Discount or Prestige: E-reputation, Compatibility, and Continued Mobile Apps Usage Intention of Low-Cost Carriers

Kuang-Yu Chang
Overseas Chinese University, Taiwan (R.O.C)
Edward C. S. Ku
National Kaohsiung University of Hospitality and Tourism, Kaohsiung, Taiwan (R.O.C)

Abstract
In low-cost carrier (LCC) businesses, LCCs have developed cabin design and production services that are different from the available airlines to compete for routes in certain regions. The LCC reduces operating costs. Its operation mode has quickly robbed ordinary airlines of a market, and its business model is also a concern for academia and the industry. This study aims to explain how low-cost mobile carrier apps can enhance decision-making during shopping with an LCC. Stratified sampling was used for data collection in this study, which included individuals who had experience using LCCs and utilized LCC mobile apps; 868 participants completed the surveys, and their data were considered for analysis. We then evaluated our hypotheses using structural equation modeling (SEM). The findings of this study offer some critical implications for the design of mobile applications and results to succeed in LCC business endeavors: the mobile application's interface design can be personalized and display things that are the user interface for passengers while reflecting lifestyles and preferences that appeal to them, to increase their willingness to continue using the application. Moreover, LCCs can adjust their competitive market strategies by implementing mobile applications. This study is based on the operation of LCCs, presents a continued usage mobile device application model, and provides strategic practice guidelines and academic insights.

1. Introduction

To compete for routes in certain regions, low-cost carriers (LCCs) (Keeling, 2020; Roucolle et al., 2020; Wu et al., 2020) have developed cabin design and production services that differ from available airlines. The LCC aims to reduce operating costs. Its operation mode has quickly robbed ordinary airlines on the market (Ku & Chen, 2020; Ma et al., 2020; Vatankhah et al., 2019). It is noteworthy that when more than two LCCs compete on the same route, the influence of price factors on the LCC's selection of passengers is minimal (Mohammadian et al., 2019). Therefore, its business model is also a concern for both academia and the industry.

In current aviation-related literature, the relevant research on LCCs mostly discusses price-related issues (Song et al., 2022; Avogadro et al., 2021; Soyk et al., 2021; Truong et al., 2020; Li, & Cui, 2019).

According to previous research, price is one of the most significant decision-making factors for passengers in choosing LCCs. However, the decision-making factors of how passengers choose different LCCs on the same route in the same price range are rarely discussed. Therefore, this study further discusses the decision-making factors of tourists other than the pricing strategies from the perspective of non-price as follows.

The purpose of this study is to explore the e-reputation of LCC through mobile applications; the difference between this study and past research has to do with how mobile applications for activities are as diverse as providing real-time travel updates, ticket booking, and customer relationship management (Ho et al., 2021; Ku & Chen, 2020); consumers interact with mobile applications and the brands they consume, establishing new consumption channels through which they can conduct brand new online sales and services (Fox et al., 2021; Jou et al., 2021). Moreover, previous research has shown how competitive dynamic power influences the ability of the LCC to gain an advantage via pricing strategy and how route entry patterns affect competition (Khan et al., 2019; Pan & Truong, 2018). Accordingly, this study provides LCCs with e-reputation considerations when faced with e-commerce competition.

Pricing strategies and advertisements on websites or mobile applications easily attract passengers to purchase tickets (Ku, 2020; Rodriguez-Valencia et al., 2020). Previous research has argued that the entrance of an LCC leads to a lower pricing strategy for the routes it has entered (Cui, 2019; Eugenio-Martin & Perez-Granja); however, the e-reputation of airlines is essential (Lin et al., 2018); beyond the price factor, this study explores the factors that affect passengers' choice of LCCs when more than two LCCs compete on the same flight route.

Online selling is changing critically in LCC businesses (Cui, 2019; Ku & Chen, 2020). The development of mobile devices has allowed online-to-offline (O2O) applications to bridge O2O exchange platforms and integrate e-commerce service processes for passengers (Ko, 2019). Accordingly, this study analyzes the nonfinancial factors passengers consider in their decision making through mobile apps. Additionally, previous research has indicated that these factors affect business loyalty, and the design of mobile applications also represents an aspect of the image for the LCC (Buaphiban & Truong, 2017; Ma et al., 2020). Thus, understanding how LCCs use mobile applications to attract passengers is essential for both practical and academic reasons. Furthermore, **limited research has explored the influence of LCCs ton o implement mobile applications for passenger buying behavior. Thus, this study also explores how the mobile application style will influence the passenger decision of the LCC.**

Traditionally, passengers have to book flight tickets through a travel agency and then check in and board at the designated terminal (Jung et al., 2019); however, with the prevalence of e-commerce, the mobile application provides passengers with O2O connectivity in an online shopping environment at any time, which offers a shopping experience for passengers (Atallah et al., 2018; Kim & Hall, 2020). Passengers can experience the shopping situation in the physical environment while shopping online, and then download digital information that assists them in check-in and process boarding through the mobile application. This is of high value for mobile applications to assist passengers with the online and offline ticket purchase experience.

The more powerful the mobile applications, the more attractive they are to passengers. From the perspective of prestige sensitivity, traditional products are primarily provided with product quality and reputation. Compared to traditional product sales, mobile applications mainly provide customer sales services as the primary experience value (Fu et al., 2019; Nguyen & Nguyen, 2019). Passengers use mobile applications to purchase suitable tickets and understand the airlines' marketing activities, overall flight schedule, and purchase history. Meanwhile, the LCC business model emphasizes mobile business sales, attracting passengers to interact more with mobile applications. In a mobile application with a convenient information search tool, personalized services provided to passengers represent a new shopping and boarding experience, including using the mobile application to learn about the latest

promotions and mileage redemptions, new personalized services, and products such as commodity services and priority selection.

Moreover, LCCs influence the traditional tourism market. An LCC attracts more potential passengers, who tend to become loyal (Cui, 2019). Passengers often regard mobile applications as symbols of convenience (Bilotkach et al., 2019). From the uses and gratifications (U&G) perspective, passenger commitment to mobile applications is demonstrated in their active use (Ponnusamy et al., 2020). Based on prestige sensitivity to interactive activities, the adaptability of the service processes of LCC will be integrated with mobile designs (Ginanneschi & Piu, 2018). This study explored the moderating role of service process fit in continuous mobile application usage.

This study aims to explain how the factors of an LCC can enhance passengers' decision making for shopping in mobile applications. This study presents a continued usage mobile application model following the hypotheses evaluated by a structural equation modeling (SEM) approach. Section 3 details the research methodology and statistics of the survey data. Finally, the conclusions are presented.

2. Literature review and research hypotheses

2.1. Perspective of prestige sensitivity

Prestige sensitivity signals to others about the buyer's social status based on the price factor as a favorable perception of price worth (Henderson et al., 2019; Kucukergin et al., 2020). Through this representation process, individual tourists strive to show their unique reputation characteristics through the travel process (Gomez et al., 2019; Lai et al., 2022). These travel experiences also symbolize the individual tourist's attempts to pass along the impressions; prestige motivation in tourism can be regarded as a motivational representation of tourists.

In addition, research suggests that early adopters of mobile applications also seem to have great potential, as this may affect their image and prestige; the image of mobile applications of LCC easily attracts passenger interest (Park, 2019; Silva et al., 2020). The prestige sensitivity of a brand is generated by the interaction between passengers and market competition; researchers have argued that prestige sensitivity influences price perception for passengers. In this study, we argue that a design that combines e-reputation with mobile applications is a collective concept for passengers and is the result of passengers' aggregation of prestige sensitivity. LCC businesses involve consuming prestigious products and services to display the specific status of passengers via mobile applications. Accordingly, the mobile applications of LCC judged as high in prestige may possess greater economic power because they are less sensitive to price pressures.

Mobile applications contain relevant information that passengers need and provide services that cater to them (Azadian & Vasigh, 2019). Similarly, passengers increasingly expect the LCC to offer booking services, information searches, and travel loyalty management programs in the virtual channel. In addition to the general features that passengers request, mobile applications feature an attractive visual appearance to improve the compatibility of mobile application interface design and enhance passengers' emotional connection and entertainment.

2.2. U&G perspective

The U&G perspective explains how passengers use specific interactive media channels and content services to meet their requirements. In this approach, passengers actively choose media types that meet their needs (Hernandez-Garrido et al., 2022; Tirado-Morueta et al., 2021). This view suggests that the interactive experience between passenger applications developed by the LCC will be a source

of value for passengers choosing to travel with the LCC, as mobile applications provide many benefits for passengers (Fu et al., 2019) and may form a motivational foundation for their use.

The U&G perspective is advanced to understand interactive users and mobile applications (Savino et al., 2021; Tirado-Morueta et al., 2021). Researchers have pointed out that mobile app passengers are driven by personal needs and satisfaction stimuli, and explain the audience's role in choosing a particular type of media (Maertens, 2018). Previous research has shown that passengers use social media that meet certain conditions, including the efficiency of seeking information, the effectiveness of using social media in entertainment and relaxing communication to kill time, the convenience of media use, and the function of sharing information with others (Hasan et al., 2019). Therefore, network externalities and personal satisfaction significantly affect passengers' intentions to interact with airlines' mobile devices.

Previous research has determined that different types of value satisfaction are related to IS use, which reflects users' perceptions of potential value (Krey et al., 2019). By designing its visual appearance, mobile applications can provide a better navigation function with easy-to-understand functions and a visual reality experience that results in satisfying engagement. Value perception of LCC apps and the adaptability of mobile service processes are essential predictors for passengers. The application was designed to meet the needs of long-term loyal passengers for high-quality cabin services. With smartphones and tablets, mobile applications have become innovations that have grown exponentially worldwide (Sarker et al., 2019). However, the service process of a mobile application should be integrated into the functions of mobile apps; thus, passengers can use the mobile application as a channel to access the services and information that LCCs provide to fulfil their needs and desires.

Based on the perspective of prestige sensitivity and U&G, we examine three significant predictors affecting the continued usage of a mobile application by passengers: the e-reputation of airlines, compatibility of mobile airline applications, and confirmation of mobile applications. Figure 1 illustrates the significant constructs and theoretical models used in this study.

Figure 1. **Research model**
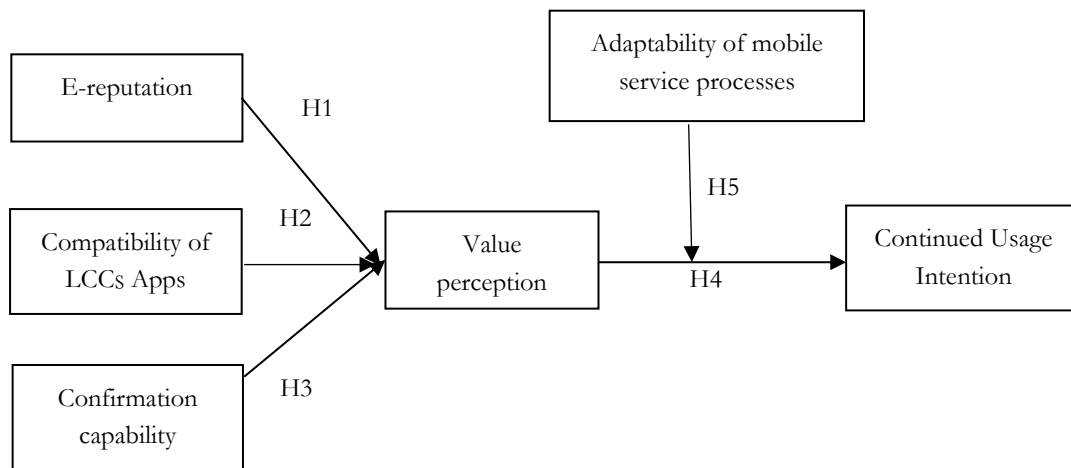
Source: own model

2.3. E-reputation of the LCC

E-reputation refers to how consumers perceive the goods and services provided by an enterprise online and participate in society's activities to produce a more subjective personal impression of the enterprise (Park, 2019; Wang et al., 2022). E-reputation is related to the impression that a business has

created in society in the past (Gomez et al., 2019), including customers' perceptions based on their past experiences and views on mobile applications through a great deal of activity.

For airlines, e-reputation depends on passenger experiences when purchasing air tickets online, considering the unique needs of each passenger, actively taking care of their passengers promptly, and providing various personal service plans and other factors. Based on their experiences, each passenger evaluates the e-reputation of the airline according to their needs.

By offering passengers O2O connectivity in a virtual shopping environment, mobile applications present a shopping experience (Kaushik et al., 2020; Lim & Lee). High-quality functions of these mobile applications enhance their effectiveness in providing services. The LCC will attract more passengers to use their mobile applications to obtain services across O2O. The compatibility and confirmation of mobile applications should continuously contribute to their usefulness. By increasing the effectiveness of ticketing services, enabling booking processes, and promptly providing ticket information, e-reputation of the LCC will further encourage passengers' mobile application usage.

2.4. Value perception of LCC apps by passengers

Value perception starts when a passenger chooses to purchase a ticket product. Based on the images of the airline product and considering the fare amount and flight time, the passengers' value perception of the airline will affect the behavior toward buying a ticket (Lv et al., 2021). Passengers' most frequent and prudent value perception of airlines is during the purchase of air tickets. Moreover, it will be responsible for the airline's service quality, flight safety, flight schedule, transfer service, and frequent flyer programs when traveling. At the same time, passengers taking LCC are always concerned about fare discounts. A previous study reported that short-haul business travelers are increasingly sensitive to LCC tickets (Bakir et al., 2019; Hwang & Kim, 2018). The passengers' value perception of LCC apps varies according to monetary cost, nonmonetary cost, and individual experiences and characteristics.

Previous research has shown the relationship between reputation on the mobile app and the value perception of LCC apps among passengers (Alderighi & Gaggero, 2019; Sarker et al., 2019). This study examined the factors by which LCCs can use mobile applications to connect to passengers. Additionally, some passengers are more likely to believe third-party opinions from outside the airline, whereas others have airline experience and refer to online reviews of the airline. For an LCC characterized by mobile commerce, a passenger's rational evaluation will be used as an essential indicator for analyzing the reputation of the mobile application of the LCC. The status of LCC affects the purchasing decisions of passengers. Therefore, if a company has a good e-reputation, such as assuring on-time flights, it will gain a huge competitive advantage. Accordingly, Hypothesis 1 is proposed:

Hypothesis 1: Connecting the e-reputation of an LCC positively affects passengers' value perception of LCC applications.

2.5. Compatibility of mobile apps

Compatibility refers to passengers' apparent advantage in consuming products or services. Compatibility refers to the attributes that link products and consumers' daily life patterns (von Salm-Hoogstraeten & Musseler, 2021). It involves passenger needs for social recognition, emotional expression, and personal communication (Johnson et al., 2021; Realyvasquez et al., 2019). Therefore, passengers may consider the importance of the e-reputation of an LCC because of the relationship between its services or products and passengers' self-concept.

Previous research has shown that passengers' intentions to choose an LCC's mobile service will affect their loyalty (Liang & Shiau, 2018). From the perspective of prestige sensitivity, research suggests

that identity implies that when a small number of passengers have access to a unique item, owning a rare item provides a token benefit.

The LCC expects its passengers to install mobile applications to purchase air tickets and obtain communication and other services. Therefore, the LCC hopes that the mobile application will attract many passengers who are loyal to the mobile services provided by the company. The benefits of mobile application services in attracting passengers have stressed the attention of the LCC, which has found mobile applications to help develop more in-depth and broader relationships with passengers. The relationship between LCCs and their passengers is associated with commitment and loyalty. Therefore, it is only possible for passengers to obtain the corresponding value from an LCC's mobile application service when they are happy to use it. Hence, Hypothesis 2 is as follows:

Hypothesis 2: The compatibility of mobile applications will positively affect passengers' value perception of LCC apps.

2.6. Confirmation capability of mobile apps

The confirmation capability of mobile applications means that passengers can obtain the technical advantage of a specific technological product or service using a mobile service (Guerar et al., 2018; Ho et al., 2015). Previous research indicates that confirmation denotes the perceived usefulness construct, whereas confirmation refers to the perceived expectation construct in an online service (Chong, 2013).

Similarly, providing confirmation offers to passengers through mobile app services has proven to be a major service for retaining passengers and encouraging them to purchase additional services in advance (Kim et al., 2019; Ponnusamy et al., 2020). Mobile services meet tourists' needs through a mobile application that supports a cloud-based database of travel-destination information. Additionally, the mobile app helps LCCs create a complete database with detailed transaction information about passenger ticketing records.

The mobile application allows passengers to select the specific service they want to use in the mobile service based on their distinguished attitude. To win passengers' trust, LCCs try to pay more attention to the personal life stages of passengers and create an enjoyable experience and impression for passengers. Similarly, mobile applications can help distribute passenger-related information among various departments of LCCs and passengers at various levels. When passengers value mobile apps, they prefer to use them to determine their practicality. Accordingly, we postulated Hypothesis 3:

Hypothesis 3: The confirmation capability of the mobile application will positively affect passengers' value perception of LCC apps.

2.7. Continued mobile application usage

Continued usage reflects the motivation and impact of passengers on their personal choice of airline behavior through mobile applications (Wen et al., 2022; Zhang et al., 2022). Although a significant stream of IS research has explored how passengers accept and use mobile devices, technological services will ultimately affect passengers' continuous use of mobile devices (Foroughi et al., 2023; Oviedo-Trespalacios et al., 2019). Likewise, passengers who continue to use an LCC's mobile application will bring about better performance growth for it.

From the U&G perspective, passengers will measure whether they continue to use these mobile applications based on their satisfaction with the application. Previous research has recognized the impact of satisfaction on behavior, and B2C channels are used from product purchases to O2O (Oviedo-Trespalacios et al., 2020). Similarly, the continued use of mobile applications is a significant factor in the survival and retention of mobile applications in the O2O market. Thus, passengers who are pleased with the mobile app are more likely to continue using it to order tickets.

From the LCC perspective, when passengers find information on mobile applications, they increase their loyalty and enhance their usage. In other words, airlines should understand whether the design of mobile applications is able to help execute a specific task, which will affect passengers' willingness toward its continuous use. In contrast, LCCs should provide mobile applications with tangible help to passengers and treat them as essential O2O channels. Therefore, Hypothesis 4 is proposed:

Hypothesis 4: Passengers' value perception of LCC apps positively affects their continued mobile application usage.

2.8   Moderating effect of the adaptability of mobile service processes in mobile applications

The adaptability of mobile service processes in mobile applications is derived from the service process fit, which refers to the degree of integration of technology and enterprise service processes (Ku & Chen, 2015; Sarrab et al., 2016). When designing mobile applications, enterprises respond to the dynamic needs of passengers and meet the complex needs of passengers through technology configuration and enterprise service process integration through technology (Lyu et al., 2022; Retamosa et al., 2020). The adaptability of service processes in mobile applications has demonstrated the influence of mobile application adoption in the context of technology usage in the workplace. LCCs should analyze passenger purchase records and support their purchases accordingly.

Various mobile application capabilities are emphasized in the execution of passenger buying behavior. The adaptability of the service process in mobile applications is considered an essential and influential characteristic of information technology and has been explained in terms of buying behavior in the O2O environment (Sarker et al., 2019). Thus, the adaptability of the service process in mobile applications is associated with the interaction between the passengers and LCC operations. However, mobile applications act as O2O channels to transmit ticketing information; passengers seek and access mobile applications for ticketing and the service value (Ginanneschi & Piu, 2018).

Therefore, there is consistency between the benefits measured by passengers and their benefit assessments for mobile applications. Accordingly, we argue that passengers use mobile applications as technological assistants when they purchase tickets, and that the adaptability of the service process in mobile applications will moderate passenger value perceptions toward continued usage. Accordingly, we propose Hypothesis 5 as follows:

Hypothesis 5: The greater the mobile application's mobile service process adaptability, the higher the degree to which passengers will continue to use the mobile application.

3. Methodology

This study aims to explain how low-cost mobile carrier apps can enhance decision-making during shopping with an LCC. Five variables (airline e-reputation, compatibility, confirmation, value perception, and continued usage intention) were used to construct a continued usage mobile application model. One moderator (the adaptability of mobile service processes) was used to explore the influence of continued usage intention.

3.1. Sampling method

Stratified sampling was used for data collection to ensure sample representativeness. Participants included individuals who had used LCCs. According to Taiwan Airport Statistics, eight LCCs have main destinations in Taiwan: Peach, Aviation, Jetstar Airways, Air Asia, Scoot, Tiger Airways, Vanilla Air, and Spring Airlines China.

In the sampling stage, the COVID-19 pandemic affected most countries' airport operations and travel routes. Therefore, this study selected only airports in Taiwan for sampling. For the questionnaire, we prepared two language versions: Chinese and English. We first calculated the total number of passenger statistical reports from two major international airports in Taiwan (the Taoyuan and Kaohsiung airports) in March 2019; the survey questionnaires were distributed in April and May 2019 based on the number of passengers. Second, passengers of LCCs that had flown with the questionnaire were expected to use either Taoyuan or Kaohsiung International Airport. Passengers were randomly selected from each LCC section every five when waiting at the check-in counter. Third, we verified that the participants selected from the check-in counter used the mobile application. After identifying the passenger status, we requested the passengers to fill in the questionnaire. A total of 1,200 passengers were invited to participate at the Taoyuan and Kaohsiung airports, and excluding those who refused to answer the questionnaire, we received 868 completed surveys (response rate: 72 percent).

Table 1. **Sample Description (N=868)**

Sample Description		N	Percentages (%)
Gender	Male	349	40.2
	Female	519	59.8
Ages	Less than 20years	34	3.9
	21－30 years	470	54.1
	31－40 years	252	29.1
	Over 41 years	112	12.9
Education	Junior high school	13	1.5
	Senior high school	114	13.1
	University/ College	610	70.3
	Graduate School	131	15.1
Sampling from LCCs	Fly peach	150	17.3
	Spring airline	45	5.2
	Air Busan	55	6.3
	Vanilla Air	78	9.0
	Tiger Air	132	15.2
	Fly Scott	154	17.7
	JetStar	145	16.7
	AirAsia	109	12.5
Frequency of booking LCCs from mobile applications	1~2 times	232	26.7
	3~5 times	243	28.0
	6~9 times	133	15.3
	Over10 times	260	30.0

Source: own research

3.2. Scale development

Table 2 summarizes the survey items with the related literature, with minor wording changes and verified for translation accuracy by two tourism management professors and an information management professor. The survey comprised 19 items, based on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). In addition, the Chinese version of the questionnaire was pretested by 30 passengers who had experience in using mobile applications.

E-reputation was adapted and modified from Park (2019), and the compatibility construct was adopted from Jaklič et al. (2018). Three items on confirmation of mobile device application were derived from Chong (2013), four questions on value perception were obtained from Han (2013), and three questions on service process fit were derived from Ku and Chen (2015). Continued intention to use mobile applications was adopted from Ku (2020).

Table 2. **Scale development**

Construct	Item description	Reference
E-reputation of LCCs' mobile application (ER)		Park (2019)
ER1	The e-reputation of LCC is highly regarded for its mobile application.	
ER2	The mobile application of LCC is e is remarkably successful.	
ER3	The mobile application of LCC is well established.	
Compatibility of LCC Apps (COM)		Jaklič et al. (2018)
COM1	The mobile LCCs' apps are compatible with my work.	
COM2	Adopting the mobile LCCs' apps fits well with how I work.	
COM3	Adopting the mobile LCCs' apps fits with my work style.	
Confirmation capability (Con) of Apps		Chong (2013)
Con1	The mobile LCCs' apps were better than what I expected.	
Con2	The service of the mobile LCCs' apps was better than expected.	
Con3	Expectations from using the mobile LCCs' apps were confirmed.	
Value perception of LCC Apps (VP)		Han (2013)
VP1	These LCC apps offer great deals on airfare.	
VP2	This LCC apps offers more benefits than other apps.	
VP3	My overall image of this LCC app is positive.	
VP4	Overall, I have a good image of these LCC Apps.	
The adaptability of mobile service processes (AMSP)		Ku & Chen (2015)
AMSP1	The interaction process built into the equipment's LCC mobile apps is a fine fit.	
AMSP2	Links between the LCC mobile apps and other flight attendant workflows are well-controlled.	
AMSP3	The LCC mobile apps build a personalized service support process.	
Continued Usage Intention (CUI)		Ku (2020)
CUI1	I intend to continue using LCC apps as a tool for researching tickets information is willing in the future.	
CUI2	I intend to continue using the mobile LCC apps to search for ticket information is willing in the future.	
CUI3	The mobile LCC Apps as a channel for buying travel products is willing in the future.	

Source: own research

4. Analysis and results

Following Gerbing and Anderson (1988), a measurement model was estimated to examine the model fit and dimensionality using confirmatory factor analysis (CFA). Multiple linear regression analyses with SEM were applied to test the hypotheses. CFA was performed to evaluate the convergent and discriminant validity of the remaining items and scales using the LISREL 8.8 program; the results are presented in Table 3.

Table 3. **Confirmatory Factor Analysis**

Item	ER	COM	Con	VP	AMSP	CUI
ER1	0.83					
ER2	0.89					
ER3	0.91					
COM1		0.77				
COM2		0.71				
COM3		0.83				
Con1			0.78			
Con2			0.91			
Con3			0.77			
VP1				0.94		
VP2				0.85		
VP3				0.76		
VP4				0.63		
AMSP1					0.83	
AMSP2					0.88	
AMSP3					0.71	
CUI1						0.71
CUI2						0.84
CUI3						0.78
ER stands for e-reputation of the LCC mobile application, COM for compatibility, Con for confirmation, VP for Value perception, AMSP for adaptability of mobile service processes, and CUI for continued usage intention.						

Source: own research

The internal consistency of the constructs of the research model was more significant than 0.9, as measured by Cronbach's alpha. According to prior research, SEM has three major advantages: (1) explicit assessment of measurement errors, (2) estimation of latent (unobserved) variables via observed variables, and (3) model testing where a structure can be imposed and assessed to fit the data (Chin, 1998). Therefore, we used the SEM (LISREL software) to examine the validity of each construct. Discriminant validity among the constructs was analyzed using the square root of the Average Variance Extracted (AVE) for each construct. Table 4 presents the estimation of the measurement model used in this study.

Table 4. **Measurement Model Estimation**

	Mean	SD	ER	COM	Con	VP	AMSP	CUI	AVE
ER	3.845	0.719	**0.714**						0.51
COM	3.963	0.784	0.487	**0.843**					0.71
Con	4.087	0.718	0.251	0.307	**0.943**				0.89
VP	4.041	0.748	0.456	0.407	0.290	**0.781**			0.61
AMSP	3.947	0.717	0.442	0.480	0.295	0.471	**0.938**		0.88
CUI	4.199	0.889	0.451	0.231	0.326	0.364	0.441	**0.872**	0.76
ER stands for e-reputation of the LCC mobile application, COM for compatibility, Con for confirmation, VP for Value perception, AMSP for adaptability of mobile service processes, and CUI for continued usage intention.									

Source: own research

Figure 2 presents the results of SEM testing of the hypothesized model; in general, the results show the overall goodness of fit (GOF) was statistic eight adaptation index following the SEM approach: The χ2 degrees of freedom ratio was 1.69; CFI = 0.91, GFI = 0.92, AGFI= 0.92, RMSEA = 0.058, RMR= 0.051, PNFI = 0.72, NFI = 0.92, and PGFI = 0.66. Overall, these indexes indicated a good fit model for our study, and four of the five hypotheses we proposed were supported (Table 5).

Figure 2. **Hypotheses and Testing**
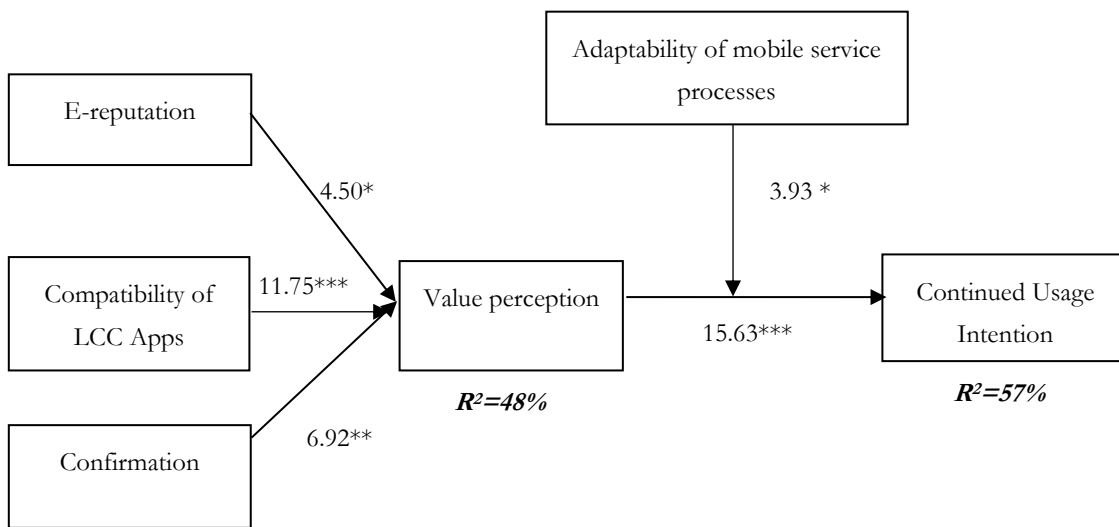
Source: own research

Table 5. **Hypotheses and Results**

	Hypothesis	Standard coefficients	T-value	Results
H1	E-reputation of airline → Value perception	0.09	4.5**	Supported
H2	Perceived Compatibility → Value perception	0.49	11.75***	Supported
H3	Confirmation → Value perception	0.11	6.92**	Supported
H4	Value perception → Continued Usage Intention	0.57	15.63***	Supported
H5	Value perception* Adaptability of mobile service processes →Continued Usage Intention	0.06	3.93*	Supported
*p<.05, ** p<.01, *** p<.001				

Source: own research

The hypothesis that the LCC's e-reputation will positively influence passengers' value perception is supported (t=4.50**, p< 0.01); the findings provide interesting insights for LCCs interested in the relationship between e-reputation and passengers' value judgment. Our findings also support that the perceived compatibility of the mobile application positively influences the value perception of mobile application usage (t=11.75***, p< 0.001). The perceived compatibility of mobile applications considers the delivery of information, receipt, and comprehension of passengers' perceptions and values. The findings of the present study support that the mobile application's confirmation capability positively influences passengers' value perception (t=6.92**, p< 0.01). Moreover, LCCs rely heavily on sharing ticketing information to facilitate their booking process through mobile applications. Likewise, the hypothesis that the mobile app's value perception will positively influence passengers' continued mobile app usage intention is supported (t=15.63***, p< 0.001). The results show that the adaptability of service processes in a mobile application plays a moderating role in the continued usage of the mobile application by passengers (t=3.93**, p< 0.05). The LCC can adjust its competitive market strategy by implementing mobile applications (Matisziw et al., 2012).

5. Discussion

First, the research results indicate that H1 (i.e., the LCC's e-reputation will positively affect passengers' value perception) is supported; the findings provide interesting insights for LCCs interested in the relationship between e-reputation and passengers' value judgment. We obtained the same results as in previous research (Alderighi & Gaggero, 2019; Sarker et al., 2019); therefore, the mobile applications of LCCs have a high electronic reputation because of a good impression, which will make the passengers who use it have a high-value perception. Our findings also support the idea that the perceived compatibility of the mobile application will positively affect the value perception of mobile application usage (H2).

Second, the perceived compatibility of mobile applications considers the delivery of information and the receipt and comprehension of passengers' perceptions and values. Notably, past studies have not directly discussed the relationship between compatibility and value perception. However, we can explain this based on past research that, compared with traditional product sales, mobile applications mainly provide customer sales services as the primary experience value (Fu et al., 2019; Nguyen & Nguyen, 2019). Therefore, when the usage pattern of the mobile applications of LCCs is compatible with the lifestyles of passengers, it will result in a higher perceived value. The findings of the present study support that a mobile application's confirmation capability positively affects passengers' value perception (H3). Confirmation refers to the perceived expectation construct of an online service (Chong, 2013). The improvement in passengers' perceived value comes from attaining personal expectations, a finding consistent with past research results.

Third, LCCs rely heavily on sharing ticketing information to facilitate their booking processes through mobile applications. Similarly, the hypothesis that the mobile application's value perception will positively affect passengers' continued mobile application usage intention is supported (H4). Past research has recognized the impact of satisfaction on behavior (Oviedo-Trespalacios et al., 2020). From the U&G perspective, passengers will measure whether they continue to use these mobile applications based on their satisfaction with the application.

Finally, the results show that the adaptability of service processes in a mobile application plays a moderating role in passengers' continued usage (H5). An LCC can adjust its competitive market strategy by implementing mobile applications. (Matisziw et al., 2012). Adaptability of the service process in mobile applications is considered an essential and influential characteristic of information technology. Thus, the adaptability of the service process in mobile applications is associated with the interaction between passengers and LCC operations (Sarker et al., 2019). Our findings further extend

the point of view of past studies that the adaptability of service processes after interacting with passengers' perceived value has an impact on passengers' continued use intention.

6. Conclusions and Implications

The current study examined continuous mobile application usage by discussing the factors influencing associated behaviors. Based on our results, we propose that SEM can lead to a better analysis of LCC choices and passenger decisions. In addition, this study provides empirical results that could be valuable to mobile commerce research and a practical model for O2O in future research. Moreover, acquiring the service process of a mobile application to analyze the requests of existing and prospective passengers enables an LCC to acquire a competitive advantage in the market.

6.1. Implications for research

The intersection of LCC e-reputation and mobile application quality as a crucial factor offers further insights for future research. Mobile applications have emerged as essential assets in LCC selection, providing a new perspective on the operation of LCCs and adding an example of the application of e-commerce theory. Our findings in this study encourage selection behavior in the LCCs' competitive market. The findings of this study have critical implications for mobile application design. This study provides empirical insights on prestige sensitivity in mobile commerce.

Our findings suggest that certain facets of continuous usage activities help to understand mobile device application usage and LCC selection. Previous research has indicated that passenger evaluation is a widely deployed decision-making mechanism in various contexts. Our results explore the factors that influence the facets of value and mobile application usage in the LCC setting, and suggest that passenger evaluation of the process fit factor moderates selection behavior.

6.2   Implications for Practice

We used the SEM approach to evaluate our proposed mobile application continuous use model, which could offer a more straightforward analysis of passenger behavior. Based on our results, we present the following implications.

First, to succeed in the LCC business, it is necessary to transform the impression that passengers' low fares become flexible bookings. Frequent passengers join the mileage accumulation plan so that they can use it flexibly on mobile devices. Beyond the pricing strategy, the LCC will increase service quality to gain an e-reputation. For instance, by improving flight punctuality, the image formed in a mobile application combined with flight safety maintenance e-reputation enhances its corporate image and satisfaction in passengers' minds. Accordingly, LCCs can develop customer relationship management to increase their market share.

Second, the interface design of mobile LCC applications can display passengers' personalized interfaces while reflecting their lifestyles and preferences. From the U&G perspective, LCC combines passengers' unique psychological needs through mobile applications to enhance compatibility with their vibrant lifestyle or work style. The features that passengers can select for themselves through the mobile application are based on their prestige sensitivity.

Third, LCCs must demonstrate the provision of high-quality services for passengers. The confirmation function of a mobile application running in a dynamic environment will continue to provide passengers with a system guarantee of service confirmation. LCCs can analyze passengers' needs and buying behaviors through ticket purchase behaviors, and passengers use mobile applications to obtain the latest flight information. Therefore, in providing services via mobile applications and

combining flight information and passengers' historical records of ticket purchases, the relevant flight information is broadcast periodically so that passengers experience the use value of the mobile apps.

Fourth, LCCs can adjust their competitive market strategy by implementing their mobile applications. In practice, LCCs can develop unique strategies. For example, an LCC can select and focus on time-sensitive related price dynamic competitive targets by adjusting the percentage of individual targets on their strategic adaption. Moreover, the findings of this study provide insight for an LCC in which an excellent value for passengers with a suitable pricing strategy will expand the number of passengers.

Finally, the mobile app automatically generates a digital luggage barcode in the application. It can also record passenger luggage weight information and provide passengers with various levels of luggage and purchase fees through the privileges gained by frequent passengers. In addition, LCCs can offer service strategies for passengers to reserve seats in advance through the mobile application, which can increase loyalty.

6.3. Limitations

The current study focuses on mobile applications to attract passengers to LCCs. Despite some notable findings, this study has some limitations. Our survey was conducted during April and May 2019 and the samples were only from Taiwan airports, which may limit the research results (regional limitations, COVID-19 impact, etc.). In the future, we recommend that studies include a more global sample structure to further confirm passenger behavior.

In addition, the time of departure or arrival may often cause inconvenience to passengers owing to low costs. This significantly affects travelers' purchasing decisions; therefore, future studies could explore the influence of time factors on passenger decisions. In addition, future research can discuss solutions for overbooking issues and upgrades for low-cost airlines due to asymmetric information, leading to a more comprehensive understanding of LCCs.

LCCs play an important role in the aviation industry, especially during short international voyages, creating more tourism opportunities. Therefore, it is important to understand the operating modes of LCCs and the factors affecting them.

References

1. Alderighi, M., & Gaggero, A. A. (2019). Flight availability and international tourism flows. *Annals of Tourism Research*, *79*, 102642.
2. Atallah, S., Hotle, S. L., & Mumbower, S. (2018). The evolution of low-cost Carrier operational strategies pre-and post-recession. *Journal of Air Transport Management*, *73*, 87-94.
3. Avogadro, N., Malighetti, P., Redondi, R., & Salanti, A. (2021). A tale of airline competition: When full-service carriers undercut low-cost carriers fares. *Journal of Air Transport Management*, *92*, 102027.
4. Azadian, F., & Vasigh, B. (2019). The blurring lines between full-service network carriers and low-cost carriers: A financial perspective on business model convergence. *Transport Policy*, *75*, 19-26.
5. Bakır, M., Akan, Ş., & Durmaz, E. (2019). Exploring service quality of low-cost airlines in Europe: An integrated MCDM approach. *Economics and Business Review*, *5*(2), 109-130.
6. Bilotkach, V., Kawata, K., Kim, T. S., Park, J., Purwandono, P., & Yoshida, Y. (2019). Quantifying the impact of low-cost carriers on international air passenger movements to and from major airports in Asia. *International Journal of Industrial Organization*, *62*, 28-57.

7. Buaphiban, T., & Truong, D. (2017). Evaluation of passengers' buying behaviors toward low cost carriers in Southeast Asia. *Journal of Air Transport Management*, *59*, 124-133.

8. Civelek, M., Ključnikov, A., Kmeco, Ľ., & Hamarneh, I. (2021). The Influences of the Usage of Marketing Communication Tools on Innovations of the Functional Areas of Businesses: Perspectives for the Mining Industry. *Acta Montanistica Slovaca*, *26*(4).

9. Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research, 295*(2), 295-336.

10. Chong, A. Y. L. (2013). Understanding mobile commerce continuance intentions: an empirical analysis of Chinese consumers. *Journal of Computer Information Systems*, *53*(4), 22-30.

11. Cui, Q. (2019). The online pricing strategy of low-cost carriers when carbon tax and competition are considered. *Transportation Research Part A: Policy and Practice*, *121*, 420-432.

12. Dijmărescu, I., Iatagan, M., Hurloiu, I., Geamănu, M., Rusescu, C., & Dijmărescu, A. (2022). Neuromanagement decision making in facial recognition biometric authentication as a mobile payment technology in retail, restaurant, and hotel business models. *Oeconomia Copernicana*, *13*(1), 225-250.

13. Eugenio-Martin, J. L., & Perez-Granja, U. (2021). Have low-cost carriers crowded out full services and charter carriers in tourism destinations? A trivariate structural time series analysis. *Journal of Travel Research*, *60*(4), 810-832.

14. Foroughi, B., Sitthisirinan, S., Iranmanesh, M., Nikbin, D., & Ghobakhloo, M. (2023). Determinants of travel apps continuance usage intention: extension of technology continuance theory. *Current Issues in Tourism*, 1-17.

15. Fox, G., Clohessy, T., van der Werff, L., Rosati, P., & Lynn, T. (2021). Exploring the competing influences of privacy concerns and positive beliefs on citizen acceptance of contact tracing mobile applications. *Computers in Human Behavior*, *121*, 106806.

16. Fu, X., Jin, H., Liu, S., Oum, T. H., & Yan, J. (2019). Exploring network effects of point-to-point networks: An investigation of the spatial patterns of Southwest Airlines' network. *Transport Policy*, *76*, 36-45.

17. Gerbing, D. W., & Anderson, J. C. (1988). An updated paradigm for scale development incorporating unidimensionality and its assessment. *Journal of marketing research*, *25*(2), 186-192.

18. Ginanneschi, M., & Piu, P. (2018). The Role of e-Commerce in the Success of Low-cost Carriers. *Scientific Annals of Economics and Business*, *65*(4), 407-425.

19. Gómez, M., Lopez, C., & Molina, A. (2019). An integrated model of social media brand engagement. *Computers in Human Behavior*, *96*, 196-206.

20. Guerar, M., Migliardi, M., Merlo, A., Benmohammed, M., Palmieri, F., & Castiglione, A. (2016). Using screen brightness to improve security in mobile social network access. *IEEE Transactions on Dependable and Secure Computing*, *15*(4), 621-632.

21. Hasan, M., Khan, M. N., & Farooqi, R. (2019). Service• Quality and Customer Satisfaction in Low Cost Airlines: A Critical Review of Extant Literature. *Pacific Business Review International*, *11*(9), 77-92.

22. Henderson, I. L., Tsui, K. W. H., Ngo, T., Gilbey, A., & Avis, M. (2019). Airline brand choice in a duopolistic market: The case of New Zealand. *Transportation Research Part A: Policy and Practice*, *121*, 147-163.

23. Hernández-Garrido, R., Perea, D. & Pérez-Calañas, C.(2022). The Vision of the Main Mobile Apps Related to Caravanning: an Analysis of the Reviews Focusing on Users and Developers. Journal of Tourism and Services, 24 (13), 1-25.

24. Ho, R. C., Amin, M., Ryu, K., & Ali, F. (2021). Integrative model for the adoption of tour itineraries from smart travel apps. *Journal of Hospitality and Tourism Technology*, *12*(2), 372-388.

25. Ho, S. C., Chen, J. L., & Luo, S. T. (2015). What users want: the factors that determine the retention of social location-based services. *Pacific Asia Journal of the Association for Information Systems*, *7*(1), 4.

26. Horvath, J., Gavurova, B., Bacik, R. & Fedorko, R.(2021). Identification of Uncertainty Factors in the Consumer Behaviour of the New Generation of Customers at the E-commerce Level. *Journal of Tourism and Services*, *12*(22), 168-183.

27. Hwang, S., & Kim, S. (2018). Does mIM experience affect satisfaction with and loyalty toward O2O services?. *Computers in Human Behavior*, *82*, 70-80.

28. Johnson, V. L., Woolridge, R. W., & Bell, J. R. (2021). The impact of consumer confusion on mobile self-checkout adoption. *Journal of Computer Information Systems*, *61*(1), 76-86.

29. Jou, R. C., Chiu, Y. C., & Kuo, C. W. (2021). Low-cost carrier passengers' willingness to pay for the seat preselection service: a case study on the taiwan-Japan route. *Journal of Advanced Transportation*, *2021*, 1-14.

30. Jung, H., Kim, J., & Shin, K. (2019). Importance analysis of decision making factors for selecting international freight transportation mode. *The Asian Journal of Shipping and Logistics*, *35*(1), 55-62.

31. Kaushik, A. K., Mohan, G., & Kumar, V. (2020). Examining the antecedents and consequences of customers' trust toward mobile retail apps in India. *Journal of Internet Commerce*, *19*(1), 1-31.

32. Keeling, D. J. (2020). Restructuring Argentina's airline networks: Successes and challenges. *Journal of Transport Geography*, *86*, 102761.

33. Khan, N. T., Jung, G., Kim, J., & Kim, Y. B. (2019). Evolving competition between low-cost carriers and full-service carriers: The case of South Korea. *Journal of Transport Geography*, *74*, 1-9.

34. Kaplan, D. (2008). *Structural equation modeling: Foundations and extensions* (Vol. 10). SAGE publications.

35. Kim, M. J., & Hall, C. M. (2020). What drives visitor economy crowdfunding? The effect of digital storytelling on unified theory of acceptance and use of technology. *Tourism Management Perspectives*, *34*, 100638.

36. Kim, T. T., Karatepe, O. M., & Lee, G. (2019). Test of an integrative model of travel-related social media users' switching intentions. *Service Business*, *13*, 339-361.

37. Ko, Y. D. (2019). The airfare pricing and seat allocation problem in full-service carriers and subsidiary low-cost carriers. *Journal of Air Transport Management*, *75*, 92-102.

38. Krbová, P. K. (2016). Generation Y attitudes towards shopping: A comparison of the Czech Republic and Slovakia. *Journal of Competitiveness*, *8*(1).

39. Krey, N., Chuah, S. H. W., Ramayah, T., & Rauschnabel, P. A. (2019). How functional and emotional ads drive smartwatch adoption: The moderating role of consumer innovativeness and extraversion. *Internet Research*, *29*(3), 578-602.

40. Ku, E. C. (2020). Spreading distinctive insignia benefits from mobile service: evidence from a mobile application of transportation. *Transportation Planning and Technology*, *43*(7), 651-669.

41. Ku, E. C., & Chen, C. D. (2015). Cultivating travellers' revisit intention to e-tourism service: the moderating effect of website interactivity. *Behaviour & Information Technology*, *34*(5), 465-478.

42. Ku, E. C., & Chen, C. D. (2020). Flying on the clouds: how mobile applications enhance impulsive buying of low cost carriers. *Service Business*, *14*(1), 23-45.

43. Kucukergin, K. G., Kucukergin, F. N., & Dedeoglu, B. B. (2020). An overview of the destination physical servicescape with SOR paradigm: The importance of prestige sensitivity. *Asia Pacific Journal of Tourism Research*, *25*(5), 473-488.

44. Lai, T. C., Hsieh, C. L., & Ku, E. C. S. (2022). The Gorgeous Brand: Understanding Consumer' Conspicuous Consumption for Luxury Tourism Products. *Journal of Tourism and Services, 13*(24), 108-127.

45. Liang, C. C., & Shiau, W. L. (2018). Moderating effect of privacy concerns and subjective norms between satisfaction and repurchase of airline e-ticket through airline-ticket vendors. *Asia Pacific Journal of Tourism Research*, *23*(12), 1142-1159.

46. Lim, J., & Lee, H. C. (2020). Comparisons of service quality perceptions between full service carriers and low cost carriers in airline travel. *Current issues in Tourism*, *23*(10), 1261-1276. https://doi.org/10.1080/13683500.2019.1604638

47. Lin, Y. H., Ryan, C., Wise, N., & Low, L. W. (2018). A content analysis of airline mission statements: Changing trends and contemporary components. *Tourism management perspectives*, *28*, 156-165.

48. Lv, X., Zhang, R., & Li, Q. (2021). Value co-destruction: The influence of failed interactions on members' behaviors in online travel communities. *Computers in Human Behavior*, *122*, 106829.

49. Lyu, T., Guo, Y., & Lin, H. (2022). Understanding green supply chain information integration on supply chain process ambidexterity: The mediator of dynamic ability and the moderator of leaders' networking ability. *Frontiers in Psychology*, *13*.

50. Ma, W., Wang, Q., Yang, H., & Zhang, Y. (2020). Is multimarket contact an antitrust concern? A case of China's airline market. *Transportation Research Part A: Policy and Practice*, *132*, 515-526.

51. Maertens, S. (2018). A metric to assess the competitive position of airlines and airline groups in the intra-European air transport market. *Research in Transportation Economics*, *72*, 65-73.

52. Mohammadian, I., Abareshi, A., Abbasi, B., & Goh, M. (2019). Airline capacity decisions under supply-demand equilibrium of Australia's domestic aviation market. *Transportation Research Part A: Policy and Practice*, *119*, 108-121.

53. Nguyen, N. M., & Nguyen, H. T. (2020). How do product involvement and prestige sensitivity affect price acceptance on the mobile phone market in Vietnam?. *Journal of Asia Business Studies*, *14*(3), 379-398.

54. Olipra, Ł., & Augustyniak, W. (2015). Analysis of business traffic at Wroclaw Airport-implications for economic development of the city and the region. *Journal of International Studies*, *8*(3).

55. Oviedo-Trespalacios, O., Vaezipour, A., Truelove, V., Kaye, S. A., & King, M. (2020). "They would call me, and I would need to know because it is like life and death": A qualitative examination of the acceptability of smartphone applications designed to reduce mobile phone use while driving. *Transportation research part F: traffic psychology and behaviour*, *73*, 499-513.

56. Oviedo-Trespalacios, O., Williamson, A., & King, M. (2019). User preferences and design recommendations for voluntary smartphone applications to prevent distracted driving. *Transportation research part F: traffic psychology and behaviour*, *64*, 47-57.

57. Pan, J. Y., & Truong, D. (2018). Passengers' intentions to use low-cost carriers: An extended theory of planned behavior model. *Journal of Air Transport Management*, *69*, 38-48.

58. Park, E. (2019). Corporate social responsibility as a determinant of corporate reputation in the airline industry. *Journal of retailing and consumer services*, *47*, 215-221.

59. Ponnusamy, S., Iranmanesh, M., Foroughi, B., & Hyun, S. S. (2020). Drivers and outcomes of Instagram Addiction: Psychological well-being as moderator. *Computers in human behavior*, *107*, 106294.

60. Realyvásquez, A., Maldonado-Macías, A. A., García-Alcaraz, J. L., & Blanco-Fernández, J. (2019). Effects of macroergonomic compatibility of information and communication technologies on the performance of manufacturing systems. *Behaviour & Information Technology*, *38*(7), 651-663.

61. Retamosa, M., Millán, Á., & Moital, M. (2020). Does the type of degree predict different levels of satisfaction and loyalty? A brand equity perspective. *Corporate Reputation Review*, *23*(2), 57-77.

62. Rodriguez-Valencia, A., Paris, D., & Cala, J. (2020). Mobile internet applications: implications for taxi driver behavior and operations. *Transportation Planning and Technology*, *43*(5), 463-474.

63. Roucolle, C., Seregina, T., & Urdanoz, M. (2020). Measuring the development of airline networks: Comprehensive indicators. *Transportation Research Part A: Policy and Practice*, *133*, 303-324.

64. Sarker, M. M., Mohd-Any, A. A., & Kamarulzaman, Y. (2019). Conceptualising consumer-based service brand equity (CBSBE) and direct service experience in the airline sector. *Journal of Hospitality and Tourism Management*, *38*, 39-48.

65. Sarrab, M., Elbasir, M., & Alnaeli, S. (2016). Towards a quality model of technical aspects for mobile learning services: An empirical investigation. *Computers in Human Behavior*, *55*, 100-112.

66. Savino, G. L., Sturdee, M., Rundé, S., Lohmeier, C., Hecht, B., Prandi, C., ... & Schöning, J. (2021). MapRecorder: Analysing real-world usage of mobile map applications. *Behaviour & Information Technology*, *40*(7), 646-662.

67. Silva, F. J. F., Câmara, G. F. M., Vieira, J. A. C., & Santos, C. A. S. M. (2020). Is the spending behaviour of tourists affected by low-cost carriers' operation? Some empirical evidence. *Tourism Management Perspectives*, *33*, 100630.

68. Soltysiak, W. (2014). Entrepreneurship behavior of students and graduates from Jan Dlugosz University in Czestochowa. *Polish Journal of Management Studies*, *10*(2), 199-208.

69. Song, M., Jing, L., & Moon, J. (2022). Framing effect of optional pricing on ticket purchasing intention in low-cost carriers. *Journal of Hospitality and Tourism Management*, *51*, 529-538.

70. Soyk, C., Ringbeck, J., & Spinler, S. (2021). Effect of long-haul low-cost carriers on North Atlantic air fares. *Transportation Research Part E: Logistics and Transportation Review*, *152*, 102415.

71. Tirado-Morueta, R., García-Ruiz, R., Hernando-Gómez, Á., Contreras-Pulido, P., & Aguaded-Gómez, J. I. (2021). From Internet access to problematic use: multigroup analysis of push and pull factors. *Behaviour & Information Technology*, *40*(13), 1375-1389.

72. Truong, D., Pan, J. Y., & Buaphiban, T. (2020). Low-cost carriers in Southeast Asia: how does ticket price change the way passengers make their airline selection? *Journal of Air Transport Management*, *86*, 101836.

73. Vatankhah, S., Zarra-Nezhad, M., & Amirnejad, G. (2019). An empirical assessment of willingness to accept "low-cost" air transport services: Evidence from the Middle East. *Journal of Tourism and Services, 10*(18), 79-103.

74. von Salm-Hoogstraeten, S., & Müsseler, J. (2021). Perspective taking while interacting with a self-controlled or independently-acting avatar. *Computers in Human Behavior*, *118*, 106698.

75. Wang, Y., Meng, X., Xu, C., & Zhao, M. (2022). Research on electronic word-of-mouth for product and service quality improvement: bibliometric analysis and future directions. *International Journal of Intelligent Computing and Cybernetics*, (ahead-of-print).

76. Wen, C., Wang, N., Fang, J., & Huang, M. (2022). An Integrated Model of Continued M-Commerce Applications Usage. *Journal of Computer Information Systems*, 1-16.

77. Wu, C., Liao, M., Zhang, Y., Luo, M., & Zhang, G. (2020). Network development of low-cost carriers in China's domestic market. *Journal of Transport Geography*, *84*, 102670.

78. Shu-Hua, Wu.(2022). Minds Think Alike: How Do Food Delivery Mobile Applications Innovate Consumer Service. *Journal of Tourism and Services*, *13*(25), 137-155.

79. Zhang, J., Luximon, Y., & Li, Q. (2022). Seeking medical advice in mobile applications: How social cue design and privacy concerns influence trust and behavioral intention in impersonal patient–physician interactions. *Computers in Human Behavior*, *130*, 107178.

Brief description of Authors:

Kuang-Yu Chang (Corresponding Author)
ORCID ID: https://orcid.org/0000-0002-1082-5263

Affiliation: Department of Tourism and Recreation Management, Overseas Chinese University, Taiwan (R.O.C)

Email: cky@ocu.edu.tw

Kuang Yu, Chang is an Assistant Professor in the Department of Tourism and Recreation Management at the Overseas Chinese University. He received his Ph.D. degree from the Graduate Institute of Tourism Management, National Kaohsiung University of Hospitality and Tourism. His research interests include tourism management, tourism human resource management, and Tourism marketing, and he has published in book chapters and journals.

Edward C. S. Ku

ORCID ID: https://orcid.org/0000-0002-4412-4908

Affiliation: Department of Travel Management, National Kaohsiung University of Hospitality and Tourism, Kaohsiung, Taiwan (R.O.C)

Email: edwardku@mail.nkuht.edu.tw

Edward C.S Ku is a Professor in the Department of Travel Management at the National Kaohsiung University of Hospitality and Tourism. He received his Ph.D. degree from the Graduate School of Business Administration, National Central University. His research interests include electronic commerce, supply chain management, knowledge management, and information systems applied in travel management. His papers have been published in the Journal of Hospitality and Tourism Research, International Journal of Tourism Research, Journal of Travel and Tourism Marketing, International Journal of Hospitality Management, British Food Journal, Internet Research, Online Information Research, The Service Industries Journal, Service Business, Journal of Air Transport Management, and others.