An Investigation of Airline Service Quality and Passenger Loyalty, with the Moderating Effect of Brand Equity: The Case of China Airlines

by

Chen-Wei Yen

A Thesis Submitted to the

Graduate Faculty in Partial Fulfillment of the

Requirements for the Degree of

MASTER OF BUSINESS ADMINISTRATION

Major: International Human Resource Development

Advisor: Cheng-Ping Shih, Ph. D.

National Taiwan Normal University

Taipei, Taiwan

January, 2019

ABSTRACT

The research mainly revolving around service quality has been receiving much attention from the academic field. Pervious research studies have indicated that there is a strong relationship between service quality and customer loyalty. However, the study focusing on the field of aviation industry hasn't been found widely; furthermore, there has been no case study exclusively for China Airlines. The purpose of the study is to explore the relationship between service quality and customer loyalty but in the domain of airline industry, with the moderating effect deriving from brand equity. Samples of the study came from those people who have flied with China Airlines and the study adopts quantitative research design and paper-based questionnaire to test the research hypotheses. The researcher used SPSS 22.0 and Amos to analyze the data and to determine the validity of the questions in the questionnaire. Results shows that service quality is positively related to customer loyalty; however, contrary to what was predicted and hypothesized in the thesis proposal, brand equity fails to have obvious moderating effect on the relationship between service quality and customer loyalty.

Based on the results regarding the relationship between service quality and passenger loyalty as well as the moderating effect on the relationship mentioned above, it may well be inferred that airline companies are part of the free competitive market. On the basis of this principle, as to China Airlines, it will not catch more people's attention and attract more passengers merely because of its brand equity. The reason why such a conclusion is reached is because the pricing strategy is one of the major factors that will impose a direct impact on the revenues it will bring from passengers. To be much more specific, the pricing ability and strategy of China Airlines

is of much more importance than the appearance of cabin crew members and other factors mentioned in the questions in the questionnaire and so forth. As a consequence, airline companies are to put much more emphasis on the service quality, which is strongly related to passenger loyalty, while providing tickets at not only reasonable but also lucrative prices, which can be the priority factors that will be put into prudent consideration by the passengers. In addition to what mentioned above, HR practitioners with airline companies are to improve the service quality from the perspective of the passengers instead of the ones held by themselves only.

Keywords: Airline inflight service quality, passenger loyalty, brand equity

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I   INTRODUCTION

This chapter introduces the background, problem statement, purpose, research questions, significance, and key term definition.

Background of the Study

The research topic of service quality has been receiving much attention in both research literature and practical fields for recent decades as the service quality is of significant importance and value when it comes to the dedication to obtainment and maintenance of market share for airline companies all over the globe (Anderson & Zeithaml, 1984; Philips & Robson, 1983). As a cabin crew with 3 different airlines, ANA, Cathay Pacific and China Airlines (All Nippon Airways based in Tokyo, Cathay Pacific Airways based in Hong Kong and China Airlines based in Taipei), service quality is one of the core values that the training courses I had received center around. Despite the fact that aviation industry should be mainly categorized as the transportation industry, people still put much emphasis on the quality of the inflight services such as the catering foods, the performance of cabin crew and even the attractiveness of the flight attendants. The great importance of service quality in any service industry can't be disputed or questioned. Drastic changes happening in the past few years in politics, economy and technology with great influences on transportation industry in particular have made service quality a major concern for both airline companies and passengers to a certain degree.

In a sense, the quality of airline service plays a vital role in attracting much more new clients, in maintaining the level and standard of overall performance of the flight and in keeping the bond with those loyal customers, which no wonder has been emphasized for long. With fine service quality, those who haven't flown with China Airlines will be attracted to give it a try while those who have been satisfied with the overall performance of China Airlines will become part of the factors that maintain the re-flying rate with China Airlines.

Nonetheless, the relationship between the quality of airline inflight services and passenger loyalty can be affected with the moderator, brand equity. Brand equity represents a firm's efforts to promote, both within and outside the firm, a clear view of what makes it different and desirable as an organization in the public eye. In recent years brand equity has gained popularity and great influence on customers (Backhaus & Tikoo, 2004). Brand equity has been advocated as one of the effective strategies for motivating the idea to "live the brand"; however, little is known about what leads to the fact that brand equity makes itself attractive to not only existing but also potential customers (Maxwell, 2010). Drawing on the previous literature, the

current study aims to explore whether the moderating factor of brand equity will impose any effects on the relationship between the service quality of airlines and passenger loyalty. In a sense, the study can not only give suggestions to the marketing department of China Airlines on how to promote and publicize China Airlines as a well-established organization but can shed light on the HR department of China Airlines, showing them what sorts of potential employees China Airlines are to recruit to maintain and fortify the passenger loyalty (passengers' re-flying rate).

Problem Statement

It is apparent that quite little research has been conducted regarding the topic and relationship between inflight service quality and passenger loyalty especially when it comes to the moderating effect deriving from brand equity. What's more, there has been no specific case study revolving around China Airlines that goes deep into the correlation between the 3 items mentioned above. To be honest, the situation in China Airlines is not so much different from that with other airlines in other parts of the globe.

According to some previous academic research, the definition of a service is not an act or a specific product; in addition, its quality will be determined and judged on the basis not only of the result (technical quality) but also on the process by which services are carried out (functional quality; Gronroos, 1990; Bowen & Schneider, 1988). Accordingly, there are a large number of unique features that help us determine the differences between services and products.

The characteristics of a great diversity as for services give rise to the complicities which are deeply involved both in the assessment and in the management of service quality. To be much more specific, they complicate the aspects of both the passengers' assessment of service quality and the service providers' ability to take the full control over it. For decades, service quality has been increasingly regarded as one of the major factors which may impose effects to a certain degree on how to differentiate service offerings with different airlines and at the same time as a major tool to establish competitive advents. Most services require direct contact between the customers and service providers, which may suggest that besides task proficiency as for carrying out a certain duty, interpersonal skills such as friendliness, courtesy and tolerance are of considerable importance when we take the aspects of service quality into consideration, especially in high contact services where employees at the front line will leave a great influence on customer satisfaction, which may later on contribute to the level of passenger loyalty (Hobson & Denekamp, 1984; Hostage, 1975). It is widely perceived that for

every complaint received by a business from a customer, there are around 26 other customers who feel exactly the same way while failing to express their own opinions but keep the emotions deep inside instead (Headley & Choi 1992). One customer having come to feel satisfied with the services received, as a norm, tells 2 or 3 people whereas customers failing to feel content with the services tells much more people. As a result, with an eye to improving service quality, it is indispensable that customers' opinions and thought be heard clearly since the quality of service is ultimately determined by customer perceptions. At the same time, it is also of great importance that companies listen to the service providers at the front line so as to gain a full understanding what may be important for them and how they perceive customers.

Transport firms such as airlines now have come to build a perception that service quality may well serve as a strategic tool not only to reinforce the value of the total transport service offering from the perspective of the passengers for the purpose of building an ability to differentiate the services from other competitors on the market but to try every possible way to foster passenger satisfaction.

Airlines, or can also be referred to as airways, are a major transport provider. With a new competitive environment emerging recently where price wars, frequent flyer programs and other innovative marketing strategies now have become prosperous, airlines, thus, have been pushed either voluntarily or involuntarily to introduce service development and reinforcement strategies to remain the ability to keep their competitive advantage (Kaynak, Bloom, & Leibold, 1994). The development of the customer-oriented marketing concept where customers speak the loudest according to a widely perceived belief has been an immediate response to the rapidly changing environmental conditions, switching from a seller's market to a buyer's market (Khatib, 1998).

With the increase in income and the convenience of transportation, passengers nowadays have become much more sophisticated about flying and thus have relatively higher expectations about the services they are about to receive onboard. The homogeneity of airline services has forced service quality to manifest as principal feature in the design of a competitive marketing strategy, which is worth striving for.

The possibility of success of a certain airline depends mainly on its extensive knowledge of its passengers and its ability to design marketing strategies and campaigns which are to perfectly coincide with the needs and preferences of the customers whom it targets. What mentioned above requires a careful identification of the most essential attributes (dimensions) of their services that are to meet and satisfy the needs of the passengers, which may later on bring about to the ultimate goal of passenger loyalty.

China Airlines, also known as CAL or CI in the aviation industry, is part of the air travel market. It has been the biggest airline company in Taiwan for several decades with its good reputation. However, recently, it has been faced with challenges from other outstanding airline companies here in Taiwan, either legacy airlines or low budget airlines (also known as LCC, Low Cost Carrier). One way which China Airlines can remain its position in the aviation industry here in Taiwan and thus gain more passengers is to make sure the services delivered onboard by cabin crew members are of high quality and standard. As a consequence, providing proper and convincing answers and solutions from the perspective of both marketing and human resources requires investigation, assessment and evaluation of some specific questions which will be clarified later on.

Purpose of the Study

The major purpose and concern of the study mainly revolves around the investigation of the relationship between inflight service quality and passenger loyalty, along the way with the moderating effect of employer branding. Accordingly, the main objectives of the research study are as below.

1. To identify the major features (dimensions) of airline inflight service quality.
2. To recognize the relationship between inflight service quality and passenger loyalty.
3. To investigate the influence of brand equity on the relationship between inflight service quality and passenger loyalty.

Research Questions

According to the research purposes, this study aims to answer the following questions:

1. Is there any significant relationship between airline inflight service quality and passenger loyalty?
2. Does brand equity have a significant moderating effect on the relationship between inflight service quality and passenger loyalty?

Significance of the Study

The possibly potential contribution of the study can be viewed from the perspectives of the following aspects:

Contribution to China Airlines' Organizational Management

This study mainly aims to remind those claiming the managerial positions at China Airlines that inflight service quality does have a strong impact on passenger loyalty, which will later on determine the profits and revenues received by China Airlines. At the same time, brand equity also leaves a significant impression on customers when it comes to choosing which airlines to fly when necessary. Thus, the study provides an aspect of great importance for China Airlines not only to put great emphasis on the improvement of inflight service quality but to make efforts to establish a corporate image that will attract customers.

Contribution to HR Practitioners

In terms of recurring and staffing, it is indispensable that companies try every possible method to hire those with the qualities and characteristics that will serve as any assistance either to reinforce the advantage existing already or to compensate for any weakness or challenges that the company has been faced with. The study aims to provide some suggestions regarding what kind of cabin crew members China Airlines exactly needs according to the dimensions of inflight service quality.

Contribution to Research Field

The study mainly focuses on the examination of the relevant literature which has been published so as to explain and develop a relatively wider understanding of inflight service quality which has a positive influence on passenger loyalty. The theoretical contribution of the study revolves around the attempt to integrate service quality and customer loyalty into the filed of aviation industry, which has rarely been emphasized before, particularly with the case of China Airlines.

Definition of Terms

Airline Service Quality

Airline service quality, literally, is a set of services delivered by cabin crew members onboard, which then will be perceived by passengers to determine the level of satisfaction on the basis of the services they are offered. Service is "a social act that takes place in direct contact between the customer and representatives of the service company" (Norman, 1984, p.18).

Passenger Loyalty

Loyalty has evolved through quite a few conceptual and operational interpretations. According to a widely-perceived belief, the multi-dimensional definition lies in nature, incorporating the attitudinal and behavioral measures of commitment and repeat purchase (Day, 1969; Jacoby, Olson, & Haddock, 1971; Muncy, 1983; Selin & Howard, 1988).

The passenger loyalty discussed in the study mainly focuses on the behavioral interpretation as a form of repeat purchasing of a particular brand over time (Brown, 1952; Cunningham, Catlin, & De Garilhe, 1956; Tucker, 1964; Sheth, 1968).

Brand Equity

Brand equity, according to the studies which have been studied and published before, mainly concentrates on the aspect of a value premium that is derived from a product or a service with a recognizable name from a certain company when in comparison with other equivalent in the same product/service category. Brand equity for a certain product can be generated if the company is to make it memorable, superior in quality and reliability and easily recognizable for consumers. In addition, brand equity can be created if mass marketing campaigns are to be put into actual practice.

According to previous research studies, brand equity can be broken down into three basic elements, which respectively are consumer perception, negative or positive effects and the resulting value deriving from what mentioned above. It is easy to understand that brand equity is generally and initially created by consumer perception, which can be divided into two dimensions: knowledge and experience with a certain brand and its products/services. The perception held by consumers toward a certain brand directly gives rise to either positive or negative influences. A company's products and revenues can surely benefit from the positive brand equity whereas any disadvantages may come along providing the brand equity is

negative. Lastly, the effects mentioned above may be likely to turn either into tangible or intangible value. Tangible value may be realized, which may result in the increase in revenues and profits on the condition that the effect comes in a positive way; on the other hand, either the tangible or intangible value may show the negative sign if the effect is also negative. For instance, on account of any major product recall from a certain company, the brand may show the possibility of a negative brand equity if consumers are to pay more willingly for a more generic product instead of a branded one.

CHAPTER II   LITERATURE REVIEW

The chapter mainly focuses on the concepts of service quality and passenger loyalty in terms of the aviation industry. Therefore, the literature of studies which have been published will be reviewed as for the dimensions of inflight service quality. What mentioned above will be of great assistance in identifying the factors of great importance that can be taken into consideration to measure service quality. After that, a review of a variety of studies will be highlighted to elaborate on passenger loyalty. Then, a theoretical linkage between inflight service quality and passenger loyalty will be reviewed. Finally, the moderating effect deriving from brand equity will be discussed to see how much it can affect the relationship between inflight service quality and passenger loyalty.

Passenger Loyalty

According to the research outcomes which have been published and discussed before, passenger loyalty most of the time is referred to as the intention to purchase goods or services from a certain organization or company. Nonetheless, this approach merely covers the dimension of loyalty exclusively as for behavioral aspect, at the same time overlooking the dimension of attitudinal aspect. As a consequence, this study mainly concentrates on the seemingly missed part as mentioned above and correlates them to the idea of passenger loyalty. It is perceived that the forming of loyalty takes several phases to develop and build (Oliver, 1999). The phases can be divided into categories from different aspects of diversity. The first stage revolves around the preference over other competitors' features and characteristics, which can also be thought of as beliefs. The second mainly focuses on the affective preference towards the goods, products and services provided by a certain organization, which can also be seen as the attitude. The last elaborates on the concept of a higher intention to purchase good, products or services from a certain company and it is the strong intention that leads customers/passengers to choose a certain company instead of taking other competitors' products or services into any single consideration. What has been mentioned above has come to form a concept that customers/passengers would have the tendency to develop the sense of loyalty to a service mainly in a cognitive fashion in the beginning; after that at the second stage, the development of loyalty is correlated to the emotion or feelings as "like" or "dislike" toward a certain service. Lastly, the process may go into the last stage, which can be considered as the conative sense (Back, 2005; Oliver, 1999). Along the pathway of the forming of each stage,

passenger loyalty and commitment can be built. A great variety of factors which may impose influences on passenger loyalty to a certain extent can be identified at each stage (Evanschitzky & Wunderlich, 2006). In a sense, from the service information which can be gained by the passengers forms cognitive loyalty. According to studies which have been discussed before, cognitive loyalty seems to be the factor with the least impact as for passenger loyalty (Pedersen & Nysveen, 2001). According to the evaluative responses made by passengers as to the aspects of service experiences and especially the perceived service performance compared to the pricing, cognitive loyalty can be formed (Evanschitzky & Wunderlich, 2006). On the other hand, to put it in a much more understandable fashion, if a customer is to make a purchase merely out of a propensity, it means we have stepped into the area of affective loyalty. In other words, affective loyalty mainly focuses on the attitude toward a certain organization and the goods or products derived from it. Lastly comes the last stage of customer loyalty, conative loyalty, which has shown as the strongest antecedent when it comes to evaluating behavioral loyalty. Conative loyalty, briefly speaking, mainly concentrates on the intention to make a purchase from a certain organization. It may be derived from convincing or persuasive counterargument competitive messages.

At the same time, the research which has been published before has discussed the factors which may impose influences on passenger loyal to a certain extent. Table 2.1 shows the details involved inside.

Table 2.1.

Factors Imposing Influences on Passenger Loyalty

Behavioral Measures:
Intentions to make a purchase
Word of mouth communications
Sensitivity to prices
Complaint behavior
Attitudinal Measures:
Resistance
Volition
Complexity

Airline Service Quality

Nowadays, airline companies have been faced with difficulties and challenges in terms of the adaptation of the quality concept since air transportation will be not fully completed without the joint efforts from airlines, passengers and the government and its policies (Gourdin 1988). Passengers have a direct contact with the airline company so it is often seen that the blames will be on the airlines alone despite the efforts done by the management dedicated to improving the overall service quality.

For the purpose of introducing airline service of high quality, it is quite essential to recognize the main characteristics of this service.

The term "service" has been widely discussed according to the studies which have been published before. Frankly speaking, the great importance of service quality in the service industry can't be questioned or disputed at all since it is one of the factors that will impose direct influences on the performance and revenues of a company. Over the past years, passengers have come to form higher expectations as for the quality of services they are to receive (Brew, Ford, & Himmelberg, 1989) and airline companies have been struggling and sparing no efforts to meet their increasingly high expectations. The phenomenon mentioned above implicitly suggests that there is still some room for the management with airline companies to gain a full understanding of how to define service quality.

According to the research which has been published before, there are 2 types of aspects in terms of transportation service, which are referred to as core and peripheral aspects.

Services such as baggage handling and ticketing, which can be categorized as the services facilitating and supporting the completion of the process, are regarded as peripheral services. On the other hand, core services are composed mainly of the basic transportation flight itself (Bitner, 1990; Gronroos, 1990; Ozment & Morash, 1994; Zeithaml, Parasuraman, & Berry, 1990).

The following Table 2.2 shows examples of variables of different kinds standing for the transportation services. However, the study mainly deals with the core services such as those provided by cabin crew onboard.

Table 2.2.

Definitions of Airline Service Variables

Airline Core Services:
Services for Passengers: any service form which is linked to inflight passenger comfort, safety, security and convenience, such as the attitude of the cabin crew members and the taste of the inflight meals.
Flight Services: any service form which is linked to the operational aspect onboard, such as the proficiency of the cockpit crew.
Maintenance Services: any service form which is connected to the maintenance of the status of the aircraft, which is to ensure the perfect condition of the carrier.
Airline Peripheral Services:
Ground Support: any service form which is linked to traffic control, aircraft servicing and luggage handling.
General Administrative Support: any kind of aspect which is to facilitate the development of the airline company, such as legal services and purchasing.
Airline Communication:
1. any kind of activity that aims to promote and advertise and thus elevate the image of the airline company.
Airline Capacity Utilization:
Load Factor: percentage of the number of the seats onboard
Passenger Enplanements: the total number of passengers who fly with a certain flight.

Note. Air Carrier Financial Statistics. Adapted from "Bureau of Transportation Statistics," By United States Department of Transportation, December, 1990.

Airline Service Quality-Passenger Loyalty

The research studies that have been discussed and published before have clearly suggested that a strong and positive relationship can be found between the two variables, airline service quality and passenger loyalty. In addition, many authorities on the service industry have indicated that the reason why consumers can be much more brand loyal is when differences in quality that can be clearly specified are found in the same product category among a variety of organizations (Anderson, 1974; McConnell, 1968; Jacoby et al., 1971; Lamont & Rothe, 1971;

Kamins & Assael, 1987). A great number of dimensions that revolve around service quality are "experience properties" which can be perceived and known only when the customer is making a purchase or experiencing the service provided (Parasuraman, Zeithaml, & Berry, 1985, p.48). Currently, there have been a number of studies that center around the influence of service quality on consumers' behavioral intentions (Boulding, Kalra, Staelin, & Zeithaml, 1993 ;Cronin & Taylor, 1992). Nevertheless, there are still some limitations of these studies mentioned above, which will be depicted briefly as follows.

To begin with, the full range of potential behaviors which service quality may have the tendency to contribute to can't be fully captured and understood in the operationalization of behavioral intentions in the studies mentioned above. Take Cronin and Taylor (1992)'s study as an instance. Cronin and Taylor (1992) mainly centered on the purchase intentions which are to measure the construct with a single-item scale. The service quality covers a great range of factors, and thus it is quite questionable how they could find out the precise and accurate outcomes merely using a single-item to evaluate such a widely-covering variable. Additionally, consumers' complaint intentions while they might possibly have any problems with a certain company's services (Singh & Lumsden, 1990) didn't seem to have been taken into prudent account.

However, Knutson et al. (1988)'s research study which concentrated on frequent fliers strongly implied that the connection between service quality expectations and repeat purchasing behavior is quite clear to see. Knutson and his colleagues (1988) also discovered that the service quality criteria which repeating hotel guests took into consideration were exactly the same as those when they first chose to stay at a certain hotel. Additionally, the price segment, which can be briefly categorized as economy, mid-priced and luxury, seemed to be taking the control over the level of these quality expectations. Despite the differentiation by price segment mentioned above, the criteria as for evaluating the quality and continuous repeat purchase seem to have the tendency to remain constant without the influence of price segment. To put what mentioned above into conclusion, an individual who seems to perceive a high level of service quality which is connected with a relaxation recreation experience is to show higher level of loyalty toward a certain company and may also show the signs that the particular individual is willing to make purchases from the organization providing the perceived satisfactory services.

The Moderating Role of Brand Equity

As for the field of branding research, there have been 2 authorities, Keller (1993) and Chaudhuri (1995), on the domain utilizing two different aspects, which are financial and consumer-based, to clarity and interpret brand equity. When it comes to consumer-based aspect, brand equity is mainly regarded as an overall evaluation of a certain customer's response to a brand. On the other hand, from the aspect of the financial side, if a financial value can be created by brands, that's where the brand equity is derived from (Kim, Sherman, & Taylor, 2008; O'Neill & Mattila, 2010). Accroding to Aaker (1992), brand equity can be clearly defined as "the set of assets (and liabilities) linked to a brand name and symbol that adds the value provided by a product or service to a firm and/or that firm's customers" (p. 16). In the beginning, he classifies brand equity into five different dimensions; however, one of the dimensions, other proprietary brand assets (e.g., patents, trademarks, and channel relationships), is often not considered as an appropriate approach in the marketing research since it quite diverges from the aspect of customer's perceptions concerning a certain brand (Yoo & Donthu, 2001). Thus, nowadays, most of the researchers only break down the topic of brand equity into four dimensions, which are brand awareness, brand association, perceived quality and brand loyalty.
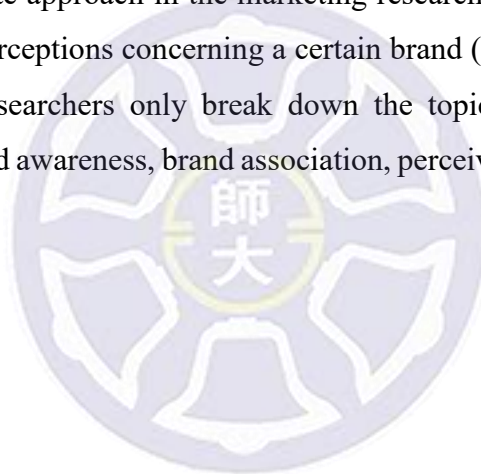
CHAPTER III   METHODOLOGY

The research framework, hypotheses, sample, data collection, measurement and questionnaire design are to be introduced in this chapter.

Research Framework

In this study, the independent variable is airline service quality. The dependent variable is passenger loyalty. Brand equity serves as the moderator as for the relationship between airline service quality and passenger loyalty. The research framework is shown in Figure3.1.
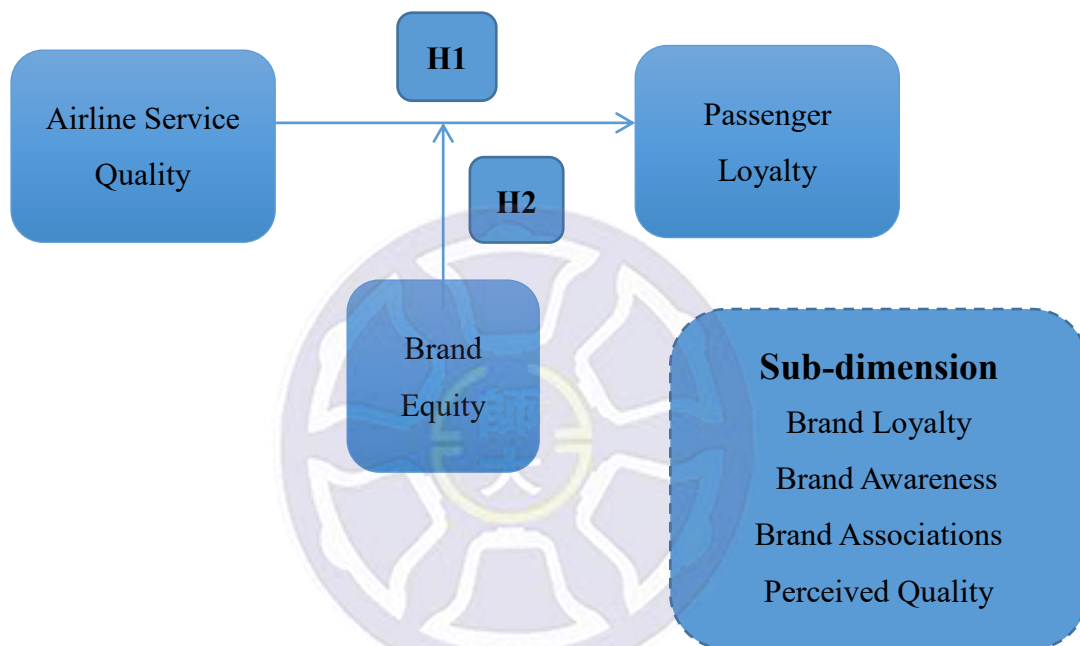

Figure 3.1. Research Framework of This Study

Research Hypotheses

The hypotheses of this study are proposed as followed:

Hypothesis 1. Airline service quality is positively related to passenger loyalty.

Hypothesis 2. Brand equity moderates the relationship between airline service quality and passenger loyalty. Under high level of brand equity, the positive relationship between airline service quality and passenger loyalty will be stronger.

Research Procedure

This part elaborates on the processes and procedures employed and adopted to conduct this research. Several steps are specifically and clearly indicated as follows.

Identify the research topic

After several meetings and talks with the advisor about some topics of great interests while making efforts to go through the literature review, the topic was conclusively determined to be focused on the research which centers around a certain local airline company in Taiwan, China Airlines, on the basis of the author's previous working experience.

Review the literature

The research author kept reading through the previous related literature which centers around service quality, brand equity and passenger loyalty while at the same time taking notes of great importance from the literature and thus formed the literature review shown here in this thesis research.

Develop the framework and instruments

Based on the determined 3 variables, service quality, brand equity and passenger loyalty, the research framework was thus formed and the questionnaire designed was as well formed based on the discussion with the advisor.

Establish the research questions and hypotheses

On the basis of the determined research framework, research questions along with the research hypotheses were deduced and formed.

Construct the research method

Quantitative research method was employed in this research thesis while SPSS and Amos were also adopted to analyze the results acquired from the questionnaires.

Data Collection

Proper Chinese translation of the questions in the questionnaire was formed after the confirmation of validity. The translation was also double checked by English native speakers so as to maintain the essence of each question before data collection was conducted.

Conduct the pilot test

The data retrieved were conducted as the pilot test and after the confirmation of validity, the analysis of all data were afterwards conducted.

Analyze the data and discuss the findings

After the analysis of the results of data was completed, the remaining part of the research thesis was afterwards carried out.

Research Sample

Samples of the study were those who have flied with China Airlines. Since passengers' perceived services from airlines are of great importance to the management of airline companies. Accordingly, the sample's responses may directly and accurately reflect what aspects China Airlines has missed taking care of while what China Airlines may make efforts to maintain.

Pilot Test

The complete questionnaire is composed of 3 major parts, which are service quality, brand equity and passenger loyalty. The questionnaire was adopted and referred by the one conducted by Khatib (1998). There are 13 questions in the category of service quality, 14 questions regarding brand equity and 14 questions concerning passenger loyalty. When the questionnaires were retrieved, the internal reliability was the priority that needed dealing with so the research author conducted pilot test as the first step.

There were 40 participants filling out the questionnaire and their age ranges from 25 to 60. They were 40 full time employees who used to fly with China Airlines and among them there were 9 people who already retired, 12 people who are business travelers and 19 passengers who are employees with certain corporates. At the same time, there were 18 female passengers while there were 22 male passengers with educational background ranging from high school to Ph.D. degree.

After data were collected from these 40 participants, a reliability test was conducted by SPSS. The Cronbach alpha value of each variable were 0.75 for service quality, 0.83 for brand equity, and 0.89 for passenger loyalty.

Based on what mentioned by George and Mallery (2003), Cronbach value is in charge of

explaining the internal consistency of items, ranging from 0.6 to 0.7 is considered to be acceptable while from 0.7 to 0.8 is good. Furthermore, over 0.9 is considered excellent. As a result, the questionnaire employed in this study had a good reliability according to the results from the outcome brought out by the pilot test.

Table 3.1.

Cronbach Alpha Value of Each Variable of This Study

Variable	Total item number	Cronbach Alpha Value
Service quality	13	0.75
Brand equity	14	0.83
Passenger loyalty	13	0.89

Data Collection

Data of this study was collected using an online self-administrated questionnaire. The survey contains four major sections. Section one contains questions measuring airline service quality, which are adopted from the version of questionnaire from Khatib (1998). According to his research, the Cronbach's α coefficient of airline service quality is 0.98；Section two contains questions testing passenger loyalty from Khatib (1998) and α is 0.98. Section three contains questions testing brand equity ($\alpha = 0.90$). Section four deals with respondents' demographic information such as gender, age, educational backgrounds and so on.

Snowball and convenient sampling approach were used for data collection. Participants received an e-mail with the link directing to the webpage of the survey. At the same time, they were encouraged to forward the email to as many of their friends as possible. Data collection period lasted four months from June to September in 2017, and finally got 286 usable responses.

Instrumentation

This study adopts a quantitative research design in order to examine the correlations among testing variables. Through questionnaire instruments, the quantitative data will be collected. This study will use inferential statistics to test the hypotheses after the accomplishment of the data collection.

The questionnaire comprises three parts measuring three variables of research interest: airline service quality, passenger loyalty and brand equity. The questions used to measure all

variable are derived from previous published studies in the literature. Since our target samples are those people who have flied with China Airlines in Taiwan, all the questions will be translate into Chinese.

Measurement

The measurements used in this study will be introduced in this section. The full questionnaire with instructions and measurements are presented in the Appendix: Measurements and Questionnaire.

Airline Service Quality (SQ)

The measurement items were from the scale developed by Khatib (1998). The measure of airline service quality contained 13 items. An example item is: "The cabin crew are very courteous toward passengers". The Cronbach's alpha was 0.98. Responses were designed on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Higher score indicates a greater degree of airline service quality.

Passenger Loyalty (PL)

The measurement of passenger loyalty is adopted from Khatib (1998). According to the research outcomes, the Cronbach's α coefficient of it is 0.98. The measurement of it contained 13 items.

Brand Equity (BE)

The measurement of brand equity is adopted from Yoo and Donthu (2001). According to the research outcomes, the Cronbach's α coefficient of it is 0.90. The measurement of it contained 14 items.

Data Analysis

IBM SPSS 22.0 was used to perform data analysis. CFA was used to test the reliability and validity of our measurement.

Descriptive Analysis

Descriptive statistics can help people have the whole images of the collected data. The researcher will use frequency distribution which includes numbers and percentage to show the demographic information in this study, such as gender, age, tenure, education level and position level. The mean and standard deviation will be utilized to investigate all the variables in this study, including airline service quality, passenger loyalty and brand equity.

Pearson correlation analysis

The liner relation between two continuous variables can be described as correlation, and researches adopt coefficient of correlation, also called Person's product-moment correlation coefficient (Person's r) to display the degree of the correlation. When the absolute value of Person's r is closer to 1, the degree of the correlation is stronger. Also, the situation that the Person's r is positive means the correlation is positive; on the contrary, the condition that the Person's r is negative means the correlation is negative. In this study, correlation analysis was used to examine the relationship between airline service quality, passenger loyalty and brand equity.

Confirmatory factor analysis (CFA)

In order to confirm to the validity of all the questions in the questionnaire, AMOS was one of the methods that were employed.

Hierarchical regression analysis

Hierarchical regression analysis was used to examine whether the interaction between airline service quality and brand equity will have any influences on passenger loyalty which is set in order to test the hypothesis 2 of this test.

CHAPTER IV　RESULTS

This chapter demonstrates the results after analyzing the data collected to examine the proposed relationship between service quality, brand equity and passenger loyalty. Hypotheses examined in this research were (1) Airline service quality is positively related to passenger loyalty, (2) Brand equity moderates the relationship between airline service quality and passenger loyalty. Under high level of brand equity, the positive relationship between airline service quality and passenger loyalty will be stronger. Correlation analysis was used to examine the relationship among variables and hierarchical regression analysis was used to examine the relationship.

Participants

Data collection was conducted via online questionnaires along with paper questionnaires. Participants were composed of full-time employees from different walks and industries as well as those who already retired. Those who have flied with China Airlines were eligible for filling out this questionnaire. There were 312 responses but some were invalid, which means there were 286 valid responses retrieved.

Reliability

Reliability test was conducted to ensure the quality of the questionnaire used.

There are 13 items measuring the dependent variable, service quality. The Cronbach alpha value was 0.881. For independent variable, passenger loyalty, 13 items were used to measure it and Cronbach alpha value was 0.905. Further, the Cronbach alpha value of brand equity' 14 items was 0.907.

Table 4.1.

Reliability Scale: Service Quality, Passenger Loyalty and Brand Equity (N = 208)

Scale	Item Number	Cronbach Alpha Value
Service Quality	13	0.881
Passenger Loyalty	13	0.905
Brand Equity	14	0.907

In summary, most of the figure of reliability can be considered good since they are all over 0.7 according to what mentioned by George & Mallery (2003).

Descriptive Statistics

Detailed demographic information about 286 participants was provided in this part. All the elements include gender, educational background and level, occupational category, times they have fled with China Airlines and the travel purpose and so forth.

The 286 valid participants are composed of those who have flied with China Airlines, ranging from those holding managerial positions, professional retirement, employees and students. Among them, there are 102 female (49%) and 106 (51%) male participants.

Table 4.2.

Demographic Statistics (N = 208)

	Item	Frequency	percentage%
Gender	Female	102	49
	Male	106	51
Educational Level	High School	2	1
	Vocational School	28	13.5
	Bachelor Degree	99	47.6
	Master Degree	71	34.1
	Doctor Degree	8	3.8
Occupation	Managerial Position	45	21.6
	Professional	38	18.3
	Retired	21	10.1
	Employee	86	41.3
	Student	17	8.2
	Other	1	0.5
Time(s)	Never	2	1.0
	1-3 times	125	60.1
	Over 3 times	81	38.9
Purpose	Business	33	15.9
	Leisure Travel	98	47.1
	Official Assignment	27	13.0

Family Visit	43	20.7
Education	5	2.4
Others	2	1

Correlation Analysis

This part examines whether correlation exists among SQ, BE and PL in order to further examines the relationship between these variables. Table 4.3 presents the mean, standard deviation, correlations, and reliability as well.

Table 4.3.

Mean, Standard Deviation, Correlation, and Reliability of Variable (N = 208)

	Mean	SD	1	2	3
1.SQ	4.154	0.369	(0.881)		
2.PL	3.968	0.506	0.518**	(0.905)	
3.BE	4.145	0.437	0.505**	0.789**	(0.907)

Note.$*p < .05, **p < .01$

SQ = Service Quality, PL = Passenger Loyalty, BE = Brand Equity

As Table 4.3 shows, we found a significant correlation between SQ and PL. ($r = .518$, $p < .01$), a finding consistent with Khatib (1998)'s study. In addition, these SQ did correlate positively with BE ($r = .505$, $p < .01$). Finally, our analysis showed that PL was highly correlated with BE at the same time ($r = .789$, $p < .01$).

Hierarchical Regression Analysis

Table 4.4.

Results of Moderating Effect of Brand Equity for the Relationship between Service Quality and Passenger Loyalty (N = 208)

Variable	Model 1		Model 2	
	B	t	B	t
SE	.370**	6.813	.388**	6.196
BE	.481**	8.850	.480**	8.8819

SE×BE		.033	.582
R^2	.545	.546	
ΔR^2	.545	.001	
F	122.697**	.339	

Notes. *$p < .05$, **$p < .01$;Two-tailed tests of significance; Dependent variable = Passenger Loyalty.

Table 4.4 presents the results of one hierarchical regression analysis for the moderating effect of brand equity on the relationship between service quality and passenger loyalty. Hypothesis 1 stated that service quality would positively predict passenger loyalty. This hypothesis was supported as the test was significant ($b = .61$, $p < .01$). Hypothesis 2 stated that brand equity will moderate the positive relationship between service quality and passenger loyalty. However, the second hypothesis was not significant ($b = -.033$, $p = .561$).

Confirmatory Factor Analyses

As noted by Joreskog (1993), "since chi-square is N-1 times the minimum value of the fit function, the chi-square test tends to be large in large samples" (p. 309). Because of the large effect of sample size on the chi-square values (and associated p values), other fit indices were also selected to measure the fit of the tested models (Nunkoo, Gursoy, & Ramkissoon, 2013).The fit between the measurement model and data was thus assessed by the following standard indices: comparative fit index (CFI) = .919 (SQ), .79 (PL) and .69 (BE); Tucker-Lewis index (TLI) = .903 (SQ), .748 (PL) and .633 (BE). Furthermore, the root mean square error of approximation (RMSEA) = .075 (SQ), .157 (PL) and .185 (BE). All of the above indicated that the measurement model fit the data well and the overall fit indices were appropriate.

Table 4.5.

Results of Confirmatory Factor Analyses

	Model fit indices					
	X^2	df	RMSEA	CFI	TLI	IFL
SQ	140.117	65	0.075	0.919	0.903	0.92
PL	397.312	65	0.157	0.79	0.748	0.792
BE	619.883	77	0.185	0.69	0.633	0.692

Discussion

As expected before conducting the survey, there's a strong positively related connection between service quality and passenger loyalty. Since as what mentioned and discussed above, once customers are satisfied with the service quality they have received, they will surely consider taking China Airlines once again whenever they have the opportunity to fly again. That's why corporations in the aviation industry have been putting great emphasis on the importance of delivering not only professional but satisfactory services to passengers onboard.

However, the moderating factor of brand equity didn't quite show such a strong impact on the relationship between service quality and passenger loyalty mainly because brand equity is composed of different aspects and it is also concerned with the image of a certain company in the public eye. Bias and discrimination are omnipresent in the mind set of each of us, which is quite undeniable since once our bias is formed, however ridiculous or irrational as it may seem, it is still very hard to be eliminated thoroughly as bias is nothing but habits, which can be easily formed but hard to get rid of. According to Virvilaite, Saladiene, and Bagdonaite's theory in 2009, price is the leading factor that will definitely impose a strong impact on passenger loyalty since people always have the tendency to choose either the lowest or the most acceptable price when it comes to choosing an airline to fly with. Brand equity is comprised of several different elements such as brand awareness, brand associations, perceived quality and brand loyalty. As what mentioned above, brand equity is affected by several dimensions and people will not just take one aspect into consideration when they are about to make a purchase with a certain airline company (Indrayani, Yoshimura, & Imamura 2008). For example, people will not solely choose to fly with China Airlines simply because the cabin attendants are widely known as the most beautiful and elegant ones here in Taiwan. Furthermore, even though the symbol of plum flowers printed on the carriers of China Airlines represent the icon of the country, Taiwan, people may be patriotic but they will not choose to fly with China Airlines simply because of their patriotism towards Taiwan since one again, prices are the leading cause which will drive people to buy the tickets from a certain airline company. In addition, the market nowadays is totally free in the aviation industry, which indicates the fact that the pricing is totally determined by the airlines themselves and thus customers have the total freedom to choose whatever price they favor based on their financial status and personal propensity.

According to what Aaker (1992) mentioned, the sources to create brand equity are composed of the following factors, which are brand loyalty, brand awareness, brand

associations, and perceived quality. Among what mentioned above, brand associations, and perceived quality are of greater importance compared with the rest aspects. Furthermore, based on what Farquhar (1989) indicated, he raised 3 feasible methods to gain a better understanding and perception of brand equity, which respectively are building brand equity, borrowing brand equity and buying brand equity. Building brand equity can be achieved by the following methods mentioned below. In the first place, raising the quality of products is to build up the positive image from customers of the brand. Next, reinforcing the strength of brand association is to affect customers' buying behaviors. Lastly, developing the consistent brand image is to build up a positive impression of the brand on the customers.

Take the 2 major local airline companies in Taiwan, EVA Airways and China Airlines for examples. The 2 companies mentioned above give off different impressions and images of perceived quality and brand associations to the customers and at the same time, the management methods are quite different in a large number of aspects. As to the perspective on perceived quality, China Airlines has been providing personal and customized services to passengers for years gone by while they have slightly failed to build a positive image and impression on passengers in regards of the safety records while EVA Airways has been well renowned for its excellent records of flight safety. As to what mentioned above, it is well-known that China Airlines used to tend to hire those pilots who served in the military and besides, the history of plane crashes around decades ago has left a somehow negative impression on the customers, which has brought about some concerns about the safety issue to some customers. As a consequence, some Taiwanese passengers will somehow choose EVA Airways to travel if budget is not a concern. Furthermore, China Airlines is somehow much more conservative in terms of marketing and publicizing since even though it seems a private company, those executives holding managerial positions are in fact delegated and assigned by Taiwanese government officials, which makes its horizon narrower in some way. On the contrary, EVA Airways is much more aware of the tastes of passengers and that's why it has been cooperating with Sanrio, Japan and feature Hello Kitty as one of the highlights onboard. Nowadays, it even starts to feature Gudetama, a newly popular cartoon figure, to attract more passengers. As a consequence, brand equity may bring about some influences on the passengers but in the free and competitive market nowadays, some other factors such as marketing strategy, first impression and most important of all, budget play a vital role in it.

If the airline company intends to reinforce its brand equity, it can aims to influence its target passengers via the method of cognition, emotion, intention or behavior. First of all, in the cognitive process, it can make efforts to raise its own reputation and publicity in public, by

means of such as advertising and exposure on the media to make itself much more known to the public eye. To follow up, airline companies can train its employees, mainly cabin crew members, to ensure and hence reinforce its service quality as well as maintain the high level of positive interaction between passengers and flight attendants. Last but not the least, if the airline companies manage to influence passenger's opinions and behaviors, it can therefore enhance the level of passenger loyalty, which will lead to the fact that passenger having flied with a certain airline company will recommend it to those around themselves.

To sum up, improving or reinforcing airline companies' reputation, overall quality and image to the public eye can as well enhance their own brand equity, creating and bringing in more revenues and advantages for both the companies and the passengers. As a result, this research thesis aims to make some contributions to the aviation industry as for the perspective on brand equity.

CHAPTER V   CONCLUSIONS AND RECOMMENDATIONS

This chapter will elaborate on the findings and results as well as the research limitations based on the outcome discovered in the previous chapter. Furthermore, this chapter also aims to provide some useful and practical suggestions and recommendations to those interested in conducting research revolving around such issues in the future.

Conclusions

The purpose of this research thesis is to have a closer look at the relationship between service quality, brand equity and passenger loyalty. During the process, a large number of methods able to improve the overall service quality and passenger loyalty with airline companies are discovered along the way. Table 5.1 summarizes the results based on the previous chapter, followed by a more comprehensive description of each hypothesis.

Table 5.1.

Summary of Hypotheses Results

Hypothesis	Description	Result
H1	Airline service quality is positively related to passenger loyalty.	Supported
H2	Brand equity moderates the relationship between airline service quality and passenger loyalty. Under high level of brand equity, the positive relationship between airline service quality and passenger loyalty will be stronger.	Not supported

Airline service quality is positively related to passenger loyalty.

The findings of this study show that airline service quality is positively related to passenger loyalty, which is coherent to what Khatib (1998) suggested. The higher the service quality is, the higher the passenger loyalty is, which is the main discovery observed in this research thesis. Nevertheless, brand equity doesn't seem to have a strong impact on the relationship between service quality and passenger loyalty.

Research Limitation

There are a few limitations to be found in the survey of study. First of all, the samples were mainly collected here in Taiwan instead of distributing the questionnaires to people all over the globe to whoever has flied with China Airlines. The samples may not be as many as expected to show the strong moderating effect of brand equity on the relationship between service quality and passenger loyalty.

In the second place, most of the questionnaire were filled out on-line, which indicates that some people didn't truly show their true opinions through the questions and random ticked answers are expected, which may in turn give rise to any unexpected results.

Common method bias is also a limitation that should be noted. Data utilized were self-reported and all independent and dependent variables were obtained from the same raters (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). This study did not separate the source of independent and dependent variables due to great difficulties in linking the data together while protecting subjects' anonymity. It is strongly recommended that future studies should set stricter research procedures to minimize this issue.

Cross sectional design is another limitation of this study, which could limit the ability to observe the changing patterns of subjects across time. It might also cause misidentification of the causal relationship between independent and dependent variables. Future research should address such issues by using longitudinal analysis to detect and monitor variations and trends among subjects.

Practical Implications of the Study

Contribution to China Airlines' Organizational Management

This study mainly aims to remind those claiming the managerial positions at China Airlines that inflight service quality does have a strong impact on passenger loyalty, which will later on determine the profits and revenues received by China Airlines. At the same time, brand equity also leaves a significant impression on customers when it comes to choosing which airlines to fly when necessary. Thus, the study provides an aspect of great importance for China Airlines not only to put great emphasis on the improvement of inflight service quality but to make efforts to establish a corporate image that will attract customers.

Contribution to HR Practitioners

In terms of recurring and staffing, it is indispensable that companies try every possible method to hire those with the qualities and characteristics that will serve as any assistance either to reinforce the advantage existing already or to compensate for any weakness or challenges that the company has been faced with. The study aims to provide some suggestions regarding what kind of cabin crew members China Airlines exactly needs according to the dimensions of inflight service quality.

Contribution to Research Field

The study mainly focuses on the examination of the relevant literature which has been published so as to explain and develop a relatively wider understanding of inflight service quality which has a positive influence on passenger loyalty. The theoretical contribution of the study revolves around the attempt to integrate service quality and customer loyalty into the filed of aviation industry, which has rarely been emphasized before, particularly with the case of China Airlines.

Suggestions for Future Research

This research thesis suggests that study related to this issue in the future can go much deeper to see if other Taiwanese airline companies fit into the conclusion discovered and observed here. To be much more specific, studies can also be conducted to compare the results and situations discovered in Taiwan with those overseas with other multinational airline companies such as Emirates Airlines and Cathay Pacific Airway since the management style and marketing strategies in Taiwan and abroad vary in many dimensions and aspects. Moreover, passengers taking different flights may have different expectations deep in mind. For instance, people who choose to fly with China Airlines will expect a more personal service while those choose to fly with Cathay Pacific Airways will take the perfect history of flight safety as the first priority instead of looking forward to a customized service. Additionally, those choose to fly with China Airlines may put emphasis on the appearance of the cabin crew members while it is quite obvious that those airlines and airways in Europe will not put appearance as their first priority. Thus, a cross cultural research can be conducted in the future.

In conclusion, brand equity may seem important as to other airline companies but definitely not an element that play a vital role with China Airlines. Accordingly, the research in the future centering around China Airlines may have to go deeper into other aspects in

addition to brand equity so that they may discover the most important factor that will have a stronger impact on the relationship between service quality and passenger loyalty.

Brand equity can be evaluated and perceived in different aspects as well, such as the passenger-oriented marketing strategy, the financial plan, and the competent aspect, which leads to the fact that brand equity can't be vaguely perceived and acknowledged as a whole from a single angle. The research revolving around such issues can take every other aspect into prudent consideration and integrate other dimensions so that they will develop a better method for the airline companies to manipulate brand equity in their own favor

REFERENCES

Aaker, D. A. (1992). The value of brand equity. *Journal of Business Strategy*, *13*(4), 27-32.

Anderson, C. R., & Zeithaml, C. P. (1984). Stage of the product life cycle, business strategy, and business performance. *Academy of Management Journal*, *27*(1), 5-24.

Anderson, R. C. (1974). Concretization and sentence learning. *Journal of Educational Psychology*, *66*(2), 179-183.

Back, K. J. (2005). The effects of image congruence on customers' brand loyalty in the upper middle-class hotel industry. *Journal of Hospitality & Tourism Research*, *29*(4), 448-467.

Backhaus, K., & Tikoo, S. (2004). Conceptualizing and researching employer branding. *Career Development International*, *9*(5), 501-517.

Bitner, M. J. (1990). Evaluating service encounters: The effects of physical surroundings and employee responses. *The Journal of Marketing*, *54*, 69-82.

Boulding, W., Kalra, A., Staelin, R., & Zeithaml, V. A. (1993). A dynamic process model of service quality: from expectations to behavioral intentions. *Journal of Marketing Research*, *30*(1), 7-27.

Bowen, D. E., & Schneider, B. (1988). Services marketing and management-implications for organizational-behavior. *Research in Organizational Behavior*, *10*, 43-80.

Brew, D. A., Ford, A. B., & Himmelberg, G. R. (1989). Evolution of the western part of the Coast plutonic–metamorphic complex, South-Eastern Alaska, USA: A summary. *Geological Society, London, Special Publications*, *43*(1), 447-452.

Brown, F. (1952). The estimation of vitamin E. 2. Quantitative analysis of tocopherol mixtures by paper chromatography. *Biochemical Journal*, *52*(3), 523-526.

Chaudhuri, A. (1995). Brand equity or double jeopardy? *Journal of Product & Brand Management*, *4*(1), 26-32.

Cronin Jr, J. J., & Taylor, S. A. (1992). Measuring service quality: A reexamination and extension. *The Journal of Marketing*, *56*, 55-68.

Cunningham, L., Catlin, B. W., & De Garilhe, M. P. (1956). A deoxyribonuclease of micrococcus pyogenes1. *Journal of the American Chemical Society*, *78*(18), 4642-4645.

Day, N. E. (1969). Estimating the components of a mixture of normal distributions. *Biometrika*, *56*(3), 463-474.

Evanschitzky, H., & Wunderlich, M. (2006). An examination of moderator effects in the four-stage loyalty model. *Journal of Service Research*, *8*(4), 330-345.

Farquhar, P. H. (1989). Managing brand equity. *Marketing Research*, *1*(3), 65-100.

George, D., & Mallery, P. (2003). *SPSS for window Step by Step*. Boston, MA.

Gourdin, K. N. (1988). Bringing quality back to commercial air travel. *Transportation Journal*, *27*(3), 23-29.

Gronroos, C. (1990). Relationship approach to marketing in service contexts: The marketing and organizational behavior interface. *Journal of Business Research*, *20*(1), 3-11.

Hobson, B., & Denekamp, J. (1984). Endothelial proliferation in tumours and normal tissues: continuous labelling studies. *British Journal of Cancer*, *49*(4), 405-413.

Hostage, G. M. (1975). Quality control in a service business. *Harvard Business Review*, *53*(4), 98-106.

Indrayani, Y., Yoshimura, T., & Imamura, Y. (2008). A novel control strategy for dry-wood termite Incisitermes minor infestation using a bait system. *Journal of Wood Science*, *54*(3), 220-224.

Jacoby, J., Olson, J. C., & Haddock, R. A. (1971). Price, brand name, and product composition characteristics as determinants of perceived quality. *Journal of Applied Psychology*, *55*(6), 570-579.

Joreskog, K. G. (1993). Testing structural equation models. In K. A. Bollen & J. S. Lang, *Testing structural equation models* (pp. 294-316). Newbury Park, CA: Sage.

Kamins, M. A., & Assael, H. (1987). Two-sided versus one-sided appeals: A cognitive perspective on argumentation, source derogation, and the effect of disconfirming trial on belief change. *Journal of Marketing Research*, *24*(1), 29-39.

Kaynak, E., Bloom, J., & Leibold, M. (1994). Using the Delphi technique to predict future tourism potential. *Marketing Intelligence & Planning*, *12*(7), 18-29.

Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, *57*(1), 1-22.

Khatib, F. S. (1998). *An investigation of airline service quality, passenger satisfaction and loyalty: The case of royal jordanian airline* (Doctoral dissertation). Retrieved from http://etheses.whiterose.ac.uk/3647/1/489179.pdf

Kim, H. S., Sherman, D. K., & Taylor, S. E. (2008). Culture and social support. *American Psychologist*, *63*(6), 518.

Knutson, B., Wolkowitz, O. M., Cole, S. W., Chan, T., Moore, E. A., Johnson, R. C., ... & Reus, V. I. (1998). Selective alteration of personality and social behavior by serotonergic intervention. *American Journal of Psychiatry*, *155*(3), 373-379.

Lamont, L., & Rothe, J. (1971). The impact of unit pricing on channel systems. Proceedings of the Spring and Fall Conference of the American Marketing Association, USA, 653-58.

Maxwell, R. (2010). *What makes an organisation's corporate identity attractive to its employees? A social identity perspective.* (Unpublished doctoral dissertation). Cranfield University, UK.

McConnell, R. K. (1968). Viscosity of the mantle from relaxation time spectra of isostatic adjustment. *Journal of Geophysical Research*, *73*(22), 7089-7105.

Muncy, J. A. (1983). *An investigation of the two-dimensional conceptualization of brand loyalty* (Unpublished doctoral dissertation). Texas Tech University, Texas.

Norman, R. (1984). *Service management: Strategy and leadership in service business.* New York: John Wiley.

Nunkoo, R., Gursoy, D., & Ramkissoon, H. (2013). Developments in hospitality marketing and management: Social network analysis and research themes. *Journal of Hospitality Marketing & Management*, *22*(3), 269-288.

Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing*, *63*, 33-44.

O'Neill, J. W., & Mattila, A. S. (2010). Hotel brand strategy. *Cornell Hospitality Quarterly*, *51*(1), 27-34.

Ozment, J., & Morash, E. A. (1994). The augmented service offering for perceived and actual service quality. *Journal of the Academy of Marketing Science*, *22*(4), 352-363.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, *49*(4), 41-50.

Pedersen, P. E., & Nysveen, H. (2001). Shopbot banking: An exploratory study of customer

loyalty effects. *International Journal of Bank Marketing*, *19*(4), 146-155.

Philips, S. R., & Robson, A. M. (1983). In vivo release of endogenous dopamine from rat caudate nucleus by phenylethylamine. *Neuropharmacology*, *22*(11), 1297-1301.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*(5), 879-903.

Selin, S. W., & Howard, D. R. (1988). Ego involvement and leisure behavior: A conceptual specification. *Journal of Leisure Research*, *20*(3), 237-244.

Sheth, J. N. (1968). A factor analytical model of brand loyalty. *Journal of Marketing Research*, *5*(4) 395-404.

Singh, J. V., & Lumsden, C. J. (1990). Theory and research in organizational ecology. *Annual Review of Sociology*, *16*(1), 161-195.

Tucker, W. T. (1964). The development of brand loyalty. *Journal of Marketing Research,1*(3), 32-35.

U.S. Department of Transportation (1990). Air Carrier Financial Statistics. Retrieved from https://www.bts.gov/browse-statistical-products-and-data/bts-publications/air-carrier-financial-statistics-yellow-book

Virvilaite, R., Saladiene, V., Bagdonaite, R. (2009). Peculiarities of impulsive purchasing in the market of consumer goods. *Inzinerine Ekonomika-Engineering Economics, Commerce of Engineering Decisions, 2*, 101-108.

Yoo, B., & Donthu, N. (2001). Developing and validating a multidimensional consumer-based brand equity scale. *Journal of Business Research*, *52*(1), 1-14.

Zeithaml, V. A., Parasuraman, A., & Berry, L. L. (1990). *Delivering quality service: Balancing customer perceptions and expectations*. New York: Free Press.

Headley, D. E., & Choi, B. (1992). Achieving service quality through gap analysis and a basic statistical approach. *Journal of Services Marketing*, *6*(1), 5-14.

APPENDIX I: MEASUREMENTS AND QUESTIONNAIRE

問卷調查

親愛的先生/女士您好：

我是台灣師範大學國際人力資源發展研究所的研究生嚴振瑋，目前正在執行一項研究，此研究目的在於調查中華航空服務品質以及客戶忠誠度方面的看法，因此非常需要您寶貴的意見並花 10 到 15 分鐘時間填寫以下的問題. 對於以下您所提供的任何答案和資訊是完全匿名且保密的，請放心並依真實情況來作答，此次調查結果將會對中華航空公司在人力資源管理層面以及行銷部門層面提供有益的建議. 若對此問卷或此研究有任何疑問，請與我聯繫. 感謝您的參與！

國立臺灣師範大學國際人力資源發展研究所

指導教授：施正屏博士

研究生：嚴振瑋 0928-389-737

ncculawyer0719@gmail.com

第一部分

下列問題是有關於中華航空在航班航程中所提供的服務品質調查，請根據您對自己的看法，勾選同意或不同意的程度。

	非常不同意 1	不同意 2	普通 3	同意 4	非常同意 5
空服員對乘客禮遇有加	☐	☐	☐	☐	☐
空服員給每位乘客該有的專屬注意力	☐	☐	☐	☐	☐
空服員對於乘客的需求給予立即的解決	☐	☐	☐	☐	☐
空服員樂於協助乘客	☐	☐	☐	☐	☐

空服員具備外語能力	□	□	□	□	□
空服員能察覺乘客間不同文化的差異	□	□	□	□	□
空服員儀態端莊專業	□	□	□	□	□
空服員的機上廣播清楚易懂	□	□	□	□	□
空服員對孩童乘客的服務周到適切	□	□	□	□	□
空服員遵守適切的機上禁菸準則	□	□	□	□	□
中華航空提供機上美味的餐點	□	□	□	□	□
中華航空提供的機上餐點份量充足	□	□	□	□	□
中華航空提供不同膳食的選擇	□	□	□	□	□

第二部分

以下問題是關於您本身對於中華航空的顧客忠誠度調查，請根據以下敘述勾選同意或不同意的程度。

	非常不同意 1	不同意 2	普通 3	同意 4	非常同意 5
中華航空是我購買機票時的第一首選	□	□	□	□	□
搭乘過中華航空的班機後，我會再次選擇搭乘中華航空	□	□	□	□	□
如果有其他人詢問我的意見，我會推薦中華航空	□	□	□	□	□
如果其他航空公司提供誘人	□	□	□	□	□

價格的機票，我會選擇購買其他航空的票卷					
如果中華航空的機票價格上揚，我還是會選擇搭乘中華航空	☐	☐	☐	☐	☐
如果我覺得中華航空的服務不盡理想，我會選擇搭乘其他航空公司	☐	☐	☐	☐	☐
如果我覺得中華航空的服務不盡理想，我會向外部其他機構投訴（例如：消基會）	☐	☐	☐	☐	☐
選擇搭乘中華航空是我的個人選擇	☐	☐	☐	☐	☐
選擇搭乘中華航空的意願不會改變	☐	☐	☐	☐	☐
我個人全權決定是否搭乘中華航空	☐	☐	☐	☐	☐
我對中華航空不是特別了解	☐	☐	☐	☐	☐
縱使身邊的親朋好友推薦其他航空公司，我也不會改變選擇中華航空的決定	☐	☐	☐	☐	☐
我認為自己是中華航空的忠實客戶	☐	☐	☐	☐	☐

第三部分

以下問題是關於您本身對於中華航空的品牌相關面向的調查，請根據以下敘述勾選同意或不同意的程度。

	非常不同意 1	不同意 2	普通 3	同意 4	非常同意 5
我認為自己對中華航空這個品牌是忠誠的	☐	☐	☐	☐	☐

中華航空這個品牌是我的第一首選	□	□	□	□	□
如果買的到中華航空的機票，那我一定不會購買其他航空公司的機票	□	□	□	□	□
中華航空的整體品質是很高的	□	□	□	□	□
中華航空的整體機能是很好的	□	□	□	□	□
在其他的航空品牌之中，我可以立刻認出中華航空	□	□	□	□	□
我知曉中華航空這個航空品牌	□	□	□	□	□
我可以立刻想到一些中華航空的的特色	□	□	□	□	□
我可以立刻想到中華航空的商標標誌	□	□	□	□	□
我無法想像中華航空的形象	□	□	□	□	□
縱使中華航空的整體服務跟其他航空一樣，選擇搭乘中華航空依舊是明智的決定	□	□	□	□	□
如果其他航空公司的特質跟中華航空一樣，我還是依舊會選擇搭乘中華航空	□	□	□	□	□
如果其他航空公司跟中華航空整體素質相仿，我還是依舊會選擇搭乘中華航空	□	□	□	□	□
如果其他航空公司整體素質跟中華航空完全一樣，搭乘中華航空還是比較聰明的選擇	□	□	□	□	□

第四部份：個人基本資料

1. 請問您的年齡為？_____(歲)

2. 請問您的性別？□0 女性□1 男性

3. 請問您在過去一年之間總共搭乘過幾次飛機？□1 一次都沒有□2 一次到三次之間

□3 三次以上

4. 請問您最近一次搭乘中華航空的班機，旅行目的為何？□1 私人公司出差／商務旅

行□2 休閒觀光□3 政府公務機關派遣□4 拜訪親友□5 讀書進修□6 其他_____

5. 請問您的教育程度？□1 高中/職□2 專科□3 大學□4 碩士□5 博士

6. 請問您現今職業狀況為何？□1 管理階層□2 專業人士□3 已退休□4 一般員工□5

其他

問卷到此結束，感謝您的作答！

Part 1

The following questions center around the service quality received and perceived onboard. There are no right or wrong answers; all we are interested in is a number that shows your perception about your flight experience.

	Strongly Disagreed 1	Disagreed 2	Normal 3	Agreed 4	Strongly agreed 5
The cabin crew are very courteous toward passengers.	☐	☐	☐	☐	☐
The cabin crew give passengers individual attention.	☐	☐	☐	☐	☐
The cabin crew give prompt service to passengers.	☐	☐	☐	☐	☐
The cabin crew are willing to help.	☐	☐	☐	☐	☐
The cabin crew can speak foreign language(s).	☐	☐	☐	☐	☐
The cabin crew show an awareness of different cultures.	☐	☐	☐	☐	☐
The cabin crew have a smart appearance.	☐	☐	☐	☐	☐
The cabin crew's public announcements are clear.	☐	☐	☐	☐	☐
The cabin crew offer appropriate services for children.	☐	☐	☐	☐	☐

The cabin crew follow acceptable non-smoking regulations.	☐	☐	☐	☐	☐
CI offers good quality meals.	☐	☐	☐	☐	☐
CI offers a sufficient quantity of food.	☐	☐	☐	☐	☐
A menu selection is available.	☐	☐	☐	☐	☐

Part 2

The following questions center around the level of passenger loyalty. There are no right or wrong answers; all we are interested in is a number that shows your perception about your China Airlines (CI).

	Strongly Disagreed 1	Disagreed 2	Normal 3	Agreed 4	Strongly agreed 5
CI will be my first choice to buy a ticket from.	☐	☐	☐	☐	☐
If I had to do it again, I would feel differently about flying with CI.	☐	☐	☐	☐	☐
I will recommend CI to any one who seeks my advice.	☐	☐	☐	☐	☐
I will buy a ticket from any airline which offers me attractive prices.	☐	☐	☐	☐	☐
I will continue to fly with CI even if its prices increase.	☐	☐	☐	☐	☐
I will switch to another airline if I experience a problem with CI services.	☐	☐	☐	☐	☐
I will complain to other authorities or organizations if I find any	☐	☐	☐	☐	☐

problem with CI services.					
My preferences to fly with CI is my own decision, freely chosen from several alternatives.	☐	☐	☐	☐	☐
My preference to fly with CI will not change.	☐	☐	☐	☐	☐
I am fully responsible for the decision to fly with CI.	☐	☐	☐	☐	☐
I don't really know that much about CI.	☐	☐	☐	☐	☐
Even if close friends recommended another airline, I would not change my preference for CI.	☐	☐	☐	☐	☐
I consider myself to be a loyal patron of CI.	☐	☐	☐	☐	☐

Part 3

The following questions center around the impact of brand equity. There are no right or wrong answers; all we are interested in is a number that shows your perception about China Airlines' (CI) brand image to you.

	Strongly Disagreed 1	Disagreed 2	Normal 3	Agreed 4	Strongly Agreed 5
I think I'm a loyal patron to CI.	☐	☐	☐	☐	☐
CI has been my first priority when it comes to buying a ticket.	☐	☐	☐	☐	☐
If I can buy a ticket from CI, I will not consider buying a ticket from anther airline company.	☐	☐	☐	☐	☐

The overall service quality of CI is high.	☐	☐	☐	☐	☐
The overall function provided by CI is appropriate.	☐	☐	☐	☐	☐
I can recognize CI among other airline companies.	☐	☐	☐	☐	☐
I am well aware of CI.	☐	☐	☐	☐	☐
I can think of some features which belong to CI.	☐	☐	☐	☐	☐
I can think of the logo of CI.	☐	☐	☐	☐	☐
I can't imaging the image of CI.	☐	☐	☐	☐	☐
Even if the service provided by CI is not so much different from what provided in another airline company, choosing to fly with CI is still a wise decision.	☐	☐	☐	☐	☐
If other airline companies have the same features as CI, I will still choose to fly with CI..	☐	☐	☐	☐	☐
If the overall service quality of other airline companies is similar to that with CI, I will still choose to fly with CI.	☐	☐	☐	☐	☐
If the overall service quality of other airline companies is exactly the same as that with CI, I will still choose to fly with CI.	☐	☐	☐	☐	☐