EMBRY-RIDDLE
Aeronautical University.
SCHOLARLY COMMONS

Management, Marketing and Operations - Daytona Beach

David B. O'Malley College of Business

2012

Satisfaction with Airline Service Quality: Familiarity Breeds Contempt

Tamilla Curtis
Embry-Riddle Aeronautical University, curtist@erau.edu

Dawna L. Rhoades
Embry-Riddle Aeronautical University, rhoadesd@erau.edu

Blaise P. Waguespack Jr.
Embry-Riddle Aeronautical University

Follow this and additional works at: https://commons.erau.edu/db-management

Part of the Business Administration, Management, and Operations Commons, International Business Commons, Marketing Commons, and the Strategic Management Policy Commons

Satisfaction with airline service quality: Familiarity breeds contempt

Abstract

The objective of this study is to investigate frequency-of-flight issues and the differences between frequent and non-frequent flyers' levels of satisfaction and the importance attributed to overall airline service quality and select attributes. The results indicate that the level of satisfaction with overall airline quality and select attributes decrease the more passengers fly. Conversely, the level of importance attributed to airline amenities increased with flight frequency. Perceptions of airline quality may vary between different nationalities and different socioeconomic groups. Differences between the short- and long-haul flights, as well as domestic and international services could also exist. Airline managers need to foster loyalty by improving passengers' airline experience. This could be achieved by differentiating airline services to the segmented groups of passengers. However, a number of airlines suffer from a business culture where fuel and labor costs are more important than customer satisfaction.

1. Introduction

The airline industry is a significant part of the US economy, contributing 5.2 percent to gross domestic product and generating 10.2 million jobs in 2006 (Air Transport Association, 2009). Unfortunately, the global financial crisis hit airlines hard. According to the FAA Forecast (2010), U.S. commercial air carriers, including passenger and cargo, were able to report an operating profit of $755 million in 2009 but this followed an operating loss of $2.0 billion for 2008. As a service industry, airlines' market share and revenues would be expected to depend on customers' perception of service quality, and in turn, on customer satisfaction and loyalty. Yet, the airline industry was ranked below the Internal Revenue Service in the 2006 University of Michigan's America Customer Satisfaction Index (ACSI). Thus, airlines are searching for the best strategies in order to gain favorable long-term customer perception of their services (Prayag, 2007).

A number of passengers do select airlines based on their service attributes, making airlines' differentiation, positioning and branding important (Prayag, 2007; Wen and Yeh, 2010). Yet, passengers 'expectations of service quality may vary at different stages in the service process (Abdlla, Mohamed and Mekawy, 2007). It has been argued that many airlines measure passenger perceptions of their service offerings without a clear understanding of passengers' expectations of airline service, and therefore, fail to correctly allocate resources (Abdlla, Mohamed and Mekawy, 2007). Further, despite extensive research on different dimensions of airline quality, it appears that the passengers' perceptions and expectations of airline service are not well understood by the airlines (Waguespack and Rhoades, 2008). Airlines derive the bulk of their revenue from frequent flyers, thus understanding the perceptions of this group in particular would seem to be critical for long-term success (Air Transport World, 1997).

This study investigates the differences in perception between frequent and non-frequent flyers' levels of satisfaction and the importance attributed to overall airline service quality and its individual attributes including on-ground and on-board airline personnel, in-flight amenities, cleanliness and appearance of the aircraft, convenience of online services, availability of

upgrades, and airline communication with passengers. Given the revenue contribution of frequent flyers and the airline focus on improving service to this group of flyers, it may be that the general results of surveys such as the ACSI do not reflect the attitudes of all airline passengers.

2. Concept Development
2.1 Customer satisfaction and service quality
Customer satisfaction is a strategic goal for many corporations (Patterson, Johnson and Spreng, 1997; Mittal and Kamakura, 2001). By exceeding customers' satisfaction without negatively affecting the profit margin, companies hope to develop loyal consumer bases and create a basis for competitive advantage (Parasuraman, Zeithaml and Berry, 1988; Pham and Simpson, 2006). A positive link between customer satisfaction and corporate profits has been confirmed by a number of researchers (Fornell, 1992; Anderson, Fornell and Lehmann, 1994; Hallowell, 1996; Anderson and Mittal, 2000; Edvardsson et al., 2000; Reichheld, Markey and Hopton, 2000; Soderlund and Vilgon, 1999).

Many definitions of satisfaction are derived from Oliver's disconfirmation paradigm. According to the disconfirmation paradigm, satisfaction is based on consumer comparison between expectation and performance (Bloemer and Kasper, 1995). Satisfaction then is viewed as an independent construct whose antecedent is service quality. Service industry providers have become increasingly aware of the need to provide high quality service in order to compete in a fast changing environment (Nadiri, 2008). While customer satisfaction and service quality are among the most important dimensions in the service industry, their relationship is complex.

Consumer perception has been identified as a source of discrepancy in consumers' expectations, satisfaction, and judgments of performance (Parasuraman, Zeithaml and Berry, 1988; Pham and Simpson, 2006). Although Parasuraman's ideas on quality sound similar to Oliver's disconfirmation paradigm, the difference lies with consumers' expectations (Parasuraman, Zeithaml and Berry, 1988). In satisfaction literature, expectations refer to predictions during the transaction or exchange (what would happen), while in the service quality literature expectations refer to consumer's desires or wants from the service provider (what should happen). Parasuraman, Zeithaml and Berry (1988) chose to differentiate between perceived service quality and satisfaction; the former is based on global judgments or attitudes, while the latter is linked to a specific transaction. However, these two constructs are related and satisfaction over time results in perceptions of higher service quality (Parasuraman, Zeithaml and Berry, 1988).

The American Customer Satisfaction Index (ACSI) is an economic indicator which investigates and measures consumer satisfaction at the national level, covering 45 industries and hundreds of private and government organizations representing the U.S. economy. The ACSI is based on consumer evaluations of the quality of goods and services purchased in the United States and provides a benchmark for the level of consumer satisfaction with these products and services (ACSI, 2011).

2.2 Service quality in the airline industry
The average ACSI score for the twelve sectors of the economy for the month of February 2011 was 75.3 out of 100, with the transportation industry as whole scoring a 73.3 and airlines a 66, placing them among the lowest scorers. Pham (2006) has described the airline industry as chaotic while Warren Buffet has noted that although aviation is one of three industries that have

transformed the way people work and live, it has not been able to post a long-term profit (Loomis and Buffet, 1999). In fact, few airlines have been able to implement successful strategies which result in profit generation and, at the same time, satisfy their passengers' needs (Pham and Simpson, 2006). The financial crisis has made consolidation the current strategy for many carriers. This may lower costs, but improved service is far from guaranteed. Research by Rhoades and Waguespack (2008) examining twenty years of airline quality (1987-2006) found that airline quality improved from 1987 to 1993 then fell back to 1987 levels by 2006. They offered several explanations for this pattern including the rise of low cost carriers, financial crises and service cutbacks, and conversely, high passenger levels during good financial times. This last explanation may seem counterintuitive but the more planes that fly in an already congested and outdated air traffic system, the more delays, cancelled flights, and lost baggage. Recent efforts to increase revenue through ancillary fees are unlikely to improve airline quality perceptions. Yet, quality is considered an important attribute for achieving competitive advantage through the strategy of differentiation (Tiernan, Rhoades and Waguespack, 2008; Nadiri et al., 2008). Recognizing this fact, Delta has announced that it will refocus on service enhancements, primarily for its frequent flyers, as it completes the integration of Northwest (Delta, 2010).

Quality, comprising both operational dimensions and service personnel, is an important attribute for achieving competitive advantage through the strategy of differentiation (Tiernan, Rhoades and Waguespack al., 2008; Nadiri et al., 2008). Still, it is not clear what service quality means in the airline context despite extensive research on the topic (Benckendorff, 2006; Nadiri et al., 2008; Tiernan, Rhoades and Waguespack, 2008; Tsantoulis and Palmer, 2008; Alwahaishi, 2009; Park, 2010).   Table 1 presents a sample of airline service quality dimensions research.

Tsantoulis and Palmer (2008) have suggested that the primary service quality dimensions are airline schedule and price with secondary dimensions including safety, comfort, in-flight amenities, attitude of the ground and flight crew, financial stability, on-time performance, and luggage delivery. This is consistent with the surveys conducted by organizations such as Conde Nast and *Frequent Flyer* who have identified ten factors that drive overall airline satisfaction: on-time performance, airport check-in, schedule/flight accommodations, seating comfort, gate location, aircraft interior, flight attendants, post-flight services, food service, and frequent flyer programs (Glab, 1998).

Bruning, Hu and Hao (2009) confirmed that airline passengers can be effectively segmented according to the relative importance of airline service attributes. Five segments were identified: price-sensitives, quality seekers, convenience-oriented, punctuallers and country of airline-oriented for each individual country. Airlines customize their level of service for the first class, business class, and economy or coach class passengers. Business travelers have different needs and requirements, and they are valued more than economy class passengers (Tiernan, Rhoades and Waguespack, 2008). Air Transport World (1997) reported that "Business travelers account for 40% of customers but nearly two-thirds of trips and 72% of revenues" (p.31). The smaller subset, "road warriors", accounts for just 6 percent of passengers, but they generate 37 percent of revenue (Air Transport World, 1997). Clearly, this segment of passengers is critical to the airline industry and research indicates that frequent flyers have a higher service quality expectations based on their flight experience (Pham, 2006).

Pham (2006) adapted the service quality scale created by Parasuraman, Zeithaml and Berry (1988) to the airline industry (Table II). Pham's (2006) findings confirmed the importance of market segmentation based on passengers expectations; passengers that travel less frequently

considered tangibles and assurance dimensions to be more important factors than those that did fly more frequently.

Therefore, the following hypothesis is proposed:

> H1: The level of satisfaction with the overall quality of commercial airlines decreases the more passengers fly.

Further, passengers lacking traveling experience might be expected to value interactions with airline personnel (assurance and empathy) more and place greater importance on tangible cues when forming their expectations (Pham and Simpson, 2006). On the other hand, frequent-travelling passengers considered reliability and empathy to be the most important service quality dimensions (Pham, 2006; Pham and Simpson, 2006). Based on Pham's service quality dimensions adapted for the airline industry, the following research model with hypotheses are proposed:

Based on the frequency of flights, the following three groups of passengers are proposed by researchers:

1. " Occasionalists": passengers with 1-5 flights per year
2. "Regular": passengers with 6-10 flights per year
3. "Road Warriors": passengers with 11 or more flights per year

The proposed hypotheses:

Assurance and Empathy dimensions:

> H2a. The level of satisfaction with airline personnel treatment during seat assignments and baggage check decreases the more passengers fly.
> H2b. The level of satisfaction with airline personnel treatment at gates and while boarding aircraft decreases the more passengers fly.
> H2c. The level of satisfaction with courteous treatment by flight attendants decreases the more passengers fly.

Tangible dimension:

> H3. The level of satisfaction with cleanliness and appearance of airplane decreases the more passengers fly.

Responsiveness:

> H4a. The level of importance with receiving regular updates on the status of the flight increases the more passengers fly.
> H4b. The level of importance with online check-in and seat selection increases the more passengers fly.
> H4c. The level of importance with availability of upgrades increases the more passengers fly.

Tangible dimensions

> H5. The level of importance with in flight factors such as legroom and comfortable seats increases the more passengers fly.

Sadly, many of the factors that affect the ability of an airline to perform reliably are beyond their control – air traffic control capabilities, airport operational issues (runway capacity, check-in and security facilities, baggage handling system), and weather. If many of these factors are beyond the airlines control, then it is possible that empathy assumes even greater importance.

In addition, lack of professionalism on the part of airline personnel at the different stages of the interaction with the passengers, such as check-in agents, gate agents, flight attendants, and others, can also result in the lower perceptions of provider's overall service quality (Babbar and Koufteros, 2008).

The financial crisis and pressure from low cost carriers has led to a reduction in the labor force at major carriers. The Bureau of Transportation Statistics has reported that "the level of U.S. airline employment in June was the second-lowest in 20 years, falling to 563,551 full-time equivalent employees. In the same period, annual passenger traffic jumped about 65 percent" (Bomkamp, 2010). Thus, if employees are important to service quality, then financial stability may be coming at the expense of high service quality.

3. Measures

Data used in this study was extracted from a national survey of consumer attitudes on the US commercial airline industry and related institutions (regulators, educational providers), which was conducted by a private organization. Airline service quality was one aspect of this survey. Survey questions were based on industry expert feedback and later mapped onto the Pham (2006) adaptation of the Parasuraman, Zeithaml and Berry (1988) service quality scale. Respondents were not offered any incentives for their time. Survey questions were selected in a manner based on industry feedback to solicit respondent cooperation recognizing time constraints. Data was collected via random digit dialing telephone interview that lasted approximately 15 minutes. The satisfaction and importance questions in relation to the research area were extracted from the overall aviation survey. The final sample size resulted in 1,000 respondents.

Global satisfaction with commercial airline quality in the US was assessed with the response to a single item: Overall, how would you rate the quality of the commercial airlines in the US? Respondents were then asked to rate individual items identified from the literature as key factors in airline service quality (Gilbert and Wong, 2003; Chen, 2005; Benckendorff, 2006; Pham, 2006; Pakdil and Aydın, 2007; Park, 2007; Prayag, 2007; Babbar and Koufteros, 2008; Nadiri et al., 2008; Alwahaishi, 2009). These items can be roughly mapped to the service dimensions identified by Pham (2006) as reliability, assurance/empathy, responsiveness and tangibility. Respondents were first asked to rate the importance of these items on a four point scale ranging from essential (1) to not important (4). They were then given the same list and asked to rate their satisfaction with each item on a four point scale ranging from very satisfied (1) to not satisfied (4).

4. Statistical procedures

The SPSS statistical package was employed to conduct analysis. The frequency distribution was analyzed first to identify the characteristics of the respondents in terms of their annual flight regularity, type of flying, memberships in frequent-flyer (FF) programs, and gender.

Crosstabulation analysis was conducted to identify the type of passengers within each identified category, followed by chi-square tests to identify the level of significance of the associations between the identified groups of passengers and other variables such as frequent-flyer membership, type of flying and the passenger gender.

One-way Analysis of Variance (ANOVA) was carried out to test the significance of group differences between the three groups' means by analyzing variation between and within each group (Mertler and Vannatta, 2005). As ANOVA only determines the significance of group

difference and does not identify which groups are significantly different, post hoc tests were conducted in conjunction with ANOVA (Mertler and Vannatta, 2005).

5. Results
5.1 Profile of respondents
The frequency distribution indicated that general characteristics of the sample revealed that the majority fall into the "Occasionalists" category (73.1%), followed by the "Regular" category (12.7%) and the "Road Warriors" (8.9%) (see Table III). Out of 1,000 passengers most flew for pleasure (60.9%) and only 34.4% were enrolled in Frequent Flyer (FF) programs. The gender distribution indicates that 58.5% were female, while 41.5% were male.

5.1 Crosstabulation analysis
There was a significant association between the travel category and FF memberships $\chi^2(3)=$ 140.73, p<.000 (see Table IV). The crosstabulation analysis indicates that while the majority of Occationalists did not belong to the frequent flyer miles membership (72.5%), the majority of Regular and Road Warriors were in fact frequent flyer members (55.8% and 78.7% accordingly). This is consistent with the common view that frequent-traveling passengers seek frequent flyer programs benefits.

There is a significant association between the travel category and the type of flight (business, pleasure or both) $\chi^2(6)=$ 150.4, p<.000 (see Table V). The crosstabulation analysis indicates that, among Occasionalists, the majority fly for pleasure (70.2%), while Regular and Road Warriors fly mostly for both pleasure and business (55.9% and 61.8% accordingly). The highest percentage that flies for business purposes among three categories was 22%, for Road Warriors.

There is a significant association between the travel category and gender $\chi^2(3)=$ 16.826, p<.001. While Occasionalists consisted mostly of female passengers (62.2%), the majority of Regular and Road Warriors were males (52.8% and 53.9% respectively).

5.2 Hypotheses testing: The level of satisfaction (see Tables VI and VII)

Of the three items categorized under the reliability dimension and three under the responsiveness dimension, there was no significant difference in satisfaction scores among the groups. It may well be as Shaw (2007) has noted that all passengers expect basic service to be delivered in an efficient, reliable manner, especially issues such as on time arrival and updates of flight status. These issues appear to be part of the basic requirements for any airline today. While the items themselves were not significant, there were significant differences between the three groups of flyers under the assurance/empathy and the tangibles dimensions.

5.3 Hypotheses testing: The level of importance (see Table VIII and IX)

Of the three items categorized under the reliability dimension and three under the assurance/empathy dimension, there was no significant difference in importance scores among the groups. However, there were significant differences between the three groups of flyers under the responsiveness and the tangibles dimensions.

6. Discussion and Managerial Implications

Our results indicate that the level of satisfaction with overall airline quality, airline personnel at gates and while boarding aircraft, aircraft cleanliness and aircraft appearance actually decreases the more passengers fly. Does familiarity breed contempt or are airlines missing some key part of the service equation? The frequent flyer, who represents the bulk of airline profits, is NOT satisfied with the service offered and yet this is the group that receives the most attention in terms of service – larger seats, better meals, free drinks, private lounges, better entertainment offerings, etc. Still, this is consistent with several previous studies that show that U.S. airlines continue to disappoint frequent-flyer passengers' needs and expectations (Air Transport World, 1997). In addition, while frequent flyers' levels of satisfaction were lower than those of occasional flyers, the level of importance frequent travelers attributed to airline amenities such as in-flight factors (legroom and comfortable seats), the availability of upgrades and increased flight frequency was higher than occasional flying passengers. Of course, the more time an individual spends in the airport or on the airplane, the more important another inch of legroom or a shorter layover may become.

If research by Pham and Simpson (2006) is correct, then frequent flyers emphasize reliability and empathy over other dimensions of service quality, however, as noted earlier, many aspects related to the provision of reliable service – air traffic control systems, airport capacity, weather - are beyond the control of the airline itself. All flyers expect reliable, basic service, but frequent flyers are in a better position than other flyers to observe the 'failures' in the system. An occasional flyer may attribute a late flight on their one yearly airline trip to bad luck. The frequent flyer experiences many such events over the course of a year. While the airline can and should attempt to control as many of the aspects of reliability as is possible, this may not be enough to satisfy frequent flyers. Inconsistency in service quality may be as damaging to customer expectations as a lower but consistent level of service. The inability to achieve greater control over reliability may place even more emphasis on empathy, the 'caring, individualized attention' to passenger needs. Frequent flyers also expect more amenities for their loyalty. While Road Warriors, who tend to make up a large portion of the frequent flyer membership, may not require the same additional assistance as infrequent travelers, they expect additional services and consideration. For example, airlines may hold preferred seats for full-fare high-mileage customers and provide these customers with access to private lounges at airports, free seat upgrades, free Wi-Fi, and priority seating (Long et al., 2003). Airlines need to apply the same relentless, consistent effort to service quality that they have applied to cost cutting efforts. The airline industry is a cyclical one and another 'downturn' is inevitable, but it should NOT be treated as an opportunity to reduce service levels in order to cut costs, particularly for the profit-critical frequent flyer segment. If each airline downturn leads to the loss of even a small percentage of frequent flying passengers, then over a decade the losses will 'matter'.

Employee training and involvement are linked to profitability, and employee satisfaction is linked to customer satisfaction. As such, airlines should focus on training the empathetic personnel who are in direct contact with passengers, such as at gates and while boarding aircraft. Human resource management practices should be in place to improve employee job satisfaction in order to improve job performance and, by extension, customer satisfaction (Parast and Fini, 2010). In pursuit of 'profitability, airlines have reduced workforce, training, and, possibly employee morale; airlines may be sacrificing long-term organizational health for short-term gains. The development and training of frontline airline employees will allow to not only meet, but exceed passengers' expectations, thus creating a basis for satisfaction and, therefore,

competitive advantage. The caveat, however, is that there may be a no "win-win" situation here; there is a possibility that the more often a passenger flies, the more the passenger may come to expect from the airline, leading to ever-increasing costs to meet frequent passenger's needs and it is possible that no amount of empathetic care can compensate for the reliability that can not be controlled.

7. Limitations and future research

This study has limitations. The survey was conducted during daytime, using phone land lines. Thus, the majority of respondents fell into the Occasionalists category (1-5 annual flight), who fly for pleasure, and were not members of Frequent Flyer Programs. Additionally, the collected sample consisted of passengers living in the United States. Therefore, the research findings apply to US-originated flights only. Perceptions of airline quality may vary between different nationalities and different socioeconomic groups.
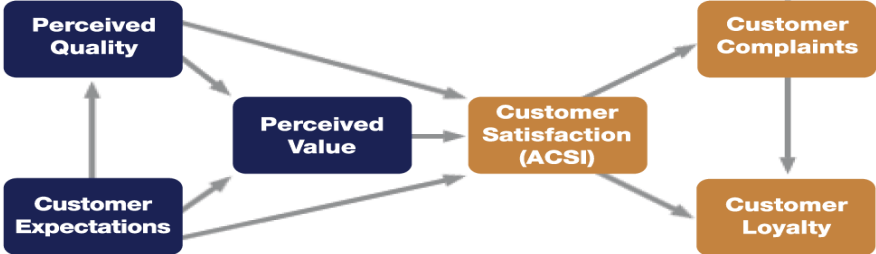
This study did not take into account differences between the short- and long-haul flights, as well as domestic and international services. Tsantoulis (2008) suggested that seat quality, in-flight entertainment and in-flight meals will be more important on long-haul flights, while speedy check-in and reliable baggage services may be considered more important dimensions of quality for short-haul flights. Further research needs to be conducted to identify satisfaction with airline quality for different groups of passengers. Furthermore, new service quality dimensions and attributes need to be included to expand this research. Also who do they blame for service failure, i.e. late flights etc.

8. Conclusions

Airline managers need to foster loyalty by improving passengers' airline experience. While airlines have differentiated services to the segmented groups of passengers, the frequent flying, high revenue passengers are not satisfied with the level of service. Although service differentiation is recognized as an important element in gaining competitive advantage (Pham, 2006; An and Noh, 2009; Wen and Yeh, 2010) and higher customer satisfaction increases the likelihood of service repurchase (Nadiri et al., 2008), a number of airlines suffer from a business culture where fuel and labor costs are more important than creating service differentiation to drive customer satisfaction (Tiernan, Rhoades and Waguespack, 2008).

Additionally, the way airlines advertise air travel services may also be creating problems since the advertisements often fail to present a realistic view of air travel. This creates a discrepancy between passengers' expectations regarding airline quality (Chen, 2005; Hunter, 2006) and the passengers' actual experiences. Airline managers need to be aware that familiarity could breed contempt or risk finding out whether absence makes the heart grow fonder.

Figure 1. ACSI model

Source: ACSI Model (ACSI, 2011)

Figure 2. Research model

Differences in the Level of Satisfaction | Differences in the Level of Importance

Reliability		Occasionalists	H1		Responsiveness
Assurance & Empathy		Regulars	H2	H4	
Tangible		Road Warriors	H3	H5	Tangible
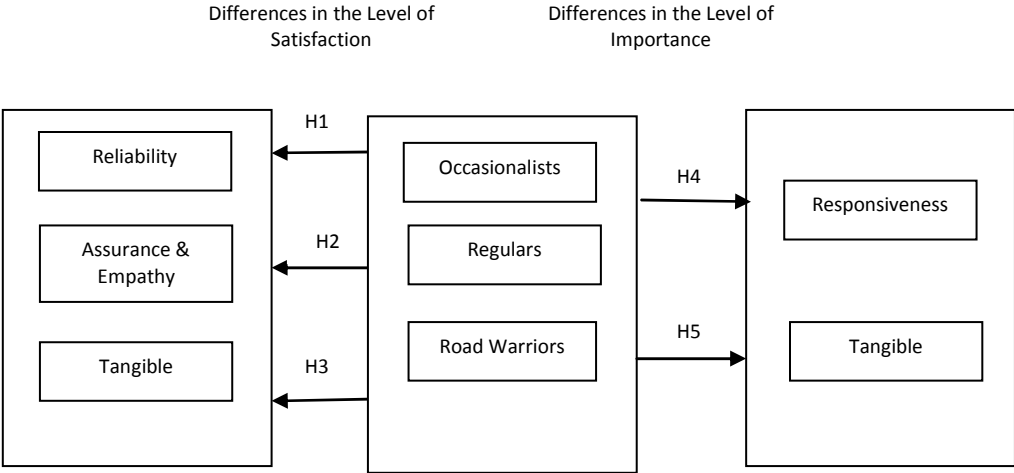
Table I.

Research	Findings	Reference
1. Investigation of airline service performance over the past two decades for on-time arrival, customer complaints, denied boarding, and mishandled baggage.	During periods of retrenchment the level of on-time arrival tends to improve while customer complaints, denied boardings, and mishandled baggage decline.	Rhoades and Waguespack, 2008
2. Examination of service quality between US and EU carriers.	EU airlines are delivering superior service quality on some key aspects of service quality than their US competitors and partners, but lost baggage issues among major EU carriers remains a major service difficulty.	Waguespack, Rhoades and Tiernan, 2007
3. Investigation of the impact of the in-flight service quality on airline customer satisfaction and loyalty.	Different factors of in-flight service quality that are important according to the customer seat class. Airline companies' in-flight service should have different delivery strategies based on the customer seat class.	An and Noh, 2009
4. Investigation of common complaints made by frequent flyers.	The common complaints include the availability of free tickets and upgrades of the flight class, the behavior of personnel, card ownership issues, level and type of priority services offered within the program and the lack of alliances with other airlines.	Atalik, 2007
5. Air passengers' perceptions for in-flight service, reservation-related service, airport service, reliability, employee service, flight availability, perceived price, passenger satisfaction, perceived value, airline image, and overall service quality.	Passenger perceptions are significantly different across airlines, seat classes, and usage frequencies.	Park, 2007
6. Evaluation of the traditional market segmentation criterion in the airline industry.	Segmenting into business and leisure does not sufficiently capture the preference heterogeneity among customers and leads to a misunderstanding of consumer preferences.	Teichert, Shehu and Wartburg, 2008
7. Consumer perceptions of airline quality indicators and actual data reported by the Department of Transportation.	Consumer perceptions fail to come close to many of the service standards the industry is actually reaching.	Tiernan, Rhoades and Waguespack, 2008

Table II. Service Quality dimensions

Dimensions	Definitions
Reliability	The airline's ability to perform the promised service dependably and accurately
Assurance	The airline's employees' knowledge and courtesy and their ability to convey trust and confidence
Tangibles	The appearance of the airline's ground facilities, aircraft, personnel and communication materials
Empathy	The caring, individualized attention the airline provides its customers
Responsiveness	The airline's willingness to help customers and provide prompt service

Source: Pham (2006)

Table III. Respondents' characteristics

a. Travel category:	Occasionalists	Regular	Road Warriors
	73.10%	12.70%	8.90%
b. Type of Flying:	Business	Pleasure	Both
	7.80%	60.90%	31.30%
c. Frequent Flyer Membership:	Yes	No	
	34.40%	65.60%	
d. Gender:	Male	Female	
	41.50%	58.50%	

Table IV. Chi-Square Tests: The Travel Category and Frequent Flyer Membership

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	140.726[a]	3	.000
Likelihood Ratio	143.837	3	.000
Linear-by-Linear Association	19.575	1	.000
N of Valid Cases	1000		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 18.23.

Table V. Chi-Square Tests: The Travel Category and the Type of Flight

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	150.402[a]	6	.000
Likelihood Ratio	146.746	6	.000
Linear-by-Linear Association	3.351	1	.067
N of Valid Cases	1000		

a. 1 cells (8.3%) have expected count less than 5. The minimum expected count is 4.13.

Table VI. The Level of Satisfaction Results

	Hypotheses	F	Partial $\acute{\eta}^2$	Results
H1	The level of satisfaction with the overall quality of commercial airlines decreases the more passengers fly.	3.512	0.007	Supported
H2a	The level of satisfaction with airline personnel treatment during seat assignments and baggage check decreases the more passengers fly.			Not supported
H2b	The level of satisfaction with airline personnel treatment at gates and while boarding aircraft decreases the more passengers fly.	3.435	0.006	Supported
H2c	The level of satisfaction with courteous treatment by flight attendants decreases the more passengers fly.			Not supported
H3	The level of satisfaction with cleanliness and appearance of airplane decreases the more passengers fly.	8.8	0.018	Supported

Table VII. The Level of Satisfaction ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
1. Overall, how would you rate the quality of the commercial airlines in the United States?	Between Groups	7.264	2	3.632	3.512	0.03
2a. Courteous treatment by airline personnel as you get seat assignments and check baggage	Between Groups	1.669	2	0.834	2.638	0.72
2b. Courteous treatment by airline personnel at gates and while boarding aircraft	Between Groups	2.169	2	1.085	3.435	0.033
2c. Courteous treatment by flight attendants	Between Groups	0.809	2	0.405	1.238	0.29
3. Cleanliness and appearance of airplane	Between Groups	5.74	2	2.87	8.8	0

Table VIII. The Level of Importance Results

	Hypotheses	F	Partial ή²	Results
H4a	The level of importance with receiving regular updates on the status of the flight increases the more passengers fly.			Not supported
H4b	The level of importance with online check-in and seat selection increases the more passengers fly.			Not supported
H4c	The level of importance with availability of upgrades increases the more passengers fly.	3.055	0.006	Supported
H5	The level of importance with in flight factors such as legroom and comfortable seats increases the more passengers fly.	5.682	0.012	Supported

Table IX. The Level of Importance ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
H4a. Receiving regular updates on the status of your flight	Between Groups	1.042	2	0.521	0.709	0.492
H4b. Online check-in and seat selection	Between Groups	8.798	2	4.399	5.001	0.071
H4c. Availability of upgrades	Between Groups	5.468	2	2.734	3.055	0.048
H5. In flight factors such as legroom and comfortable seats	Between Groups	6.017	2	3.008	5.682	0.004

References

Abdlla, G., Mohamed, A.R. and Mekawy, M.A. (2007) 'Managing tourists' needs and expectations: An empirical analysis of the Egyptian airline sector', *Tourism: An International Interdisciplinary Journal*, Vol. 55 No. 3, pp. 277-296.

ACSI [online] available at http://www.theacsi.org/index.php?Itemid=41&id=48&option=com_content&task=view (accessed March 14, 2011).

Air Transport Association (2009) *Economic Impact*, available at http://www.airlines.org/Economics/AviationEconomy/Pages/Economic (accessed 12 November, 2010).

Air Transport World (1997) 'Road warriors and price-driven occasionalists', Vol. 34 No. 8, pp. 31.

Alwahaishi, S., Snasel, V. and Nehari-Talet, A. (2009) 'Web site assessment in the airline industry: An empirical study of GCC airline companies', Second International Conference on the Applications of Digital Information and Web Technologies, London, available at: http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=5273863&tag=1 (accessed 22 October, 2010)

American Customer Satisfaction Index (2006) 'Quality suffers in energy utilities, airline industries' in *Quality Progress*, July 39 (7), p. 21.

An, M. and Noh, Y. (2009) 'Airline customer satisfaction and loyalty: impact of in-flight service quality', *Service Business*, Vol. 3 No. 3, pp. 293-307.

Anderson, E.W., Fornell, C. and Lehmann, D.R. (1994) 'Customer satisfaction, market share, and profitability: Findings from Sweden', *Journal of Marketing*, Vol. 58 No. 3, pp. 53-66.

Anderson, E.W. and Mittal, V. (2000) 'Strengthening the satisfaction-profit chain', *Journal of Service Research*, Vol. 3 No. 2, pp. 107-120.

Atalik, O. (2007) 'Customer complaints about airline service: a preliminary study of Turkish frequent flyers', *Management Research News*, Vol. 30 No. 6, pp. 12.

Babbar, S. and Koufterous, X. (2008) 'The human element in airline service quality: contact personnel and the customer', *International Journal of Operations & Production Management*, Vol. 28 No. 9, pp. 804-830.

Benckendorff, P. (2006) 'An exploratory analysis of traveler preferences for airline website content', *Information Technology & Tourism*, Vol. 8 No. 3-4, pp. 149-159.

Bloemer, J.M.M. and Kasper, H.D.P. (1995) 'The complex relationship between consumer satisfaction and brand loyalty', *Journal of Economic Psychology*, Vol. 16 No. 2, pp. 311-329.

Bruning, E.R., Hu, M.Y., and Hao, W.(2009) 'Cross-national segmentation; An application to the NAFTA airline passenger market', *European Journal of Marketing,* Vol. 43 No. 11/12, pp. 1498-1522.

Chen, F.Y. and Chang, Y.H. (2005), 'Examining airline service quality from a process perspective', *Journal of Air Transport Management*, Vol. 11 No. 2, pp. 79-87.

Durvasula, S., Lysonski, S., Mehta, S.C. and Tang, B.P. (2004), 'Forging relationships with services: The antecedents that have an impact on behavioural outcomes in the life insurance industry', *Journal of Financial Services Marketing*, Vol. 8 No. 4, pp. 314-326.

Edvardsson, B., Johnson, M.D., Gustafsson, A. and Strandvik, T. (2000), 'The effects of satisfaction and loyalty on profits and growth: Products versus services', *Total Quality Management*, Vol. 11 No. 7, pp. 917-927.

Federal Aviation Administration (2010) *FAA Forecast Fact Sheet*, available at

http://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=10457(accessed November 1,

2010).

Fornell, C. (1992) 'A national customer satisfaction barometer: The Swedish experience',

Journal of Marketing, Vol. 56 No. 1, pp. 6-21.

Furinto, A., Pawitra, T., and Balqiah, T.E. (2009) 'Designing competitive loyalty programs: How

types of program affect customer equity', *Journal of Targeting, Measurement and Analysis*

for Marketing, Vol. 17 No. 4, pp. 307-319.

Gilbert, D. and Wong, R.K.C. (2003) 'Passenger expectations and airline services: a Hong Kong

based study', *Tourism Management*, Vol. 24 No. 5, pp. 519-532.

Glab, J. (1998) 'The flyers' favorites', *Frequent Flyer*, June, pp. 24-28.

Hallowell, R. (1996) 'The relationships of customer satisfaction, customer loyalty, and

profitability: an empirical study', *International Journal of Service Industry Management*,

Vol. 7 No. 4, pp. 27-42.

Heitmann, M., Lehmann, D.R. and Herrmann, A. (2007) 'Choice goal attainment and decision

and consumption satisfaction', *Journal of Marketing Research*, Vol. 44 No. 2, pp. 234-250.

Homburg, C. and Gierin, A. (2001) 'Personal characteristics as moderators of the relationship

between customer satisfaction and loyalty - An empirical analysis', *Psychology & Marketing*,

Vol. 18 No. 1, pp. 43-66.

Hunter, J.A. (2006) 'A correlational study of how airline customer service and consumer

perception of airline customer service affect the air rage phenomenon', *Journal of Air*

Transportation, Vol. 11 No. , pp. 78-109.

Loomis, C. and Buffet, W. (1999) 'Mr Buffet on the stock market', *Fortune*, Special Issue, Vol. 140 (10), pp. 212-20.

Long, M.M., Clark, S.D., Schiffman, L.G. and McMellon, C. (2003) 'In the air again: frequent flyer relationship programmes and business travellers' quality of life', *The International Journal of Tourism Research,* Vol. 5 No. 6, pp. 421-432.

Mertler, C.A. and Vannatta, R.A. (2005) *Advanced and Multivariate Statistical Methods,* Pyrczak Publishing, Glendale, CA.

Mittal, V. and Kamakura, W.A. (2001) 'Satisfaction, repurchase intent, and repurchase behavior: Investigating the moderating effect of customer characteristics', Journal *of Marketing Research*, Vol. 38 No. 1, pp. 131-142.

Customer loyalty: an empirical study

Nadiri, H., Hussain, K., Ekiz, E.H. and Erdogan, S. (2008) 'An investigation on the factors influencing passengers' loyalty in the North Cyprus national airline', *TQM Journal*, Vol. 20 No. 3, pp. 265-280.

Oliver, R.L. (1993) 'Cognitive, affective, and attribute bases of the satisfaction response' *Journal of Consumer Research*, Vol. 20 No.3, pp. 418-430.

Parast, M.M. and Fini, E.H. (2010) 'The effect of productivity and quality on profitability in US airline industry: An empirical investigation', *Managing Service Quality,* Vol. 20 No.5, pp.458-474.

Parasuraman, A., Zeithaml, V.A. and Berry, L. (1988) 'Servqual: a multiple-item scale for measuring consumer perceptions of service quality', *Journal of Retailing,* Vol. 64 No. 1, pp.12-40.

Pakdil, F. and Aydin, Ö. (2007) 'Expectations and perceptions in airline services: An analysis using weighted SERVQUAL scores', *Journal of Air Transport Management*, Vol. 13 No. 4, pp. 229-237.

Park, J.W. (2007) 'Passenger perceptions of service quality: Korean and Australian case studies', *Journal of Air Transport Management*, Vol. 13 No. 4, pp.238-242.

Park, J.W. (2010) 'The effect of frequent flyer programs: A case study of the Korean airline industry', *Journal of Air Transport Management*, Vol. 16 No. 5, pp. 287-288.

Park, J.W., Robertson, R. and Wu, C.L. (2006) 'Modeling the impact of airline service quality and marketing variables on passengers' future behavioural intentions', *Transportation Planning and Technology*, Vol. 29 No. 5, pp. 359-381.

Patterson, P.G., Johnson, L.W. and Spreng, R.A. (1997) 'Modeling the determinants of customer satisfaction for business-to-business professional services' *Journal of the Academy of Marketing Science*, Vol. 25 No.1, pp. 4-17.

Pham, K.Q.V. (2006) 'U.S. and European frequent flyers service expectations: A Cross-cultural study', *The Business Review, Cambridge*, Vol. 6 No. 2, pp. 32-38.

Pham, K.Q.V. and Simpson, M. (2006) 'The impact of frequency of use on service quality expectations: An empirical study of Trans-Atlantic airline passengers', *Journal of American Academy of Business, Cambridge*, Vol. 10 No. 1, pp. 1-6.

Prayag, G. (2007) 'Assessing international tourists' perceptions of service quality at Air Mauritius', *International Journal of Quality & Reliability Management*, Vol. 24 No. 5, pp. 492-514.

Preis, M.W. (2003) 'The impact of interpersonal satisfaction on repurchase decisions. Journal of Supply Chain Management', Vol. 39 No. 3, pp. 30-38.

Reichheld, Fredrick F., Markey, Robert G., Jr. and Hopton, Christopher (2000) 'The loyalty effect – the relationship between loyalty and profits', *European Business Journal*, Vol. 12 No. 3, pp. 134-139.

Rhoades, D.L. and Waguespack, B.P. (2008) 'Twenty years of service quality performance in the US airline industry', *Managing Service Quality*, Vol. 18 No. 1, pp. 20-33.

Shaw. S. (2007) *Airline Marketing and Management,* 6th edition, Ashgate Publishing, Great Britain.

Teichert, T., Shehua, E. and Von Wartburg, I. (2008) 'Customer segmentation revisited: The case of the airline industry', *Transportation Research Part A: Policy and Practice*, Vol. 42 No. 1, pp. 227-242

Tiernan, S., Rhoades, D.L. and Waguespack, B.P. (2008) 'Airline service quality: Exploratory analysis of consumer perceptions and operational performance in the USA and EU', *Managing Service Quality*, Vol. 18 No. 3, pp. 212-224.

Tsantoulis, M. and Palmer, A. (2008) 'Quality convergence in airline co-brand alliances', *Managing Service Quality*, Vol. 18 No. 1, pp. 34-64.

Waguespack, B.P. and Rhoades, D.L. (2008) 'Cancellations and their relationship to and impact on airline service quality', *Airlines Magazine*, Issue 40, available at: http://www.aerlines.nl/issue_40/40_waguespack_cancellations.pdf (accessed 12 November 2010).

Wen, C.H. and Yeh, W.Y. (2010) 'Positioning analysis', *Transportation Journal*, Vol. 49 No. 1, 7-23.