

# Service Quality and Customer Satisfaction At Kenyan Airports

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## **LIST OF ABBREVIATIONS**

ACI	Airports Council International
EIA	Eldoret International Airport
IATA	International Air Transport Association
JKIA	Jomo Kenyatta International Airport
KAA	Kenya Airports Authority
KIA	Kisumu International Airport
KNBS	Kenya National Bureau of Statistics
MIA	Mombasa International Airport
SPSS	Statistical Package for the Social Sciences
WTO	World Tourism Organisation
USA	United States of America

## **Abstract**

The overall goal of this paper is to contribute to the research on customer satisfaction at airports. Existing studies have focussed on airport service experience in America, Europe and Asia. Specifically it contributes to the development of the knowledge of service quality expectations at a major airport hub in Africa.

The exploratory study integrated elements of the 22 item SERVQUAL scale developed by Parasuraman et al., (1988). A quantitative research was conducted and responses from 280 departing international travellers at the Jomo Kenyatta International Airport was used to test five hypotheses. An independent samples t-test was utilised to assess whether the means of two groups are statistically significant from one another. The variables to be tested were service performance against the respective service expectation. The findings indicate atmosphere related

aspects of the airport experience showed a significant influence on the respondents' customer satisfaction. The feeling of being safe in the airport, ease of way finding, facilities for people with reduced mobility and the availability of leisure rooms were the most significant elements in the traveller's positive experience while at the airport.

The study was not without limitations. In utilising the gap analysis model, this study focused on understanding what the customers want. Other elements of the gap analysis model require further illumination. The findings of this study will help contribute to the development of a conceptual model for a much more exhaustive study on airport passenger satisfaction at other Kenyan airports and internationally.

### **Introduction:**

Air travel has been characterised by rapid change with improvements in travel comfort and technology which have served to raise travellers' expectations as regards the airport experience (Vanja, Yang, Bilgihan and Bujisic, 2013). In order to evaluate their performance, airline and airport management companies have measured passengers' perceptions of service provided. This is done without clearly understanding passengers' expectations. Such initiatives, when misunderstood, have the risk of substantial financial and market losses to providers (Chen and Chang, 2005).

The air travel experience is composed of two major components: airport ground service and in-flight service. Prior studies on airport services have identified factors relating to passenger satisfaction such as flight timeliness, information convenience, efficient security and check-in procedures, signage and orientation, and terminal amenities (Chen and Chang, 2005; De Barros Somasundaraswaran, and Wirasinghe, 2007; Fodness and Murray, 2007). However, the influence of these factors on overall passenger satisfaction is still not sufficiently focused on by researchers.

Two key areas of airport customer satisfaction have gained significance in academic literature. First is airport benchmarking and these practices are key for improving performance. Airports are required to identify the organizational practices that might be related to the superior performance (Adler and Liebert, 2013), airport-related literature mostly adopt an efficiency-based perspective for benchmarking. Airport service quality is the second more frequent topic. In this area some approaches and methods usually applied within other industries such as hospitality and tourism are adapted to air transport. There is an increasing interest in a broader understanding of the multi-dimensional nature of airport service quality, particularly from a passenger perspective (Bezerra and Gomes, 2015; Fodness and Murray, 2007).

Some international agencies have been systematically undertaking surveys, among them Airports Council International (ACI) and the International Air Travel Association (IATA). These are usually published in international journals and are mainly used as benchmarking reports that compare airports on the basis of region, passenger numbers and other matrices into international league tables. Such reports are sometimes supported or interchanged with ad hoc initiatives conducted by other survey organizations and airports (Zidarova and Zografos, 2011). This study attempts to derive a deeper understanding of the level of satisfaction experienced by the

departing passenger using the major air transport hub in Africa. The research question is 'what does the customer satisfaction in airports depend on?'

### **Trends in the industry**

Since the late 1970s, with the deregulation of air transport, the United States of America (USA) was the first to experience competition among airlines. There were similar changes followed by other countries, with the emphasis being on fostering competition among airlines. More recently, the organization and delivering of infrastructure services such as airports themselves have been driven by competition (Gillen, 2011). In this scenario, airports now compete in two contexts. First as long haul connecting hubs, and second as multi-airport systems bidding for airlines to provide service and to base aircrafts at the airport (Assaf et al., 2014). Airports have been facing increased pressure for higher quality and efficiency because of competition between themselves and demands from increasingly sophisticated customers.

During the intervening decades international air travel has changed due to a variety of factors. The increasing demand for the service, deregulation in the industry, security challenges and the change in airport ownership and governance forms have all contributed. New airline business models have influenced the change in airport ownership and governance forms (Graham, 2011). Different types of privatization have been implemented worldwide (Gillen and Mantin, 2014; Oum, Yan and Yu, 2008). That has meant that the airports have become modern organizations delivering efficient and high quality services to different customers.

From about 1990 to 2014, the number of passengers using air travel improved by 214 percent (World Bank, 2015). The demand for air travel is expected to growth at a 4.1 percent average annual rate, reaching 7.3 billion passengers per year by 2034. This is more than twice the 3.3 billion passengers in 2014 (IATA, 2015). Airports are infrastructure-intensive, and they require a high amount of investments if they are to make stepwise changes in their size and capacity. As such, a non-effective response to the increasing traffic demand may lead to significant events of congestion or even to capacity crunches. On the other hand, improving capacity in anticipation of passenger traffic may be inefficient. All the while, airport operators are expected to efficiently accomplish investment programs, optimize the available resources and review operating processes with a view to remaining competitive (Adler and Liebert, 2014).

Industry researchers regularly measure passenger perceptions of airport services quality to benchmark performance metrics directly from the voice of the customer (Chen, 2002), to identify opportunities for service improvement (Yeh and Kuo, 2002) and to avoid losing valuable passenger traffic (Rhoades, Waguespack and Young, 2000).

Research on the air traveller has predominantly focussed on the air travellers experience as related to airline service provision (Fodness and Murray, 2007). Some key examples of these professional studies are the ACI airport service quality survey and the IATA SKYTRAX world airport and airline ratings.

Much of the professional research conducted in regards to airports has been focussed on efficiency, productivity and benchmarking of the speed of processing (Gillen, 2011, Graham, 2011). All these are then related to international league tables of performance (Losekoot, 2015). These studies largely ignore the other users of an airport including air operators, government agencies, ground handling agents, airport based staff or local business employees who use the airport's retail restaurants, meeting and other facilities. The air traveller's experience

remains the focal point for both airlines and airports in determining the level of customer satisfaction in their service provision. For both airlines and airports, the outcomes service level and satisfaction performance are generally the same; that is increased business and profit opportunities.

Following the September 11, 2001, attacks in New York there was a decline in the global air traffic. However, Africa is expected to witness continued traffic growth for the foreseeable future (ICAO, 2002). There are a number of reasons for this. First, Africa is the second largest continent in the world with a large population base that is separated by geographically challenging terrain. Because of the poor state of land transport and the enormous cost of addressing these deficiencies (Abrahams, 2002. p. 3), aviation is seen as a particularly ideal means of connecting Africa with itself and the rest of the world (Irindu and Rhoades, 2006).

Second, relatively few Africans currently have access to air travel. The barriers to utilisation include poverty, lack of aviation infrastructure, maintenance and financial support, safety and security concerns, and competition from non-African airlines (Abrahams, 2002; Graham, 1995; World Bank Group, 2002). The expected opportunities for growth in the demand for air transport in Africa is another key reason why a major airport hub in Africa is of interest.

### **Air Transport in Kenya**

The general traffic forecasts for air travel in Africa suggest that three major hubs in Sub-Saharan Africa would be ideal for serving both international and regional needs. These hubs would be located in Southern, Eastern, and Western Africa. Johannesburg in South Africa is the candidate for Southern Africa. The situation in Western and Eastern Africa is less clear (Abrahams, 2002). This study aims to make the issue clearer.

Kenya has been a bright spot for air transport in Africa. Her tourism arrivals in 1995 were 918,000, in 2007 they were 1,686,000, and in 2014 they were 1,148,000 (World Tourism Organisation, 2016). Kenya's development agenda as outlined in Vision 2030 aims at putting the economy on a high growth path, to ensure that double digit economic growth is achieved, by the end of the plan period (Kenya Vision 2030). The major north-south and east-west air routes pass over the country and Kenya possesses international airports used for technical and refuelling stops. This geographical advantage could help facilitate the development of one of Kenya's airports as a regional hub and major player in transport development in the continent.

According to the Kenya Airports Authority (KAA) the four international airports in Kenya are Jomo Kenyatta International Airport (JKIA), Mombasa International Airport (MIA), Kisumu International Airport (KIA) and Eldoret International Airport (EIA) (KAA, 2017). Kenya's two main international airports are MIA and JKIA. MIA handled a total of 1,367,000 passengers and 4,545 metric tonnes of cargo in 2014. The largest airport, JKIA was used by 6,387,000 passengers and handled 258,627 tonnes of cargo in 2014 (Kenya National Bureau of Statistics, - KNBS, 2015).

Air transport has gained popularity among the Kenyan citizens and is no longer considered as a reserve for rich foreigners and senior government officials (Irindu and Rhoades, 2006 pp. 54). The forecast for the growth of aviation in Kenya's Vision 2030, and the desire for the country to be the Eastern aviation hub in Africa is critical. In addition, Kenya's efforts to have direct flights to the United States of America looks promising. The national carrier

expects to commence these flights in June 2018 (Business Daily May 8, 2017). The table below provides a summary of the arrivals in Kenya based on the mode of arrival.

**Table 1: Kenya Arrivals by Mode of Transport**

Kenya Arrivals by Mode of Transport ('000)					
Year	2011	2012	2013	2014	2015
<b>Air</b>	1,301	1,292	1,133	888	771
<b>Water</b>	35	6	6	23	7
<b>Road</b>	487	413	381	439	403
<b>Total</b>	<b>1,823</b>	<b>1,711</b>	<b>1,520</b>	<b>1,350</b>	<b>1,181</b>

Source: World Tourism Organisation (2016)

The table above shows the total number of arrivals into Kenya from 2011 to 2015. Air travel is predominantly the largest mode of travel for people wishing to visit the country. Thompson and Clements (2003), opine that airport gateways have significant economic, political and social impacts in the environment in which they are located. The airport is therefore a crucial economic, social and cultural gateway to a country. An investigation into passenger satisfaction at airports is warranted because JKIA is the largest port for air travellers to enter, transfer through and exit Kenya. In addition the country's national carrier Kenya Airways uses JKIA as a hub for their global operations. This study will focus on the air traveller's experience at JKIA which is the major airport hub in East Africa.

### **Theoretical Foundations of the Study**

#### **Customer Satisfaction**

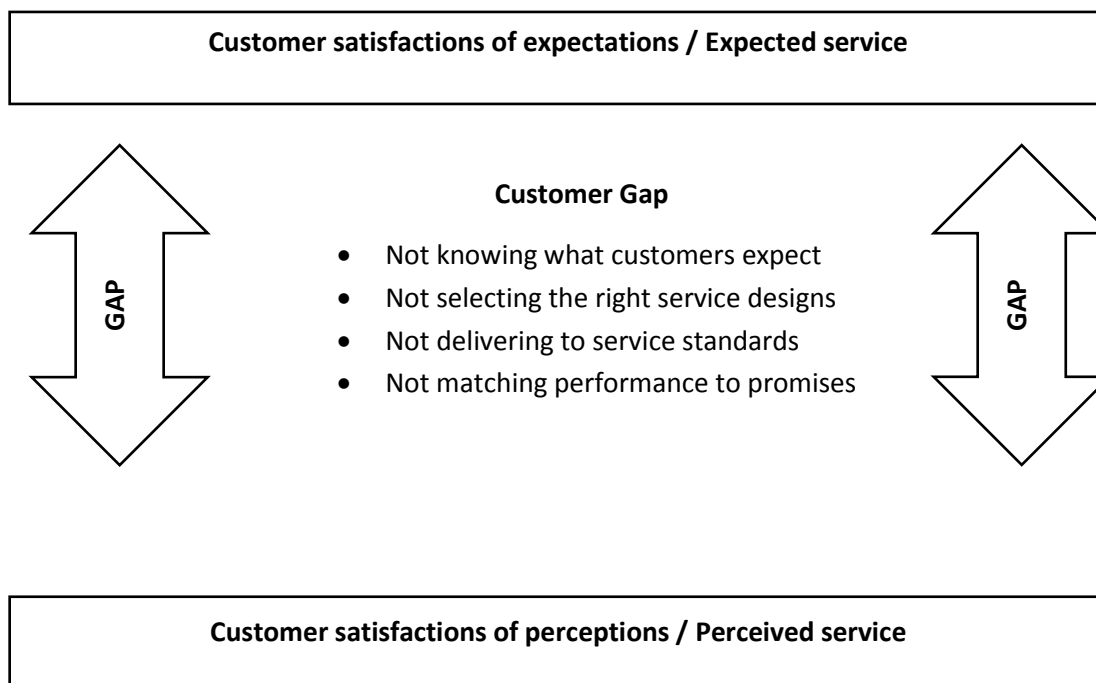
Customer satisfaction is a psychological concept that involves the feeling of well-being and pleasure that results from obtaining what one hopes for and expects from an appealing product and/or service (World Tourism Organization, 1985). Satisfaction is a summary psychological state experienced by the consumer when confirmed or disconfirmed expectations exist with respect to a specific service, transaction or experience. Customer satisfaction is customers' judgment that the consumption of a product or service is providing a pleasurable level of fulfilment of the customers' needs, desires and goals (Oliver, 1999).

Extant airport customer service studies have discovered a variety of items that have a bearing on the traveller's level of satisfaction with the airport's service offerings. These elements are ambient conditions, cleanliness, availability of food and beverage offerings, interior and exterior design or décor, spatial layout, functionality, physical facilities and employee involvement (Rowley and Slack, 1999; Jeon and Kim 2012; Fodness and Murray 2007; Rhoades, 2000; De Barros, 2007; Tsai et al., 2011; Vanja et al. 2013, Chen and Chiang, 2012). These items are directly related to the typologies of Bitner (1992).

Parasuraman, Zeithaml and Berry, (1985); Parasuraman, Berry, and Zeithaml, (1988, 1991), developed the service quality gap model. The main focus of the service quality gap model is the customer gap. This gap needs to be

closed in order to satisfy customers, enabling firms to build long-term relationships with their customers. Zeithaml and Bitner, (2003) argue that the organisation's tasks are then built around what is needed to close the gap between customers' expected service quality and the customers' perceived service quality. Customers not only compare their perceptions of performance with these ideal points when evaluating service, but they also perceive services in terms of the quality of the service and how satisfied they are with their overall experiences. Tsai, Hsu and Chou (2011), comment that according to the service quality gap model, quality airports are those that can eliminate the gap between perceived and expected services.

**Figure 1: Service quality gap model**



Source: Zeithaml and Bitner, (2003 p. 533)

Figure 1 above schematically represents the difference between customer expectations and perceptions.

### **Perceived service quality and customer satisfaction**

The researcher evaluated two of the most commonly used service quality models namely, SERVQUAL, and SERVPERF models. Their application in service and hospitality environments were of interest to this study. Though distinct, the constructs of perceived service quality and customer satisfaction have been equated. The 22-item SERVQUAL instrument developed by Parasuraman, Zeithaml and Berry, (1988) has been widely applied as a measure for service quality. The expectancy-disconfirmation theory of customer satisfaction by Oliver (1980), forms

the basis of the SERVQUAL model. In the model, service quality is defined as the gap between expectation and perception and customer satisfaction is understood in terms of meeting or exceeding these expectations.

The SERVQUAL model measures the quality of service in five quality dimensions. Reliability which is the service provider's ability to consistently perform the promised services dependably and accurately; tangibility refers to the appearance of physical facilities, equipment, communication materials, and personnel associated with the service encounter; responsiveness which is the willingness to help customers and provide prompt service; empathy which is the firm's readiness to provide each customer with personal service; and assurance which refers to the knowledge and courtesy of the employees and their ability to inspire trust and confidence to customers (Parasuraman, et. al., 1985, 1988, 1991).

The SERVQUAL model has been criticised for its focus on expectation as a comparison standard. Expectations are dynamic in nature and may be influenced by customer's experiences and consumption situations. In addition the applicability of the five dimensions to different service settings has been challenged (Teas, 1994).

Cronin and Taylor, (1992) developed the SERVPERF scale as an alternative to the SERVQUAL model and it measures the performance of the service. It is argued that the scale provides a useful tool for measuring overall service quality. Oliver, (1993) argues that perceived service quality is evaluated by the actual performance of the service in terms of particular service attributes in the specific context. Whereas customer satisfaction is assessed by the customers' overall experience of the service. According to this view, service quality is only one aspect of customer satisfaction. Rust and Oliver, (1994) argue that customer satisfaction depends on a variety of factors, including perceived service quality, customers' mood, emotions, social interactions, and other experience-specific subjective factors.

Bitner, (1990); Bolton and Drew, (1991) have suggested that customer satisfaction is an antecedent of perceived service quality. They argue that satisfaction mediates a set of logical explanations regarding the expectations of service and customers' evaluations of service. For example, an acceptable explanation for a delayed flight might create satisfaction for passengers and not result in an evaluation of bad service quality for the airline.

Oliver, 1997; Cronin and Taylor, 1992; Parasuraman et al., 1988 have a contrasting approach to the view that customer satisfaction is an antecedent of perceived service quality. They contend that the constructs are reciprocal. Accordingly service quality is a cognitive assessment of services in each occurrence, whereas satisfaction is the accumulated effect on the customers' evaluation of the services. Carrilat, Jaramillo and Mulki, (2007), suggest that both models are adequate and equally valid predictors of overall service quality.

Due to its wide usage and comparability, this study adopted the SERVQUAL methodology.

### **Customer Contact and Customer Satisfaction**

The service quality for an airport is often expressed in terms of perceived level of service delivered to the airport user (Francis, Humphreys and Fry, 2003). Customer perceptions of service are focused on evaluations of satisfaction that reflect the customers' perceptions of physical environment, interaction and outcome (Zeithaml and Bitner, 2003). Accordingly, passengers will judge airport services based on their perceptions of the technical outcome, the process by which the outcome was delivered and the quality of the physical surroundings where the service was delivered (Tsai, Hsu and Chou, 2011).

Lovelock (1994), proposes that contacts that connect with brands in terms of the nature of service actions can be divided into two forms, tangible actions and intangible actions. Tangible actions are those in which customers must physically become involved in the service system because they are an integral part of the process. Further, they argue that services interact with the mind-set of the customers through intangible actions. Pine and Gilmore (1998), proposed four levels of offerings in all brands in which the different stages create a different experience for the customers. These include service, image, facility and atmosphere orientation

A service-oriented contact has been described as a service encounter that serves as a sign of quality and value to customers (Hartline and Jones, 1996). Frost and Kumar (2000), see encounter performance as the job of managers and support staff to support and help front-line staff in their mission to please the end user, the customer. Fortini-Campbell (2003), views customer and employee interaction as very critical to the success of the service experience. It can serve as a contact realm to establish the brand of a service.

An image-oriented contact refers to the images, including cognitive and affective images, that are the sum of the benefits, ideas, and impressions that people have of a store, place or destination (Baloglu and Brinberg, 1997). Since a customer's image is derived from the brand associations held in their memory that form the basis of a brand identity, the brand associations toward affective objects plays an important role in how a brand image is conceptualised (Keller, 1993).

A facility-oriented contact concerns tangibles that are directly or peripherally parts of a service (Berry and Clark, 1986). This view suggests that a facility-oriented contact represents service in a tangible way by focusing on the physical aspects of a service from which the customers will receive performance benefits. Mittal and Baker (2002) suggest that it would benefit service providers to identify some physical entities that would most effectively represent the desired value to customers, and to use those entities to give substance and meaning to their customers.

An atmosphere-oriented contact represents service in a tangible way by focusing on the atmospheric aspects of a service from which the customers will receive emotion benefits. Bitner (1992) viewed surroundings of the specific environment as helping customers form their attitude and behaviour. It creates an emotional response, which in turn elicits approach or avoidance behaviour.

It can be inferred that the four key contact elements are the beginning points or inputs to the customer satisfaction related to the service or product. For this study five hypotheses have been developed.

**Hypothesis 1: Service related contacts influence customer satisfaction in airports positively**

**Hypothesis 2: Image related contacts influence customer satisfaction in airports positively**

**Hypothesis 3: Facility related contacts influence customer satisfaction in airports positively**

**Hypothesis 4: Atmosphere related contacts influence customer satisfaction in airports positively**

**Hypothesis 5: African hospitality influences customer satisfaction in airports positively**

#### **Review of Empirical Studies**

Rowley and Slack (1999) conducted an empirical study on the hospitality and retail amenities within airport departure lounges. Their exploratory study found that spacious, light and clean lounges with branded retail stores positively influenced the passenger experience. Their study considered the retail and hospitality amenities. The full complement of airport services is not covered in their study. Rhoades et al., (2000) considered the development of



airport quality factors from the perspective of different stakeholders. Their study identified passenger service related issues namely efficiency of boarding, staff courtesy, availability of aerobridges, airport ground access and inter terminal transport. These findings are insightful; however, they obtained input from airport managers and did not obtain any feedback from actual air travellers in the airport.

De Barros (2007) evaluated the passenger perception of quality at airports by examining service attributes. They collected data from transit passengers through a questionnaire. Their study confirmed the significance of airport staff courtesy during security screening. In addition they found that the retail area was an evaluation criterion for passenger satisfaction. Their study was conducted in Sao Paulo airport and it is therefore difficult to generalise the results to different cultural contexts. Fodness and Murray (2007) examined airport service quality among domestic departing passengers in the USA who were frequent fliers. Their study confirmed the significance of passenger service quality that includes functional, interaction and diversion. Their study was very insightful, however one study is not sufficient to form a fully developed theory of airport service quality.

Tsai et al., (2011) developed a gap analysis model for improving airport service quality in Taiwan. Their study confirmed that waiting time, staff courtesy, flight information services, directional line arrangement and airport circulation planning were factors that influenced passenger satisfaction. Their study combined three analytical models; the analytical hierarchical process, the importance performance analysis technique and the multi-criteria optimisation and compromise method. Like previous studies the results are not generalizable broadly to other countries, cultures and regions. Vanja et al., (2013) exploratory study focussed on identifying which air travel factors are distractors and which factors are enhancers of passenger satisfaction. Their study was based on Herzberg's two factor motivation theory as relates to the attributes of airport service quality. Their study utilized content analysis of traveller comments posted on the airport website. A data mining approach using a web based search randomly selected consumer comments related to 33 popular travel destinations. Cleanliness and a pleasant airport environment were noted as satisfiers. Security check, airport signs and dining offers were found to be dissatisfiers. Their study did not focus on a particular type of airport by way of location, size and number of passengers per year. Their analysis was based on word count and did not have a direct insight into the context and content of the comments. In addition their data was retrieved from a single website; consequently the generalizability of the findings is limited.

Jeon and Kim (2012) evaluated servicescape attributes in relation to passengers' emotional states and behavioural intentions. Qualitative data on ambience, aesthetic factors, safety and social factors in an airport was collected. The findings indicate that airport functionality, aesthetics and safety elicit travellers positive emotions tightly connected to their behavioural intentions. Ambient conditions were found to contribute to passengers' negative emotions. Further, social servicescape was found to have an impact. The study was conducted in an airport in Korea and focussed only on the airport servicescape. Losekoot (2015) study of the customer experience of meeters and greeters at the landside area of an airport in New Zealand demonstrated that the physical environment, processing, people, placeness and personal travel philosophy were key contributors to the level of satisfaction with the airport experience.

## **Methodology**

The current study can be described as pioneering research conducted at an international airport in Kenya, and therefore the study was exploratory in nature. A survey of departing passengers was conducted using a structured questionnaire. The specific questionnaire was adopted from Fodness and Murray (2007) study of customer satisfaction among domestic travellers. Their study used a purchased list of frequent fliers from domestic airlines in North America. In addition the study integrated elements of the 22 item scale developed by Parasuraman et al., (1988). An 18 item Likert scale with responses rated 1 for extremely poor and 5 was the rating for excellent. The study collected and measured the following data. Section A collected data on passenger socio-economic characteristics such as age, gender, income, and level of education. Other travel related data of interest included nature of travel, be it business, work or tourism related. Section B examined the service expectations of the traveller. Section C examined the actual passenger experience based on the items identified on section B. A pilot of the study was conducted among 10 air travellers and 10 airport staff deployed in facilitation functions as respondents. The responses were then incorporated and the necessary adjustments made to the final instrument.

## **Data Collection and Sampling**

The study used non-probability sampling as this was the exploratory stage of a much larger research project; it was therefore a pilot survey. The data obtained from the respondents provide an information rich case study in which the author explores the research question to gain theoretical insights. In addition, due to the limited time and financial resources this approach was deemed the most practical. Due to the variety and large population of passengers at the airport, quota sampling is considered ideal. Barnett (1991) states that a quota sample is a type of stratified sampling that allows for the selection of cases within a stratum in a non-random fashion. The data collected from the respondents is combined to provide the full sample. The study used a quota sampling technique. This method is not without bias and is susceptible to interviewers choosing only respondents who are willing to answer questions. The study focused on the departing travellers' destination region namely; East Africa, West Africa, South Africa, North America, Asia, Europe, and the Middle East who board their aircraft at specific gates at the airport terminal.

## **Statistical analysis**

The data was analysed using the Statistical Package for the Social Sciences (SPSS) version 17. The software was utilized as the primary data analysis tool. Two types of primary statistical analysis were conducted. The first one was descriptive analysis and the second one is factor analysis. Finally the hypotheses were tested using the two factor t-test. The t-test assesses whether the means of two groups are statistically different from each other. This analysis is appropriate whenever the researcher wishes to compare the means of two groups.

## **Study Findings and Hypothesis Testing**

The current study is described as exploratory research conducted at an international airport hub in Africa. A total of 290 questionnaires were issued. The data was collected over three busiest days at the airport. A total of 280

questionnaires were returned giving a response rate of 96.5 percent which is very good for a study of this kind. Of those responses 204 were considered usable for the statistical analysis.

### **Descriptive Statistics**

The study collected demographic information relating to the respondents' nationality, sex, age, occupation, marital status, number of flights taken, whether the traveller was accompanied, level of education and age at the time of one's first air travel. All these factors were considered important in evaluating the airport experience.

Regarding the gender of the travellers 63.2% were male and 36.8% were females, indicating a preponderance of male travellers over females. 76.5% of travellers were aged between 16 and 44 years, with those above the age of 60 making up 7.5% of respondents. The occupational status reported indicates that 73.8% are in employment as full time employees or in self-employment.

44.8% of respondents reported themselves as single and 52.2% as married. These two groups accounted for 97% of the responses to the question. The number of flights per year reveals that 70.8% of respondents have had less than five flights this year and the rest have had more than five. The level of education responses indicate that those with education level higher than diploma are 75.4% of respondents. 24.6% of respondents had lower levels of education. 50% of the respondents reported travelling alone and 12.3% were travelling with their spouses.

As regards the reason for travel it was observed that 32% of respondents were travelling for leisure and 24.6% were travelling to visit friends and relatives. Also 41.4% of the respondents reported that their travel was related to travel for business or conferences. Travel for study respondents were 12.3%. The age at the time one took their first flight responses indicate that a cumulative total of 83.6% of respondents took their first flight between birth and the age of 29. With 52.6% taking their first aircraft flight between the age of 16 and 29. This means that those respondents have had some kind of airport experience in their lives.

### **Exploratory Factor Analysis**

To evaluate the pattern of the correlations of the variables exploratory factor analysis was conducted using SPSS version 17. The 18 elements related to the airport services were evaluated by the items in the questionnaire provided to the respondents.

#### **Service Expectations**

Service orientation variables related to the airport providing services as expected, the dependability of airport staff, and the delivery of services right the first time. The test showed a Cronbach's alpha of 0.828. Image orientation related to the airport's use of modern equipment, visually appealing facilities, and the appearance of employees the Cronbach's alpha was 0.835 in this regard. Facility orientation variables measured the cleanliness of the terminal building, the availability of air conditioning, Wi-Fi services, duty free shopping, and availability of car parks, and the availability of children's play areas. These variables showed a Cronbach's alpha of 0.863. Atmosphere related variables examined the feeling of being safe in the airport, ease of way finding, facilities for people with reduced mobility and the availability of leisure rooms. These variables report a Cronbach's alpha of 0.769.

In summary the service expectations variables had a Cronbach's alpha of between 0.769 and 0.863 which is in the same range as the findings of Fodness and Murray (2007).

## Service Performance

The respondents were asked to evaluate the performance of the airport in relation to the actual experience. Service orientation variables are the same as those related to service expectation. The test showed a Cronbach's alpha of 0.850. Image orientation variables produced a Cronbach's alpha was 0.788 in this regard. Facility orientation variables showed a Cronbach's alpha of 0.811. Atmosphere related variables report a Cronbach's alpha of 0.769. In summary the service performance variables had a Cronbach's alpha of between 0.769 and 0.850 which is in the same range as the findings of Fodness and Murray (2007). The internal reliability of the variables was thus acceptable to allow for a test of the five hypotheses.

## Hypothesis Testing

The five hypotheses were tested using the independent samples t-test. This test is conducted to assess whether the means of two groups are statistically significant from one another. The variables to be tested are the service performance against the respective service orientation. A confidence interval of 95% was used.

Hypothesis 1: Service related contacts influence customer satisfaction in airports positively

The computed p-value of Levene's test is 0.518 which is greater than 0.05. Therefore the null hypothesis is accepted. Which indicates that customer satisfaction is not significantly related to service related contact at the airport.

Hypothesis 2: Image related contacts influence customer satisfaction in airports positively

The computed p-value of Levene's test is 0.991 which is greater than 0.05. Therefore the null hypothesis is accepted. This indicates that customer satisfaction is not significantly related to image related aspects of the airport.

Hypothesis 3: Facility related contacts influence customer satisfaction in airports positively

The computed p-value of Levene's test is 0.813 which is greater than 0.05. Therefore the null hypothesis is accepted. Which indicates that customer satisfaction is not significantly related to the facilities offered at the airport.

Hypothesis 4: Atmosphere related contacts influence customer satisfaction in airports positively

The computed p-value of Levene's test is 0.032 which is less than 0.05. Therefore the null hypothesis is not accepted. Which indicates that customer satisfaction is significantly related to atmosphere related aspects of the airport.

Hypothesis 5: The African hospitality influences customer satisfaction in airports positively

The computed p-value of Levene's test is 0.129 which is greater than 0.05. Therefore the null hypothesis is accepted. Which means that customer satisfaction is not significantly related to service related contact at the airport.

In summary the testing of the five hypotheses indicates that only atmosphere related aspects of the airport experience have a significant influence on the respondents' customer satisfaction. The elements of the airport atmosphere that were tested in the study include the feeling of being safe in the airport, ease of way finding, facilities for people with reduced mobility and the availability of leisure rooms.

These findings provide room for further observations. Travellers who use the airport often might have become accustomed to the facility. In addition, the frequent travel advisories following terror attacks in Kenya have meant that the safety of travellers is a key concern. Further, the travellers might also be aware that redesigning an airport will take some time and are therefore more understanding of the infrastructure and nature of services they encounter while at the airport.

### **Study Limitations**

The study was cross sectional. Due to time, access and cost constraints the researcher opted to collect data on the three busiest days of airport operations. Also it was noted that while the response rate was high, a significant number of questionnaires were not fully completed. The data collection took place at the busiest times of the airport's operations with a large number of passengers in the boarding gate areas. Due to time and anxiety related pressure, respondents quickly answered the questionnaire.

Another limitation was theoretical in nature. While the gap analysis model evaluates four elements namely ; not knowing what customers expect, not selecting the right service designs, not delivering to service standards, not matching performance to promises. This study primarily concerned itself with understanding what customers expect.

### **Conclusions**

The survey tool was found to be suitable for the evaluation of service quality at airports. The study has found that the feeling of being safe in the airport, ease of way finding, the availability of facilities for people with reduced mobility and the availability of leisure rooms are important for travellers using the Jomo Kenyatta International Airport.

These findings differ from those of Fodness and Murray (2007, however in some elements such as way finding agreed with the findings of Tsai et al., (2011), Vanja et al. (2013) . More specifically they closely resemble Jeon and Kim (2012) in the findings that indicate that airport functionality, aesthetics and safety elicit travellers' positive experiences. In general the study confirms the assertions by Bitner (1992) who viewed surroundings of the specific environment as influencers of how customers form their attitude and behaviour.

These findings have managerial, theoretical and policy implications. The managerial input is that the airport operator should provide leisure facilities, facilities for people with reduced mobility and way-finding signs effectively throughout the airport in order to ensure a better customer experience. This is what the travellers want. These requirements may lead to the redesigning of the airport and possibly further disruptions to the passenger experience as the works are executed. The theoretical implications of the study are that more research needs to be conducted to fully understand and identify variables to be examined while applying the SERVQUAL model to airport service quality studies. Finally the policy implications include focussing the government's agenda in supporting the airport to provide a more secure environment for travellers.

This study provides useful insights into the service attributes that air travellers want at Kenyan airports. It forms a foundation for the development of a conceptual model for a more exhaustive study on the subject in other airports in Kenya and beyond.

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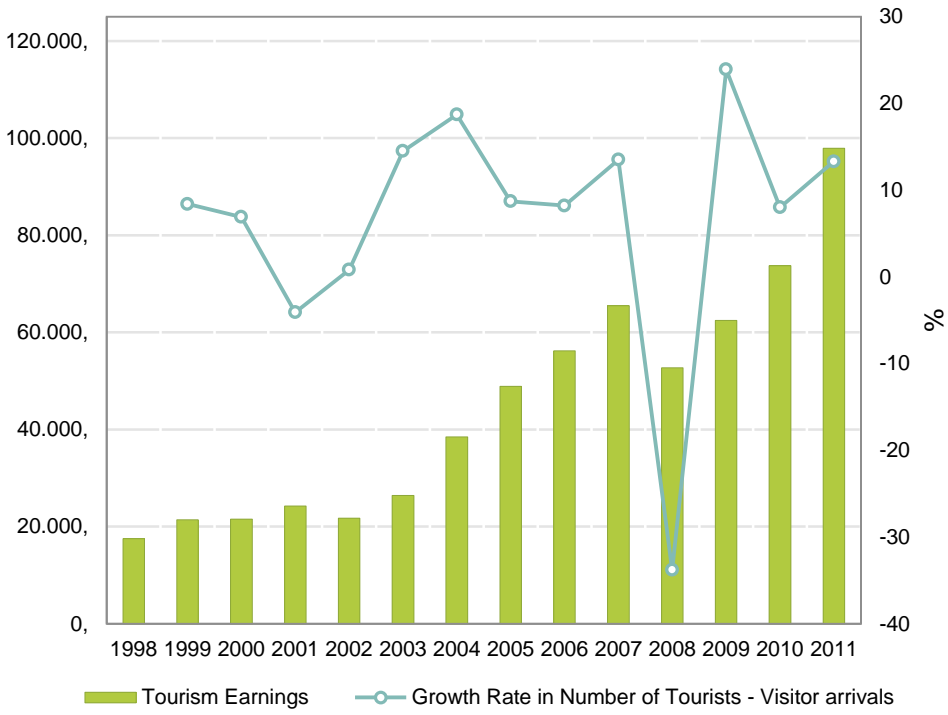
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## APPENDIX

### Kenya Tourism Report



Source: Kenya National Bureau of Statistics, Statistical Abstract 2015 (2016)

Images of Jomo Kenyatta International Airport Layout

