Travelers' Perception on Airport Satisfaction

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Abstract

This study investigates travelers expected and perceived service and quality satisfaction of the Hong Kong International Airport (HKIA) as the overall quality perceived would affect the air transport as well as tourism industry in Hong Kong. Based on the literature review, a list of 14 factors was selected and then studied its impact to HKIA's satisfaction. Results find that tangibility, reliability, responsiveness, and assurance were the most concerned factors regarding airport service quality while empathy was the least satisfied by the travelers. It also shows that the older travelers, the business travelers, and the individual travelers are expressed lesser satisfaction of HKIA.

Keywords: Hong Kong International Airport; Travelers; Services; Quality satisfaction

1. Introduction

The Hong Kong aviation industry has been developed over a century. Empire Airlines provided the first regular flight schedule from Hong Kong to Penang at Kai Tak airport on 24 March 1936. Since then, Hong Kong has entered into civil aviation era. At the same time, the first civil aviation service between Hong Kong and Mainland China has been appeared on 6 November 1936. Kai Tak airport has been occupied by the Japanese military during the World Word II (1938-1945). Kai Tak airport has been served for military rather than civil purpose. Hong Kong aviation industry has been recovered led to significantly increased in passenger and air cargo volume after 1945 (Song, 2013). The turning point stemming from Deng Xiaoping introduced economic reforms socialist market economy and carried out Open Door policy in 1978.

Hong Kong has fundamental shifted from regional airport for local need to monopolistic hub in the Asian region (Wang, 1998). Owing to capacity constraints on Kai Tak airport and a dramatic growth in passenger and cargo volume, the Hong Kong airport later relocated from Kai Tak to Chek Lap Kok in 6 July 1998 (Song, 2013). The yearly aircraft movements were significantly be increased by 249% from 1998 to 2015 (Hong Kong International Airport, 2016). According to the Hong Kong International Airport (HKIA) Master Plan 2030, there will be a significant unfulfilled demand for air services in both the medium term up to year 2020 and the long term up to year 2030 within the Pearl River Delta (PRD) area including Hong Kong and Macao. However, there are at least five major international airports located within the said area including Hong Kong International Airport (HKIA), Guangzhou Bai Yun International Airport, Shenzhen International Airport, Macau International Airport, and Zhuhai Airport. The future demand of HKIA is very much related to the actual competitiveness of HKIA in the PRD area.

Since 1996, Hong Kong has ranked as one of the world's leading international airports, handling 68.5 million passengers and 4.38 million tones of air cargo in 2015. Hong Kong is ranked the first in handling international passenger in Asia regions followed by airports in Singapore, Incheon, Bangkok, Taipei, Kuala Lumpur, and Tokyo in 2015.

The total number of international passenger between Asian hubs is shown in Table 1. Besides, there is a report commissioned by the Airport Authority Hong Kong, HKIA connected to more than 190 destinations, including 47 in Mainland China, through about 1,100 daily flights by over 100 airlines. In 2030, HKIA is expected to receive 102 million passengers and 607,000 aircraft movements per year (Hong Kong International Airport, 2016).Table 2shows the number of total air passenger at HKIA.

Table 1: The total number of international passenger in Asian regions in 2015

Rank	Airport	Total number of passenger
1	Hong Kong	68,488,000
2	Singapore	54,836,000
3	Incheon	48,720,319
4	Bangkok	43,251,807
5	Taipei	38,104,007
6	Kuala Lumpur	34,438,229
7	Tokyo	30,547,564

Source:www.moodiereport.com (2015)

Table 2: thetotal number of air passenger at HKIA

Year	Number ('000)
1998	28,631
1999	30,394
2000	33,374
2001	33,065
2002	34,313
2003	27,433
2004	37,142
2005	40,740
2006	44,443
2007	47,783
2008	48,585
2009	46,167
2010	50,923
2011	53,904
2012	56,467
2013	59,903
2014	63,343
2015	68,488

Source: Hong Kong International Airport, 2016

Service quality is an important agenda in the airport management (Park and Jung, 2011). The importance of service quality is recognized by literature through the effect on customer satisfaction. Similarly, the dimensions of the airport's service quality play a crucial role in passengers' satisfaction.

The overall quality perceived would then have significant impact in affecting the number of future travelers in the corresponding country (Yeh and Kuo, 2003) and hence it is useful to measure the travelers' satisfaction towards HKIA. In Hong Kong, there is no or little academic survey done on the airport quality in the past though simple benchmarking and industry practice for measuring airport customer satisfaction was not uncommon. However, the lists of attributes adopted for the benchmarking exercise usually not exactly comparable with the usual concept adopted by marketing research and literature (Fodness and Murray, 2007).Hence, a study in HKIA was planned to collect those information by interviewing travelers in and out of the HKIA.

The aim of this study was to (1) identify key dimensions of service quality and satisfaction; (2) collect and compare travelers' expected and perceived quality of the airport; (3) discuss the findings from perceived satisfaction index; and (4) recommend improving and developing suggestions for HKIA.

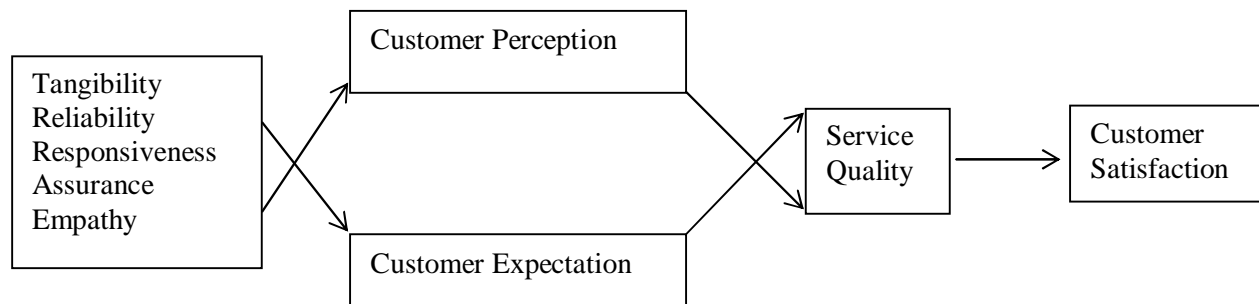## 2. Determination of airport service quality factors

2.1 Service quality

The SERVQUAL model is a "concise multiple-item scale with good reliability and validity" that could be used to recognize and interprets travelers' perceptions as well as expectations of services quality (Parasuraman et al. 1988). The concept of perceived service quality can be shown as follows:

Quality = Perception score – Expectation score

SERVQUAL has been adopted by various researchers to measure the impacts of service quality. Based on this conceptual model, service quality is defined as the difference between passengers' expected and perceived quality of services, and simply the gap between "*customer perceptions of what happened during the service transaction and his expectations of how the service transaction should have been performed* (Subhaand Archana, 2013, p.26)". The five SERVQUAL dimensions (Tangibility, Reliability, Responsiveness, Assurance, and Empathy)have been shown in Figure 1.

Figure 1: SERVQUAL model of service quality

However, it is also indicated that the approach to define a common expectation construct may inadvertently homogenize the results. Clearly, other factors like demographic, trip purpose and individual airport's characteristics including cultural differences, could also have impact on the perception of service quality..

2.2 Airport service quality factors

To measure the airport service quality and user satisfaction, a list of 14 factors is determined according to the framework described and review of previous studies on airport satisfaction study is summarized in Table 3. The said quality measurement items would become the basis of data collection process in the satisfaction survey and be analyzed and assessed in due course.

Table 3: List of airport service quality factors

Tangibility	• Shopping facilities • Restaurant facilities • Internet/WIFI • Restrooms
Reliability	• Ground transport connection • Baggage carts condition • Flight information display
Responsiveness	• Process time at counter • Ease of finding ways • Speed of baggage delivery
Assurance	• Security • Cleanliness
Empathy	• Children play area • Art display

3. Research Methodology

The survey aims to study traveler's perceived satisfaction and quality of the airport. As a result, interviewers were designed to collect data by staying near the entrances and exits of the HKIA to interview the travelers up to summer 2013. Travelers were chosen randomly from the passengers passing through the entrances/exits. Questionnaire consists of three main sections: (A) Demographic characteristics; (B) Perceived importance; and (C) Satisfaction. The interviewees were asked to score the importance of each factor from 1 (least importance) to 7 (most importance) as well to indicate the satisfaction of each factor from poor (1) to excellent (5).

This study would introduce the key concepts of service quality and satisfaction in terms of airport services and a list of factors affecting airport service quality would be determined. The result of the satisfaction survey would then be presented. A series of statistical analysis would also be done where a weighted satisfaction index would also be produced.

4. Research findings

4.1 Description of the data sample

A total of 198 questionnaires were completed and details as per below Table 4.

Table 4: Demographic and travel profile of respondents

		Number of passengers	Percentage to Total
Sex	Male	91	45.96%
	Female	107	54.04%
Age	18-24	143	72.22%
	25-45	32	16.16%
	46 or above	23	11.62%
Purpose of Travel	Leisure	179	90.40%
	Business	10	5.05%
	Both	9	4.55%
Travelling with	Group Tour	83	41.92%
	With friends	78	39.39%
	Own	37	18.69%
Number of Travels made over last 12 months	1 to 4	174	87.88%
	5 to 8	18	9.09%
	9 or above	6	3.03%
Number of airports visited over last 12 months	1 to 4	173	87.37%
	5 to 10	22	11.11%
	11 or above	3	1.52%

The numbers of male and female travelers were 46% and 54% respectively though the age of respondents was mainly between 18 and 24 (72%) while aged between 25 and45 took another 16 %.

Around 90% of respondents were leisure travel. Around 42% were Group tour travelers while 40% traveled with friends. Major travelers made less than 4 trips (88%) while another 9% had 5-8 trips over the last 12 months. 87% of respondents visited no more than 4 airports over the last 12 months.

4.2 Level of satisfaction

The below weighted Satisfaction Index was used to provide reference (Tong and Leung, 2013).

$$\text{Weighted Satisfaction Index} = \frac{\sum S_i I_i}{\sum I_i}$$

Where S_i and I_i are the satisfaction and importance ratings of each quality factor for individual respondent. The overall weighted satisfaction index was 3.697 was better than average since there were 183 respondents gave their ratings greater than or equal to 3 and 15 respondents rated less than 3. It is interesting to point out that the gender issues do not have impact on the scores as the different gender gives the same ratings 3.697.

However, the different age group seems to have different rating where the elder groups tend to be less satisfied, ie the value was decreased from 3.76 (age group 18-24) to 3.48 (age group 46 or above).On the other hand, the business traveler was less satisfied than the leisure travelers while those passengers with both leisure and business purposes were least satisfied with rating at about 3.47.Regarding the type of travelers, tour group travelers were generally more satisfied than individual passengers while those traveled with friends (not with group tour) were least satisfied. It also indicates that the more the travel, the lesser the satisfaction as the rating was decreasing when number of travelling was increased during the last twelve months. Similarly, the satisfaction was also decreased when the travelers visited more airports over the last twelve months as the rating was also decreased when travelers visited more airports. In conclusion, the satisfaction indices were both reduced when the users make more travel and visit more other airports.

4.3 Service quality

In particularly, the importance and satisfaction ratings for each quality factors are provided in the Table 5.

Table 5: Satisfaction figures for each factor with mean and coefficient of variation

	Importance (Mean)	Coeff. of Variation	Satisfaction (Mean)	Coeff. of Variation
Security	6.01	18%	3.96	21%
Cleanliness	5.97	17%	4.04	23%
Flight Information Display	5.90	19%	3.97	23%
Ground Transport connection	5.82	20%	3.97	19%
Rest room	5.80	18%	3.88	24%
Ease of Finding ways	5.78	20%	3.98	20%
Speed of Baggage delivery	5.69	19%	3.45	28%
Process time at counter	5.59	20%	3.74	19%
Internet/WIFI	5.53	25%	3.38	38%
Baggage Carts condition	5.01	24%	3.83	23%
Restaurant Facilitates	4.99	25%	3.49	31%
Shopping Facilitates	4.64	31%	3.75	26%
Art Display	3.48	46%	2.59	53%
Children Play Area	3.39	49%	2.29	67%

According to the survey result, most of the factors were rated at greater than 4 out of the 7 scale; It suggested all those factors were perceived to be important in terms of airport service quality. However, factors likeart display and children play area (3.48 and 3.39 respectively) were less importance. In particular, it also pointed out that security was found to be the most importance factor. The mean of overall satisfaction level is 3.83 out of 5 and it suggested that all participants were generally satisfied with the HKIA. In particular, travelers were impressed with the cleanliness of airport as it obtained the highest score (4.04). However, the mean scores of art display and children play area were below average, which were only 2.59 and 2.29 respectively. It also reveals that travelers award a higher mark for those factors they find more important to HKIA. Furthermore, the two least important factors also received the lowest marks, viz 3.48 and 3.39. It is also interesting to note that the Art Display and Children Play Area have coefficient of variation around 50%.

5. Discussion

Based on the results of the travelers' satisfactory survey of this study, the overall level of satisfaction was 3.697 out of 5. Over 92.4% respondents were at least satisfied with the services while there was only 15 dissatisfied users (7.6%) gave a rating of lower than 3. The overall impression of satisfaction level was appeared to be related to tangibility, reliability, responsiveness, and assurance were placed in rank order from 1 to 4. The users also indicated that tangibility, reliability, responsiveness, and assurance were the most concerned factors regarding airport service quality. The travelers are preferred using a safety, operational efficiency, customer convenience and environment airport. In order to become the world's best airport, airports have to enlarge their landside and airside capacity, implement and review a systematic airport security measurement, establish an intermodal transport connection with neighboring countries/cities, design a multi-purpose and environmental friendly airport, and provide a wide variety of airport facilities and caring customer service.

In addition, the least satisfied factor was empathy but their importance was also the lowest in considering the airport service quality. It reflects that travelers are expected to visit the places rather than staying at airport for a long time. Art display and children play area are not rated by travelers significantly. Children play area provided with few facilities and located at remote and dispersed areas of airport. In addition, the travelers feel less interested in art display leads to a low satisfaction score of art display. To deal with such deficiency, the airports are required to demonstrate featured product or a special theme of exhibition.

However, it was also noted that the older travelers (aged 46 or above), the business travelers and the individual travelers are expressed less satisfaction towards HKIA. From the airport configuration, the older and business travelers feel uncomfortable to walk a long distance between boarding gate and customs clearance. In addition, business travelers are time-conscious people. Airports would delay aircrafts landing and takeoff due to weather factors and peak hour. The flight cancellation and deferment are adversely affecting business travelers work or business trip schedule. In the airport operations, the travelers are not easy to seek help from airport staff in some area or points. The individual travelers encounter a problem of boarding a plane themselves.

6. Conclusion

Airport is a competitiveness business and particularly with PRD area. Under the SERVQUAL model of service quality, four core elements pertaining to tangibility, reliability, responsiveness, and assurance are the most importance factors to determine airport service quality. In our study, we only conducted HKIA as our study. In the future, we carry out a longitudinal study of the Pearl River Delta so as to get a comprehensive research on airport service quality.

Acknowledgement

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