

Air travelers' satisfaction with security screening

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Abstract

The aim of the descriptive study is to gain an understanding of the perceived level of fairness in their experience of security screening relation to their satisfaction. The context of the study was a major aviation hub in East Africa. The target population was all departing international passengers. Primary data was collected using a self-administered questionnaire. The respondents were selected using convenience sampling of passengers who had just completed the final security check at the departure area of the airport. A total of 251 usable responses were collected from a target of 384 respondents giving a response rate of 65 percent.

The findings contribute to the existing body of knowledge on the relationship between the perceptions of fairness of security procedures and their influence on satisfaction. One way between groups analysis of variance (ANOVA) was conducted to test for statistical significance. A Cronbach's alpha of 88.7 was computed demonstrating a high level of internal consistency of the survey instrument. The adequacy of security procedures, level of communication provided before and during the screening process, consistency and fairness were found to have a significant relationship to the level of satisfaction reported by passengers. The findings suggest that there are significant differences between groups' perception of different elements security procedures.

The implications of the study are twofold. The study was cross sectional and indeed was impacted by significant changes in security procedures at the airport at the time of the study. A longitudinal survey may further mitigate the impact of the variances of responses and support a robust contribution to the development of a theoretical model of airport passenger satisfaction. Airport managers could use the results of this study as inputs to enhance the design of screening procedures in modern hubs to enhance the passenger experience to drive revenue growth.

INTRODUCTION

Background

Kenya is a leading tourism destination in East Africa. However, the growth has been hindered by security related challenges over the last twenty years. The sector generated an income of 1.2 billion US dollars for Kenya in 2017 (Business Daily, 2018). The tourism sector accounts for 11 percent of Kenya's gross domestic product (GDP), and is the third highest foreign exchange earner after diaspora remittances, and horticulture exports. For every 11 tourists who visit the country one job is created (Ministry of Tourism, 2018). The total number of people directly employed in tourism in the country is 206,500 (UNWTO, 2015). The Ministry of Tourism's National Tourism Blueprint (NTB, 2018) indicates that the country aims to achieve four million tourists, and the creation of direct employment in the sector of 561,800 people by the year 2030.

Following the 1997 Likoni land clashes in Mombasa, beach tourism was negatively impacted. The 1998 United States Embassy bombings and the 2002 bombing of the Kikambala Paradise Hotel led to travel advisories from Kenya's key source markets of Europe and North America. As a result of these advisories there was a significant decline in tourist visitors to Kenya. Coupled with these developments, the 2008 post-election violence led to major disruptions in domestic and international tourism. In particular, the effects were felt by airlines, airports, conference organizers, hotels and insurance service providers who are all part of the tourism and travel organization network. Terror attacks by Al Shabaab militia between 2011 and 2015 saw the decline of tourist arrivals to 1.18 million from 1.8 million in 2011.

Kenya's Ministry of Tourism projects that the industry is expected to register a growth of 16 percent per year to support the attainment of Kenya Vision 2030 which seeks to secure the country's place as one of the world's top ten long haul destinations. This shall be driven by increased air connections in and out of the continent, relaxed travel restrictions for Africans under the visa on arrival initiative announced by the President of Kenya, H.E. Uhuru Kenyatta (Business Daily, 2017), direct flights to the United States of America (USA) which began on October 28, 2018. This ambition is also supported by the Single African Air Transport Market (SAATM) which is part of the Africa Agenda 2063 which seeks to drive the economic integration in Africa by supporting the implementation of the 1999 Yamoussoukro Decision (YD). Given recent developments in regards ease of access for African travelers to Kenya as well as the desire to connect to other global aviation hubs in Europe and America, it is relevant now more than ever to examine the consumer perceptions of the legally mandated security measures at Kenyan airports. Additionally, this study was conducted at a time when the Jomo Kenyatta International Airport and Kenya Airways were pursuing the Last Point of Departure authorization from the Transportation Security Administration (TSA).

Security is important. All passengers experience a basic level of security screening from their arrival at the airport to the time they board the flight. These measures are in place to ensure the safety of the traveler as well as the integrity of the entire civil aviation industry. The experience of undergoing airport security screening takes effort on the part of the air traveler. This has an impact on satisfaction and the desire to re-buy or suggest travel to the country by travelers to friends and close acquaintances. Airport authorities who are concerned with passengers from a consumer

relations point of view should consider customer satisfaction as an output and measure of their good business practices. It is important to note that the airport is the first and last point of contact with a country or region by most travelers. Therefore, providing a high level of service and hence customer satisfaction has a bearing on the overall perception of the airport and the country in general. It is therefore crucial to ask what impact the experience of security screening procedures at that point have on the overall tourism satisfaction of the country. Thus, it could be argued that the security screening procedures at airports influence the level of customer satisfaction of air travelers at airports. This study specifically examines the level of satisfaction for departing international passengers as they are subject to the most stringent security screening measures which provide a suitable platform to study the processes and experiences. In addition, these passengers form the basis of most of the empirical studies related to airports by other researchers namely, Sindhav et al, 2006, Lum et al, 2015, Wiredja et al., (2015).

Problem Statement

Systematic social observations assist in providing a comparison between the perceptions and experiences of passengers. The screening process at an airport may entail additional screening, longer lines or unpredictable waiting times. There are concerns during the process as regards the wellbeing of the frail, old, disabled or the young. If these concerns are deemed too obstructive the security inconvenience factor may drive travelers to consider other alternatives. Therefore, there is an urgent need to understand airport security interventions in a manner that is subject to scientific inquiry. As such the outcomes such as customer satisfaction may then be evaluated, and the fairness of the procedures may be assessed.

Individuals are willing to accept a wide range of security measures at airports to protect themselves even if those measures are perceived to be intrusive (Davis and Silver, 2004). Airport security personnel screen all travelers, airport suppliers, employees, and airport contractors irrespective of the level of suspicion. Given the volume of people screened and searched by airport security every day, it is imperative that an examination of both its effectiveness and fairness be conducted. Overall there have been limited research efforts in the field of airport security in Africa.

Security officers maintain security by fostering the feeling of safety, a mood of confidence in the proper circulation of goods and people. In conducting airport security screening there exists a balance between safety and security concerns related to the protection against frightening events such as terrorism. Every episode of screening is unique and therefore has an impact on fairness and procedural justice (Adey 2009, Lum et al, 2015). The legal mandates related to public safety such as increased security screening protocols for public transport, long distance transportation, and even access to other public areas such as shopping malls, hospitals and stadia. These measures lead to higher costs by the consumer in the form of time and effort; for the promise of increased security and personal safety. This study is important and timely given the relative lack of empirical research on the subject in countries such as Kenya that are situated geographically close to the threat of Al-Shabaab terror attacks in East Africa. There is a need to determine through scientific means whether these measures as applied in the context of Kenya provide the benefits they are designed for.

In summary, air travel represents an integration between primary and facilitating services. Travelers purchase a primary service which is an air ticket to go from point A to point B. The service scape that surrounds the core air travel service includes facilitating services. How the traveler utilizes these facilitating services depends on whether they are mandatory or optional. Airport security screening is one such mandatory facilitating service. An understanding of how user's perceptions and evaluations of how such services affect their satisfaction with the overall airport services. The importance of evaluating the consumer's perception of justice in the implementation of legally mandated security services is critical. An understanding of whether or how these experiences at the screening points influence customer's satisfaction is timely.

Objective

The general objective of the study was to investigate the effect of airport screening procedures on the air traveler's customer satisfaction. In order to do that the study sought to establish an understanding of the relationship between the performance of security screening services and the level of satisfaction experienced by travelers. In order to do so the study examines the relationship between airport security and customer satisfaction. For the purpose of this study, the departing international passenger is regarded as the airport customer. The specific objective is:

1. To determine the influence of airport security screening procedures on customer satisfaction for air travelers in Kenya

Value of the Study

Over the last twenty years Kenya's performance in tourism has been impacted negatively by security fears. This has been exacerbated in part by travel advisories from western governments, domestic political disruptions leading to instability and perceptions driven by negative publicity which have had a negative effect on would-be-tourists to Kenya. The tourism performance of any country is sensitive to political instability which could threaten tourist's personal safety and security (Sharpley et al., 1996). It could be argued that there is more to attracting tourists that investing in infrastructure such as airports, roads and rail services. Accordingly, the airport represents a site in which flows of information and capital are facilitated against a background of condensed and highly regulated surveillance practices. In short the airport epitomizes the problems of mobility and state power, capital and screening, geo-politics and geo-economics coagulate as a problem of security addressed through combined surveillance and disciplinary practices (Salter, 2008).

The emergent issues on the relationship between airport security and tourism have been identified. The broad issue in this study is the extent to which airport security influences the customer satisfaction of an air traveler. This study has the potential to offer value to academicians, policy makers and management at airports. The study is valuable for academicians specifically in the field of procedural justice theory which has been used extensively in evaluating satisfaction in the context of legally mandated security processes. Procedural justice is important to customers because in service contexts customers evaluate both processes and outcomes. Passenger screening is one component of the airport security system. This system involves airport security personnel operating a set of screening devices in

combination with security procedures. This process is dynamic and is set up in order to sequentially assign passengers to multiple screening levels which is based on the perceived risk of the passengers entering the screening process.

Passengers and others accessing the airport facilities are processed through sequential screening that progressively eliminates the risk of threat items entering the airport terminal or on board an aircraft. The security checkpoint system is located at the entrance of an airport, airport terminal and airline departure gate help to establish a barrier of protection. The processes at this point includes the screening passengers, carry-on baggage as well as hold luggage for threat objects using various metal, explosive and trace detection devices (McLay, 2010, Lee et al., 2009). Airport management needs to be aware that these processes have an impact on the satisfaction of travelers, their decision to re-buy and recommend others which has a direct impact on airport profitability and growth.

Hall et al., (2004) argue that tourism is irrevocably bound up with the concept of security. Travel and tourism are the world's largest industry in terms of numbers of people participating and the amount of resources generates, and employment capacity. The International Aviation Transport Association (IATA, 2018) predicts that the demand for air travel were reach 7.3 billion passengers per annum in 2034 which is more than the 3.3 billion in 2014. The United Nations World Tourism Organization (UNWTO) projects that global tourism were reach 1.8 billion by 2030. Despite safety and security challenges in recent years, international travel continues to grow strongly and contribute to job creation and the wellbeing of communities around the world (UNWTO Secretary General, Taleb Rifai 2017). The policy makers in the field of internal security, tourism and transport will gain from the outcome of this study to enable decision making to support the growth of air travel in Kenya.

LITERATURE REVIEW

Security screening procedures at airports can reduce the occurrence of terror and related attacks on civil aviation. Empirical studies show that security screening and searches are an effective means of preventing violence in airplanes and airports. However, the gap in research lies in the examination of the procedural fairness exercised by airport security and or screening officers when passengers go through the security check points. Even though basic screening is offered to the entire population of air travelers, security officers exercise discretion during searches which can lead to differential treatment of passengers and therefore influence the level of satisfaction experienced by the air traveler.

Justice Theory

Justice theory has been studied in industrial and organizational contexts as an aid to understand the interpretation of interpersonal interactions. Blau (1964) expounds on social exchange; Adams (1965) inequality and Homans (1958) social exchange, which provides a foundation for justice theory. Justice theory is a framework that helps in understanding the factors that influence how consumers interpret the outcome, procedures and information received during a service encounter. Colquitt (2001) identifies four dimensions of justice namely procedural, distributive, interpersonal and informational justice.

Fairness perceptions significantly influence customer satisfaction. Oliver and Swan (1989) report this influence in the context of salespeople, level of success experienced (Oliver and DeSarbo, 1988) and service failures (Smith et al., 1999). Within an airport setting there are a variety of contexts in which various types of interactions take place. Some of them are optional such as food and beverage services, car parking, beauty salons, landside retail and other social and other economic activities. There are mandatory activities such as security screening, immigration checks and customs procedures. In such an environment passenger's experience a wide range of social and economic outcomes. It is in this context that justice theory provides an appropriate framework for the study of airport service experiences.

Procedural Justice

Procedural justice theory posits that people's perceptions of the fairness of justice interactions can contribute to the legitimacy and compliance that they afford the justice system. It reflects the perceived fairness of decision-making processes and the degree to which they are consistent, accurate, unbiased and open to voice and input (Thibaut and Walker, 1975; Leventhal, 1980; Tyler, 1988). During airport security screening passengers have a low level of process control. Accordingly, the consumer's perception of justice during the procedure may be influenced by an evaluation of other criteria. These may include whether the security measures are applied in an unbiased manner and with consistency. Procedural justice is important to customers because in service contexts customers evaluate both processes and outcomes.

Tyler and Huo (2002) argue that procedural justice provides a way for acceptable decisions to be made in situations in which not all participants can be given what they want or feel they deserve. Within airport security positive procedural justice occurs when an individual, even if incorrectly selected for additional screening is treated respectfully, with trustworthy motives and with neutrality and consistency. Where the selection for additional screening is not unjust, it may be perceived to be procedurally unjust if done without neutrality or consistency.

Distributive Justice

Distributive justice relates to the fairness of an outcome. Those who perceive the benefits of an outcome to be commensurate with their inputs believe that distributive justice is present. Should airport security screening require new inconveniences, such as time-related costs then an appropriate evaluation will mean that the additional effort provides increased safety benefits. Passengers experience this type of justice if and when they believe the increased costs and inconveniences yield a commensurate level of safety and wellbeing. Distributive justice could be established by consistent and transparent rules about screening.

The quality of treatment relates to how the security screeners touch individuals or their property, how they speak to them and what level of privacy they might afford them during an additional search. According to Tyler and Huo (2002) trustworthiness relates to whether communication to travelers or other airport users is done explaining why they are chosen for further searches. This may assist in developing motive-based trust and contribute further to the acceptance of authoritative decisions.

2.4 Interpersonal and Informational Justice

This type of justice relates to respectful behavior. Interpersonal and informational justice are a reflection of the truthfulness and adequacy of explanations. Bies and Moag (1986) view interpersonal and informational justice as a reflection of the perceived fairness of the enactment and implementation of decisions. Greenburg and Cropanzano (1993), posit that interpersonal justice is viewed as reflecting the respectfulness and propriety of communication. The aspect of interactional justice relating to sharing of information is referred to as informational justice. In an airport context, interpersonal justice is conceptualized as consumer's perceptions regarding whether they had been treated with courtesy and respect and whether airport security personnel had acted professionally.

The perceived level of informational justice involves the consumer's perceptions about communication from the aviation authorities or airport operator about the security procedures. This element of justice involves the traveler's concern with whether communication about new and existing security procedures was received. If it so, then it would be perceived as open, thorough, reasonable and timely information. Travelers are more likely to adopt to different screening procedures when they receive adequate information. The present study uses the four factor justice conceptualizations outlined above.

Empirical Review

Sindiga (1999) argued that bad publicity, internal security, poor tourism infrastructure and competition from South Africa were reasons to focus on domestic rather than international tourism in Kenya. Waguku (1998) identified security, infrastructure and poor tourism marketing as contributing to a slump in tourism. He further argued for the maintenance of security and personal safety of tourists. Gakuru (1993) identified that marketing strategies have not succeeded in portraying a better picture of Kenya to the outside world as a safe tourist destination.

Sindhav et al., (2006), examined fairness of security screening at an airport in the USA. In a survey of 775 passengers and found that a positive relationship between passengers' perceptions of fairness, treatment and procedural justice and their satisfaction with the airport experience. They found a positive relationship between passengers; perceptions of fairness, treatment and procedural justice and their satisfaction with the airport experience. The study was seminal, however, since it was conducted in one country, the results were not generalizable. Furthermore, 90 percent of respondents were of Caucasian extraction. No further information is provided, and neither are perceptions between races explored.

Hasisi and Weisburd (2011) studied the impact of ethnicity in passenger perceptions of security screening at an airport in Israel. Israeli-Arabs were more likely to be negative about airport security checks than Israeli Jews. However, they also found that the differences between the two groups' perceptions of legitimacy had a strong correlation with the perception of the airport screening procedures. Their results demonstrate that profiling strategies that include embarrassing screening procedures may threaten passengers' trust in airport security. Therefore, any enhanced security procedure that is focused on any particular section of the traveling public may compromise their perception of fairness and legitimacy and limit their cooperation.

Lum et al., (2015) argue that in conducting airport security screening there exists a balance between safety and security concerns related to the protection against frightening events such as terrorism. They also found that there was emphasis on effectiveness or fairness in every unique screening episode. This has an impact on fairness and procedural justice. Hudson and Ugelvik (2012) found that the number of security violations when compared to the number of aircraft boarding were small. In addition, the incidents were found to be minor and not terrorism related.

These studies indicate that by exploring the quality of decisions, quality of treatments and trustworthiness in airport security procedures is critical. A further study of the subject was providing an understanding of the discretion in airport security screening and the impact of procedural justice on the quality of justice in airport security. A better understanding of the level of discretion and its consequences present the airport operator with more evidence in developing and enhancing a security screening policy.

Past research has mostly surveyed passengers on their level of customer relations and satisfaction for purposes of evaluating service quality, marketing of airports and benchmarking in industry studies. These studies are conducted by global surveys of passengers by organisations such as Airports Council International (ACI) and Skytrax. Respondent are invited to report on their perception of wait times, and general customer satisfaction. The race, ethnicity, gender, status and age is usually not a component of these surveys (Fodness and Murray, 2007, Lum and Kennedy, 2012).

Thus, it could be argued that individuals are willing to accept a wide range of security measures at airports to protect themselves. People are concerned about the fairness of airport security, even in the light of their fearfulness. A contextual gap is observed in the studies reviewed, namely that investigative efforts have been conducted in western environments. Therefore, this study identifies this gap in the lack of such studies in the African context as a possible avenue through which to enrich the discourse on the fairness of airport security screening and overall passenger satisfaction with the travel experience.

RESEARCH METHODOLOGY

Research Design

The present study is exploratory in nature. Therefore, the instrument adopted to collect data was one that had been used before by Colquitt (2001) and modified to suit the Kenyan context. Because of the nature of the study, the researcher deployed non-probability sampling techniques. Nassiuma (2000), found that pilot surveys were useful in determining the level of expected variability, possible sources of errors, and problems in studying the sample units as well as possible response and measurement constraints. This is an established practice in order to evaluate the reactions of the respondents.

In order to create an appropriate survey tool, the questionnaire was reviewed by five senior members of the airport management team and one university professor. Twenty respondents who were frequent fliers were selected for the pilot study. The respondents were actual air travelers who at the time were situated in the departure area of the airport terminal. The pilot study helped to identify the acceptable wording of the questions and in determining the

willingness of respondents to co-operate. Upon receipt of the responses from the pilot further corrections and adjustments were made to the survey instrument.

Data Collection

The study utilized primary and secondary data. A survey questionnaire was used to collect primary data. Secondary data was used to determine the population of interest which comprised departing passengers from the Jomo Kenyatta International Airport (JKIA). Official passenger traffic data on the passenger traffic was identified from the Kenya National Statistical Abstract (2016) published by the Kenya National Bureau of Statistics (KNBS).

Primary data using a questionnaire instrument with minor adjustments to suit the study's objectives and context. The data collection instrument had fifteen questions related to age, gender, regularity of flying, purpose of the flight, and satisfaction with the airport experience. Other areas of interest included nature of travel be it business, or leisure. Security procedures, communication, and overall airport experience were evaluated using a five-point Likert Type scale ranging from strongly agree to strongly disagree. This format applied to other choice alternatives between air and other forms of transport, namely road and rail.

Sampling and Data Collection

The unit of analysis for the study was the travelling adult specifically commencing their departure to an international destination from Kenya through JKIA. This type of sample has been identified by previous studies as best placed to answer questions about perceptions of service at airports namely, Sindhav et al., (2006); Fodness and Murray (2007) and Lum et al., (2015). Wiredja et al., (2015) found that most authors have focused on departing passengers. This is because there is longer waiting time for this group of passengers. This time is sufficient to fill questionnaires or conduct interviews for departing passengers compared to that for transit and arriving passengers. The formula proposed for sampling is the one proposed by Krejcie and Morgan (1970) which proposes the following formula:

$$s = X^2 NP(1 - P) \div d^2(N - 1) + X^2 P(1 - P).$$

s = required sample size.

X² = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841).

N = the population size.

P = the population proportion (assumed to be .50 since this would provide the maximum sample size).

d = the degree of accuracy expressed as a proportion (.05).

The sample size was determined as 384.

Table 23: Sample Size

Airport	Number of departing passengers per year (N)	Sample Size
JKIA	2,053,000	384

N is the number of departing passengers as per Kenya National Statistical Abstract (KNBS, 2015)

Convenience sampling was applied to select the respondents. The enumerators were positioned at the departure's hall right after the final security screening check at the airport. Every willing passenger was handed a paper questionnaire to complete. This method of data collection afforded the researcher the ability to sample passengers at all times of the day and with ease. This procedure is similar to past studies namely Sindhav et al, (2006). The questionnaires were self-administered to willing passengers who had just completed the final security check. The passengers who accepted to fill in the questionnaires were asked to drop them at the departure gate for collection.

Data Analysis

The total number of collected responses was 251 giving a response rate of 65 percent. Data analysis was conducted in two parts. First is the data management and second is the statistical evaluation. Data management was conducted in three steps namely editing, coding and cleaning. Editing checked and adjusted the data for omissions, legibility and consistency. The purpose will be to ensure completeness of, consistency and readability of the data prior to coding. Coding was used to determine how the interpreting, classifying and recording the data was done. Data cleaning checked for errors and verified that the coding was done appropriately.

Three types of statistical analyses were deployed. These are descriptive analysis, factor analysis, and one-way ANOVA. Descriptive statistics reviewed the frequency distribution. Mean scores and standard deviations were applied to determine the basic and general characteristics of the data. The data was then subjected to tests of the assumptions upon which parametric tests were applied for further analysis. Using cross tabulation, correlational analysis and Chi-square tests of independence of association, the study will be sought to establish the existence of significance of association between responses. One way between groups ANOVA test was performed to test if there were significant differences in factors that define airport security, procedural justice and subsequently their influence on customer satisfaction at the airport. The Statistical Package for the Social Sciences (SPSS) version 18 was employed to conduct the data analysis.

RESULTS AND CONCLUSION

A Cronbach's alpha of 88.7 was computed which indicates a high level of internal consistency of the instrument. There were significant differences between groups' perception of different elements security procedures. The adequacy of security procedures, level of communication, consistency and fairness were found to have a significant relationship to the level of satisfaction reported by passengers. Overall the respondents returned a rating of 7.1 level of satisfaction with airport services.

A total of 364 questionnaires were issued and 251 usage responses were found. 66 percent of the respondents were male and 34 percent female. The age profile indicates that a 77.5 percent of respondents were in the age 18 to 42 years. Table 2 indicates that the most respondents were from Sub-Saharan countries. Purpose of travel: 58 percent of travelers were on business or professional travel. In general passengers were satisfied with the airport experience.

Frequent fliers reported a more favorable response to additional security checks than any other passenger group. Differences in nationality were reported to be the strongest indicator of the perception that increased security checks led to feelings of being safe. The age of travelers had no significant impact on this factor. The age, gender of the respondent and the nationality had the strongest impact on the perception of the fairness of airport security procedures. This was also true for the perceived level of unbiasedness of the security procedures.

The level of communication had no significant impact on the level of perceived satisfaction with the security procedures for all types of passengers. Gender and nationality had a significant impact on the level of satisfaction with the airport experience. This was especially so with regards to the check-in experience and the evaluation of the level of courtesy of airport employees. A strong statistical significance is noted with the level of satisfaction frequent fliers report with regards to their overall evaluation of the security processes at the airport.

Conclusion

The present study was conducted to JKIA as it is the largest single entry and exit point for air travelers in Kenya. The results demonstrate that the perception of security procedures at the airport have an impact on the level of perceived satisfaction with the overall airport experience. Passenger characteristics such as age, gender and nationality indicated a strong relationship to the perception of the fairness of airport security procedures. This was also true for the perceived level of unbiasedness of the security procedures. Frequent fliers reported a more favorable response to additional security checks than any other passenger group. Differences in nationality were reported to be the strongest relationship to the perception that increased security checks leading to feelings of being safe.

Gender and nationality were found to have a significant relationship with the level of satisfaction with the airport experience. This was especially so with regards to the check-in experience and the evaluation of the level of courtesy of airport employees. A strong statistical significance is noted with the level of satisfaction frequent fliers report with regards to their overall evaluation of the security processes at the airport.

Implications

Overall the study reported a positive evaluation of the security procedures, airport experience and the level of communication received during the travel experience at JKIA. This was especially so for frequent users of the airport, which is a reflection of their familiarity of the facility and the procedures present therein. The study assessed fairness in security screening procedures in regard to seven items. These were adequacy, design, consistent application, courtesy, respect, unbiasedness, professionalism and the ability for appeal. The element of design of the security

procedures was the most significant indicating the need to design security screening procedures respecting the concerns of both male and female passengers. The design of security procedures was also noted to have a significant negative perception with nationals from the Middle East and North Africa.

The theoretical implications of this study are that there is a need for further testing of the relationship between the perceived fairness of security screening procedures and the level of customer satisfaction experienced by passengers. The present study undertook a convenience sampling design and was in its intention a descriptive study. Future examinations of this kind will apply probabilistic sampling techniques and should be conducted longitudinally. This approach will support scientific examination of the variables that most influence customer satisfaction of the international air traveler. Such a methodology will also support the efforts to unearth a robust conceptual model to explain the relationship between security services and their impact on the air travel experience.

The managerial implications of these findings are related to the practice of security screening at airports. The findings indicate that travelers are willing to be subjected to extensive security checks for their own and others' safety. In addition, the study finds that there is a tendency to prefer the use air travel when other transport means such as road and rail are available. This suggests that the demand for air travel remains robust. As such airport operators could take advantage of this positive perspective to enhance the level of courtesy and communication received by passengers at every screening encounter. This will support the positive experience of travel and possibly enhance the word of mouth promotion of the airport and enhance the possibility of re-buy.

These results are an indicator that there are differences in perceptions related to security screening procedures in the Kenyan context that deserve further investigation and study though a more rigorous study. The input from this study also provides support for the development of a conceptual model to study the impact of airport security on overall airport customer satisfaction in Kenya.

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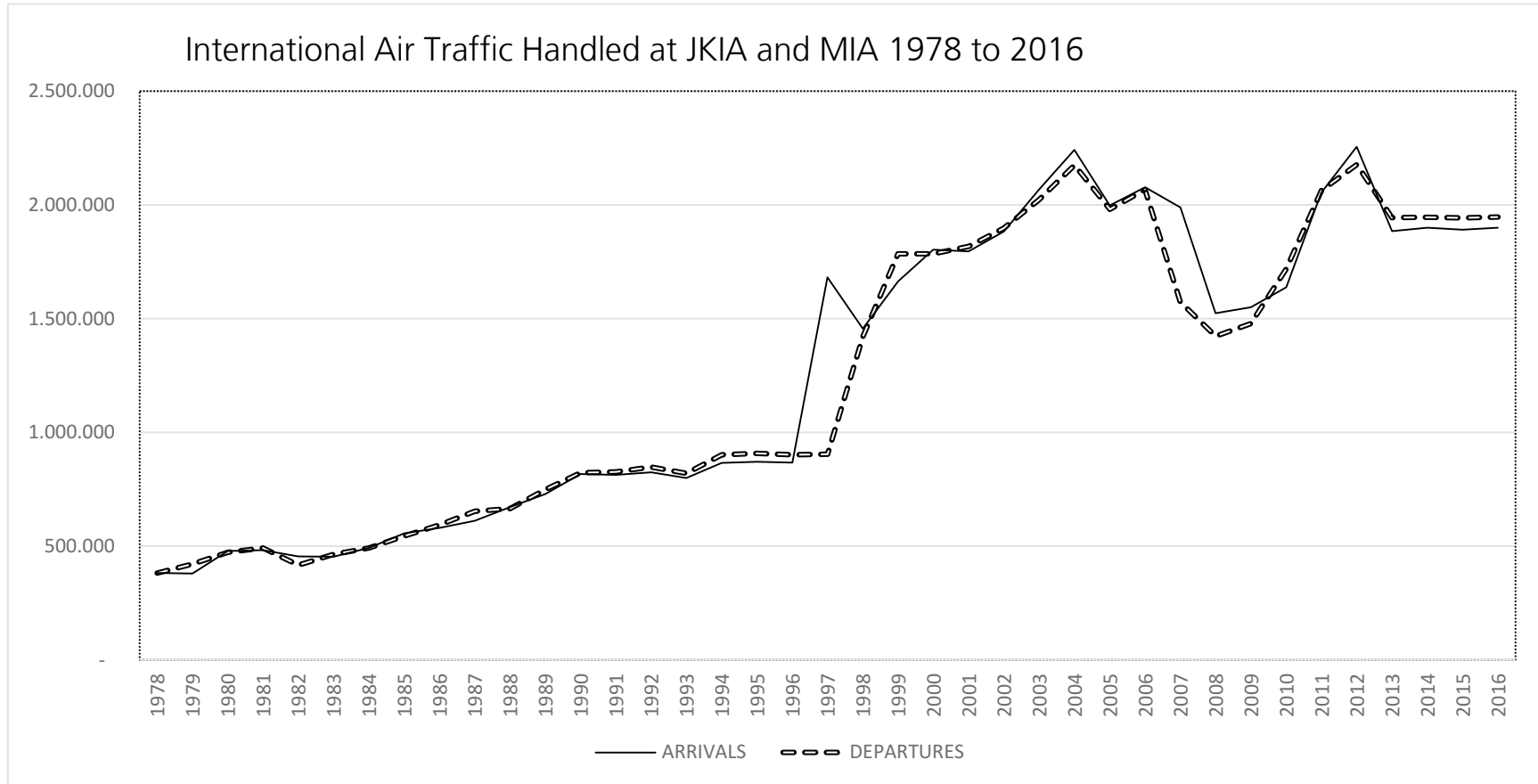
APPENDICES

Appendix 1: Africa Tourism Report: Top 20 Tourism Earners (by Total Contribution to GDP) In Africa, 2014

Country	GDP contribution US\$ Billions			Employment Contribution		Investments US \$ Billions	Arrivals
	Direct	Total	% Total	Direct	Total		
Africa	74.7504	170.7	8.5	8,352,801	19,698,000	26.73	65,311,000
Morocco	8.6	19.1	17.9	775,500	1,740,500	3.8	10,282,000
Egypt	16.5	36.0	12.8	1,322,700	2,944,100	4.3	9,628,000
South Africa	10.5	32.9	9.4	679,500	1,497,500	5.6	9,549,000
Tunisia	3.6	7.4	15.2	230,500	473,000	0.8	6,069,000
Algeria	7.9	15.2	6.7	332,500	660,000	2.0	3,116,400
Kenya	2.5	6.4	10.5	206,500	543,500	0.8	1,148,690
Tanzania	1.8	5.1	14.0	467,000	1,337,000	1.1	1,199,120
Ethiopia	2.1	4.7	9.3	979,000	2,291,500	0.6	676,598
Mauritius	1.4	3.3	25.5	60,200	134,000	0.2	1,039,000
Ghana	1.1	2.6	6.7	122,000	298,500	0.2	877,825
Uganda	1.1	2.5	9.9	247,100	592,700	0.3	1,174,428
Cameroon	0.9	1.9	6.2	124,000	281,000	0.2	574,128
Senegal	0.8	1.8	11.3	132,700	305,900	0.1	956,556
Botswana	0.7	1.8	8.5	32,000	69,500	0.2	2,585,280
Namibia	0.3	1.7	14.9	24,000	102,300	0.4	1,078,074
Zambia	0.7	1.5	6.1	29,300	83,300	0.1	975,611
Zimbabwe	0.7	1.4	10.4	181,000	426,200	0.1	1,880,000
Mozambique	0.5	1.1	7.0	262,500	710,500	0.2	2,052,361
Rwanda	0.3	0.7	9.1	66,000	176,200	0.2	964,264
Swaziland	0.1	0.1	4.1	5,200	12,300	0.0	1,111,334

Source: UNWTO, 2015

Appendix 2: Air Traffic Handled at Jomo Kenyatta International Airport and Mombasa International Airport 1978 to 2016



Appendix 3: Data Analysis

Table 1: Age Profile

		Frequency	Percent
Valid	18 to 24 years	32	12.7
	25 to 33 years	87	34.7
	34 to 42 years	64	25.5
	43 to 51 years	32	12.7
	52 to 60 years	14	5.6
	61 years and above	7	2.8
	Total	236	94.0
Total		251	100.0

Table 2: Nationality of Respondents

		Frequency	Percent	
Valid	Sub-Saharan Africa	156	62.2	
	East Asia and Pacific	4	1.6	
	Europe and Central Asia	20	8.0	
	Latin America and the Caribbean	3	1.2	
	Middle East and North Africa	4	1.6	
	North America	10	4.0	
	South Asia	20	8.0	
	Total	217	86.5	
	Total		251	100.0

Table 3: Purpose of trip

Purpose of Trip

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Business/Professional	138	55.0	58.2	58.2
	Leisure/Personal	99	39.4	41.8	100.0
	Total	237	94.4	100.0	
Missing	System	14	5.6		
Total		251	100.0		

Table 4: Overall Level of Satisfaction with the Airport

Ranking of JKIA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	2	.8	.9	.9
	1	3	1.2	1.4	2.3
	2	2	.8	.9	3.2
	3	6	2.4	2.8	6.0
	4	5	2.0	2.3	8.3
	5	16	6.4	7.3	15.6
	6	34	13.5	15.6	31.2
	7	52	20.7	23.9	55.0
	8	48	19.1	22.0	77.1
	9	30	12.0	13.8	90.8
	10	20	8.0	9.2	100.0
	Total	218	86.9	100.0	
Missing	System	33	13.1		
Total		251	100.0		

Table 5: ANOVA for Communication Differences between Nationalities

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Communication – open	Between Groups	17.596	6	2.933	2.926	.009
	Within Groups	198.482	198	1.002		
	Total	216.078	204			
Communication - Security Procedures	Between Groups	16.464	6	2.744	2.501	.024
	Within Groups	215.083	196	1.097		
	Total	231.547	202			
Communication - Reasonable Explanation	Between Groups	14.039	6	2.340	2.549	.021
	Within Groups	178.061	194	.918		
	Total	192.100	200			
Communication – Timely	Between Groups	16.922	6	2.820	2.651	.017
	Within Groups	207.498	195	1.064		
	Total	224.421	201			

Table 6: ANOVA for Gender

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Evaluation of security procedure - More Hassle	Between Groups	4.093	5	.819	.601	.699
	Within Groups	288.696	212	1.362		
	Total	292.789	217			
Evaluation of security procedure - Enhanced	Between Groups	.754	5	.151	.235	.947
	Within Groups	130.557	203	.643		
	Total	131.311	208			
Evaluation of security procedure - Increased Safety	Between Groups	3.042	5	.608	.796	.553
	Within Groups	162.748	213	.764		
	Total	165.790	218			
Evaluation of security procedure - Worth the hassle	Between Groups	2.398	5	.480	.546	.741
	Within Groups	185.270	211	.878		
	Total	187.668	216			
Evaluation of security procedure - Equal hassle	Between Groups	2.258	5	.452	.417	.837
	Within Groups	226.300	209	1.083		
	Total	228.558	214			

Table 7: ANOVA Nationalities perception of the Security Process

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Evaluation of security procedure- Adequate	Between Groups	15.124	6	2.521	2.342	.033
	Within Groups	216.372	201	1.076		
	Total	231.495	207			
Evaluation of security procedure- Fair	Between Groups	6.766	6	1.128	1.390	.220
	Within Groups	157.334	194	.811		
	Total	164.100	200			
Evaluation of security procedure- Consistent	Between Groups	13.167	6	2.194	3.262	.004
	Within Groups	130.515	194	.673		
	Total	143.682	200			
Evaluation of security procedure- Unbiased	Between Groups	7.037	6	1.173	.902	.495
	Within Groups	237.937	183	1.300		
	Total	244.974	189			
Evaluation of security procedure - Courteous	Between Groups	5.668	6	.945	1.179	.319
	Within Groups	150.670	188	.801		
	Total	156.338	194			
Evaluation of security procedure - Respectful	Between Groups	12.350	6	2.058	3.491	.003
	Within Groups	114.376	194	.590		
	Total	126.726	200			
Evaluation of security procedure - Professional	Between Groups	3.708	6	.618	1.002	.425
	Within Groups	119.047	193	.617		
	Total	122.755	199			
Evaluation of security procedure – Appeals	Between Groups	3.200	6	.533	.423	.863
	Within Groups	246.033	195	1.262		
	Total	249.233	201			

Table 8: ANOVA for Different Nationalities

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Evaluation of security procedure - More Hassle	Between Groups	18.407	6	3.068	2.408	.029
	Within Groups	249.692	196	1.274		
	Total	268.099	202			
Evaluation of security procedure - Enhanced	Between Groups	4.018	6	.670	1.095	.367
	Within Groups	115.549	189	.611		
	Total	119.566	195			
Evaluation of security procedure - Increased Safety	Between Groups	9.135	6	1.523	1.998	.068
	Within Groups	150.095	197	.762		
	Total	159.230	203			
Evaluation of security procedure - Worth the hassle	Between Groups	4.195	6	.699	.881	.510
	Within Groups	154.741	195	.794		
	Total	158.936	201			
Evaluation of security procedure - Equal hassle	Between Groups	2.975	6	.496	.447	.846
	Within Groups	215.214	194	1.109		
	Total	218.189	200			

Table 9: ANOVA for Age

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Evaluation of security procedure - More Hassle	Between Groups	4.093	5	.819	.601	.699
	Within Groups	288.696	212	1.362		
	Total	292.789	217			
Evaluation of security procedure - Enhanced	Between Groups	.754	5	.151	.235	.947
	Within Groups	130.557	203	.643		
	Total	131.311	208			
Evaluation of security procedure - Increased Safety	Between Groups	3.042	5	.608	.796	.553
	Within Groups	162.748	213	.764		
	Total	165.790	218			
Evaluation of security procedure - Worth the hassle	Between Groups	2.398	5	.480	.546	.741
	Within Groups	185.270	211	.878		
	Total	187.668	216			
Evaluation of security procedure - Equal hassle	Between Groups	2.258	5	.452	.417	.837
	Within Groups	226.300	209	1.083		
	Total	228.558	214			

Table 10: ANOVA for reason for travel

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Evaluation of security procedure - More Hassle	Between Groups	.021	1	.021	.016	.900
	Within Groups	282.604	214	1.321		
	Total	282.625	215			
Evaluation of security procedure - Enhanced	Between Groups	.013	1	.013	.020	.887
	Within Groups	134.025	207	.647		
	Total	134.038	208			
Evaluation of security procedure - Increased Safety	Between Groups	.000	1	.000	.000	.988
	Within Groups	160.968	215	.749		
	Total	160.968	216			
Evaluation of security procedure - Worth the hassle	Between Groups	1.116	1	1.116	1.317	.252
	Within Groups	180.466	213	.847		
	Total	181.581	214			
Evaluation of security procedure - Equal hassle	Between Groups	2.145	1	2.145	2.054	.153
	Within Groups	220.343	211	1.044		
	Total	222.488	212			