### Hypothesis Testing

The final stage of analysis was hypothesis testing. The hypothesis testing process was conducted using SEM. SEM was chosen as an analytical tool because it analyzes and interprets the entire model (Hair, Black, Babin, & Anderson, 2010). This is a better approach than the alternative of single or multiple regression, which tests pairwise

relationships. SEM was conducted in AMOS, an SPSS add-on for relationship-based analysis. This is the same tool used in the CFA process above.

**Model fitting and adjustment.** The results of the initial round of SEM indicated that the model was not fully fitted, based on the CFI (.781) and RMSEA (.094). Based on Hair, Black, Babin, and Anderson (2010), the CFI value range is 0 to 1, and the suitable CFI should be higher than 0.9. Moreover, RMSEA should be lower than 0.05 to indicate a good model fit, and 0.05 to 0.08 indicates a reasonable model fit (Hair, Black, Babin, & Anderson, 2010). In order to fix this problem, the modification index (MI) was used to adjust the proposed model until a satisfactory fit was achieved. However, MI did not lead the model formation, which is an inappropriate use of the tool (Hair, Black, Babin, & Anderson, 2010). The author then performed CFA to help identify the problem and adjust the model.

CFA was performed on the entire sample ( $n = 781$ ). The goal of this analysis was to test the full model for convergent and discriminant validity. Criteria for acceptance for models included  $CR > 0.70$  and  $AVE > 0.5$  based on standard acceptance bounds for reliability (CR) and convergent validity (AVE) (Hair, Black, Babin, & Anderson, 2010). Discriminant validity was tested by comparing square root of AVE with the correlation coefficient of that construct with other constructs (Hair, Black, Babin & Anderson, 2010). Two further factors were used to determine the fit of the overall model: these included  $CFI > 0.90$  and  $RMSEA < 0.06$  (Hair, Black, Babin, & Anderson, 2010). In order to handle potentially unreliable factors or factors that did not pass validity test, it was determined that all factors must pass the test for reliability ( $CR > 0.70$ ). Factors that failed either the convergent validity test ( $AVE > 0.5$ ) or the discriminant validity test

( $\sqrt{AVE} > Correlation\ Coefficient$ ) would be retained, on the basis that these factors would be valid on at least one axis. However, any factors that failed both tests would be eliminated, on the basis that they did not show either of the types of validity that were required.

Figure 14 and Table 18 show the CFA model prior to adjustment. The overall fit of the model was acceptable based on the decision criteria (CFI = 0.940, RMSEA = 0.052, GFI = 0.903, NFI = 0.913, CMIN/DF = 3.076, PCLOSE = 0.199). However, individual factors within the model did not show as much consistency. All of the factors met the reliability criterion ( $CR > 0.7$ ), as shown in Table 18. Two factors did not meet the convergent validity criterion ( $AVE > 0.5$ ), including Airline Safety ( $AVE = 0.446$ ) and Attitude ( $AVE = 0.476$ ). This indicates that the underlying latent variables for these two factors are poorly explained by the observed variables (Hair, Black, Babin & Anderson, 2010). Subjective Norms ( $AVE = 0.503$ ) was only just over the threshold, indicating a relatively poor but not invalid fit.

Results for the discriminant validity criterion ( $\sqrt{AVE} > Correlation\ Coefficient$ ) were not as positive. In fact, as Table 18 shows, six factors failed this discriminant validity test. This indicates that these factors to some extent have problems with latent variables being explained better by external factors than their own observed variable (Hair, Black, Babin & Anderson, 2010).

Neither failure of the convergent validity criterion nor the discriminant validity criterion on its own would require exclusion from this test. However, failure of both criteria meant that the factors may be too poorly differentiated from other factors and too poorly explained to contribute to the model. The only factors that failed both tests were

Airline Safety and Attitude. In order to refine the model, the decision was made to exclude Airline Safety and Attitude factors and recalculate, which is explained below.

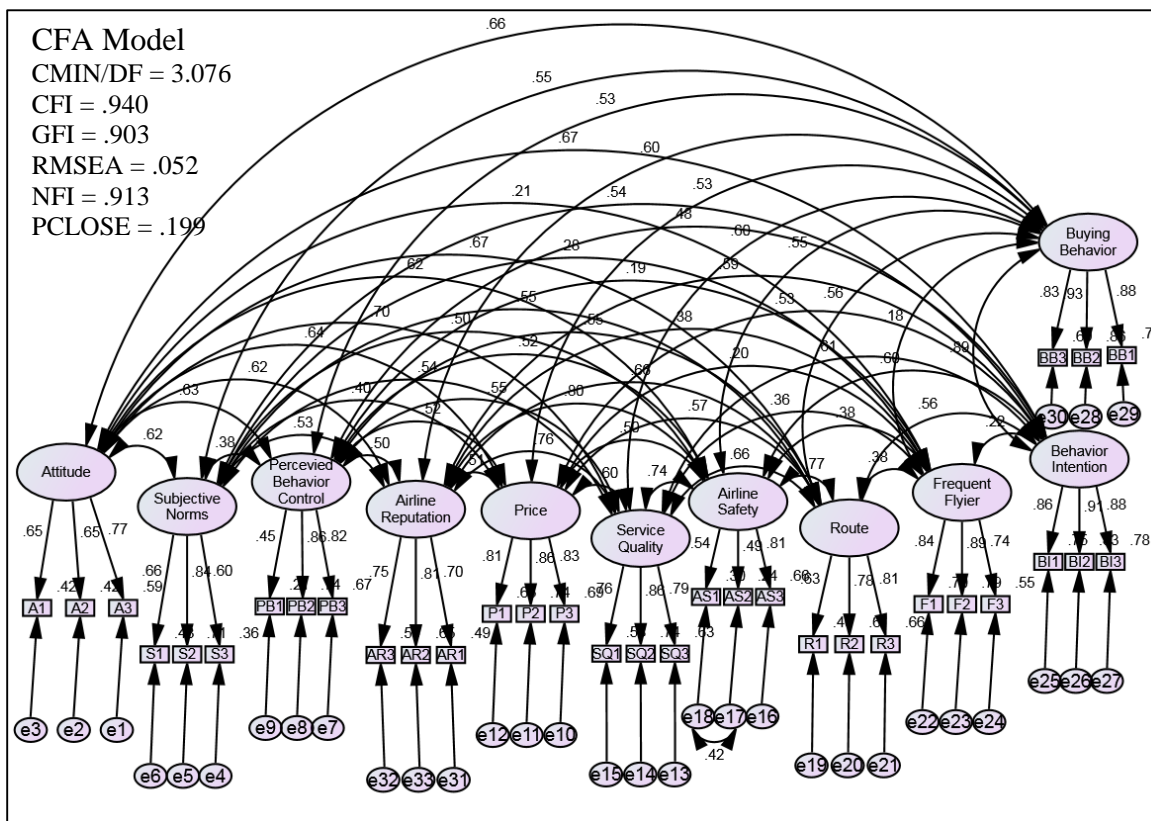


Figure 14. CFA model prior to adjustment.



Table 18. CR and AVE scores of CFA before adjustment.

	CR	AVE	Buying Behavior	Subjective Attitude Norms	Perceived Behavior Control	Price	Service Quality	Airline Safety	Route	Frequent Flyer	Airline Reputation	Behavior Intention	
Buying Behavior	0.913	0.778	0.882										
Attitude	0.731	0.476	0.662	0.690									
Subjective Norms	0.749	0.503	0.549	0.625	0.710								
Perceived Behavior Control	0.768	0.540	0.529	0.634	0.378	0.735							
Price	0.872	0.694	0.528	0.642	0.404	0.521	0.833						
Service Quality	0.846	0.648	0.598	0.695	0.540	0.546	0.596	0.805					
Airline Safety	0.704	0.446	0.514	0.613	0.473	0.519	0.491	0.691	0.668				
Route	0.786	0.554	0.556	0.666	0.549	0.550	0.570	0.664	0.747	0.744			
Frequent Flyer	0.864	0.681	0.181	0.210	0.279	0.191	0.198	0.360	0.395	0.380	0.825		
Airline Reputation	0.796	0.566	0.596	0.624	0.527	0.504	0.512	0.764	0.775	0.662	0.382	0.752	
Behavior Intention	0.917	0.787	0.888	0.667	0.539	0.476	0.527	0.605	0.560	0.562	0.219	0.590	0.887

The initial adjustment process involved eliminating weak items in the constructs, as determined by inter-item correlations, in order to attempt to improve the model fitting. Items were removed one at a time in order to improve the fit, and then CFA was re-run. However, this was unsuccessful at improving the model fitting enough to make it acceptable based on the established characteristics.

The author then tried removing a single factor (Airline Safety), but this was still inadequate to improve the model fitting sufficiently. Ultimately, the model fitting desired could only be achieved by eliminating both of the low-CR factors, Airline Safety and Attitude.

Figure 15 and Table 19 show the CFA model following adjustment by removal of Airline Safety and Attitude. This shows that all variables in the adjusted model have appropriate CR and AVE for the final model. The adjusted model also showed slightly improved fit characteristics (CFI = 0.957, RMSEA = 0.049) compared to the naïve model tested above (CFI = 0.940, RMSEA = 0.052). CMIN/DF values changed as well, with the original model (CMIN/DF = 3.076) being higher than the refined model (CMIN/DF = 2.892). This indicates the model fit was improved, although the refined model is still in the range that would be considered acceptable but not very good (Hair, Black, Babin & Anderson, 2010). The final fit value assessed, PCLOSE, also improved. The initial model (PCLOSE = 0.199) indicated that the model was poorly fitted ( $PCLOSE \leq 0.5$ ) (Hair, Black, Babin & Anderson, 2010). The revised model showed significant improvement and what is classified as a good fit according to the PCLOSE value (PCLOSE = 0.617). Thus, the refined model without Airline Safety and Attitude showed significantly better fit than the naïve model.

Comparison of remaining factors on CR and AVE showed some changes, although most retained the same general position. Subjective Norms, which was marginal in the previous test, only improved its AVE slightly (AVE = 0.505 compared to AVE = 0.503). Thus, it remains a marginal factor, and could be eliminated in future tests in order to improve performance. However, the decision was made to retain it in this model in order to maximize the number of factors included. None of the other factors showed more than a minimally changed CR or AVE. This indicates that the remainder of the model is stable.

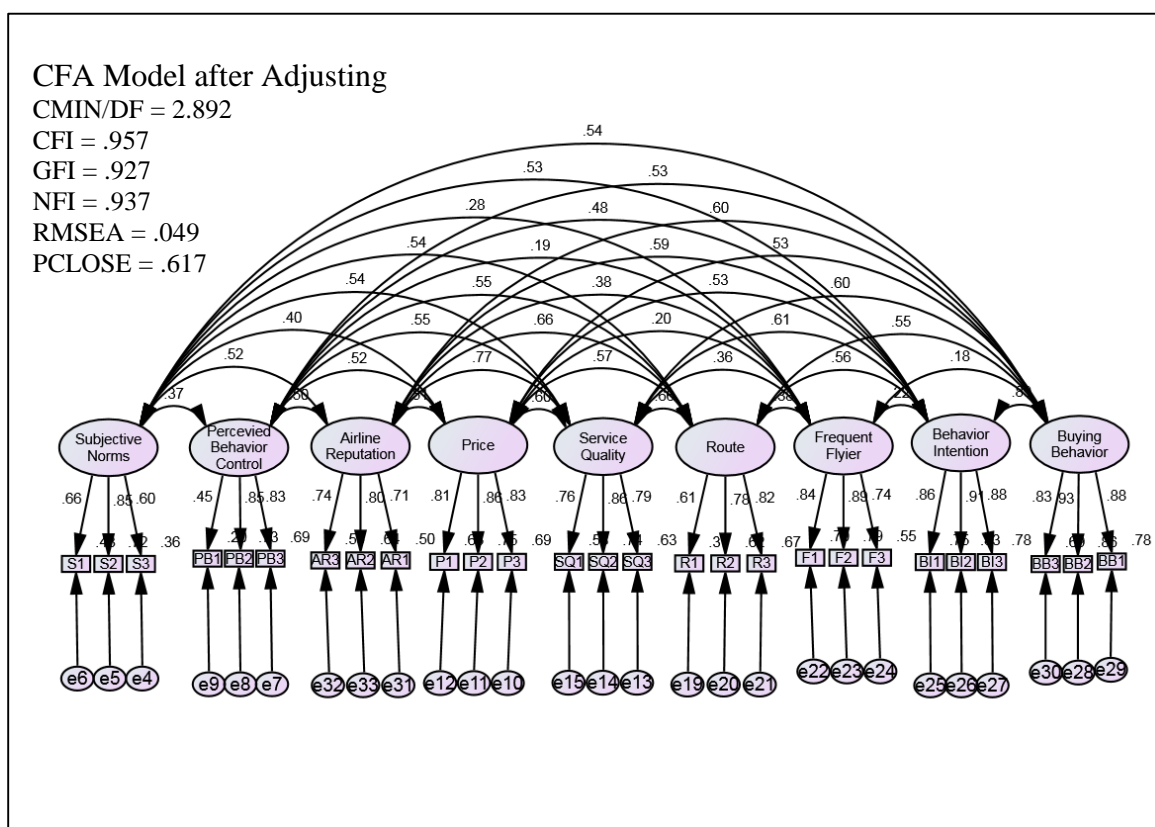


Figure 15. CFA model after adjustment.

Table19. CR and AVE scores of CFA after adjustment.

	CR	AVE	Buying Behavior	Subjective Norms	Perceived Behavior Control	Price	Service Quality	Route	Frequent Flyer	Airline Reputation	Behavior Intention
Buying Behavior	0.913	0.778	0.882								
Subjective Norms	0.749	0.505	0.544	0.710							
Perceived Behavior Control	0.766	0.539	0.528	0.373	0.734						
Price	0.872	0.695	0.528	0.400	0.522	0.834					
Service Quality	0.846	0.648	0.599	0.538	0.546	0.597	0.805				
Route	0.786	0.554	0.555	0.544	0.549	0.568	0.662	0.744			
Frequent Flyer	0.864	0.681	0.181	0.279	0.193	0.198	0.360	0.378	0.825		
Airline Reputation	0.795	0.565	0.596	0.525	0.504	0.513	0.766	0.661	0.383	0.752	
Behavior Intention	0.917	0.786	0.888	0.534	0.475	0.527	0.606	0.560	0.219	0.590	0.887

Based on the improved model fit when Attitude and Airline Safety were removed, the author has adjusted and proposed a new model for this research. The new model was tested using the SEM model and adjusted follow Modification Index. The final SEM model (Figure 16) showed acceptable fit statistics (CFI = 0.957, RMSEA = 0.049) based on the established thresholds discussed above (Hair, Black, Babin, & Anderson, 2010). This resulted in a fitted model that reflected the data as well as the theoretical framework.

However, as noted above, two of the variables had already been removed, and as a result there was some variance between what was proposed for the research and how it was implemented.

**Summary of hypothesis outcomes.** Table 20 summarizes the hypotheses that were proposed in the research and their outcomes. Three of the hypotheses were eliminated because of the removal of Attitude and Airline Safety from the testing model following the CFA process, as described above. These hypotheses included Hypothesis 1, Hypothesis 4, and Hypothesis 8. Hypotheses 2, 3, 5, 6, and 7 were supported, as was Hypothesis 11. Hypotheses 9 and 10 were rejected. The specific outcomes of the hypothesis tests are discussed below. These outcomes are once again grouped into TPB variables and airline marketing variables. This grouping allows the author to discuss the related variables most effectively.

All hypotheses were supported at a level of  $p < 0.05$ , as is standard practice for statistical significance testing. There were no lower limits placed on path coefficients, which are used only to understand the relative strength and direction of relationships.

Figure 16 shows the final SEM model that was used to assess the outcomes of the hypotheses.

Table 20. *Hypothesis testing results summary.*

Hypothesis	Estimate	p-value	Result
H1: Consumer's attitude is positively related to consumer buying intention toward LCCs.	(Hypothesis eliminated)		
H2: Social norms are positively related to consumer buying intention toward LCCs.	.352	***	Supported
H3: Perceived behavioral control is positively related to consumer buying intention toward LCCs.	.137	.006	Supported
H4: Airline reputation has a positive influence on consumer's attitude.	(Hypothesis eliminated)		
H5: Airline reputation has a positive influence on consumer buying intention toward LCCs.	.296	.002	Supported
H6: Price has a positive influence on consumer buying intention toward LCCs.	.196	.000	Supported
H7: Airline service quality has a positive influence on consumer buying intention toward LCCs.	.223	.015	Supported
H8: Airline safety has a positive influence on consumer buying intention toward LCCs.	(Hypothesis eliminated)		
H9: Route availability and convenience has a positive influence on consumer buying intention toward LCCs.	.129	.087	Rejected
H10: Frequent flier programs have positive influence on consumer buying intention toward LCCs.	-.070	.052	Rejected
H11: Buying intention is positively related to consumer buying behavior toward LCCs.	.870	.000	Supported

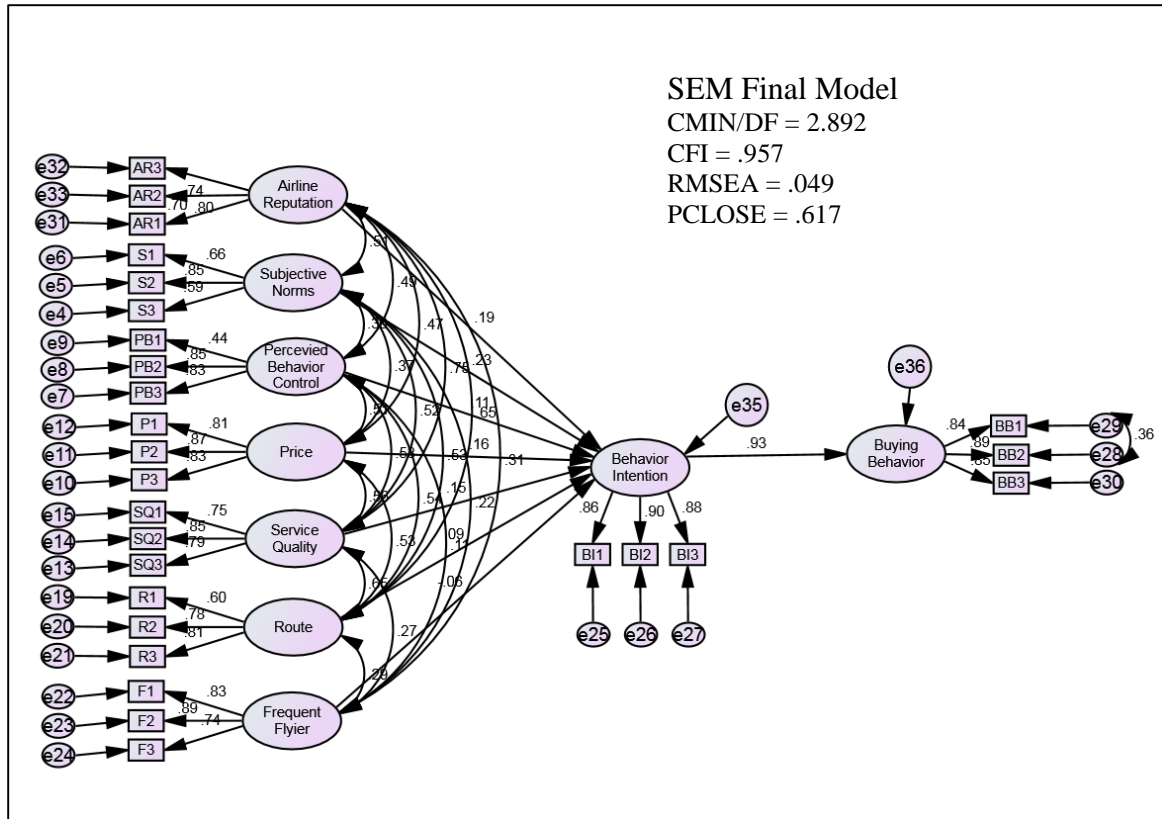


Figure 15. Final SEM model.

### Outcomes of Theory of Planned Behavior (TPB)-derived hypotheses.

Hypotheses H1, H2, H3, and H11 are the four hypotheses that are directly derived from the TPB as proposed by Ajzen (1991, 2005). The TPB, as the literature review states, is a general model of decision making that emphasizes cognitive processes and internal conditions, which are influenced but not fully determined by external stimuli like marketing (Ajzen, 2005). The hypotheses related to the TPB tested the following relationships:

- H1: Attitude (A) and Consumer Buying Intention (BI)
- H2: Social Norms (S) and Consumer Buying Intention (BI)
- H3: Perceived Behavioral Control (PB) and Consumer Buying Intention (BI)

- H11: Consumer Buying Intention (BI) and Buying Behavior (BB)

As stated previously, CFA led to the elimination of the Attitude factor, owing to poor fit indicators into the model. Thus, Hypothesis 1 was not tested. This elimination was surprising given the usual situation with the TPB, which is that Attitude is the most consistently related factor (Ajzen, 2005). However, this could be due to the nature of the airline industry. This outcome is discussed more in the following chapter. Other than the eliminated hypotheses, all hypotheses related to the TPB were supported.

The relationship between S and BI was relatively strong ( $P_{BIS} = 0.76$ ). The relationship was also shown to be significant ( $p < .001$ ). Thus, H2 could be supported. There was a significant relationship between Subjective Norms and Behavioral Intention, as proposed by the TPB.

The relationship between PB and BI was somewhat weaker than the relationship in H2 ( $P_{BIPB} = 0.65$ ). This relationship was also significant although at a lower level ( $p = 0.006$ ). Thus, H3 was supported. There was a significant positive relationship between Perceived Behavioral Control and Behavioral Intention, as suggested by the TPB, although it was not as strong as the relationship between Subjective Norms and Behavioral Intention.

The relationship between BI and BB was, not surprisingly, one of the strongest relationships in the model ( $P_{BB,BI} = 0.93$ ). This relationship also had one of the strongest estimates ( $p < .001$ ): thus, H11 was supported. The final stage in the model – the relationship between Buying Intention and Buying Behavior – was strong and consistent.



With the exception of the elimination of the Attitude variable in the validity testing stage, the TPB performed well in this test. All relationships were consistent with the expected outcome.

**Outcomes of airline service and marketing-related hypotheses.** The second set of hypotheses was derived from the literature on airline services and marketing. The hypotheses that were initially tested included the following relationships:

- H4: Airline Reputation (AR) and Attitude (A)
- H5: Airline Reputation (AR) and Buying Intention (BI)
- H6: Price (P) and Buying Intention (BI)
- H7: Airline Service Quality (SQ) and Buying Intention (BI)
- H8: Airline Safety (AS) and Buying Intention (BI)
- H9: Route Availability and Convenience (RA) and Buying Intention (BI)
- H10: Frequent Flier Programs (F) and Buying Intention (BI)

The elimination of A and AS during the CFA testing for model validity meant that hypotheses H4 and H8 could not be tested. Thus, the model only includes tests for hypotheses H5, H6, H7, H9, and H10.

Testing of H5 showed a relatively low, though positive, path coefficient for the relationship between AR and BI ( $P_{BI,AR} = 0.19$ ). However, the significance tests of the variable did indicate significance ( $p = 0.002$ ): thus, H5 was supported. Airline Reputation does play a role, though a relatively small one, in the Buying Intention of consumers for the airlines' product.

H6 was also supported. Testing of H6 showed a somewhat stronger path coefficient for the relationship between P and BI ( $P_{BI,P} = 0.31$ ). Furthermore, the relationship was highly significant ( $p < 0.001$ ). Price did have a significant relationship to buying intention.

Testing of H7 showed a moderate path coefficient for the relationship between SQ and BI ( $P_{BI,SQ} = 0.22$ ). The significance testing showed that this relationship was significant ( $p = 0.015$ ). This indicated that Service Quality does have a significant, positive relationship with Buying Intention for the airline, and H7 could be supported.

H9 was not supported. Testing of H9 showed that the path coefficient for the relationship between RA and BI was small ( $P_{BI,R} = 0.09$ ). Furthermore, testing showed that it was not significant ( $p = 0.087$ ). There are several potential reasons for this rejection, which is discussed in the next chapter.

H10 was a marginal outcome, with the significance level being very close to the selected significance level of  $p < 0.05$ . Testing of H10's relationship showed a moderate path coefficient ( $P_{BI,F} = 0.27$ ). The significance testing showed this relationship was insignificant ( $p = 0.052$ ). Thus, H10 was rejected, since there was not quite a significant relationship between Frequent Flier Programs and Buying Intention. Unlike RA, the rejection of F was not surprising given its very low level of agreement in the descriptive statistics, as well as the nature of the frequent flier program and its relationship to LCCs. These findings are discussed more in the next chapter.

### **Chapter Summary**

This chapter has discussed in detail the statistical analysis of the findings generated from the passenger survey. As the demographic analysis shows, it is possible

that these results are not fully generalizable to a population of air travelers. However, they may be more representative of the population of LCC travelers, who may be younger and have a lower income than travelers generally. This is an issue that needs further study since there are no general demographic statistics collected.

The most important findings from the combination of reliability and validity analysis and SEM are as follows. First, the TPB was partially supported but also partly refuted. This is because the Attitude construct in the TPB was eliminated during the CFA stage due to insufficient model fit (along with Airline Safety). This is not unprecedented, as some studies have shown a lack of significance of Attitude, though it is unusual (Ajzen, 2005). However, it is important, since it suggests that there are more important issues than personal attitude in the selection of LCCs in Thailand. Second, the potential factors identified from the literature are also partially supported. The SEM test showed that factors that are significant include Price, Service Quality, and Airline Reputation, as well as Social Norms and Perceived Behavioral Control. Insignificant factors included Route Availability and Convenience and Frequent Flier Programs. These results are discussed and contextualized with the literature in the following chapter, which also presents a conclusion to the study and a series of recommendations for airline practice as well as future research.

## CHAPTER V

### DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

The purpose of this chapter is to interpret the results and consider the implications of the findings. The chapter begins with a comparison of the findings to the literature review and reflects on the findings and how they fit into the existing research. A specific answer to each of the research questions was offered in the literature review.

Additionally, this chapter addresses the limitations and provide recommendations for LCC operators and future research.

#### **Discussion**

There were two research questions specified for this study:

- What factors influence passengers' airline selection toward LCCs in Thailand's airports?
- How do these factors affect passengers' airline selection toward LCCs in Thailand's airports?

In order to identify factors that could potentially influence passengers' airline selection of LCCs in Thailand, a literature review was used. The literature review yielded two possible sets of factors, including factors internal to the passenger (as exemplified by the TPB and external stimuli (airline marketing and service factors). These factors were each associated with a hypothesis. Each of these factors was tested using the SEM approach described above, with varying results for each of the identified factors.

**Theory of Planned Behavior (Hypotheses 1, 2, 3, and 11).** Four of the hypotheses proposed were derived directly from the TPB as proposed by Ajzen (1991), including H1 (Attitude and Buying Intention), H2 (Subjective Norms and Buying Intention), H3 (Perceived Behavioral Control and Buying Intention), and H11 (Buying Intention and Buying Behavior). Of these hypotheses, H1 was not tested because of the elimination of Attitude from the structural model during the CFA process, where it indicated insufficient convergent and discriminant validity. H2, H3, and H11 were all supported. Subjective Norms and Perceived Behavioral Control both had an effect on Buying Intention, and Buying Intention had a strong relationship to Buying Behavior. Overall, this offers qualified support for the TPB.

*Attitude (H1).* The elimination of Attitude from the model was not expected, given the significance of the Attitude construct in other studies. In the TPB, attitudes are viewed as the main factor that influences the behavioral decision (Ajzen, 2005). Furthermore, attitudes are based on a wide variety of different sources, including internal cognitions and emotions, external information, and previous experience (Pratkanis, 2014). A previous study on airlines had not eliminated Attitude as a factor in the airline choice decision, but instead found that it plays a significant role in this decision (Bigné, et al., 2010). Other studies also found that Attitude played a significant role in the decision (De Canniere, et al., 2009; Kerr, et al., 2010; Penz & Stöttinger, 2005; Rutherford & DeVaney, 2009; Vermeir & Verbeke, 2006).

The reason for the exclusion of Attitude could be related to the analytical technique used, the passengers' perception of the questions, or how the questions were

worded or translated. Previous studies had primarily used single or multiple regression to test the TPB model. These techniques test the individual relationships between variables in isolation, rather than providing a test of the full model (Hair, Black, Babin, & Anderson, 2010). This is in direct contrast to SEM, which attempts a full-model explanation for the proposed relationship (Hair, et al., 2010). Given that Attitude was only slightly low in terms of AVE during the CFA process, it could potentially have been left in. Its exclusion was discretionary, but the poor fit characteristics and the conservative approach chosen by the author did justify its removal. A recreation of the study could try manipulating the wording or measurement of the items in order to improve the validity of the Attitude factor.

There are some alternative explanations as well. One of these explanations is that the attitudes toward the airline could have been misidentified. This is a known issue with the TPB, which has different levels of responsiveness depending on the decision type (Rivis, et al., 2009). For example, emotional and moral attitudes may have a different response than attitudes about the efficacy of a proposed action (Rivis, et al., 2009). Another possible explanation is that the increasing dominance of the LCC business model, particularly in the context of domestic flights, could make attitudes far less important to decision choice. As AOT (2015) statistics show, a majority of domestic flights in Thailand are now operated by LCCs, and the number of LCC passengers on domestic flights is approaching 70%. Given this level of market dominance, which includes in some cases complete control of smaller domestic airports, it is possible that passenger attitudes to LCCs are actually not strongly connected to their buying decisions.

Simply, there may not be any other way for the passengers to get where they are going other than an LCC, no matter how they feel about it.

*Subjective Norms (H2).* It was found that subjective norms had a moderate direct effect on behavioral intentions. Subjective norms can be difficult to identify exactly, since they include both injunctive norms and prescriptive norms, and the importance of norms varies (Rivis & Sheeran, 2003). In the case of the domestic Thai air travel, it is clear that there is likely to be a prescriptive norm that LCC choice is appropriate, since nearly 70% of passengers made that choice in 2014 (AOT, 2015). Furthermore, the choice of an LCC is *not* a moral or taboo behavior, which may trigger much stronger subjective norms, especially against a given behavior (Rivis, et al., 2009). These conditions mean that it makes sense that the consumer would have only a moderate effect of subjective norms on the buying intention for LCC tickets, since the choice is not morally enjoined, nor is it uncommon.

*Perceived behavioral control (H3).* The result of H3 showed that perceived behavioral control had a stronger impact on buying intentions than subjective norms. This is not surprising given the nature of perceived behavioral control. For example, in consumer decisions, perceived behavioral control relates to financial control (whether the consumer can afford it) as well as availability and cognitive capability of making a choice (Ajzen, 2005; Chen, et al., 2011). LCCs, with relatively low cost tickets as well as availability that may be higher than other types of airlines, are very likely to be seen as a choice that has a high level of perceived behavioral control. Simply, consumers feel they

can afford LCC carriers and have access to them, which increases the likelihood that they will choose LCCs when appropriate. This suggests that this could be a different relationship for traditional carriers such as Thai Airways, where tickets were more expensive and perceived as more expensive.

*Buying intention and buying behavior (H11).* H11 is supported, thus confirming the relationship between buying intention and buying behavior. This relationship shows one of the strongest direct effects between the two variables ( $P_{BB,BI} = 0.93$ ), although there could also be indirect effects. This is somewhat stronger than the usual relationship between buying intention and buying behavior. For example, Ajzen (2005) reports that while some studies have shown up to 70% of buying intention is predicted by the independent variables, only about 40% of actual behavior is predicted through the model (a reduction of about 75%). A possible reason for this strength comes from Klöckner (2013), who reported that specific behaviors did sometimes have stronger relationships than more general behaviors. One possibility is lack of choice in carriers, for example between Bangkok and some smaller airports. If passengers were constrained in their choice of airlines, this could change the impact of the decision path. This is an area for potential future research, since this study could not take into account the problem of structural constraints imposed by the airline industry's operation.

*Overall TPB effectiveness.* Overall effectiveness rates of the TPB are consistent with the present study. Previous studies have indicated an effectiveness of 27% to 39% in predicting actual behavior (Armitage & Connor, 2001). Other reports have indicated up



to 70% accuracy in predicting behavioral intention, although actual behavior is lower (around 40%) (Ajzen, 2005). A more recent meta analysis suggested that 36% of general environmental behavior was predicted by the TPB (Klößner, 2013). However, Klößner did state that some specific behaviors were likely to have a stronger effect. The present study does not directly assess the impact of only TPB variables, but the final path coefficients suggest the majority of the impact on behavioral intention was related to Subjective Norms and Perceived Behavioral Control. Additionally, there is a strong link between Buying Intention and Buying Behavior. Thus, the present study is consistent in effect with previous studies on the TPB in terms of the magnitude of effect, though it cannot be compared directly. In general, the TPB was a satisfactory model to explain at least part of the buying intentions and buying behavior of passengers for LCC airlines.

**External factors (Hypotheses 4 through 10).** In addition to the TPB factors discussed above, six factors were identified from the literature that acted as external stimuli or marketing factors. The use of external factors is encouraged in the TPB, since this improves the contextual relationship and usually increases the predictive capability of the model (Ajzen, 2005). In the literature review, the most important factors included airline operations and marketing statements, as well as public reputation and views of the airline. These factors were operationalized as airline reputation, price, airline service quality, airline safety, route availability and convenience, and frequent flier programs.

Overall, these external factors had mixed success. While some factors (airline reputation, price, and service quality) have a significant impact on passenger intention to use LCCs, others (airline safety, route availability and convenience, and frequent flier

programs) do not. Airline safety was removed from the model due to insufficient model fitting. That could be due to misspecification, but it does raise some interesting questions about the importance of airline safety. The literature did offer satisfactory explanations for why route availability and convenience and frequent flier programs were not significant given the composition of the study in this research. In general, these factors were useful additions to the TPB model, since they improved the full model fit.

*Airline reputation (H4 and H5).* Airline reputation is the passenger's general perception of the airline based on public knowledge and information, such as its safety record and news reports (Atalık & Özel, 2007; Bukhari, et al., 2012; Chiam & Soutar, 2009; Dolnicar, et al., 2011; Graham & Bansal, 2007; Zhang, 2011). H4 hypothesizes that airline reputation would have a direct relationship to attitude. This was not tested since Attitude was eliminated from the model. H5 is supported, indicating a positive relationship between Airline Reputation and Buying Intention with a moderate effect ( $P_{BI,AR} = 0.19$ ).

Airline reputation is significant for the research because, unlike the other factors discussed below, it is outside the direct control of the airline and cannot be directly manipulated. The airline's reputation is based on a number of different factors, such as financial performance, safety endorsements, safety record, and size and age of the airline (Graham & Bansal, 2007). Some of these factors can be mitigated (though not eliminated completely) by airline operational practices. For example, airlines can manage their maintenance programs in order to maintain endorsements and safety record. However, size and age, and to some extent financial performance, cannot be so directly controlled.

Airline reputation could be particularly detrimental for LCCs, since older, larger, and national and international (rather than regional) airlines are likely to have a better reputation (Dolnicar et al., 2011). Some types of customers, such as package tour operators, are highly sensitive to airline reputation (Chiam & Soutar, 2009). However, other studies have suggested this is not so important. For example, Chinese passengers are far more concerned about on-time operation than airline brand or reputation (Zhang, 2011). Overall, the potential impact of airline reputation is mixed. It is clear that passengers in the present study *were* paying attention to it, but at the same time it was not the most important factor. In general, airline reputation probably cannot be ignored as a factor in passenger choice of airline even if it is not the most significant factor.

*Price (H6)*. The ticket price of the LCC is considered one of the most important factors – or indeed the only factor – in the choice of ticket for non-business travelers (Chan, 2014; Davison & Ryley, 2010; Diggines, 2010; Dolnicar, et al., 2011; Evangelho, et al., 2005; Fourie & Lubbe, 2006; Hess & Polak, 2006; Jou, et al., 2006; Loo, 2008; Park, 2007; O’Connell & Williams, 2005). H6 supported a significant impact of Price on Buying Intention ( $P_{BIP} = 0.31$ ).

Other researchers offer some depth to the somewhat obvious finding that price matters to LCC passengers. From an economic perspective, it is clear that price is the main factor in the choice of LCCs over full-service carriers (Jou, et al., 2008). This is because LCC service level offerings are substantially lower than full-service offerings, which Jou, et al. (2008) deemed to be less preferable. Some studies have supported price as the most important factor (Dolnicar, et al., 2011; Loo, 2008; Park, 2007). One

particularly interesting finding is that LCC passengers tend to be price-sensitive and will adjust origin/destination pairs and accept less convenient departure and arrival times in exchange for cheaper tickets (Davison & Ryley, 2010). Furthermore, the low prices of LCCs also had the effect of adjusting service quality expectations downward and making them easier to meet (Chan, 2014). Thus, a low priced ticket could actually improve service quality satisfaction, since it also lowered expectations. Of course, not all passengers are driven mainly by low prices. Studies of Malaysian passengers and South African business passengers found that service quality and convenience, respectively, were more important than price (O'Connell & Williams, 2005; Fourie & Lubbe, 2006). Furthermore, South African LCC passengers would happily switch to a full-service carrier if tickets were within 30% of the same price (although the reverse was not true) (Diggines, 2010). These studies show that while price *is* important to passengers, it is not the only consideration, and it may not be enough to encourage non-LCC passengers to try an LCC. In the present study, price was again not the only consideration, although it was important.

This study did not directly measure price sensitivity, but it is possible that such a measure could make a difference in understanding the relevance of price to different market segments. Price sensitivity has been shown to be different between different groups of travelers, including those that chose LCCs and those that chose FSCs (Davison & Ryley, 2010). A detailed study of Thai airline passengers' price sensitivity and willingness to pay for specific aspects of their flight may be helpful in future.

*Airline service quality (H7)*. The third external factor that was assessed was airline service quality. Airline service quality is defined as the passenger's perception of the service quality received (Zeithaml, et al., 2010). Elements of service quality include service timeliness, ground services, and in-flight service and comfort (Atalık & Özel, 2007). H7 is supported, indicating that Service Quality has a positive effect on Buying Intention ( $P_{BI,SQ} = 0.22$ ).

One of the most pressing practical questions is how airlines can balance price and service quality, since increased service quality also drives up prices. Service quality is a complex offering, and completeness of the service offering has been found to be important to passengers (Jou, et al., 2008). However, it should not be assumed that service quality is a fixed or objective entity. Park (2007) found differences in LCC and different fare classes on traditional airlines in their service quality expectations and assessments.

LCC passengers may have a lower expectation of service quality. Chan (2014) found that the low prices of LCC tickets had a secondary effect of adjusting the service quality expectations downward, resulting in improved service quality assessments. This is an important implication for service providers, since it means that LCCs are *not* expected to meet the same level of quality as a full-service carrier. Instead, it must meet service quality expectations that are set *considering* its service offering promise and price levels.

Service quality may be more important for some types of passengers; for example, Malaysian LCC passengers have been shown to be more concerned with service quality and comfort than ticket price (O'Connell & Williams, 2005). Furthermore, airlines do

have some flexibility in designing their service offering. Studies show that, in general, passengers do expect as standard on-time operation and accurate baggage handling (Park, 2007; Zhang, 2011). However, passengers were willing to pay for services such as in-flight food and drink service, improved seating, booking flexibility, and entertainment (Balcolme, 2009; Chen & Wu, 2009). Thus, even though service quality is important, LCCs can manage their service offerings to balance perceived service quality and base ticket prices.

In general, it can be stated that service quality is important for LCC passengers, but that they may have a different service expectation than FSC passengers. Detailed study of service quality expectations between these two groups may be useful in the future.

*Airline safety (H8).* Perceived airline safety can be defined as the passenger's perception of the airline safety record; for example, the extent of incidents and the airline's maintenance record. A number of previous studies have supported airline safety as one of the factors associated with airline choice (Atalık & Özel, 2007; Barros, et al., 2008; Cunningham, et al., 2004; Graham & Bansal, 2007; Jou, et al., 2008; Mikulic & Prebezak, 2011; Oyewole, et al., 2007; Zhang, 2011). Some studies have even suggested that airline safety could be even more important for LCC passengers than traditional full-service carriers, since LCCs may be perceived as unsafe or less safe than other carriers (Mikulic & Prebezak, 2011). As a result, it was surprising that the Airline Safety construct was eliminated during the CFA process.

The same methodological issues discussed above under Attitude also apply to Airline Safety, including that SEM has not often been used in this process, and that the elimination of this variable was borderline and, thus, a researcher choice. However, it is also possible that the conditions of constraint apply. Without a wide range of choices available, especially for transportation to some of Thailand's rural or border areas, it is possible that airline safety perceptions may simply be secondary or orthogonal to airline choice. This is a topic that should be explored further, particularly since airline safety reputations may differ strongly between airlines. It is possible that it was eliminated from the research model because of the airlines in question and their safety records, but this cannot be determined from the data collected. However, it is also possible that Thai passengers are generally unaware of airline safety records or do not see a significant amount of difference between LCCs and full-service carriers. It is not possible to determine which (if any) of these is the situation from the current research.

*Route availability and convenience (H9).* The fifth external variable is route availability and convenience. Route availability and convenience measured the extent to which the airline's scheduling and route maps suited the passenger's needs. This factor was discussed by a number of previous authors and identified as being of some significance in the travel decision (Atalık & Özel, 2007; Castillo-Manzano & Marchena-Gómez, 2010; Hess & Polak, 2006; Fourie & Lubbe, 2006; Theis, et al., 2006; van Eggermond, 2007; Zhang, 2011). In this study, route availability and convenience had a very small main effect on Behavioral Intention ( $P_{BLR} = 0.09$ ), and the coefficient showed that the effect was not significant, so H9 is not supported.

Although it might seem that route availability and convenience would be paramount for passengers, the literature actually suggests this may not be the case for all types of passengers. In theory, the airline is selected based on a two-stage selection process, with passengers first deciding where they want to go and then selecting airlines from the subset of airlines that can get them there (Hess & Polak, 2006). A number of studies on airline choice have shown that convenient routes and flight times do make a difference in the selection of a particular airline (van Eggermond, 2007). This has included some studies on LCCs, such as the study on Turkish LCCs conducted by Atalık & Özel (2007). However, not all passengers show the same extent of concern with specific routings or timings. A study in South Africa showed that LCC passengers are typically less concerned with precise flight timings or destinations, and they are willing to *satisfice* these needs rather than satisfy them (Fourie & Lubbe, 2006). In other words, in exchange for a lower priced ticket LCC, passengers are willing to accept a less convenient flight time or destination airport, such as an auxiliary airport like Don Muang (rather than Suvarnabhumi, Bangkok's main international airport). A study of Spanish passengers showed that passengers who required specific flight times or routes, or who had a complex routing or a long-distance route, were more likely to choose a full-service carrier rather than an LCC in the first place (Castillo-Manzano & Marchena-Gómez, 2010). In summary, while LCC passengers may be expected to enjoy convenient flight times or destinations, they are also willing to accept less convenience in exchange for a lower price. Thai LCC passengers appear to follow this general trend, with no significant relationship between convenience of flight times or destinations and buying intentions for the airline.



*Frequent flier programs (H10)*. The final factor in the buying intentions for the LCC airline is frequent flier programs. Frequent flier programs are programs that offer rewards for loyalty in flight and repeated flights, for example “miles” that can be used to purchase flights or free upgrades (Carlsson & Löfgren, 2006). Frequent flier programs are not typically used by LCCs but have been shown to be a factor in airline choice in other studies ((Carlsson & Löfgren, 2006; Fourie & Lubbe, 2006; Hess & Polak, 2006; Park, 2010; Vidovic, 2013). Thus, there was a question as to whether the absence of a frequent flier program would influence the airline choice for the LCC. Frequent flier programs were ranked substantially lower in importance than other factors in the descriptive statistics. Despite a relatively strong path coefficient ( $P_{BLF} = 0.27$ ), the significance tests ( $p = 0.052$ ) was just above the confidence level accepted. Thus, while H10 was close to acceptance, it was not accepted.

Frequent flier programs may not be as important to LCC passengers as to others. The frequent flier program is designed to increase switching costs and ensure repeat travel from the same customers, but it also increases the cost to the airline per passenger (Carlsson & Löfgren, 2006). Because of these increased costs, LCCs do not typically operate frequent flier programs, although they sometimes do (Vidovic et al., 2013). Thus, passengers that routinely chose LCCs may not expect or value the benefits of the frequent flier program. Additionally, evidence shows that while members of frequent flier programs are influenced by the program’s offerings in their airline choice (as well as other choices), non-members are not influenced by these offerings (Park, 2010). Finally, the main passenger segments that are influenced by frequent flier programs are business travelers, who fly frequently and are generally price-insensitive and more concerned

about convenience and service quality (Dolnicar, et al., 2011; Fourie & & Lubbe, 2006). Very few of the passengers included in this study were routinely travelling for business, and instead most of them were travelling for leisure or other purposes. In summary, the passengers included in this survey are likely to be price-sensitive, travelling for leisure or to visit friends and family, and do not belong to frequent flier programs already. As a result, it is not at all surprising that frequent flier programs were not a significant factor in their choice of airline.

## **Conclusion**

This research was undertaken in order to explain the buying behavior of Thai airline passengers for LCCs and factors that affect this behavior. The LCC market in Thailand has grown substantially in recent years, with 53% of total passenger traffic and 61% of domestic passenger traffic being attributed to LCCs in 2014 (AOT, 2015). This is consistent with the total passenger capacity of LCCs in the Asian region, which has reached about 57% of total capacity (Harbison, 2013). It is also substantially higher than even the previous year; for example, in FY2013 and Q1/Q2 2014, LCCs accounted for about 20% of total traffic at Thailand's airports (AOT, 2014).

Thailand has been identified as one of the key markets for passenger growth in the LCC segment, along with the Philippines (Teng & Perry, 2013). It is considered to be a very friendly market for LCCs, with a growing middle class demanding more travel, along with densely populated urban areas with few other transportation options (Bland, 2014). However, what has not been studied in detail is what leads Thai passengers to choose a particular airline. Only one study could be identified that examined LCCs in

Thailand, and that study emphasized customer satisfaction rather than initial airline choice (Saha & Theingi, 2009). Thus, when commencing this study, there was relatively little information about Thai passengers' choice of LCCs or what factors were important.

This research was performed in order to fill a gap in the literature surrounding LCC passenger choice in Thailand. Although similar research had been performed before, Saha and Theingi's (2009) research took place before the recent explosion in domestic, regional, and international LCC travel in Thailand. It was possible that passenger motivational factors had changed considerably. This research has shown that there are a number of potential changes in the market, offering support for this idea.

### **Recommendations**

This research was intended to study passenger's buying decisions for LCC airlines in Thailand. The study identified several factors in the choice of LCC by passengers. These factors included subjective norms and perceived behavioral control, as well as airline reputation, service quality, and price. Airline safety and attitudes toward LCCs were eliminated in the initial stage of the research, while frequent flier programs and convenience of the flight schedule and locations were not found to be significant during the analysis process. In general, these findings were consistent with the literature, which suggested that LCC passengers do have different preferences and consider different factors in the buying decision than passengers on FSCs.

Perhaps the most important implication of this study is that it is clear that LCC passengers are not merely driven by price, as proposed by some economic models of LCC choice. Instead, factors like service quality and airline reputation, as well as the social

acceptability implied by subjective norms, play a significant role in the choice of LCCs over FSCs. Of course, many passengers will simply select LCCs because they are the least expensive (or indeed in Thailand sometimes the only) way to get where they want to go. However, for other passengers, traveling on a good airline with acceptable levels of customer service will still be important. Thus, there are implications of the study for airlines, who need to develop their services. This study also suggests that further research into LCCs is required in order to fully understand what passengers are seeking. Since it is clear that price alone does not drive the choice of LCC, it is reasonable to conduct further research into the passenger segment and understand what drives them. The final section of this chapter develops these implications with recommendations for LCCs serving Thai passenger and for future researchers.

**Contribution to the literature.** This study has made several critical contributions to the literature in places where there were literature gaps. One of these contributions is in understanding the Thai (and more generally Asian) perspective on LCCs and LCC choice. Thailand's LCC growth rates are considerably faster than the growth rates reported for Europe, where the LCC segment is growing by only 1.4% p.a. (Eurocontrol, 2013). Europe's market growth for LCCs is still faster than the general air traffic growth, which is stagnant (Eurocontrol, 2013). Thailand, as a domestic market, is now entirely dominated by LCCs, with even Thai Airways, the country's premier full-service carrier, entering the market with ventures like Thai Smile and Nok Air. Thus, understanding the reasons behind the growth of the LCC market in Thailand is important for understanding the appeal of the LCC segment generally. Since Thailand is one of the

most rapidly growing markets, it makes sense to examine what passengers in this market are looking for.

Another contribution to the literature is that this study complicates the relationship between price and the LCC. Some previous studies have suggested that price is the only or the most significant factor in the choice of LCCs (Jou, et al., 2008). Studies have also characterized LCC passengers as highly price sensitive and willing to give up other benefits, such as service quality and convenience, in exchange for a cheaper price (Davison & Ryley, 2010; Dolnicar, et al., 2011; Loo, 2008; Park, 2007). However, research has also suggested that LCCs may not be as inexpensive as previously thought, particularly after additional charges such as checked baggage fees are added on (Vidovic, et al., 2006). While the price gap between LCCs and FSCs has historically been higher in Asia than in the United States or Europe (Smyth & Pearce, 2006), this is still a contradiction that needs to be considered. The findings of this study contribute to the literature surrounding this problem because it demonstrates that price is *not* the only factor involved in the passenger's choice of LCC. Factors including airline reputation, service quality, and subjective norms (representing the social acceptability of LCC travel), as well as perceived behavioral control, also play a role. These findings suggest that the perceived acceptability and accessibility of travel on LCCs, and satisfaction with the level of service provided and general airline reputation, play as much of a role, and sometimes more, than the price. This calls for an expansion of consideration of the LCC business model beyond price and into consideration of other areas. For example, this could include the fact that LCCs make smaller (potentially more convenient) airports available, and they bring air travel within the reach of the growing middle classes.

This growth in the middle classes is likely to be one of the reasons behind the rapid expansion of the LCC in Thailand (Bland, 2014; Teng & Perry, 2013). This is one of the few studies that has explored this topic since the rapid growth of the industry, with the last study taking place several years ago (Saha & Theingi, 2008). Thus, the final contribution is an updated look at the habits and practices of Thai LCC passengers.

**Limitations of the study.** There were several limitations to the study that could either not be eliminated from the study design or became apparent during the research process. Overall, these limitations do not reduce the contribution of the study to the literature. However, they do influence how far the study can be generalized, either to the Thai population or to others.

Some limitations in the application of the findings come from the study design. The simplest limitation is that the study was conducted as a cross-sectional design. This offers a snapshot of the situation when the research was conducted (mid-2014), but does not offer insight into changing situations or views of passengers. For example, it is possible that the influence of various factors could change over time as passengers gain more experience with LCCs in general or a particular LCC. However, this study design will not reflect those changes. Another limitation is that the results only tested whether or not specific factors identified were relevant to the buying decision and do not offer insight into other potential factors that might be relevant. This was a limitation of the scope of the study.

The elimination of the Airline Safety and Attitude factors also posed a limitation on the study. This was due to problems with both convergent and discriminant validity,

which none of the other factors displayed. Although the researcher could have chosen to leave these constructs in the study, they were removed to ensure that it had the highest possible level of validity. The lack of convergent and discriminant validity most likely occurred because of mis-specification of the observed variables, leading to inconsistency between the observed and latent variables. This reflects a general problem with specifying attitudes and perceptions, which the researcher will be aware of in future research. This is a common problem in attitude-based literature, as it can be difficult to identify the attitudes that may apply to a particular situation (Ajzen, 2005). The failure of the Airline Safety construct is less certain, although this construct was marginal and could have been retained. In future, pre-testing will include discriminant and convergent validity analysis to ensure that the observed and latent variables are consistent in a test sample. Another way to improve the outcome of the study is to use a mixed methods design, with in-depth interviews informing what kinds of attitudes and perceptions of airline safety as well as other norms airline passengers hold. This could have improved the convergent and discriminant validity of the questionnaire. These eliminations should have been avoided if possible. Obviously, not every construct in every study will be valid, but the elimination of the core construct of Attitudes, which is a major component of the TPB, does in the researcher's view limit the generalization of the study and have an impact on its quality.

There are several limitations in the application of the findings to other populations. One of these limitations is that the findings may be culturally particular. Culture is known to be a factor in buying decisions and has been shown to influence

airline choice (Lantos, 2010; Park, 2010). As a result, it may not be appropriate to directly apply these findings to a passenger population from another culture.

Another potential limitation is that the representativeness of the sample is uncertain. This means it is difficult to generalize the findings across demographic groups. Although the demographics of the sample did not match the general Thai population, there are no reliable demographics that can be compared to for LCC passengers. The potentially non-representative nature of the population should be taken into account when using these study results. This is both the most important potential limitation and the one that was the most difficult to resolve, since collecting demographic data at the required scale would be a significant task.

**Practical Implications.** The first set of recommendations from the study is for the LCC industry in Thailand and elsewhere. These recommendations are derived from the findings of the study as well as the literature. They are designed to improve LCC performance in the market by improving their appeal to the passengers. The four recommendations that were identified for this study include: protecting price difference margins compared to full-service airlines; establishing and protecting their service quality levels; establishing and protecting public reputation of the airline; and maintaining the current broad-based route networks.

*Protect price leadership.* The first recommendation is that LCCs should try to avoid allowing the pricing of their products to become more expensive. Price was one of the most significant factors in the findings for this study. The importance of price has



been supported for at least some market segments, especially LCC passengers (Chan, 2014; Davison & Ryley, 2010; Diggines, 2010; Dolnicar, et al., 2011; Evangelho, et al., 2005; Fourie & Lubbe, 2006; Hess & Polak, 2006; Jou, et al., 2006; Loo, 2008; Park, 2007; O'Connell & Williams, 2005). In general, this is true for most passenger segments except for business travelers, long-haul travelers, and those that require transfers or have a complex itinerary. In some regions such as the U.S. and Europe, the price difference between full-service and low-cost carriers is much lower, with the price gap in the U.S. being only 36% (Smyth & Pearce, 2006). This is important because FSC passengers may become more willing to switch to LCCs if the price difference is 30% or more (Diggines, 2010). Based on this situation, LCCs in Thailand should try to avoid losing their price advantage by keeping their prices lower than FSCs, particularly when they are competing on the same routes. This will help them meet the basic requirements of the LCC passenger.

*Protect service quality.* Earlier studies of service quality in LCCs have suggested that LCC passengers are willing to sacrifice service quality in exchange for an inexpensive ticket. This includes research in Thailand, which has indicated that passengers are not generally satisfied with the service quality of Thai LCCs but continue to buy tickets despite this because of the price (Saha & Theingi, 2009). However, that study was conducted several years ago when LCCs were not as established as they are today. In the modern market, with LCCs dominating Thai air traffic and several different firms being present in the market, service quality cannot be ignored. This research showed that service quality was a significant factor in buying intentions for LCCs. This

suggests that customers *do* prioritize service quality in areas like the check-in process, baggage handling, in-air service quality, and so on. Thus, LCCs cannot ignore service quality in their offerings.

Of course, the importance of service quality for LCCs does not mean that LCCs have to provide the same level of service as FSCs. Previous research has shown that different airline travel classes are associated with different service quality expectations (Park, 2007). Research has also shown that LCC passengers are willing to revise their service expectations downward because of the price (Chan, 2014). Thus, the important thing for LCCs is that they determine the expectations of their passengers and meet them.

Following the review of the literature and the findings of this study, the main recommendation for service quality is that LCCs in Thailand perform customer research and analysis to determine what customer service quality requirements are and whether they are meeting them. This can then be used to adapt the customer message and service provision in order to improve outcomes.

*Protect public image.* Two out of five of the significant factors for buying intention were related to the public and social image of the airline and, as a result, its social acceptability. These factors included subjective norms (part of the TPB factor cluster) and airline reputation (part of the airline-related factor cluster). These two factors represent the same underlying idea, which is the social perception of the airline and whether or not it is considered to be a good company or service. The construction of subjective norms means that the information from them comes from public information such as airline reputation, as well as particular information related to social situations and

norms (Ajzen, 2005). Thus, the findings of this study have shown that the public image and reputation of the LCC and the resulting social acceptance of their use are significant factors in LCC choice. These findings are consistent with a range of other studies on airline choice, which have also supported the idea that airline reputation plays a role in the choice of LCCs and other airlines (Atalık & Özel, 2007; Bukhari, et al., 2012; Chiam & Soutar, 2009; Dolnicar, et al., 2011; Graham & Bansal, 2007; Zhang, 2011).

Based on these two factors, the third recommendation for airlines is that they should protect their public reputation and image in Thailand. Protecting price and service quality, as discussed above, will help with public reputation since this will help establish the LCC as a reliably low-cost and good service carrier. However, there are other factors in airline reputation that can be managed, including financial performance, safety endorsements, and safety records (Graham & Bansal, 2007). Age and size of the firm are also factors in airline reputation, according to Graham and Bansal (2007), but these cannot be managed directly. By paying attention to their public presentation and service offering, it will help ensure that the airline can attract LCC passengers directly. Reputation management will also help the airline become more acceptable in society, leading to a generalized social norm that LCC travel is acceptable.

*Maintain route diversity.* This research did not find that route availability and convenience was a factor in the buying intention for LCCs in general. However, previous research into the role of LCCs in Thailand has suggested that the diversity of routes available, including both domestic and international routes, is one of the factors in the growth of their popularity (Bland, 2014; Teng & Perry, 2013). Thailand has a growing

middle class that is increasingly willing to travel, as well as geography and infrastructure that offers few other options for travelling domestically or regionally. Thus, the LCC is providing an opportunity for growth through connection of domestic and regional small and secondary airports, rather than only providing connections to international destinations and large cities. This means that consumers do not *have* to consider route availability, since LCC coverage is readily available on these routes. If LCCs reduced their routes and destinations significantly, this could become a more significant factor. Thus, the final recommendation of the research is that LCCs should continue to offer their current broad range of destinations rather than trying to cut back on the number of destinations they serve.

### **Recommendations for Future Research**

The final task of this study is to provide recommendations for future academic research. These recommendations were derived from critical reflection on the findings of the study and their contextualization in the literature review (discussed above). Any future research could include modification of the existing model, which is discussed at the end, in order to improve the outcomes.

*Service quality.* The first recommendation for further research is service quality expectations of LCC customers. The current study did show that service quality was a significant factor in the buying intention for LCCs, but it did not determine precisely what service quality expectations passengers had or how they could be met. The previous research into service quality on LCCs in Thailand is very thin and was conducted some

years ago (Saha & Theingi, 2009). As a result, there is little guidance for airlines or academics about the service quality expectations of Thai passengers. Additionally, most of the previous studies on service quality have focused on full-service passengers or specific passenger segments such as business passengers. The recommendation for this research is that service quality surveys of LCCs in Thailand could be useful for understanding exactly what level of service is expected and received. This study could be conducted using a standardized measure, for example SERVQUAL, which uses a gap analysis approach to examining service quality in five dimensions including Reliability, Assurance, Tangibles, Empathy, and Responsiveness (Zeithaml, et al., 2010). This type of standardized approach could be helpful since it would allow researchers to compare directly between airlines, as well as identifying specific gaps between service expectations and the service offering.

*Airline safety perceptions.* The second opportunity for future research is airline safety perceptions. Previous research has shown that airline safety perceptions, particularly perceptions about the safety record as well as recent incidents and accidents, have an effect on airline reputation (Graham & Bansal, 2007). However, in this research it was not found to be significant. This could be because airline safety is less of a concern in recent years than it has been historically with airlines having a steadily reducing accident rate (Barros, et al., 2010). However, it could also be for other reasons that were not determined in this research. For example, it could be because airline safety is one of the components of airline reputation or because there is relatively little concern about airline safety, or because there is little difference between available airlines. By studying

perceptions of airline safety and the importance of these perceptions, future researchers could help clarify the significance of airline safety reputations. This research could be conducted as a qualitative study, in order to provide an exploratory analysis of perceptions of airline safety. However, it could also be conducted as a mixed methods study, which would allow descriptive research to support the frequency of airline safety factors in the population.

*Culture and LCCs.* The present study highlighted a problem with LCC use, which is that although there are regional differences in their popularity and prevalence, there has been little research into what kinds of cultural differences influence or predict their popularity. In particular, there has been little comparative study of LCC passengers and their preferences. The only significant study, which compared Irish and Malaysian LCC passengers, was conducted over a decade ago (O'Connell & Williams, 2005). At that time, the LCC market was substantially different than today's industry. This is important information to know, particularly for LCCs that are trying to build their networks or new entrants into various markets. The significance of cultural norms for buying intentions in the present study did demonstrate that there are likely to be cultural differences since these norms vary by culture (Ajzen, 2005). Thus, the third recommendation from this study is that researchers should consider the impact of cultural factors on LCCs and examine how these factors influence the choice of LCCs. This type of research could be conducted using a cross-national study of passengers from airlines that are similar to each other or arms of the same airline. For example, in Asian countries, a cross-national comparison could be conducted on passengers of AirAsia, which has a consistent service

offering and domestic flights in several countries. This would help determine whether there are significantly different perceptions of the airline across cultures.

*Price sensitivity.* The fourth recommendation for future research is into price sensitivity of LCCs in the presence of route constraints. One of the important aspects of the Thai LCC industry is that in many cases, LCCs may be the only feasible travel route to a particular destination. As a result, it is less certain whether LCC passengers in Thailand, particularly on domestic or regional routes to secondary destinations, are as price-sensitive as claimed by authors such as Jou et al. (2008). It would be helpful to understand whether passengers are in fact as price-sensitive as stated, or whether route availability plays more of a role in the decision to fly with a particular airline. This type of research could be conducted as a quantitative survey. However, it might also be helpful to study this problem using questionnaires or possibly even an experiment, which could help quantify the extent to which passengers are actually price sensitive. This research may be important in the future as LCCs begin to increase their prices in response to increased costs.

*Re-specification of existing model.* Future research into this area could involve re-specification of the existing factors, including Airline Safety and Attitude (the eliminated factors) in order to improve convergent and discriminant validity for all factors. This could allow the research model to be re-used in future research with improved and refined findings. It could also provide more information about the specific attitudes and perceptions that are relevant to LCCs and airline choice. One of the potential changes that

could be made is collapsing Airline Safety and Reputation into a single variable, since these constructs might overlap. This could provide a broader and more general picture of how passengers view the airline's operations and performance, including its safety elements. Another change that could be made is changing the research model so that other factors contribute to Attitude, and then Attitude to Buying Intention, rather than relating other factors directly to buying intention. This would be more consistent with the original design of the TPB, although either version could be used. This could help to improve the outcomes by increasing the effect of Attitude. As mentioned in the Limitations above, respecification of these factors should include re-analysis of appropriate Attitude within the questionnaire as well, using mixed methods research. This will help improve the connection of the Attitudes to actual passenger attitude that influence their actions.

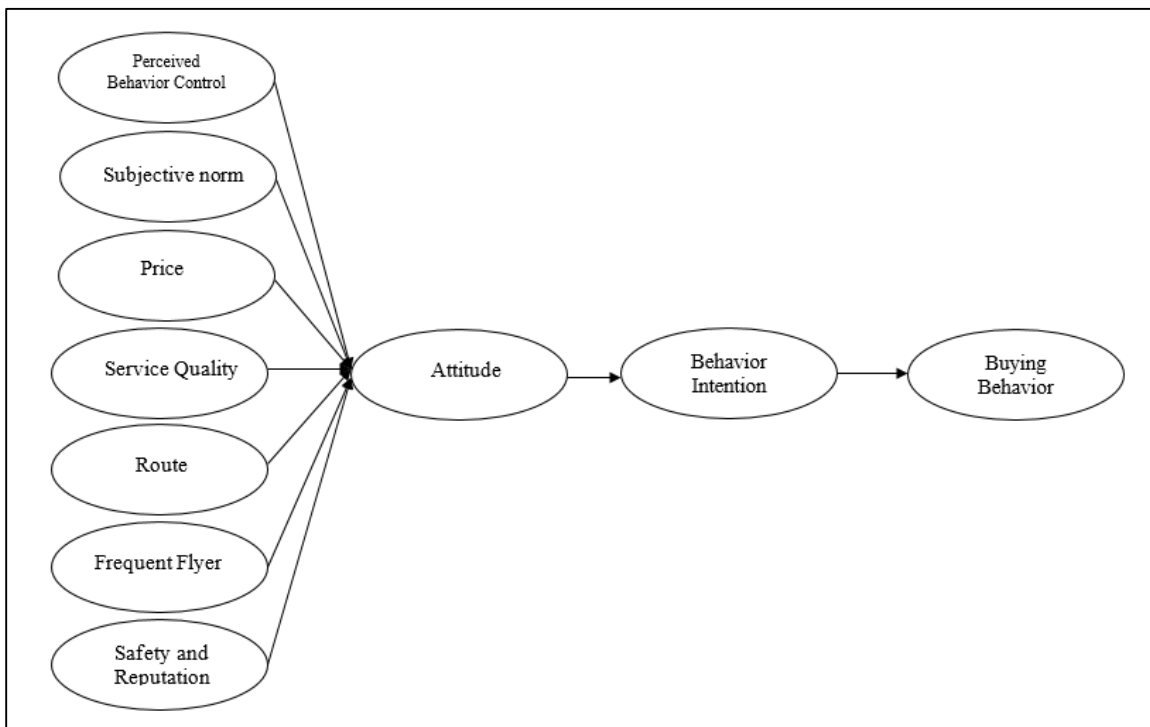


Figure 17. *Further Recommended Model*



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## Appendix A: TPB Characteristics

Table 16. *Summary definition of TPB characteristics.*

Factor	Definition
Attitude	Attitudes can be defined as cognitions and emotions related to the decision that the individual is considering and the extent to which the individual values the behavior. Attitudes are specific to the object or behavior under consideration. They are determined by specific behavioral beliefs and may vary depending on the strength of the behavioral belief (Ajzen, n.d.).
Behavior	Behavior is the final outcome of the TPB model or the point where the individual acts on the decision (Ajzen, n.d.). The behavior is the outcome of the cognitive and effective processes where the individual actually takes an action based on the attitudes and other factors identified (Ajzen, 2005).
Behavioral Intention	The behavioral intention can be defined as “an indication of a person’s readiness to perform a given behavior and is considered to be the immediate antecedent of behavior” (Ajzen, n.d.). The behavioral intention is formed at the point where the consumer makes an active decision to engage in the contemplated behavior based on their assessment of the three variables above (Ajzen, 2005).
Perceived Behavioral Control	Perceived behavioral control (PCB) refers to “people’s perceptions of their ability to perform a given behavior” (Ajzen, n.d.). PCB is influenced by control beliefs. For example, this can include whether he or she has the resources or will power to make a particular choice. In consumer decisions, availability of products/services and perceived financial control (whether or not the individual feels he or she has enough money to afford the decision or what the opportunity cost will be) is a relevant understanding of PCB (Cheng, Fu, & Tu, 2011). PCB is not directly based on actual behavioral control, although it will probably be related (Ajzen, n.d.).
Subjective Norms	Subjective Norms are “the perceived social pressure to engage or not to engage in a behavior” (Ajzen, n.d.). They are based on normative beliefs or individual perceptions of the attitudes of others related to the behavior that is being considered (Ajzen, 2005). A number of different types of norms can be included such as injunctive norms (which are what the individual believes other people think they should do) and descriptive norms (which are what the individual believes other people actually do) (Rivis & Sheeran, 2003). Other subjective norms that may play a role in the decision are moral norms and anticipated affect (how the individual thinks he or she will feel after the behavior), especially for morally-laden behaviors (Rivis, Scheeran, & Armitage, 2009).

## Appendix B: Factors in Airline Selection

Table 17. *Summary of factors in airline selection.*

Factor	Description	Sources
Airline reputation	The perceived reputation of the airline refers to the passenger's general perception of the airline based on public knowledge and information (for example safety record). An airline's public reputation will influence passenger choice.	Atalık & Özel (2007) Bukhari, et al. (2012) Chiam & Soutar (2009) Dolnicar, et al. (2011) Graham & Bansal (2007) Zhang (2011)
Airline safety	Perceived safety refers to the passenger's impression of the airline and its general safety record. An airline's safety record, especially a record of recent accidents, will influence passenger choice. For most passengers, this will be based on publicly available information rather than detailed knowledge of the airline's actual safety record or procedures.	Atalık & Özel (2007) Barros, et al. (2008) Cunningham, et al. (2004) Graham & Bansal (2007) Jou, et al. (2008) Mikulic & Prebezak (2011) Oyewole, et al. (2007) Zhang (2011)
Frequent flier programs	Perception of frequent flier programs refers to the value consumers place on the frequent flier program and its incentives. Airlines do sometimes use frequent flier programs to offer passengers incentives. This can influence airline selection, though LCCs do not ordinarily have these programs.	Carlsson & Löfgren (2006) Fourie & Lubbe (2006) Hess & Polak (2006) Park (2010) Vidovic, et al. (2013)
Price	Perceived price is the passenger's perception of the price of the ticket based on their available information. Price is often	Chan (2014) Davison & Ryley (2010) Diggines (2010) Dolnicar, et al. (2011) Evangelho, et al. (2005)

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Route availability and convenience	<p>the main factor for LCC selection. However, sometimes it is a perception of low price, rather than a confirmed low price, that drives selection. LCC passengers are more price-sensitive than FSC passengers in general. Perceived route availability and convenience refers to the extent to which the passenger views the airline's schedule and route offerings as appropriate for their needs. This factor includes passenger preferences for direct route and, if necessary, ease of transfer between airlines or routes.</p>	<p>Fourie &amp; Lubbe (2006) Hess &amp; Polak (2006) Jou, et al. (2008) Loo (2008) Park (2007) O'Connell &amp; Williams (2005)  Atalık &amp; Özel (2007) Castillo-Manzano &amp; Marchena-Gómez (2010) Fourie &amp; Lubbe (2006) Hess &amp; Polak (2006) Theis, et al. (2006) van Eggermond (2007) Zhang (2011)</p>
Service quality	<p>Perceived service quality is the passenger's perception of the service quality received, depending on the criteria they have established. Service quality includes service timeliness (on-time departure and arrival), ground services (check-in, boarding, and luggage) as well as in-flight services (food and drink and service classes). LCC and full-service passengers select airlines based on perceived service quality, but LCC passengers may have reduced expectations for service.</p>	<p>Atalık &amp; Özel (2007) Balcolme, et al. (2009) Chen &amp; Wu (2009) Fourie &amp; Lubbe (2006) Huang (2009) Jou, et al. (2008) Martín, et al. (2008) Park (2007) Suzuki (2004) Wittman (2014) Zhang (2011)</p>

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### Appendix C: Variables Definition and Items

Table 18. *Variable operational definitions and items.*

Variable(s)	Operational definitions	Items used	Adapted from
Attitude	The value and weight a passenger places on the LCC offering.	A1. Low cost airline is another good alternative choice of airline A2. I have a good perception toward low cost airline A3. My overall attitude toward low cost airline is positive.	Siragusa & Dixon, (2009).
Subjective norms	The extent to which the passenger feels it is socially acceptable to use a LCC.	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.	Dodds, Monroe, & Grewal, (1991)
Perceived behavior control	The extent to which the passenger feels able to control choice of LCC or other airline (such as charter, full-service, or regional.)	PB1. I have no difficulty to buy the ticket from low cost airline. PB2. The choice of selecting type of airline ticket is entirely up to me. PB3. I feel the choice of airline selection is under my control.	Dodds, Monroe, & Grewal, (1991)
Price	The perception of the passenger about the price of the ticket and how well it meets his or her needs.	P1. The price of low cost airline is reasonable for me. P2. The price of low cost airline meets my needs. P3. I am satisfied with the price of low cost airline.	N/A
Service quality	The perception of the passenger about the service provided compared to the price paid.	SQ1. I think service quality provided by low cost airline is great compared to the price they offered. SQ2. I am satisfied with service quality provided by low cost airline.	N/A

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Airline reputation	The perception of the passenger that the airline has a good public reputation.	<p>SQ3. Overall service quality of low cost airlines is good.</p> <p>AR1. I usually perceive good information about low cost airline.</p> <p>AR2. I believe that low cost airline has a good reputation.</p> <p>AR3. I think low cost airlines have good public reputation.</p>	N/A
Airline safety	The perception of the passenger about the airline's operational safety record.	<p>AS1. Safety system is the main the most significant factor that I consider when buying airline ticket.</p> <p>AS2. I only use the airline that has a good reputation on safety system.</p> <p>AS3. I believe that low cost airline has a good safety system.</p>	N/A
Route availability and convenience	The perception of the passenger about how well the airline's route availability, timing, and other convenience factors meet his or her needs.	<p>R1. The number of routes is the main reason that influences me to use airline service.</p> <p>R2. I am satisfied with timing and flight schedule provided by low cost airline.</p> <p>R3. The route availability offered by low cost airline meets my expectation.</p>	N/A
Frequent flier program	The perception of the passenger that frequent flier program offerings are valuable.	<p>F1. I think that frequent flier program offered by low cost airlines is one of the main reasons that influences me to use airline service.</p> <p>F2. I think frequent flier program offerings are valuable.</p> <p>F3. I buy ticket of this airlines because of benefits of flier program.</p>	N/A

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Passenger buying intention	The passengers' intentions to buy a low cost airline ticket.	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 ticket from low cost airline is high.	Dodds, Monroe, & Grewal, (1991)
Passenger buying behavior	The passenger's buying behavior toward low cost airline.	BB1. I am a regular passenger of low cost airline. BB2. I always purchase ticket from low cost airline. BB3. I would continue to buy ticket from low cost airline in the future.	Dodds, Monroe, & Grewal, (1991)

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## Appendix D: Questionnaire

### **“Determination of Factors That Influence Passengers’ Airline Selection: A Study of Low Cost Carriers in Thailand”**

**STUDY LEADERSHIP.** I am Thapanat Buaphiban, a student in the college of aviation at Embry Riddle Aeronautical University, Daytona Beach, Florida, USA. I am asking you to take part in my Ph.D. Dissertation research project. Dothang Truong, Ph.D., a member of the department, is supervising this study.

**PURPOSE.** The purpose of this research is to investigate factors influencing the selection of airlines in Thailand from the passenger point of view based on research at Suvarnabhumi International Airport (BKK) and Don Mueng International Airport (Operated only LCCs).

**ELIGIBILITY.** To take part in this study you must be a passenger who departing from a Thai airport using a low-cost carrier (LCC).

**PARTICIPATION.** During the study, you will take a survey asking about your travel experience and demographic questions such as your approximate age and education level. You will also be asked about your opinions on factors influencing passengers’ airline selection such as “Low cost airline is another good alternative choice of airline” (agree/disagree). Completing this questionnaire will take about 15 minutes.

**RISKS OF PARTICIPATION.** The risks you run by taking part in this study are minimal and not higher than those faced in everyday life. The risk includes the possibility that you may be offended by some of the questions in the survey. You are free to skip any questions that makes you uncomfortable or stop the survey at any time.

**BENEFITS OF PARTICIPATION.** I do not expect the study to benefit you personally. This study will benefit me by helping me to finish my PhD. This study is also intended to benefit academic and business readers, specifically contributing to knowledge about consumer motivations of low-cost carriers.

**VOLUNTARY PARTICIPATION.** Your participation in this study is completely voluntary. You may stop or withdraw from the study at any time or refuse to answer any particular question for any reason without it being held against you. Your decision whether or not to participate will have no effect on your current or future connection with anyone at Embry Riddle Aeronautical University.

**CONFIDENTIALITY.** All information collected from this survey will be kept confidentially, and raw data will be destroyed as soon as the data is analyzed. The survey will be in unidentified format, and participant information is anonymous.

**CONSENT.** Ticking “Yes” below means that you understand the information on this form, that any questions you may have about this study have been answered, and that you are eligible and voluntarily agree to participate on this survey. Ticking “No” will end this survey.

Yes, I am a passenger who is departing from a Thai airport using a low-cost carrier (LCC) and I would like to participate. (Please start the survey)

No, I do not want to participate. (Please end the survey)

---

### **Section 1: Screening Section**

1.1 Are you departing from a Thai airport using a low-cost carrier (LCC)?

( ) Yes (Please continue) ( ) No (Please withdraw this survey)

### **Section 2: Travel Experience**

2.1 How often do you travel by LCCs?

( ) This is my first time ( ) Less than once per year  
( ) Once per year ( ) 2 to 3 times per year

More than 3 times per year

2.2 Which destinations do you normally fly to from Thailand using LCCs?

within Thailand  South East Asian countries

Asia Pacific  Australia

Other, please specify\_\_\_\_\_

2.3 How do you get information about the airline?

Search engine  Social media

Company website  Travel agency

Family and friends  TV advertising

Travel magazine

Other, please specify\_\_\_\_\_

2.4 How do you purchase your LCC ticket?

LCC website  LCC Office

LCC call center  At the airport

Travel agency

Other, please specify\_\_\_\_\_

2.5 What is the main purpose of travelling by LCC?

Leisure/Vacation  Business

( ) Seminar/Conference/Training

( ) Study

( ) Medical treatment

( ) Visiting family

( ) Other, please specify \_\_\_\_\_

### Section 3: Factors influencing passengers' airline selection

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A1. Low cost airlines are another good alternative choice of airline.					
A2. I have a good perception toward low cost airlines.					
A3. My overall attitude toward low cost airlines is positive.					
S1. I fly with low cost airlines because my friends/family recommend it.					
S2. I feel more confident with the service of low cost airlines because my friends/family uses it.					
S3. Most of my friends use low cost airlines.					
PB1. I have no difficulty buying the ticket from a 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.					
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.					
SQ1. I think service quality provided by a low cost airline is great compared to the price they offer.					
SQ2. I am satisfied with service quality provided by low cost airlines.					

SQ3. Overall service quality of low cost airlines is good.					
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.					
AS1. Safety system is the most significant factor that I consider when buying 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.					
R1. The number of routes is the main reason that influences me to use airline service.					
R2. I am satisfied with timing and flight schedule provided by low cost airlines.					
R3. The route availability offered by low cost airlines meets my expectation.					
F1. I think that the frequent flier program offered by low cost airlines is one of the main reasons that influence me to use airline service.					
F2. I think frequent flier program offerings are valuable.					
F3. I buy ticket of this airlines because of benefits of flier program.					

#### Section 4: Buying Behavior

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
BI1. I would go for a low cost airline when I look for the airline ticket.					
BI2. A Low cost airline is the first choice for me when thinking to buy an airline ticket.					



BI3. My intention to purchase a ticket from a low cost airline is very high.					
BB1. I am a regular passenger of low cost airlines.					
BB2. I always purchase tickets from low cost airlines.					
BB3. I would continue to buy tickets from low cost airlines in the future.					

### Section 5: Demographic Factors

#### 5.1 Gender?

Male

Female

#### 5.2 Age?

20 or younger

21-30 years

31-40 years

41-50 years

51-60 years

Older than 60 years

#### 5.3 Education Level?

Lower than Bachelor's degree

Bachelor's degree

Master's degree

Higher than Master's degree

#### 5.4 Monthly Income?

15,000 baht or less

15,001-25,000 baht

25,001-35,000 baht

35,001-45,000 baht

45,001-55,000 baht

More than 55,000 baht

### 5.5 Occupation?

Student

Private company employee

Government officer

State enterprise employee

Business owner

Freelance

Retired

Unemployed

Other, please specify\_\_\_\_\_

## Appendix E: IRB Approval Exempt Determination

### Embry-Riddle Aeronautical University Application for IRB Approval Exempt Determination

**Principle Investigator:** Dr. Dothang Truong   **Other Investigators:** Thapanat Buaphiban  
**Role:** Student   **Campus:** Daytona Beach   **College:** COA

**Project Title:** Determination of Factors That Influence Passengers' Airline Selection: A Study of Low Cost Carriers in Thailand

**Submission Date:** 11/18/2014   **Determination Date:** 12/12/2014

Review Board Use Only

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Initial Reviewer: Teri Gabriel/M.B. McLatchey

Exempt: Yes

Approved:           M.B. McLatchey            
                  Chair of the IRB Signature

**Brief Description:** This research will study the problem of how consumers choose low-cost carriers (LCCs) and what factors play a role in that decision. The purpose of this research is to investigate factors influencing the selection of airlines in Thailand from the passenger point of view, based on research at Suvarnabhumi International Airport (BKK) and Don Mueng International Airport (Operated only LCCs).

This research falls under the **exempt** category as per 45 CFR 46.101(b) under:

- (2) Research involving **only** the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures (of adults), interview procedures (of adults) or observation of public behavior. Participant information obtained will remain anonymous and confidential.

An exempt research project does not require ongoing review by the IRB, unless the project is amended in such a way that it no longer meets the exemption criteria.

**Protection of Human Subjects  
Assurance Identification/IRB Certification/Declaration of Exemption  
(Common Rule)**

Policy: Research activities involving human subjects may not be conducted or supported by the Departments and Agencies adopting the Common Rule (56FR28003, June 18, 1991) unless the activities are exempt from or approved in accordance with the Common Rule. See section 101(b) of the Common Rule for exemptions. Institutions submitting applications or proposals for support must submit certification of appropriate Institutional Review Board (IRB) review and approval to the Department or Agency in accordance with the Common Rule.

Institutions must have an assurance of compliance that applies to the research to be conducted and should submit certification of IRB review and approval with each application or proposal unless otherwise advised by the Department or Agency.

1. Request Type <input type="checkbox"/> ORIGINAL <input type="checkbox"/> CONTINUATION <input checked="" type="checkbox"/> EXEMPTION	2. Type of Mechanism <input type="checkbox"/> GRANT <input type="checkbox"/> CONTRACT <input type="checkbox"/> FELLOWSHIP <input type="checkbox"/> COOPERATIVE AGREEMENT <input type="checkbox"/> OTHER: _____	3. Name of Federal Department or Agency and, if known, Application or Proposal Identification No.
4. Title of Application or Activity <b><i>Determination of Factors That Influence Passengers' Airline Selection: A Study of Low Cost Carriers in Thailand</i></b>		5. Name of Principal Investigator, Program Director, Fellow, or Other Dothang Truong / Thapanat Buaphiban

## 6. Assurance Status of this Project (Respond to one of the following)

- This Assurance, on file with Department of Health and Human Services, covers this activity: Assurance Identification No. \_\_\_\_\_, the expiration date \_\_\_\_\_ IRB Registration No. \_\_\_\_\_
- This Assurance, on file with (agency/dept) \_\_\_\_\_, covers this activity. Assurance No. \_\_\_\_\_, the expiration date \_\_\_\_\_ IRB Registration/Identification No. \_\_\_\_\_ (if applicable)
- No assurance has been filed for this institution. This institution declares that it will provide an Assurance and Certification of IRB review and approval upon request.
- Exemption Status: Human subjects are involved, but this activity qualifies for exemption under Section 101(b), paragraph 2.

## 7. Certification of IRB Review (Respond to one of the following IF you have an Assurance on file)

- This activity has been reviewed and approved by the IRB in accordance with the Common Rule and any other governing regulations.  
by:  Full IRB Review on (date of IRB meeting) \_\_\_\_\_ or  Expedited Review on ()  
 If less than one year approval, provide expiration date \_\_\_\_\_
- This activity contains multiple projects, some of which have not been reviewed. The IRB has granted approval on condition that all projects covered by the Common Rule will be reviewed and approved before they are initiated and that appropriate further certification will be submitted.

## 8. Comments

FWA# 000018875  
15-078

9. The official signing below certifies that the information provided above is correct and that, as required, future reviews will be performed until study closure and certification will be provided.	10. Name and Address of Institution <b>Embry-Riddle Aeronautical University 600 South Clyde Morris Boulevard Daytona Beach, Florida 32114-3900</b>
11. Phone No. (with area code) (386) 226-7179	
12. Fax No. (with area code)	
13. Email: Teri.gabriel@erau.edu	
14. Name of Official <b>M.B. McLatchey</b>	15. Title <b>Chair of the Institutional Review Board</b>
16. Signature <i>M.B. McLatchey</i>	17. Date 12/11/2014

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## Human Subject Protocol Application

Campus: **Daytona Beach** College: **COA**

Other Institution Name & Address:

Applicant: **Thapanat Buaphiban** Degree Level: **PhD**

ERAU ID: **1310749** ERAU Affiliation: **Student**

Project Title: **Determination of Factors That Influence Passengers' Airline Selection: A Study of Low Cost Carriers in Thailand**

Principal Investigator: **Dr.Dothang Truong**

Other Investigators:

Submission Date: **11/04/2014**

Beginning Date: **12/01/2014** Expected End Date: **02/28/2015**

Type of Project: **Research**

Type of Funding Support (if any): **self funding**

### Questions:

1. Background and Purpose: Briefly describe the background and purpose of the research.

This research will study the problem of how consumers choose low-cost carriers (LCCs) and what factors play a role in that decision. Airline industry literature often assumes that price is the only factor in the LCC selection decision. However, consumer decision theory suggests that consumers will choose an LCC based on a number of factors, including but not limited to price. The purpose of this research is to investigate factors influencing the selection of airlines in Thailand from the passenger point of view, based on research at Suvarnabhumi International Airport (BKK) and Don Mueng International Airport (Operated only LCCs).

2. Design, Procedures, Materials and Methods: Describe the details of the procedure to be used and the type of data that will be collected.

This research will use a quantitative research design - a survey research design. This design is chosen because there is no practical way to implement an experimental design given the research field. The researcher also wants a broader and more generalized view of the factors involved in LCC choice, which requires a larger sample than could be collected using an experiment. Survey participants will include passengers on domestic and international flights to all destinations originating from BKK. The survey procedure will be explained more in Question 8.

Data analysis will be conducted in two steps. The first step includes descriptive statistics that are useful for understanding conditions in the sample. In the second step, structural equation modeling (SEM) will be used to test the hypotheses. The SEM model allows the researcher to test a full hypothetical model (rather than single hypotheses), which is an advantage over a regression model. It also allows the researcher to determine the strength of relationships, falsify relationships and assumptions, and use latent variables. This helps improve the outcomes of the study.

3. Measures and Observations: What measures or observations will be taken in the study?

The questionnaire is used as a research instrument.

3b. If any questionnaires, tests, or other instruments are used, provide a brief description.

The questionnaire is developed based on theory of planned behavior and existing literature. The instrument combines two distinct views on the consumer decision. The first set of elements is the consumer decision elements. These can be considered the process elements of the decision, identifying how the consumer made the decision. The second set of elements is the consumer perception of the airline service offering (with various dimensions identified through empirical research including airline reputation, price, service quality, airline safety, route availability and convenience, and frequent flier programs).

4. Risks and Benefits: Describe any potential risks to the dignity, rights, health or welfare of the human subjects. Assess the potential benefits to be gained by the subjects as well as to society in general as a result of this project. Briefly assess the risk-benefit ratio.

One ethical concern of this study is protecting participants' identity and privacy. This study is anonymous consumer research and, as a result, does not pose any serious potential harm to the identity and privacy of participants. Identities are not collected and the research instrument is designed to not include items that might be considered private or sensitive. Demographics are collected as general categories, in order to prevent individual participants from being identified through these characteristics. Results are only reported in the aggregate. Another possible harm that participants could have encountered is potential consequences from using the time to complete the research (such as missing their flight). In order to prevent this, the questionnaire is kept as simple as possible and participants will be given a generous estimate of the amount of time required to complete the survey (about 1.5 times as long as the actual completion time for most participants). They will be informed of the time before the study and asked if they have time to complete it.

5. Informed Consent: Describe the procedures you will use to obtain informed consent of the subjects and the debrief/feedback that will be provided to participants. See Informed Consent Guidelines for more information on Informed Consent requirements.

Although there are no particular harms in the survey, it is still important for participants to be informed about the purpose of the study and given a choice to participate in the survey. The participants will be given the informed consent that provides a brief description of the study along with information about risks, benefits, and confidentiality. Participants can choose to participate in the survey or not. In addition, they can withdraw at any time. The informed consent is attached.

6. Anonymity: Will participant information be anonymous (not even the researcher can match data with names), confidential (Names or any other identifying demographics can be matched, but only members of the research team will have access to that information. Publication of the data will not include any identifying information.), or public (Names and data will be matched and individuals outside of the research team will have either direct or indirect access. Publication of the data will allow either directly or indirectly, identification of the participants.)?

Anonymous

6b. Justify the classification and describe how privacy will be ensured/protected.

The survey will be in unidentified format. Identities of participants and any private and sensitive information will not be collected. Demographics are collected as general categories, in order to prevent individual participants from being identified through these characteristics. Results are only reported in the aggregate and no personal information will appear in the results.

7. Privacy: Describe the safeguards (including confidentiality safeguards) you will use to minimize the risks. If video/audio recordings are part of the research, please describe how that data will be stored or destroyed.

All information collected from this survey will be kept confidentially and will not be shared with anyone.

8. Participant Population and Recruitment Procedures: Who will be recruited to be participants and how will they be recruited. Note that participants must be at least 18 years of age to participate. Participants under 18 years of age must have a parent or guardian sign the informed consent document.

The research will include passengers on domestic and international flights to all destinations originating from BKK. The target respondent will be a traveler (must be at least 18 years) departing from Bangkok, including both international and domestic passengers of all nationalities. The questionnaire will be printed in English and Thai in an easy to read format, and the researcher will ask participants at the collection sites (Don Mueng Airport and Suvarnabhumi International Airport) to complete them. If participants decline, another participant will be selected. If they do agree to participate, they will be given the informed consent that includes the purpose of the survey as well as contact information of the researcher and supervisor along with the questionnaire. A pen will be provided if necessary, and the researcher will explain that he or she can answer any questions. Participants can choose to not complete the survey or discard it, which will be taken as an indication they do not wish to participate.

9. Economic Considerations: Are participants going to be paid for their participation?

No

9b. If yes, describe your policy for dealing with participants who 1) Show up for research, but refuse informed consent; 2) Start but fail to complete research.

10. Time: Approximately how much time will be required of each participant?

It will take about 15 minutes to complete the questionnaire.

By submitting this application, you are signing that the Principal Investigator and any other investigators certify the following:

1. The information in this application is accurate and complete
2. All procedures performed during this project will be conducted by individuals legally and responsibly entitled to do so
3. I/we will comply with all federal, state, and institutional policies and procedures to protect human subjects in research
4. I/we will assure that the consent process and research procedures as described herein are followed with every participant in the research
5. That any significant systematic deviation from the submitted protocol (for example, a change in the principal investigator, sponsorship, research purposes, participant recruitment procedures, research methodology, risks and benefits, or consent procedures) will be submitted to the IRB for approval prior to its implementation
6. I/we will promptly report any adverse events to the IRB

Electronic Signature:

Thapanat Buaphiban



## ROYAL THAI AIR FORCE ACADEMY

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Air-Vice Marshal Nigon Chumnankul | Nigon\_Chumn@rtaf.mi.th

November 17, 2014

To Whom It May Concern:

According to my review on research questionnaires of the research title: "Determination of Factors that Influence Passengers' Airline Selection: A Study of Low Cost Carriers in Thailand" which conducted by Plt.Off. Thapanat Buaphiban, a student in the College of Aviation at Embry Riddle Aeronautical University, Daytona Beach, Florida, USA, I have considered that the purpose of the research and the outcome thereof will be useful for related organization.

In conclusion, I do believe that this research tool will no harms, no effect of privacy concern and identity for participants. If you need any additional information, feel free to contact me at +6625342834 or by email at Nigon\_chumn@rtaf.mi.th anytime.

Sincerely,

AVM Nigon Chumnankul  
Deputy Superintendent, Royal Thai Air Force Academy.



## AGREEMENT TO PARTICIPATE IN

### **“Determination of Factors That Influence Passengers’ Airline Selection: A Study of Low Cost Carriers in Thailand”**

**STUDY LEADERSHIP.** I am Thapanat Buaphiban, a student in the college of aviation at Embry Riddle Aeronautical University, Daytona Beach, Florida, USA. I am asking you to take part in my Ph.D. dissertation research project. Dothang Truong, Ph.d., a member of the department, is supervising this study.

**PURPOSE.** The purpose of this research is to investigate factors influencing the selection of airlines in Thailand from the passenger point of view, based on research at Suvarnabhumi International Airport (BKK) and Don Mueng International Airport (Operated only LCCs).

**ELIGIBILITY.** To take part in this study, you must be a passenger who departing from a Thai airport using a low-cost carrier (LCCs).

**PARTICIPATION.** During the study, you will take a survey asking about your travel experience, demographic questions such as your approximate age and education level. You will also be asked about your opinions on factor influencing passengers’ airline selection such as “Low cost airline is another good alternative choice of airline” (agree/disagree). Completing this questionnaire will take about 15 minutes.

**RISKS OF PARTICIPATION.** The risks you run by taking part in this study are minimal, and not higher than those faced in everyday life. The risk includes the possibility that you may be offended by some of the questions in the survey. You are free to skip any question that makes you uncomfortable, or stop the survey at any time.

**BENEFITS OF PARTICIPATION.** I do not expect the study to benefit you personally. This study will benefit me by helping me to finish my PhD. This study is also intended to benefit for academic and business readers, specifically contributing to knowledge about consumer motivations of low-cost carriers.

**VOLUNTARY PARTICIPATION.** Your participation in this study is completely voluntary. You may stop or withdraw from the study at any time, or refuse to answer any particular question for any reason without it being held against you. Your decision whether or not to participate will have no effect on your current or future connection with anyone at Embry Riddle Aeronautical University.

**CONFIDENTIALITY:** All information collected from this survey will be kept confidentially and raw data will be destroyed as soon as the data is analysed. The survey will be in unidentified format, which participate is anonymous.

**CONSENT.** Ticking “Yes” entry below means that you understand the information on this form, that any questions you may have about this study have been answered, and that you are eligible and voluntarily agree to participate on this survey. Ticking “No” entry will end this survey.

Yes, I am a passenger who departing from a Thai airport using a low-cost carrier (LCC) and I would like to participate. (Please start the survey)

No, I do not want to participate. (Please end the survey)

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**Determination of Factors That Influence Passengers' Airline Selection: A  
Study of Low Cost Carriers in Thailand**

**Section 1: Screening Section**

1.1 Are you departing from a Thai airport using a low-cost carrier (LCC)?

- Yes (Please continue)                       No (Please withdraw this survey)

**Section 2: Travel Experience**

2.1 How often do you travel by LCCs?

- This is my first time                       Less than once per year  
 Once per years                               2 to 3 times per year  
 More than 3 times per year

2.2 Which destinations that you normally fly to from Thailand using LCCs?

- within Thailand                               ASEAN countries  
 Asia Pacific                                     Australia  
 Other, please specify \_\_\_\_\_

2.3 How do you get information about the airline?

- Search engine                                   Social media  
 Company website                               Travel agency  
 Family and friends                             TV advertising  
 Travel magazine                                Other, please specify \_\_\_\_\_

2.4 How do you purchase your LCC ticket?

- LCC website                                     LCC Office  
 LCC call center                                 At the airport  
 Travel agency                                    Other, please specify \_\_\_\_\_

2.5 What is the main purpose of travelling by LCC?

- ( ) Leisure/ Vacation ( ) Business  
 ( ) Seminar/ Conference/ Training ( ) Study  
 ( ) Medical treatment ( ) Visiting family  
 ( ) Other, please specify\_\_\_\_\_

**Section 3: Factors influencing passengers' airline selection**

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A1. Low cost airline is another good alternative choice of airline					
A2. I have a good perception toward low cost airline.					
A3. My overall attitude toward low cost airline is positive.					
S1. I fly with low cost airline because my friend/ family recommend 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.					
PB1. I have no difficulty to buy the ticket from low cost airline.					
PB2. The choice of selecting type of airline ticket is entirely up to me.					
PB3. I feel the choice of airline selection is under my control.					
P1. The price of low cost airline is reasonable for me.					
P2. The price of low cost airline meets my need.					
P3. I am satisfied with the price of low cost airline.					
SQ1. I think service quality provided by low cost airline is great compared to the price they offered.					
SQ2. I am satisfied with service quality provided by low cost airline.					
SQ3. Overall service quality of low cost airline is good.					
AR1. I usually perceive good information					

about low cost airline.					
AR2. I believe that low cost airline has a good reputation.					
AR3. I think low cost airline has a good public reputation.					
AS1. Safety system is the main the most significant factor that I consider when buying airline ticket.					
AS2. I only use the airline that has a good reputation on safety system.					
AS3. I believe that low cost airline has a good safety system.					
R1. The number of routes is the main reason that influences me to use airline service.					
R2. I am satisfied with timing and flight schedule provided by low cost airline.					
R3. The route availability offered by low cost airline meet my expectation.					
F1. . I think that frequent flier program offered by low cost airlines is one of the main reasons that influence me to use airline service.					
F2. I buy the ticket from the airline because of time availability.					
F3. I think frequent flier program offerings are valuable.					

#### Section 4: Buying Behavior

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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 airline ticket.					
BI3. My intention to purchase ticket from low cost airline is very high.					
BB1. I am a regular passenger of low cost airline.					
BB2. I always purchase ticket from low cost airline.					
BB3. I would continue to buy ticket from low cost airline in the future.					

**Section 5: Demographic Factors****5.1 Gender?**

- Male  Female

**5.2 Age?**

- 20 or younger  21-30 years  
 31-40 years  41-50 years  
 51-60 years  Older than 60 years

**5.3 Education Level?**

- Lower than Bachelor's degree  Bachelor's degree  
 Master's degree  Higher than Master's degree

**5.4 Monthly Income?**

- 15,000 baht or less  15,001-35,000 baht  
 35,001-55,000 baht  35,001-45,000 baht  
 45,001-55,000 baht  More than 55,000 baht

**5.5 Occupation?**

- Student  Private company employee  
 Government officer  State enterprise employee  
 Business owner  Freelance  
 Retired  Unemployed  
 Other, please specify \_\_\_\_\_