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Aman Gupta

Embry-Riddle Aeronautical University, guptaa7@erau.edu

Mohammed Arif

Aled Williams

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Customer Service in Aviation Industry – An Exploratory Analysis of UAE Airports

Abstract

Customer satisfaction is given top priority by all service-oriented industries. The civil aviation industry is no exception. The highly competitive global aviation arena causes various airlines to vie for the top position with lot of importance being given to the customer service. The aim of this study is to analyze the methods and tools used by the United Arab Emirates' (UAE's) federal government and the various local governments in the country to improve the customer satisfaction with regard to the aviation industry in the country. This paper develops a framework to assess customer service in the aviation sector in the UAE and uses the framework to analyze and compare the three main airports in the UAE based on the feedback of passengers.

This study used a multi-pronged approach to collect data. In all, 78 travelers were chosen at random and they were administered a structured and a semi-structured questionnaire. Responses to the former were used to perform Chi-square test and establish the differences between the three airports; the latter were used to gain deeper insight and gauge a more in-depth opinion of the respondents. Through the analysis of the data, this study was able to learn more about the public view with regard to the innovations and ideas implemented by the government of the UAE. A new customer service model has been developed to compare the three airports in UAE and gain more insights into opportunities for improvement.

Keywords: Airport service quality, Airport customer service, Customer feedback, Statistical analysis.

1. Introduction

Service quality leading to customer satisfaction is thought to be an attitude resulting from a comparison of actual performance of the product with built-in expectations of the user (Kien-Quoc and Simpson, 2006). Getting it right the first time is critical to the continued success of the organization. Organizations that avoid service failure fare lot better than organizations focusing on service recovery after failure (McCollough et al., (2000). To gain a higher level of service satisfaction, organizations need to understand a customer's journey – from the expectations they

have before the experience begins to the assessments they are likely to make when it is over (Berry et al., 2002). Complete customer satisfaction is only possible when every influencing member of the organization has a complete understanding of customer needs and requirements (Asher, 1989). Customer service is a key aspect of any business and eventually determines the overall profits and sales of an organization. Like any other sector, airports need to have an emphasis on service quality improvement. Airport infrastructure is the first and last point of tourists' contact in their trip to a country. Therefore, services have to be processed at an airport in an efficient way in order to minimize travel time and to allow leisure time in the commercial areas of the airport (Martín-Cejas, 2006). Gorst et al. (1998) found that customer satisfaction could be viewed as a cyclical process that can increase or decrease over time. Each cycle begins with what the customer thinks or expects. As the customer avails the service over time, the classification changes to being a 'past experience'. Two fundamental forces that drive the strategy in the aviation industry are safety and customer service (Appelbaum and Fewster, 2003). There is immense competition between airports to attract business and get more airlines to choose them as their destination. The quality of customer service could be the determinant that attracts airlines to an airport. Issues such as handling of customer complaints and proactively putting in plans to avoid them are very important for the overall success of an organization (Bell and Luddington, 2006; and Robbins and Miller, 2004). To understand customer satisfaction, Martin (1992) introduced seven areas of customer research including critical service factors, customer priorities, parameters of performance, current performance standards, competitive performance standards, benchmark suppliers and service opportunities.

This paper presents a model that has been developed by combining different customer service related models and compares customer service quality at three UAE airports. The model also helps in identifying opportunities for improvement at these airports. The paper is divided into five sections. The next section presents a review of literature around customer satisfaction in the aviation sector and different models that can be used for developing an assessment for UAE airports. Following the literature review section is the research methodology which establishes data collection process. The actual data collected from three UAE airports is analyzed in the results section and then the paper concludes, highlighting some implications that can be drawn from this research.

2. Literature Review

There are several models that have been presented in the literature regarding service quality at the airports. Tsai et al. (2011) developed a multi-criteria evaluation model to perform gap analysis between the customer perception and airport service quality and to diagnose managerial strategies of gap reduction. To demonstrate the suitability and effectiveness of the model, the authors presented an empirical study of passenger services at an airport in Taiwan. Lubbe et al. (2011) concluded that opinions towards services offered at the airports differ between business and leisure travelers, and frequent and infrequent travelers. Chang et al. (2008) presented an empirical study on the ways the complaints are dealt with at the airports and the degree to which unsatisfactory experiences are reported and handled. They concluded the following: solving passengers' problems immediately leads to much higher customer satisfaction, passengers care a lot about the interactions and policy of the airlines and the airport, service quality influences customer satisfaction, and interactional and procedural justice directly affect the complaint intentions. Yeh and Kuo (2003) presented a fuzzy multi-attribute decision making approach for evaluating passenger service quality of 14 major Asia-Pacific international airports via surveys. The model provides a service performance index which can be used as a benchmarking and management tool for airports. Fodness and Murray (2007) developed a conceptual model of service quality in airports and concluded that the passengers' expectation of airport service quality is multidimensional and hierarchical which includes three key dimensions: function, interaction and diversion. Kuo and Liang (2011) proposed a new fuzzy multi criteria decision making method (combining concepts of VIKOR and grey relational analysis) to evaluate the service quality problems at international airports. The authors concluded that the approach presented is effective tool in solving problems involving subjective assessments of qualitative attributes in a fuzzy environment. Park and Jung (2011) used structural equation modeling to investigate transit passengers' perception of airport service quality and its influence on value, satisfaction, airport image, and passenger behavior. The research shows that airport service quality has direct impact on the level of transfer passengers' satisfaction, value perceptions, and airport image formation. Whyte (2004) discussed failure to create customer loyalty and trust being one of the major factors for airline and airport failure. Kien-Quoc and Merlin (2006) stressed on the need to please the aviation customers and presented a set of dimensions including reliability, assurance, tangibles, empathy, responsiveness, etc. that an airline should strive for in

order to satisfy the travelers. Chang and Chang (2010) investigated the relationships among service recovery, recovery satisfaction, overall customer satisfaction, and customer loyalty in airline services and concluded that both interactional and procedural justice have a significant effect on recovery satisfaction. Han et al. (2012) presented an empirical study regarding the passenger' perception of airline lounges and concluded that the food and beverage service is the most important factor influencing customer satisfaction and the use of the lounge again by the passenger. Liou et al. (2011) applied dominance-based rough set approach to an airport service survey in Taiwan and concluded that immigration, customers and quarantine (ICQ), and security are the most important factors that influence the image regarding the overall level of service at an airport.

The essence of all these models is to identify ways of achieving and sustaining 1) customer satisfaction and 2) customer loyalty. However, there is also an implicit acceptance that there is an influence of the geographical location and the model has to be contextualized for the country in which it is located. Therefore, it is important that prior to developing a model to assess service quality at UAE airports, the customer expectations and criteria be documented. Some of the important features that need to be considered about the UAE are: 1) Cultural diversity with more than 100 nationalities living there; 2) Highly mobile population that travels all over the world for trading and exposed to airport service quality from other international airports; and 3) With UAE trying to be the bridge between Europe and far east, and several airports within the middle-east trying to establish themselves as this bridge, it is important that they are innovative and proactive in order to compete.

Due to the various dynamics that exist in the aviation industry within the UAE today and based on the criteria identified for the research, a new customer service model was created as part of this study which is an amalgamation of the following three customer service models: intercultural model, pleasure model and Boomerang Model. The new model selected elements from each model and satisfied the five criteria described in the previous paragraph, two of which are generic and three of them are specific to the UAE.

2.1 Inter-cultural Model

The model presented by Hopkins et al. (2005) provided a framework to better understand intercultural service encounters and provided insights about how customers respond or are likely to respond. This model can help assess the satisfaction across multiple cultures, and also assesses

customer loyalty. The following factors including language, gestures in different cultures, specific cultural' needs and queries, word choice, no discrimination, and no stereotypes were taken from the model. Several other researchers such as Sharma et al. (2012); Hopkins et al. (2009); and Hulten (2009) have further applied this model in different contexts and have emphasized its utility. Given the previous successful applications of this intercultural model, it was selected to be included in the final model to be developed for this research.

2.2 Boomerang Model

Partch (1996) developed a model that can help assess the pro-activity of the service organizations and their employees. In this model instead of simply studying and monitoring the wants and demands of customers, staff are urged to take a step forward and offer what customers did not ask for 'yet'. The model requires and/or assesses whether the front-end staff are efficient in making decisions related to customer service. Although this model seems simplistic, it has a potential to have a major impact for the UAE aviation sector. Therefore, parts of this model were selected for application in our more comprehensive customer service evaluation model. The main part incorporated from this model was capturing explicitly stated needs of the customers by the airport and airline staff.

2.3 Pleasure Model

The pleasure model developed by Le Bel, (2005) focused on how scientific research is also adding a new flavor to the areas of customer services and relations. One of the key characteristics was the interaction of the staff and cabin crew with the customers in order to improve the pleasure aspect of the service provided. The pleasure model is of particular significance in the aviation industry of the UAE, primarily due to the large markets and nationalities to which the industry caters. As a result, it is important to take into consideration the various ethnicities that reside in the local market before implementing the pleasure model.

The model focuses on both the tangible and intangible pleasure elements. Many of those elements are to be achieved within the airport boundaries and thus were incorporated in the new model. The factors that lead to the overall pleasure of the passenger include staff and management as well as the state of facilities within the airport like cleanliness, restaurant availability, toilets, etc. The parts of this model which were incorporated in this research were: sensory pleasure, social and emotional pleasure, and intellectual pleasure. Several researchers have used this model to assess a wide range of issues in the aviation sector. McKechnie et al.

(2011) used the framework of pleasure model to study the partitioning of the air travel service encounter into touchpoints according to elements and phases. They concluded that touchpoint preference is evident for travel purpose and passenger nationality segmentation criteria. Babbar and Koufteros, (2008) examined the dimension of personal touch and its elements and concluded that collectively individual attention, helpfulness, courtesy, and promptness have a significant effect on airline passenger satisfaction. Chen et al. (2008) investigated the airlines customer involvement and brand loyalty. The authors found significant relationships between attitudinal loyalty and dimensions of pleasure and sign value.

As can be seen, the literature has evolved over a period of time. The later models have introduced the impact of culture on customer satisfaction. With the introduction of higher levels of privatization of airports in the last decade the emphasis on customer satisfaction has also increased. With multiple airports being constructed in close proximity, airports are competing for the same business. Having a more comprehensive evaluation model is important. Therefore, this paper proposes a new model that combines features of three of the above models.

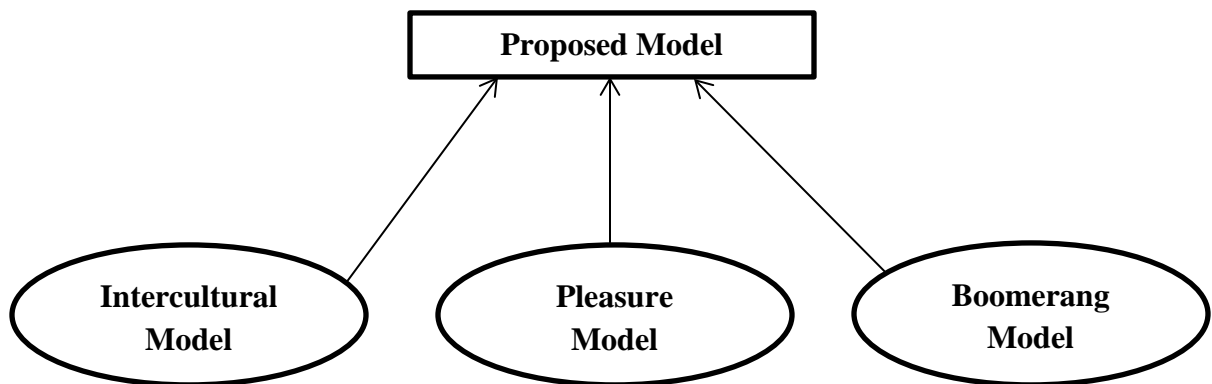


Figure 1: Proposed model as a combination of three models

The new model developed reflected the parts chosen from the various customer service models. As shown in the Appendix, the 15 follow-up questions were derived from the three models and were used to study specific areas under each criterion. The first five questions are derived from the Boomerang model, next seven from the pleasure model and the last three derived from the inter-cultural model.

3. Research Methodology

Satisfaction may not be a unidimensional concept, and is better measured using a sequence of questions to tap different forms of satisfaction (Oliver, 1997). This research was conducted with random group of 78 residents in the United Arab Emirates. The survey was performed in the departure lounge of the three airports. Although the participants were selected at random, they were asked first if they had used more than one UAE airport. Therefore 78 out of 120 interviewed who had used more than one airport were selected for further data collection. The sample size enabled researchers to identify issues that could be used in a more comprehensive future study. The sample of passengers was selected keeping in mind the actual traveling and passenger demography expected across the airports in the UAE today. Not all who were interviewed at a particular airport actually lived in the same emirate where the airport was located. The demography of the respondents is summarized in Table 1.

Table 1: Breakdown of Respondents and their Demographics.

| Airport | Number of respondents living in that emirate | Number of surveys filled by respondents for this airport |
|---------------------------------------|-----------------------------------------------------|-----------------------------------------------------------------|
| Sharjah International Airport | 15 | 33 |
| AbuDhabi International Airport | 28 | 31 |
| Dubai International Airport | 35 | 56 |
| Total | 78 | 120 |

Only 45% of the respondents who answered for Sharjah International airport actually live in Sharjah, and 62% of those who answered for Dubai International airport lived in Dubai, while 90% of those answering for Abu Dhabi International airport lived in Abu Dhabi. This indicates that people are less willing to travel from other emirates through Abu Dhabi International airport, keeping in mind the size of the overall sample. Each candidate was interviewed alone and began with a brief discussion of the purpose for the interview. This was followed by showing a short documentary about the history of aviation in the Middle East and the UAE. The documentary was about the development of the aviation center in Dubai and the development and construction of the international airports in Dubai, Sharjah and Abu Dhabi. Following the documentary, a 20 question survey regarding the airport services specifically the convenience and ease of using the

airports was given. The survey was conducted in order to understand information about the problems each passenger encountered at the individual airports.

For each of the research criteria, a question was framed to test that criterion (see Appendix). A total of 20 questions were defined. The remaining fifteen questions were follow-up questions to justify the results obtained from the five main questions and reflecting the parts of the customer satisfaction models chosen based on literature review (see Appendix). All of the questions had the following range of choices for the respondents to choose from:

1. Very Bad 2. Bad 3. Good 4. Very Good 5. Excellent

For each question, respondents were encouraged to make comments to support their responses and to add in relevant information beneficial to the project.

The results of the five main questions determined how well UAE airports were meeting the identified criteria based on the reviews of passengers. A hypothesis was tested for each criterion. Table 2 shows each of the criteria and the associated hypothesis:

Table 2: Table of Criteria and Related Null Hypothesis for T-test.

| Criterion | Hypothesis for T-test | Hypothesis for Chi-square Test |
|------------------|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | H0 = UAE airports do not adapt to a diversified customer base. | H0 = There is no difference between the three main airports in UAE when it came to adapting to a diversified environment. |
| 2 | H0 = UAE airports do not meet international standards in customers perspective | H0 = There is no difference between the three main airports in UAE when it came to meeting and exceeding international standards and expectation in the eyes of the passenger. |
| 3 | H0 = UAE airports are not regarded as innovative and proactive when it comes to customer service. | H0 = There is no difference between the three main airports in UAE when it came to being innovative and proactive when servicing the customer. |

| | | |
|----------|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 4 | H0 = UAE airports do not sustain the pleasure of their customers. | H0 = There is no difference between the three main airports in UAE when it came to reaching and sustaining continuous customer pleasure. |
| 5 | H0 = UAE airports are not capable of winning customers' loyalty. | H0 = There is no difference between the three main airports in UAE when it came to creating customer loyalty and meeting customers' expectations. |

The T-test was used to test the validity of the hypotheses. This test was used to indicate if the UAE airports are successfully implementing the criteria set and was the basis of the study and the recommendations made. After the T-test, another set of hypothesis was formulated as shown in Table 2. These hypotheses were formulated to test the three UAE airports with each other.

These hypotheses were tested using the Chi-square statistical test, to investigate whether or not there was a difference between the three individual airports of the UAE along the stated criteria. So the combination of T-test and Chi-square test led us to establish. 1) If the three UAE airports were offering acceptable customer service or meeting the expectations of customers and 2) If there was a difference among the three airport along the stated criteria.

4. Results

It was very clear from the survey averages that people were satisfied with UAE based airports. The following is the test results and interpretation of the ten hypotheses presented in the research methodology section.

4.1 Testing the First Set of Hypothesis

To test the hypothesis for each criterion, 2-tailed T-test is used. Initially the data was fed into SPSS and descriptive statistics was generated that consisted of mean, standard deviation and the standard error mean. Then the T-test was used to figure out the intervals. Tables 3 and 4 summarize the results.

Table 3: Sample Statistics for T-test

| Criterion | | N | Mean | Std. Deviation | Std. Error Mean |
|-----------|-----------|----|------|----------------|-----------------|
| 1 | Dubai | 56 | 4.23 | .603 | .081 |
| | Sharjah | 33 | 3.30 | .883 | .154 |
| | Abudhabi | 31 | 3.23 | .884 | .159 |
| 2 | Dubai | 56 | 4.02 | .726 | .097 |
| | Sharjah | 33 | 3.12 | .740 | .129 |
| | Abudhabi | 31 | 2.97 | .983 | .176 |
| 3 | Dubai | 56 | 3.57 | .657 | .088 |
| | Sharjah | 33 | 2.73 | .517 | .090 |
| | Abu Dhabi | 31 | 3.29 | 1.039 | .187 |
| 4 | Dubai | 56 | 4.14 | .672 | .090 |
| | Sharjah | 33 | 2.45 | .506 | .088 |
| | Abudhabi | 31 | 3.06 | .772 | .139 |
| 5 | Dubai | 56 | 4.11 | .731 | .098 |
| | Sharjah | 33 | 2.97 | .585 | .102 |
| | Abudhabi | 31 | 2.65 | .661 | .119 |

Table 4: T-test Results

| Hypothesis | | t | Df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | |
|------------|----------|--------|----|-----------------|-----------------|-------------------------------------------|-------|
| | | | | | | Lower | Upper |
| 1 | Dubai | 40.128 | 55 | .000 | 3.232 | 3.07 | 3.39 |
| | Sharjah | 14.977 | 32 | .000 | 2.303 | 1.99 | 2.62 |
| | Abudhabi | 14.026 | 30 | .000 | 2.226 | 1.90 | 2.55 |
| 2 | Dubai | 31.111 | 55 | .000 | 3.018 | 2.82 | 3.21 |
| | Sharjah | 16.471 | 32 | .000 | 2.121 | 1.86 | 2.38 |
| | Abudhabi | 11.149 | 30 | .000 | 1.968 | 1.61 | 2.33 |
| 3 | Dubai | 40.702 | 55 | .000 | 3.571 | 3.40 | 3.75 |
| | Sharjah | 30.317 | 32 | .000 | 2.727 | 2.54 | 2.91 |
| | Abudhabi | 17.632 | 30 | .000 | 3.290 | 2.91 | 3.67 |
| 4 | Dubai | 34.984 | 55 | .000 | 3.143 | 2.96 | 3.32 |
| | Sharjah | 16.525 | 32 | .000 | 1.455 | 1.28 | 1.63 |
| | Abudhabi | 14.893 | 30 | .000 | 2.065 | 1.78 | 2.35 |
| 5 | Dubai | 31.826 | 55 | .000 | 3.107 | 2.91 | 3.30 |
| | Sharjah | 19.326 | 32 | .000 | 1.970 | 1.76 | 2.18 |
| | Abudhabi | 13.863 | 30 | .000 | 1.645 | 1.40 | 1.89 |

The results of the hypothesis tests have identified that all the null hypotheses are rejected. This indicates that the three UAE airports are adhering to the good airport customer service standards.

4.2 Chi-square Test

To further explore the statistical relativity between each of the three airports and the respective criteria, the Chi-square test was applied to the data obtained. The aim behind applying the Chi-square test was to explore the differences between the three UAE airports. The results are shown in Table 5.

Table 5: Chi- Square results

| Criterion | | Dubai | Sharjah | Abu Dhabi |
|-----------|----------------------|--------|---------|-----------|
| 1 | Chi-Square (a, b, c) | 21.036 | 25.939 | 21.742 |
| | Degree of Freedom | 2 | 4 | 4 |
| | p - value | 0.072 | | |
| 2 | Chi-Square (a, b, c) | 5.607 | 18.515 | 15.613 |
| | Degree of Freedom | 2 | 3 | 4 |
| | p - value | .01 | | |
| 3 | Chi-Square (a, b, c) | 16.321 | 20.182 | 10.129 |
| | Degree of Freedom | 2 | 2 | 4 |
| | p - value | .050 | | |
| 4 | Chi-Square (a, b, c) | 12.036 | .273 | 15.839 |
| | Degree of Freedom | 2 | 1 | 3 |
| | p - value | 0.00 | | |
| 5 | Chi-Square (a, b, c) | 5.286 | 16.545 | 7. |
| | Degree of Freedom | 2 | 2 | 2 |
| | p - value | .000 | | |

The null hypothesis was accepted for criterion 1 ($0.072 > 0.05$) indicates that each of the airports is paying attention to their multicultural tolerance and adaptability. Three follow up questions (13-15) related to criterion 1 were about the communication with airport staff, special needs of disabled passengers, and the quality of food service, shopping, etc.. Based on the responses, passengers were satisfied with all three aspects.

The null hypothesis was rejected for criterion 2 ($0.01 < 0.05$) indicating that there is quite a difference in the pattern of results pertaining to the three airports. Descriptive statistics pertaining to criterion 2 is shown in Table 3.

As seen in the Table 3, it can be argued that Dubai airport is performing better on this criterion. If we look at the results of the Chi-square test along with the previous T-test we can conclude that although all three UAE airports meet the expectation of passengers while Dubai consistently out-performs the other two. The Chi-square results signify that the facilities and the infrastructure of Dubai International airport are significantly better than that of Abu Dhabi International airport and Sharjah International airport. The three follow up questions (7, 9, and 12) related to criterion 2; aspects of airport safety/security, indicators and signage for various facilities/services, and public transportation. The general view is that UAE based airports are much more friendly when compared to other international airports in terms of security checks. Both Abu Dhabi and Dubai International airports were seen by the passengers to have a good number of clear directional signs whereas many of the respondents agreed that Sharjah airport was very confusing due to the lack of directions and guides available to help the passengers find their way around the airport. On the aspect of public transportation to the airport, Dubai International airport exceeded the other two airports' reviews.

The null hypothesis was accepted for criterion 3 ($0.05 > 0.05$) indicating that there exists no evident difference in the range of results of the three airports. The three follow up questions (1, 4, and 5) related to criterion 3 were on the aspects of cooperation, knowledge and helpfulness of airport staff in the care of passengers in the event of flight delays. In general people were very satisfied with the attitudes of staff in the three airports, when compared to other international airports in Europe and Asia. The overall results showed that all UAE airports are successfully proactive in servicing their customers despite some respondents having issues with Sharjah airport. Passengers reviewing Dubai International airport were very positive about the staff attitudes and help. According to the results only Dubai International airport has an adequate selection of hotels to accommodate passengers.

The null hypothesis was rejected for criterion 4 ($0 < 0.05$) indicating that there is difference between the three airports when it comes to reaching and sustaining continuous customer pleasure. Descriptive statistics pertaining to criterion 4 is shown in Table 3.

The results (Table 3) show that Dubai International airport and Abu Dhabi International airport are more successful than Sharjah airport in customer satisfaction. The three follow up questions (6, 8, and 10) related to criterion 4 were about customer pleasure; i.e., arrangements for waiting

passengers, baggage and airport accessibility. Abu Dhabi and Sharjah International airports were seen to be lacking much behind Dubai airport when it came to the facilities and the means of pleasing the customers.

General feedback under this question was that many of the trolleys in the Abu Dhabi International airport were either broken or too old so that they cannot be used properly. The trolley issue did not appear at the Dubai and Sharjah airports. Regarding payment for excess luggage, people were satisfied with Dubai and Abu Dhabi but expressed concern related to excessive delays at Sharjah airport. All three airports had good and precise weighting machines and bag wrappers for extra safety and security of passenger bags. Baggage in the three airports was seen to be handled with care, which pleased many of the interviewed passengers. The location of Dubai International airport is reported to be ideal to many of the passengers. The responses were in both extremes for Sharjah International airport as Sharjah roads are very well known to be crowded and jammed throughout the daytime, especially during peak hours. This makes the commute very difficult for people coming from inside the city of Sharjah. On the other extreme, students and professors living in the University City of Sharjah and the surrounding areas and people living near to the Airport Road and Emirates Road strongly believed the Sharjah International airport is ideally located. Abu Dhabi International airport was seen to have the worst location according to the reviews.

The null hypothesis was rejected for criterion 5 ($0 < 0.05$) because there was a significant difference that exist between the airports. Descriptive statistics pertaining to criterion 5 is shown in Table 3.

These results (Table 3) highlight that Dubai actually recognizes and promotes frequent flying to build up a loyal customer base more successfully than the other two airports. The three follow up questions (2, 3, and 11) related to criterion 5 were about immigration, receptiveness to customer feedback, and facilities for passengers. The Sharjah airport faces a lack of strong immigration policies and facilities to help passengers with immigration problems. Participants were not completely satisfied with the immigration counters in Abu Dhabi airport, but considered those in Sharjah to be better. The Dubai airport faced no issues with immigration, especially after installation of the e-gate. According to the travelers, all three airports seemed to be receptive to feedback. The Dubai International airport has made arrangements for the transit stops and has a hotel with a number of facilities for the visitors nearby. The Sharjah International airport does

not have many facilities to support transit traffic. The Sharjah airport lacks any type of transit reception, especially transits between 24 and 48 hours. The Abu Dhabi airport had a slightly better review than that of Sharjah.

5. Conclusions

Tourism is one of the most important industries in the UAE today and is a large contributor to the local economy of the country. In addition to tourism, there is a large expatriate population in the UAE and that means the airports have to meet or exceed expectations of travelers who come from very diverse backgrounds and with a wide variety of expectations.

The study of the three airports has shown that they all are meeting the five criteria studied and set for UAE airports. The study also established that Dubai International airport is significantly better than the Abu Dhabi International airport and Sharjah International airport in regard to criteria for exceeding international expectations about airport facilities, reaching and sustaining customer expectations and customer loyalty.

This research had some limitations and, given the small sample size, it can only be regarded as an exploratory study. In order to further confirm these findings, a more elaborate data collection system with a significantly higher number of respondents is necessary. Because the data was collected from passengers who were travelling, there are variables to be considered that could affect the response. Such as the inability of a passenger to concentrate if they have a long trip ahead of them. Some of them could be in a hurry. Therefore, future studies should be done in calmer settings, if possible of passengers who are not preoccupied with getting to their gates.

One of the main contributions of this research is the development of the assessment model for gauging the customer satisfaction with airports. An exploratory study of UAE has helped test the model and has demonstrated the ability to identify issues that can be explored further.

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Appendix

For each of the research criteria, there is a question framed to test that criterion, listed as follows:

1. How satisfied are customers with the airports treatment with regards to cultural/race/background/color tolerance, adaptability, hospitality and all related issues or discrimination, of any kind or nature?
2. Based on past experiences with international airports and expectations of UAE in general and UAE's airports specifically, how satisfied are customers with the overall infrastructure and upkeep of the airport?
3. How do the customers rate the extent to which the airports' staffs proactive / innovative at identifying and assisting problems/issues faced by the customers?
4. How do the customers rate extent to which the airport staffs and facilities made the customers feel comfortable and attempt to improve their overall experience, by keeping customers pleased and satisfied, rather than bored, worried, lost, confused... etc.?
5. How well does the airports recognize frequent fliers and provides them with better and faster service, or any further assistance of any kind?

Another set of fifteen follow up questions were also tested and reflected the parts chosen from the various customer service models. These follow up questions were asked in the interview to try and reveal the exact areas which each of the airports need to focus on. Three questions were used to follow up each criterion. Following is the list of the fifteen questions, and the models they tend to reflect.

| Model | Question |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Boomerang | 1. How would you rate the cooperativeness of the ground staffs at the airport, with the requirements, needs, queries, issues faced by passengers through the airport? |
| | 2. How would you rate your experience with immigration section, with regards to any related concern, whether it was delay because of long queues, or visa issuance issues, or staff with limited respective knowledge, or any other issues? |
| | 3. How would you rate how receptive airports were to passengers feedback, were there clear adequate means of feedback, is feedback and complaints put forth by the customers recorded and looked into properly? |
| | 4. How would rate the extent to which the airport staff is informed and helpful when it comes to finding out about the timings, locations, counters, gates of arrivals or departures of different Air Lines taking place at the airport? |
| | 5. In the event of flights being late or delayed by large times, rate the extent to which the airport supports provisions for allowing the passengers to make use of the services of the airport while waiting for their flights? |
| Pleasure | 6. How adequate was the seating arrangements made for the passengers to sit and rest while waiting for their flights to arrive and board? Where necessities provided within (Coffee, toilets, prayer) or once accessed no stepping out to the other facilities? |
| | 7. From your experience within the airport, what would you rate the extent to which the airport is equipped with facilities to support and counteract and security threats which may arise? e.g. enough security personnel, fire exits that are clearly marked, enough fire extinguishers within sight, instructions in |

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|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <p>case of threat... etc.</p> <p>8. How would you rate how proper are the facilities supported for carrying heavy baggage and luggage until the check-in point? Weighting systems, baggage rappers, and means of payment for excess luggage?</p> <p>9. Please rate the extent to which the airport is equipped with clear indicators and signs regarding the various facilities and services, like terminals, gates, restrooms, restaurants, prayer rooms... etc. and their reliability (reliability means do you need to ask staff despite existing signs because of confusion?)</p> <p>10. How would you rate accessibility to the airports from where you come, is it easy to commute to and from the airport for arrival and departure whether during peak or off-peak hours?</p> <p>11. How would you rate the provisions made for the passengers in transit to cater to the needs of the passengers, especially in cases of long transit periods?</p> <p>12. Other than ones private car, how would you rate the availability of transportation from and to the airport, whether cabs or public transport or airport shuttles?</p> |
| Inter-cultural | <p>13. How would you rate the ease of communication with airport staff? Are they proficient in more than a single language so as to converse with passengers in a language that they are more comfortable in?</p> <p>14. How would you rate the extent to which the airport equipped and tailored to handle the special needs of ailing passengers, elderly, children, and physically disabled who may need special and sometimes constant attention?</p> <p>15. How would you rate the quality of services such as food, shopping and other activities in the airport, taking into consideration the variety of choices for different religions and</p> |

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| | cultures (e.g. Vegetarian, Halal food, different religion prayer rooms, magazines in varied languages) |
|--|--------------------------------------------------------------------------------------------------------|