

MK CHING
HKCC, HONG KONG

PASSENGERS' PERCEPTION ON AIRPORT SERVICE AND QUALITY SATISFACTION

Abstract:

This study aims to investigate passengers' expected and perceived service and quality satisfaction of the Hong Kong International Airport (HKIA) as the overall quality perceived would affect the number of future travelers to Hong Kong. After determining a list of known factors affecting airport service quality, passengers' satisfaction survey was carried out at the main entrances and exits of the HKIA. Based on the collected data, a passenger satisfaction rating was compiled reflecting the users' perceived level of satisfaction of the HKIA. Apart from identifying the most important factors on airport service quality, it was also shown that there was significant difference in rating importance by different demographic factor.

Keywords:

Airport, service, quality satisfaction, passengers' perception

JEL Classification: L91

1. INTRODUCTION

According to the recent Hong Kong International Airport (HKIA) Master Plan 2030, there will still 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 currently five major international airports located within the said area, namely Hong Kong International Airport (HKIA), Guangzhou Bai Yun International Airport, Shenzhen International Airport, Macao International Airport and Zhuhai Airport. The actual demand of HKIA is therefore depend very much on the competitiveness of HKIA in the PRD area.

1.1 Importance of Airport Service Quality

Like any other service oriented industries, service quality is an important issue in the airport management (Park & Jung, 2011). The importance of service quality for business is recognized by literature through the effect on customer satisfaction. Airports are not only providing passengers with “*a bundle of tangible and intangible services* (Subha & Archana, 2013, p.26)”, but also a transition point for final destination. Hence, 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 no. of future travelers in the corresponding country (Yeh & Kuo, 2003) and hence it is important to measure and evaluate the passenger satisfaction towards HKIA.

1.2 Aims of Study

In Hong Kong, there is no or little academic survey done on the airport quality in the past though benchmarking and industry practice for measuring airport customer satisfaction was not uncommon. However, the lists of those attributes do not represent service quality as per usual concept adopted by marketing research and literature (Fodness & Murray, 2007). Hence, a study in Hong Kong International Airport was planned to collect those information. The aim of this study was to (1) identify those dimensions of service quality and satisfaction; (2) carry out a passenger satisfaction survey to collect users’ expected and perceived quality of the airport; (3) compile a satisfaction rating reflecting the users; perceived satisfaction; and (4) identify factors having significant impacts on airport service quality.

1.3 Objectives of Study

To achieve these aims, this study would collect data on airport service quality and

users' satisfaction in order to analyze the relationship between quality factors and passengers' satisfaction. In particular, following objectives would be targeted:

- a. Evaluate and monitor the performance of airport services based on the data obtained from Satisfaction Survey.
- b. Investigate users' perceived service quality and satisfaction of the airport and the relationship between them.
- c. Determine known quality factors affecting airport services.

This paper would introduce the key concepts of service quality and satisfaction in terms of airport services. Afterwards, a list of factors affecting airport service quality would be determined. The result of the Satisfaction survey would then be given. Statistical analysis would also be carried out and a weighted satisfaction index would be produced.

2. DETERMINATION OF AIRPORT SERVICE QUALITY FACTORS

2.1 Service Quality

Service quality is customer's long term evaluation of a company's service delivery. Customer will compare what they expected with what they actually receive during the post-purchase stage of the purchasing process. Service quality is therefore perceived quality of customers about a service. The SERVQUAL is one of commonly employed methods in measuring passenger satisfactions as well (Parasuraman et al. 1988). The concept of perceived service quality can be shown as follows:

$$\text{Quality} = \text{Perception score} - \text{Expectation score}$$

Based on this SERVQUAL conceptual model, service quality is therefore defined as the difference between passengers' expected and perceived quality of services, or 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* (Subha & Archana, 2013, p.26)". The five dimensions of the quality are Tangibility, Reliability, Responsiveness, Assurance and Empathy (Fig. 1).

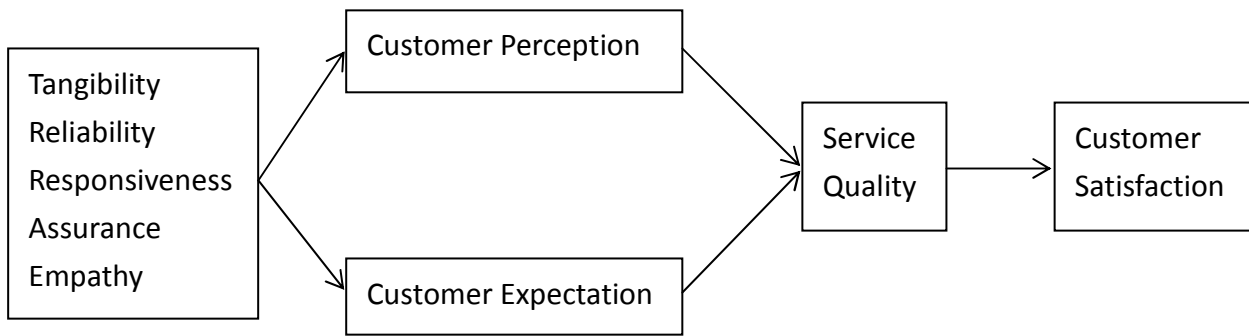


Fig. 1: SERVQUAL model of service quality

However, it is also indicated that the approach to define a common expectation construct may inadvertently homogenize the results. In fact, the service quality may need to consider individual airport's characteristics, such as cultural differences, which could affect the perception of service quality. Similarly, other demographic factors and trip purpose could also influence the perceptions of the traveler too.

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 (Table.1). These quality measurement items form the basis of data collection process in the satisfaction survey and the resultant analysis and assessment.

Ground transport
Baggage carts condition
Processing time at airport counter
Ease of finding way
Flight information display
Shopping/retails service
Restaurants
Internet access
Restrooms
Cleanliness
Speed of baggage delivery
Security level

Children play area
Art display

Table 1: Airport service quality factors

3. USER SATISFACTION SURVEY

The aims of the survey were to study passenger's perceived satisfaction and quality of the airport. Hence, interview survey was designed and carried out at the airport main entrances and exits. Respondents were randomly chosen from the passengers getting in and coming out from the airports. Questionnaire consists of three sections: (A) Demographic characteristics (B) Perceived importance and (C) satisfaction.

The interviewees were asked to score the importance of each factor from 1 (least satisfied) to 7 (most satisfied) as well to rate the satisfaction of each factor from Poor (1) to Excellent (5).

3.1 Description of the Data Sample

A total of 198 questionnaires were completed and details as per below Table 2.

		No. 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%
No. 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%
No. 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%

Table. 2: Demographic and travel profile of respondents

The numbers of male and female passengers were (46% and 54% respectively) more or less the same but the age of respondents was mainly between 18 and 24 (72%). Over 90% of respondents were leisure travel and around 42% are travelling with group tour. Most respondents travel within 4 trips (88%) over the last 12 months and 87% of respondents visited no more than 4 airports during the said period.

3.2 Level of Satisfaction

The weighted Satisfaction Index, which is derived by Summation of the products of individual satisfaction with importance ratings divided by Summation of individual important of each quality factor, was used to provide reference (Tong & Leung, 2013)

$$\sum S_i I_i$$

Weighted Satisfaction Index = _____

$$\sum I_i$$

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 where there were 183 respondents gave their ratings greater than or equal to 3 while 15 respondents rated less than 3. That is to say, the users generally rated the satisfaction of the airport services better than average. Regarding the ratings for different groups, it is interesting to note that the different gender gives the same ratings 3.697 (Fig 2).

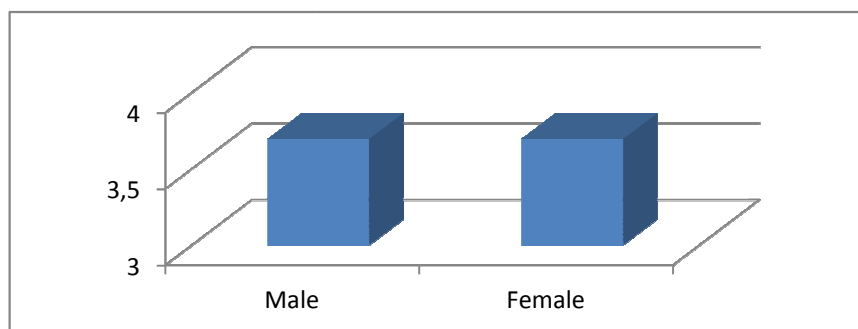


Fig. 2: Weighted Satisfaction Index by SEX

On the other hand, the satisfaction index was found to be decreased from 3.76 (age group 18-24) to 3.48 (age group 46 or above) (Fig.3).

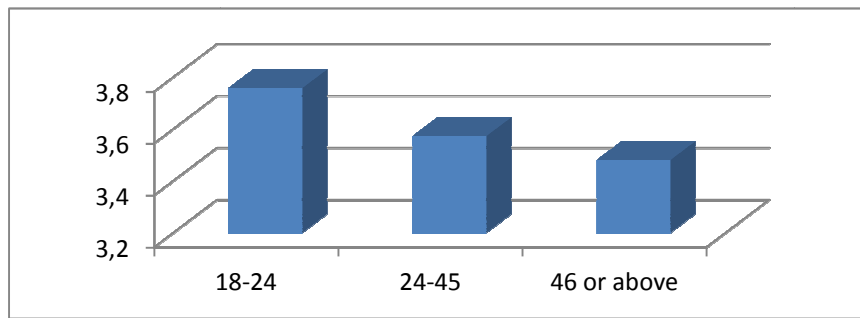


Fig. 3: Weighted Satisfaction Index by AGE

Regarding the nature of travel, the leisure travelers were generally more satisfied than the business traveler while those passengers with both leisure and business purposes were least satisfied with rating at about 3.47 (Fig. 4). On the other hand, tour group travelers were in general more satisfied than individual passengers but those passengers travelling with friends (not with group tour) were least satisfied (Fig. 5).

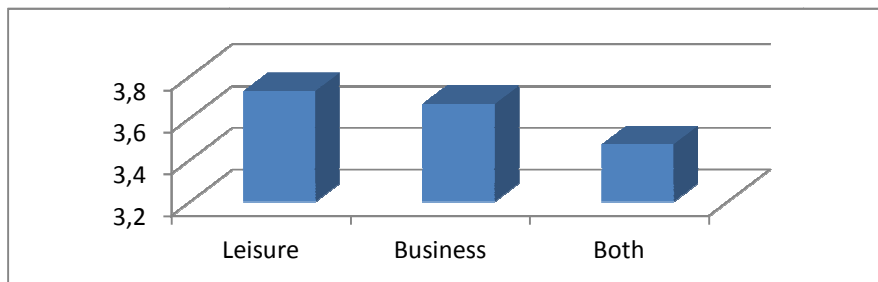


Fig. 4: Weighted Satisfaction Index by Travel Purpose

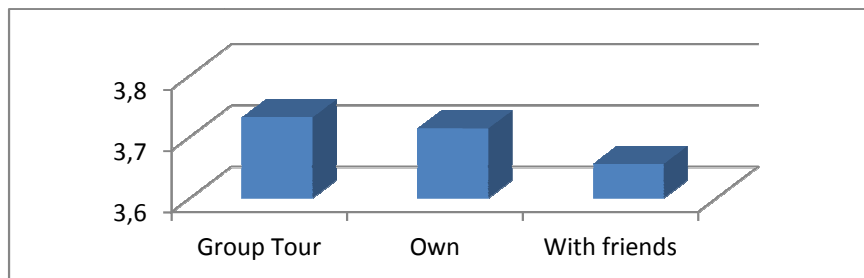


Fig. 5: Weighted Satisfaction Index by Travel Type

In particular, the satisfaction rating was decreasing when no. of travelling during last twelve months was increased (Fig. 6). Similarly, the rating was also lowered when the users visited more and more airports during the last twelve months (Fig. 7). This reflects that the satisfaction indices were reduced when the users make more travel and visit more other airports.

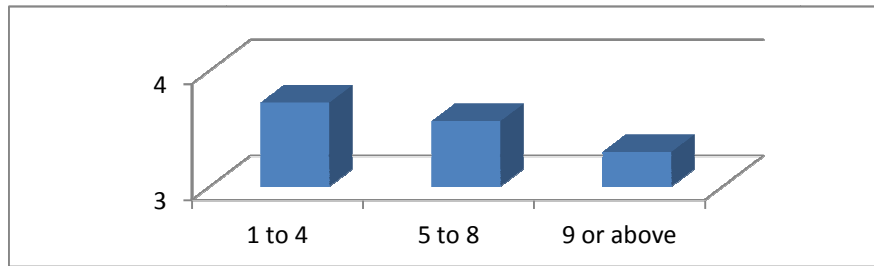


Fig. 6: Weighted Satisfaction Index by Travel Frequency

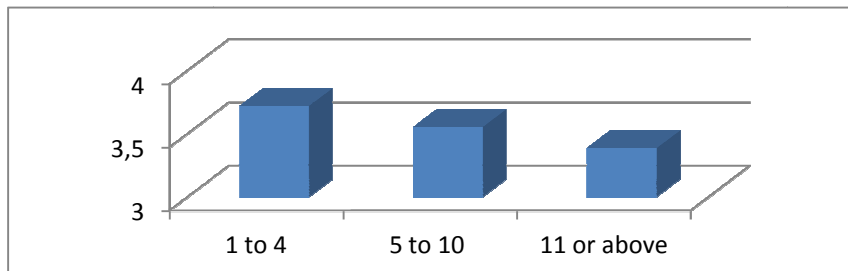


Fig. 7: Weighted Satisfaction Index by No. of Airports Visited

3.3 Service Quality

In particularly, the importance and satisfaction ratings for each quality factors are provided in the Table. 3.

	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%

Table 3: Satisfaction figures for each factor with mean and coefficient of variation.

Based on the 198 respondents, it was shown that the importance of almost all factors, were rated at greater than 4. It suggested all factors were perceived to be important in terms of airport service quality except art display and children play area (3.48 and 3.39 respectively). In particular, security was found to be the most importance factor, which was 6.01 with a standard deviation of 1.088 and coefficient of variations of 18%.

On the other hand, the mean of overall satisfaction level is 3.83 out of 5, with a standard deviation of .627 and coefficient of variations of 16%. Generally, all participants indicated the satisfaction of the airport was better than average. In general, almost all factors were rated higher than 3 with the cleanliness of airport obtained the best 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.

Regarding the perceived satisfaction of these factors, cleanliness, security, flight information display, ground transport and ease of finding ways were most satisfied by users with a rating of about 4. It further revealed that those five most satisfied factors were also important to overall airport service quality. On the other hand, the satisfaction of art display and children play area was least satisfied with rating below 3 but they were also the two least importance factors indicated.

3.4 Trip characteristics and Perceived Service Quality

To further understand the relationship between each quality factor and trip characteristics, correlations were carried out. It was shown that there was significant different (.000) between male and female in evaluating the importance of two factors, namely, children play area and art display.

In particular, female users gave a higher importance to children play area (3.93) and art display (3.82) compared to male. It is suggested that female travelers were more concerned about the importance of children play area and art display in terms of airport service quality.

4. CONCLUSIONS

Based on the results of the users' 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 the

factors including cleanliness, security, flight information display, ground transport and ease of finding ways. The users also indicated that cleanliness, security, flight information and ground transport were the most concerned factors regarding airport service quality. Moreover, the two least satisfied factors were art display and children play area but their importance were also the lowest in considering the airport service quality. However, it was also noted that male and female were significantly difference in rating the importance of Art display and Children play area in airport service quality.

ACKNOWLEDGEMENT

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