



# Passengers' intentions to use low-cost carriers: An extended theory of planned behavior model

Jing Yu Pan\*, Dothang Truong

Embry-Riddle Aeronautical University, Daytona Beach, FL, USA



## ARTICLE INFO

### Keywords:

Low-cost carriers  
Passenger behavioral intention  
Airline selection  
Structural equation modeling  
Theory of planned behavior  
China

## ABSTRACT

The purpose of this paper is to develop and test an extended research model based on the theory of planned behavior (TPB) that identifies factors influencing the intention to use low-cost carriers (LCCs) in China. A survey of 596 passengers was conducted in two major airports in China, and a structural equation modeling method was used to test the hypotheses. The results indicate that attitudes, subjective norms, price, service quality, access, uncertainty avoidance, and technology self-efficacy significantly influence passenger decisions to travel by LCCs, while perceived behavioral control (PBC) and frequency are not considered important impact factors. Price is the strongest determinant of the intention to use LCCs, followed by service quality. The findings enhance the understanding of LCC passenger motivation from psychological, service, and cultural perspectives, providing useful implications for LCCs in improving marketing strategies and customer services.

## 1. Introduction

Pioneered by Southwest Airlines (SWA) in the 1970s, low-cost carriers (LCCs) have had a significant impact on the air transport market (Choo and Oum, 2013; Kriel and Walters, 2016). A typical LCC business model focuses on point-to-point route structures, fleet commonality, fast aircraft turnaround, and utilization of secondary airports, which allow LCCs to reduce their unit costs by 20–40% compared to traditional full-service carriers (FSCs) (Abdullah and Takahashi, 2016; Corbo, 2017). As such, LCCs are able to charge low fares, compete with FSCs, and stimulate new market demand. Over the years, LCCs have increased market competition (Yu et al., 2016), forcing FSCs to reduce their costs and develop new business strategies (Aguirregabiria and Ho, 2010; Pearson et al., 2015). At the same time, LCCs have generated considerable consumer benefits (Choo and Oum, 2013; Kriel and Walters, 2016) by providing lower fares and more frequent flights. Noticeably, the success of LCCs can only be possible under a deregulated market environment, free of government-imposed restrictions on fares and market entry (Choo and Oum, 2013; Abdullah and Takahashi, 2016). Over the years, the LCC model has proved successful and driven the growth of air travel in liberalized markets around the world (Choo and Oum, 2013; Zhang et al., 2008). In the U.S., LCCs are the largest carriers on nearly one-third of the non-stop routes, and they collectively transport about 30% of the total passengers (Kwoka et al., 2016).

The LCC development in China has been a slow process despite China being the world's second-largest aviation market (Wang et al.,

2017). While FSCs have enjoyed rapid growth, LCCs in China lag far behind those in other aviation markets (Fu et al., 2015). In 2014, the LCC sector accounted for only 6.4% of the Chinese domestic market (Wang et al., 2017). The partially regulated market and resulting constraints in areas such as aircraft purchase and airport capacity shortage are among the major reasons for the slow growth of LCCs in China (Fu et al., 2015). The situation has started to change as China further liberalizes its transport market through policies that benefit the development of LCCs (the Civil Aviation Administration of China, CAAC, 2016; China Air Transport Association, 2014). For example, the recent reform on airline prices has given airlines more freedom to determine ticket prices (CAAC, 2016), which is essential for LCCs to lower their prices and compete with other transportation modes. The new method for market-oriented slot allocation has also been introduced for LCCs to obtain slots at busy airports and enter into lucrative routes (Wang et al., 2017). In addition, after freezing the issuing of licenses to new airlines from 2007 to 2013 (Fu et al., 2015), the CAAC has reopened the market to new airlines (China Air Transport Association, 2014). Four domestic LCCs have since started operations, leading to increased use of LCCs in the domestic market. The expansion of the LCC sector means more passengers will choose LCCs for domestic travel. This gives rise to the need to understand passenger motivations for using LCCs in China.

Consumer behaviors in the LCC context have received considerable academic attention, with many studies focusing on the passenger choice between LCCs and FSCs (Ong and Tan, 2010; Sai et al., 2012; Chang and Sun, 2012) and passenger perception of LCCs (Chang and Hung, 2013).

\* Corresponding author. College of Aviation, Embry-Riddle Aeronautical University, 600 S. Clyde Morris Blvd., Daytona Beach, FL 32114, USA.  
E-mail addresses: [panj@my.erau.edu](mailto:panj@my.erau.edu) (J.Y. Pan), [truongd@erau.edu](mailto:truongd@erau.edu) (D. Truong).

As expected, many studies showed a predominant effect of ticket prices on passengers' willingness to choose LCCs (Chang and Sun, 2012; Sai et al., 2012; Mikulić and Prebežac, 2011; Ong and Tan, 2010). Some studies, especially those in the Asian markets, have also found service quality to be important in the perception and choice of LCCs (Kim and Lee, 2011). Buaphiban and Truong (2017) developed a theory of planned behavior (TPB) model for examining ticket purchases by LCC passengers in Thailand, and indicated the importance of attitude and behavior factors in buying intentions and behaviors. Such research, however, is lacking in China due to the late introduction of the LCC model to the market (Chiou and Chen, 2010). Although a number of studies examined the LCC industry in China (Fu et al., 2015; Liang and James, 2009), these were primarily focused on airline pricing, market share analysis, and the development of LCCs in general. Only one study examined passenger perceptions and intentions of LCCs in China (Chiou and Chen, 2010). Nevertheless, it mainly focused on a comparison between FSC and LCC passengers. In addition, it focused primarily on service-related factors and failed to consider other factors like cognitive, behavioral, and cultural influences. These factors can be important in the decisions to use LCCs in China where the cultural and market environment differs from other countries. Indeed, despite the growing LCC sector in China, important factors motivating passengers to use LCCs have received little attention.

This study aims to fill the research gap by examining a broader range of factors that could influence passengers' intentions to use LCCs in China. It uses the theory of planned behavior, which considers attitude and behavioral factors in consumer intentions. In addition, six external factors are added to the TPB model; namely: price, flight frequency, access, service quality, uncertainty avoidance (cultural factor), and technology self-efficacy. On a practical level, this study can assist LCCs in strengthening their business strategies and increasing their long-term competitiveness. The remainder of the paper is organized as follows. Section 2 proposes the theoretical framework for the study and explains the selection of factors for the study model. The methodology for data collection and analysis is explained in Section 3, followed by result presentation in Section 4. Section 5 interprets the study results, and Section 6 provides conclusions to the study with a summary of practical implications, study limitations, and future research directions.

## 2. Theoretical framework and research hypotheses

### 2.1. TPB and related studies of LCCs

The theory of planned behavior is one of the most important theoretical frameworks for predicting human behaviors (Ajzen, 2002). In the TPB model, behavioral intention is directly influenced by three components: attitudes, subjective norms, and perceived behavioral control (PBC) (Ajzen, 1991). While the three components can provide useful predictions of intention and behavior, the model is open "to the inclusion of additional predictors if it can be shown that they capture a significant proportion of the variance in intention or behavior after the theory's current variables have been taken into account" (Ajzen, 1991, p. 199). The flexibility and openness of the model make the TPB a useful conceptual framework for examining intentions and behaviors in various domains, including transportation.

Although the TPB has been used in many transport-related studies (Hsiao and Yang, 2010; Jing et al., 2014), it has limited application in the research of LCC passengers. Existing literature on passenger behaviors in the LCC context is primarily focused on the intermodal choice between LCCs and FSCs using choice models (Ong and Tan, 2010; Chang and Sun, 2012; Jung and Yoo, 2014), and on the perception of LCCs based on service-related models, especially the SERVQUAL model that measures five service quality dimensions including tangibles, responsiveness, reliability, assurance, and empathy (Ariffin et al., 2010; Kim and Lee, 2011; Lertthairakul and Panjakajornsak, 2014). In China, Chiou and Chen (2010) examined the relationships among service

factors, satisfaction, airline image, and behavioral intentions in passengers' choice of LCCs and FSCs. The results indicated that service perception was most important for FSC passengers, while service value had the greatest effect on intentions among LCC passengers (Chiou and Chen, 2010). Passenger attitudes and behaviors have received limited attention in the research into LCC passengers. Only one study by Buaphiban and Truong (2017) developed a TPB model for examining passengers' buying intentions and actual purchases of LCC tickets in Thailand. The study focused exclusively on the TPB components, and the authors reported that passenger attitudes and subjective norms had a positive impact on buying intentions while the intention and perceived behavioral control significantly influenced buying behaviors.

A review of the literature reveals important gaps in the research of LCC passengers. First, existing literature is mainly focused on intermodal choices between FSCs and LCCs instead of on passengers' behavioral intentions. While these studies identified important factors such as price and service for passengers to choose LCCs over other transportation modes, they did not provide in-depth analysis of how these factors influenced passenger motivation for using LCCs. Second, a significant gap exists in the understanding of LCC passenger motivation in China, a country with a large population base, rapid economic development, and a huge market potential for low-cost travel. The study by Chiou and Chen (2010) was mainly focused on service-related factors, which does not provide a complete picture of the underlying reasons for passengers to use LCCs. The effect of other factors such as attitude and behavioral factors in the use of LCCs has remained unexamined. In addition, the way in which context-specific factors, especially cultural factors, might influence passenger decisions in using LCCs in China is not known. Finally, although the TPB study of Buaphiban and Truong (2017) provides insights into the influence of attitude and behavior in the intention of LCC passengers, the findings were derived from the mature LCC market in Thailand, which is very different from China where the LCC market is at an early stage of development. Clearly, a new research model should be developed with a focus on behavioral intentions of Chinese passengers and including relevant factors to gain deeper insights into the intention to use LCCs in China.

### 2.2. Research model based on TPB

To fill the gaps in the literature, this study proposes an expanded TPB model containing psychological, service, and cultural factors. Three principles guide the selection of external factors. First, previous studies frequently indicate the importance of some factors in the passenger choice of LCCs. Price, for example, is often found to be significant for passengers to choose between LCCs and FSCs (Ong and Tan, 2010; Sai et al., 2012), and therefore it was included in the model. Second, as the airline industry is a service industry, service-related attributes such as frequency, airport access, and service quality can influence passengers' travel decisions; thus, they have been added to the model. Finally, consumer decisions can be influenced by cultural factors, especially in China, where culture strongly influences personal behaviors (Luo, 2009). For this study, a frequently-researched, highly relevant cultural factor was included in the model. In total, six external factors, including price, service quality, uncertainty avoidance (cultural factor), technology self-efficacy, frequency, and access were added to the TPB model. Table 1 shows the construct definitions for the TPB model. Fig. 1 depicts the research model with hypotheses. The remainder of Section 2.2 explains the TPB and external factors based on the literature and presents the research hypotheses.

Consumer attitude is an important psychological factor that influences transport use behaviors (Zou et al., 2013; Hsiao and Yang, 2010). The effect of attitudes, however, has rarely been examined in the air transport industry. Davison et al. (2014) examined influencing factors in air travel and suggested that attitudes may not always be a reliable indicator of behavior. In the LCC context, Buaphiban and Truong

Download English Version:

<https://daneshyari.com/en/article/7435129>

Download Persian Version:

<https://daneshyari.com/article/7435129>

[Daneshyari.com](https://daneshyari.com)