# EFFECTS OF AIRPORT DEVELOPMENT ON THE KENYAN ECONOMY: A CASE OF JOMO KENYATTA INTERNATIONAL AIRPORT

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Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Arts in Social Transformation with specialization in Sustainable Development

Tangaza University College
The Catholic University of Eastern Africa

Nairobi
July 2018

## DECLARATION

I, Hussein I. Amin, declare that this thesis is my original work and has not been presented for any academic credit or a degree in any other university. It has been achieved through personal reading, scientific research analysis and critical reflection. All information obtained from other sources has been duly cited and acknowledged.

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## ACKNOWLEDGMENT

I am greatly indebted to God for this achievement. My deep gratitude goes to my supervisors; Dr. Daniel Kitonga and Dr. Reginald Nalugala who patiently and consistently provided instructions and guidance throughout the project. I greatly appreciate all your time and dedication through the course of undertaking this project. A special word of appreciation goes to my colleagues Major Barrow and Col. Ali; who really took care of things while I was away. To my friends and classmates Capt Mohamed, Gen Bashir Haji, Col Rashid Elmi, Brenda Kiema whose constant encouragement gave me the courage to push on. I would also like to mention the very able class representative Ms Beatrice Manyala, under whose stewardship we all achieved greatness and to thank the whole MA class of 2015.

## LIST OF ABBREVIATIONS

| | |
|---|---|
| **ANAC** | Automatic Number Announcement Circuit |
| **ATAG** | Air Transport Action Group |
| **ATI** | Air Transport Infrastructure |
| **BOT** | Build Operate Transfer |
| **EARC** | East African Regional Resource Centre |
| **EU** | European Union |
| **GDP** | Gross Domestic Product |
| **GNP** | Gross National Product |
| **GVK** | Gunupati Venkata Krishna Reddy |
| **IATA** | International Airport Transport Association |
| **JKIA** | Jomo Kenyatta International Airport |
| **KAA** | Kenya Airport Authority |
| **KNBS** | Kenya National Bureau of Statistics |
| **LCC** | Low-Cost Carrier |
| **LDC** | Least Developing Country |
| **OITC** | Office of International Treasury Control |
| **PPPs** | Public-Private Partnership |

**SPSS** Statistical Package for Social Sciences

**UK** United Kingdom

**US** United States

## OPERATIONAL DEFINITION OF KEY TERMS

### Airport Infrastructure

In this study, airport infrastructure refers to elements that facilitate aviation services, enhances the landing and taking off of flights such as control tower, runways, hangars, terminals, and air traffic control centres.

### Economic development

These are all the initiatives aimed at improving the economic or financial well-being as well as the quality of life of a particular society.

### Economic growth

This refers to a quantitative increase in a country's income in terms of goods and services produced in the economy.

### Globalisation

Globalization refers to a process that facilitates interconnectedness and interdependence of the world through interaction and integration among the people, companies, and governments of different nations.

### Airside services

In this study airside services refers to the airfield, gates, air bridges, and all facilities associated with the movement of aircraft.

### Landside services

According to this study landside services refers to facilities associated with the movement of passengers and baggage to and from aircraft.

## ABSTRACT

The main aim of this study was to determine the effect of airport development on economic development in Kenya. The specific objectives were to examine employment creation, revenue generation and cost of air transportation as the specific objectives. The objectives of the study were to establish the relationship between airport employment creation and economic development of Kenya, to evaluate the effect of airport revenue generation on the economic development of Kenya and to determine the effect of the cost of air transportation on the economic development of Kenya. The descriptive research design was used in this study and the sampling method was purposive sampling. 304 respondents were drawn from Jomo Kenyatta International Airport. The respondents were drawn purposively based on their knowledge in matters concerning the development of various aspects of the airport. Therefore, the researcher investigated JKIA's development in relation to employment creation, revenue generation and cost of airport transportation. Primary data was collected through administration of questionnaires. Data collected during the study was then sorted, organized, entered and analysed using Scientific Package for Social Sciences (SPSS) program where descriptive analysis was carried out. The study findings indicate that there is an expected upsurge in the levels of employment with the building of an airport. With the upsurge in employment opportunities and the growth of businesses around an airport, the resultant effect will be an increase in revenue collection. The increase in revenue generation portends better times for both governments as there is a better chance for implementation of programs meant for the betterment of the population. Policy implication of these findings means that the Kenyan government should increase budgetary allocation in the improvement of both international and local airports considering their economic viability.

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# CHAPTER ONE

# BACKGROUND OF THE STUDY

## 1.0 Introduction

Chapter one looks at the introduction to the economic development in Kenya as a result of airport development. The chapter is organized as follows: insertion; the background of the study; the statement of the research problem; the study objectives; and the justification of the study.

## 1.1 Insertion

Interest in improving various aspects of airports development stems out from the researcher's personal experience. The researcher is an aviator with 26 years of experience as a pilot and a first-hand experience of the benefits that accrue from the aviation industry as well as the challenges hindering its development. This wealth of experience has enabled the researcher to understand the unique challenges that Jomo Kenyatta International Airport (JKIA) is facing, which range from the existence of poor records of safety and security, distance and limited connectivity, lack of investment in education and training of staff, lack of adequate resources and infrastructure and a lack of regulation. Though plans to upgrade airport infrastructure at JKIA are underway, a re-look at various aspects of development at the airport has become increasingly critical as Kenya positions itself as an attractive and sustainable investment destination.

The main objective of an airport is to bring together people, processes, technology, government agencies, private companies, spaces, artefacts, and information to allow flights to leave and arrive on schedule. Therefore, effective and efficient development

and functioning of airports is important for the economic development of air transport in particular and the economy as a whole.

To have significant economic growth, Kenya must adopt proper maintenance protocols with a full implementation rollout. Aviation has strengthened wealth creation in the developed world and has brought huge benefits to developing economies by unlocking their potential for trade and tourism. Lower charges not only benefit the passengers and cargo shippers but they also encourage greater connectivity. The aviation industry acts as a stimulus for economic activity, support for trade and investments, and recreation of jobs.

The researcher believes that investment in airport development must keep pace with the investment promotion and demands at the regional level in terms of both tourism and commercial demands. Addressing infrastructure development, safety, security and regulatory frameworks will significantly help boost future growth of the aviation industry. In addition, the increasing accessibility of reasonably priced air travel has significantly broadened the role of aviation in the world. The researcher, therefore, seeks to determine ways in which airports can be improved in order to tap into the wider economic benefits availed by investing in airport infrastructure and services and considering that Kenya has a devolved system of Government.

### 1.2 Background of the Study

The foundation of many countries' economies is often described as the nature and extent of government capital expenditure in that economy. "The roads, water, and sewer systems that make up the majority of public capital allow for lower transportation costs

and greater concentrations of people and firms, promote agglomeration economies and provide access to broader, deeper markets" (Macdonald, 2008, p. 23). While it is not possible to establish exact correlations between levels of infrastructure investment and the associated economic development levels, sufficient evidence exists to suggest that appropriate levels of infrastructure and economic development are directly and positively related (Cidell, 2014; Vasigh, Fleming & Tacker, 2013). The Telecommunications and air transport represent the sectors that epitomize globalization in an economy and socio-political sense worldwide. Government attention could be focused almost entirely on safety, security and, increasingly, environmental issues (Vasigh, Fleming & Tacker, 2013).

With today's competitive standards it is difficult to conceptualize a country or region that is able to integrate into global and national markets without well-functioning communication and air transport systems. Without such systems and the best possible international linkages, national markets become smaller and some markets may not even exist. Because of the complementary nature of infrastructure and services with the development of commercial services, it is likely that private investment will decrease and become less profitable (Robertson, 2015). Economies of scale and scope are forgone and economic development constrained, hence the need for sectors such as aviation that inject an immediate boost in the economy of a country. Therefore, the interaction between efficient and effective air transport infrastructure (ATI) and domestic and regional economies can be significant in boosting a county's economic development (Foster & Briceño-Garmendia, 2010).

Although there are numerous examples of over or premature investment in ATI (Morrison, & Winston, 2007), well-targeted, cost-effective, timely investment with strong linkages in the actual and likely potential downstream markets has significant benefits. For example, the development of Dubai airport, Emirates Airline, and local tourism within a broadly “open skies” international aviation policy is striking, whereas elsewhere in the United Arab Emirates there are several significantly underused airports where demand is weak (Oxford Economics, 2011).

The implication is that the development and implementation of the best possible air transport policies will be an important part of a successful economic development and poverty alleviation strategy. Improving the delivery of ATI services is important to economic development and to the reduction of poverty. The efficiency and effectiveness of a country's air transport system, together with the rest of its transport network, are a crucial part of its investment climate (Rodrigue, Comtois & Slack, 2013). Improving these services encourages investment by businesses, which fosters economic growth and job creation. For example, one of the factors contributing to the competitiveness of San Jose, Costa Rica, in the manufacturing of microchips for computer hardware is the existence of and easy access to modern and convenient airport facilities (Paus, 2014). In poorer countries, where maintaining the transport infrastructure, particularly roads, is a challenge, air transport services that use the physical infrastructure less intensively and commercial operators can deliver services to customers, a fully liberalized and commercially structured air transport sector may play a particularly important role (Wensveen, 2015).

### 1.2.1 Development of Transportation

Transportation is as old as mankind. The expansion of trade and the exertion of political power have asked for more, which has led to improvements in transportation systems as empires expanded (Grubler, 2010). Roman roads supported Roman hegemony as roads did for Persia, Chinese and New World rulers. Not much later the grain trade of Mediterranean flourished, as well as Orient-European linkages. Eventually, Iberian, Dutch, French, and English empires were based on transport and trade (Aldcroft & Freeman, 2013).

The continued development and evolution of transportation systems in the world led to improved access to resources and increased markets. Choices were made available to producers and consumers (Hugill, 2013). This growth in transportation systems led to the development of cities among other things and served the demand for consumer and capital goods. The failings in transportation systems, such as not transporting food to distressed areas in times of famine, may have been due to a lack of system capability, but seem largely a matter of lack of social organization and will, a situation that, although moderated, continues today (Gifford & Garrison, 2013).

In the late 18$^{th}$ century, a new mode of transport was discovered, though as a sport, when in 1783, the first smoke-filled balloon made its first flight in Annonay, In the years that followed, balloons and parachutes continued to be developed, and in 1903, the first successful, heavier-than-air machine flight took its first flight in what has become known as the birth of aviation (Gifford & Garrison, 2013).

### 1.2.2 Jomo Kenyatta International Airport

The aviation industry in Kenya is meant to facilitate seamless connectivity through the provision of efficient and effective airport facilities and services in an environmentally sustainable manner to exceed stakeholder expectations (Mwangi, 2013). To support this initiative there is a need for airport development. Kenya's air transportation is managed by the Kenya Airports Authority (KAA). KAA is a government agency that provides aviation facilities and services, helps in regulating the sector and also provides air navigation services. It operates under the Ministry of Transport and Infrastructure.

The sector has been singled out as a key enabler of the country's Vision 2030 that seeks to enhance Kenya's economic development (Fourie, 2014). According to Daley (2018), the sector facilitates trade, tourism and business travellers, humanitarian and security operations, employment, sports and global accessibility.

Jomo Kenyatta International Airport (JKIA) is among the airports managed by KAA in Kenya. As the oldest and biggest airport in East and Central Africa, JKIA has been handling more than six million passengers annually against design capacity of 2.5 million. Its runway capacity of 120,000 movements per annum has been operating at 83% (Nyabuto, 2014). With the need to have a second runway which can handle new generation aircraft, its expansion has been considered. This implies that the upgrading and expansion of terminals as well as airside facilities is an urgent requirement (Mwembe, 2010).

In 2006, KAA embarked on an expansion of JKIA facilities comprising construction of additional aprons for aircraft parking construction of passenger Terminal Unit 4, and

multi-storey car park. It also embarked on the renovation and re-organization of Terminal Units 1, 2 and 3 and Arrivals Units. There was also a need for the construction of additional 16 parking stands and rehabilitation of the existing runway. These constructions and renovations were expected to increase passenger capacity from 2.5million to 10 million per annum by 2017. The Master Plan forecast finalized in February 2011 established that the JKIA annual traffic demand would be 10 million by 2015 and 35 million by 2030. Best practice for airport capacity provision recommends that capacity should be provided five years ahead of demand to mitigate against congestion and unforeseen growth (Mwembe, 2010).

### 1.3 Statement of the Research Problem

The potential connection between economic development and airports has been at the forefront of academic debates for decades. A number of empirical studies suggest that government expenditures on airports can potentially increase productivity hence increase economic development (Brueckner, 2003; Baker, Merkert & Kamruzzaman, 2015; Green, 2007; Graham, 2012). According to Cidell (2014) airports development provide better access to markets, enhance links within and between businesses and provide access to resources and to international capital markets. It can also create opportunities for employment and support the service industry in providing services such as cleaning, maintenance of aircrafts and advancement in technology. However, the Kenyan situation is quite different. There is slow growth in the industry, and with the devolved system of governance, each county should have had its airport (Ochieng & Ahmed 2014). This would have created jobs, increase competition and contribute to reduced airfares. This study seeks to understand the challenges surrounding airport expansion and development

in Kenya. The study will address policies governing development, opportunities available and contribution to the GDP of Kenya.

According to the Kenya National Bureau of Statistics (KBS), Kenya enjoys an annual economic rate of return of 59% from the aviation industry (KNBS, 2015). In a bid to cater for rapidly growing passenger and cargo traffic volumes, Kenya has lately embarked on developing its airports. According to Irandu and Rhoades (2006a), Kenya's Jomo Kenyatta International Airport (JKIA), East Africa's busiest airport is on an ambitious expansion drive with funding from the African Development Bank expected to cost US$ 612m.

In a country whose economy heavily depends on agriculture, airport development is inevitable. While the government has a cardinal mandate of ensuring that all the key public sectors are supported to bolster economic development, committing funds in projects without ascertaining their economic viability would result in wastage of resources and curtail development. Despite the government pumping huge sums of money into JKIA little is said about its benefit to the Kenyan people (Irandu & Rhoades, 2006b). This study, therefore, seeks to empirically verify the benefit of airport development to the stakeholders in the three areas of employment creation, revenue generation and the cost of air transportation.

### 1.4 Objectives of the Study

The study will be guided by two types of objectives. Namely the general and the specific objectives.

### 1.4.1 General Objectives

The broad aim of this study is to determine the confounding effects of airport infrastructural developments on the economic development of Kenya. The specific objectives were:

### 1.4.2 Specific Objectives

In order to achieve the general objectives, the study had the following specific objectives

i. To establish the effects of airport employment creation and economic development of Kenya
ii. To evaluate the effects of airport revenue generation on the economic development of Kenya.
iii. To determine the effects of cost of air transportation on the economic development of Kenya

## 1.5 Research Questions

To achieve the specific objectives, the following Research Questions were formulated, namely;

i. What is the relationship between airport employment creation and economic development of Kenya?
ii. What is the effect of airport revenue generation on the economic development of Kenya?
iii. What is the effect of the cost of air transportation on the economic development of Kenya?

## 1.6 Justification of the Study

From a theoretical perspective, this study is instrumental as it attempts to provide theoretical tools to pinpoint the nexus between the development of airports and the economic development of countries. The wider economic benefits available from investment in aviation infrastructure and services should be included in any project appraisal. If these benefits are excluded, it will underestimate the potential social and economic gains from a project and could see much-needed investment projects either delayed or not undertaken.

The wider social and environmental costs of aviation investment are often included in a project appraisal but the wider economic benefits also need to be included if the appraisal is to be balanced and comprehensive. The provision of infrastructure services to meet the demands of businesses, households, and other users is one of the major challenges of economic development. Academicians, researchers and policymakers will find the study findings important as both reference material as well as a source of future research areas from the recommendations.

## 1.7 Scope and Limitations of the Study

Considering that there are more than five airports and airstrips in Kenya scattered in different locations of the country, the study focuses on Jomo Kenyatta International Airport (JKIA) in Nairobi. The choice of JKIA is largely based on the fact that the airport is the largest airport in Kenya and the primary exit and entry point for most commercial flights. The study is limited to airport development. It focuses on the effect of airport development on the economic development of Kenya with three specific variables,

namely airport employment creation, airport revenue generation and cost of air transportation.

## 1.8 Conclusion

This chapter presented an overview of the study and the researcher's experience. It also highlighted the problem statement, the purpose of the study, the objectives, research questions, significance of the study, the scope of the study, limitations and assumptions of the study. The chapter has been vital in giving direction and basis to the next chapter where literature is reviewed.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.0 Introduction

This chapter is a detailed review of the documented literature on enhancing airport development for economic development. The chapter examines the general understanding of the concepts of Airport development, economic development and linkages between airport development and economic development. It presents the theories of Globalisation, Solow Neoclassical Growth Model, Rostow's Stages of Growth Model and their application on the effect of airport development on economic development. It also presents the empirical review from both local and the international contexts of economic development.

## 2.1 Theoretical Framework

This study was guided by Rostow's stages of the growth model, Solow neoclassical growth model and the theory of globalization.

### 2.1.1 Rostow's stages of growth model

Rostow's stages of growth model were developed by Walt Whitman in the 1950s (Pupavac, 2010). The theory essentially seeks to examine various factors that must be present and completed as a nation becomes a modern industrial society. The first stage of the model describes methods of production that are inefficient and backward (Rostow, 1952). There are no advances in the level of productivity and economies at this stage are relatively stagnant. A traditional society is one whose structure is developed within limited production functions, based on pre-Newtonian science and technology, and on

pre-Newtonian attitudes towards the physical world. The central fact about the traditional society was that a ceiling existed on the level of attainable output per head. This ceiling resulted from the fact that the potentialities which flow from modern science and technology were either not available or not regularly and systematically applied (Rostow, 1952).

The second stage of growth known as a precondition for take-off embraces societies in the process of transition. This is the period when the preconditions for take-off are developed. This stage considers the fact that it takes time to transform a traditional society in the ways necessary for it to exploit the fruits of modern science, to fend off diminishing returns, and thus to enjoy the blessings and choices opened up by the march of compound interest (Rostow, 1952).

The third stage referred to as the Take-off, is the interval when the old blocks and resistances to steady growth are finally overcome. The forces making for economic progress, which yielded limited bursts and enclaves of modern activity, expand and come to dominate the society. During the take-off new industries expand rapidly, yielding profits a large proportion of which are reinvested in new plant; and these new industries, in turn, stimulate, through their rapidly expanding requirement for factory workers, the services to support them, and for other manufactured goods, a further expansion in urban areas and in other modern industrial plants (Rostow, 1952).

The fourth Stage referred to as maturity is the stage in which an economy demonstrates the capacity to move beyond the original industries which powered its take-off and to absorb and to apply efficiently over a very wide range of its resources--if not the whole

range--the most advanced fruits of modern technology. This is the stage in which an economy demonstrates that it has the technological and entrepreneurial skills to produce not everything, but anything that it chooses to produce. The last stage, known as the age of high mass-consumption, refers to a period where, in time, the leading sectors shift towards durable consumers' goods and services (Pupavac, 2010).

### 2.1.2 Solow neoclassical growth model

Solow neoclassical growth model is an economic theory that was developed by Robert Merton Solow in 1957 (Prescott, 1988). The theory stresses the importance of three factors of output growth: increases in labour quantity and quality (through population growth and education), increases in capital (through savings and investments) and improvements in technology (Prescott, 1988). Technological change in Solow's model is provided exogenously. Thus, with the same provided rate of technological progress, the growth rate would be expected to converge across countries. By opening up national markets, developing countries can draw additional domestic and foreign investments, thus increasing the rate of capital accumulation and returns on investments. Consequently, developing countries tend to converge to higher per-capita income levels (Ravallion, 2010).

Solow's growth model focuses attention on the process of capital formation. Aggregate savings, he argues, financial additions to the national capital stock. An economy with an initially low capital-labour ratio will have a high marginal product of capital. Then, if a constant fraction of the income generated by a new piece of equipment is saved, the gross investment in new capital goods may exceed the amount needed to offset depreciation and to equip new members of the workforce, thus the capital-labour ration

will rise – known as “Capital Deepening” - and nation output and income will increase. Solow’s theory is clearly neoclassical because it utilises an aggregate production function as well as the assumption of instant market- clearing and general equilibrium (Garegnani, 2010).

Solow’s (1957) revision to neoclassical growth theory can be formally stated as output (Y) is a function (f) of capital (K), Labour (L), and innovation (A) so that Y=Af(K, L) where A is a given constant. Solow’s contribution can be therefore understood as the addition of innovation to the basic neoclassical growth model. Innovation refers to advances in knowledge and technology and points to the important roles of research, education, and training as sources of growth (Prescott, 1988; Pupavac, 2010).

Globalisation theory tends to interpret the current events in the international sphere in terms of the social matrix that is, development, economic conditions, and social scenarios, political and cultural influences. As a theory it projects that the world is a global village based on worldwide active communication systems and interdependence due to smooth economic conditions, resulting in increased rapid movement of financial resources and trade. Worldwide conditions such as technological advancement, international financial system, and trade are driving nations’ economic development (Zineldin, 2012). Trade, financial links and communications among countries have become key variables in any analysis of the basic claim in international connections, roles, and relationships with integration among people, societies and regions playing a crucial role in social and economic changes (Cidell, 2014).

### 2.1.3 Theory of Globalisation

Economist Theodore Levitt is widely credited with coining the term Globalization in 1983 (Everett, 2013). Fundamentally, according to Connell (2007), the term globalisation has two principal meanings. Firstly it means that a greater interdependence is happening among different regions and countries in the world today. This is in terms of finances, trade and communications. Secondly, as a theory of economic development, one of its major assumptions is that a greater level of integration is taking place among different regions of the world and that this integration is having an important impact on economic growth and social indicators. Though the second meaning resonates greatly with this study the first meaning is factored.

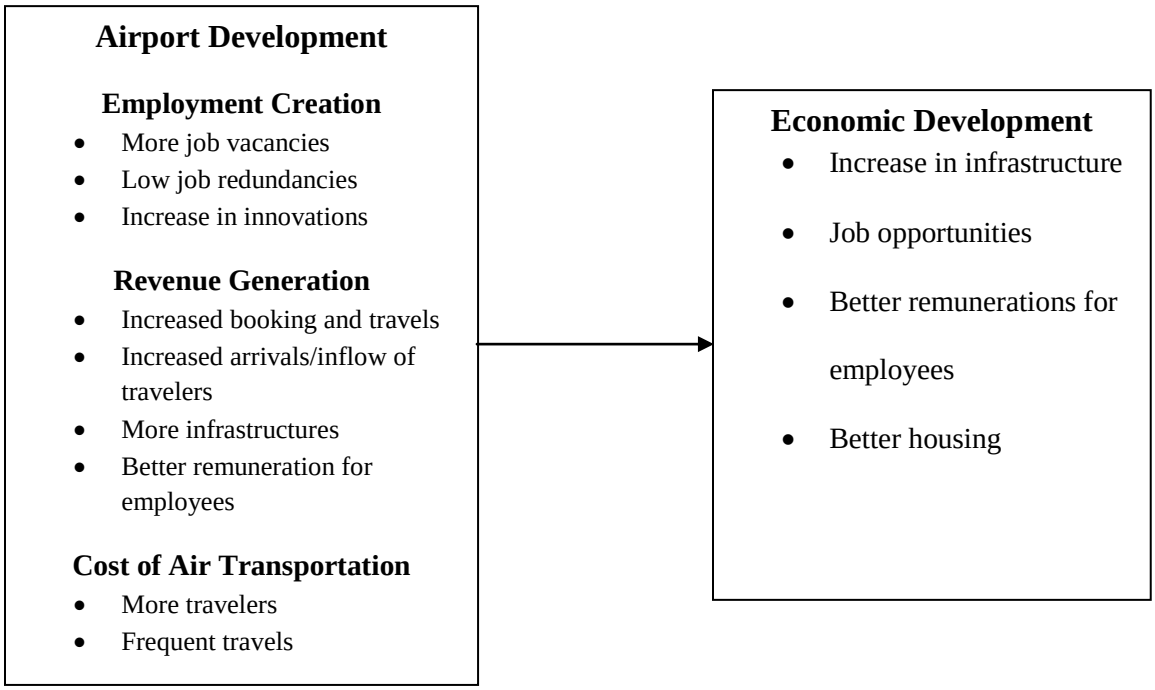
The spheres of communications and economic transactions explain and elucidate the theory of globalisation in the sense that one of the most important factors is the increased flexibility of technology to connect people around the world. It encompasses all the modern trends in technological advancement, financial and political ties. According to Everett (2013), the main tenets of the theory of globalization can be outlined as follows: firstly, the importance of universal communications systems is on the increase, hence facilitating interactions among nations more frequently and easily, not only at the governmental level but also among the people. Secondly, though developed nations are the architects of this technological advancement, the adoption and use of these mechanisms is rapidly spreading to developing nations.

There is no doubt that due to developed and expanded aviation industry, places that were considered inaccessible can now be accessed. Economically, world trade has been

enhanced with the easy movement of goods, services, and people within a short period of time. We are now in a completely new environment for carrying out economic transactions, utilizing productive resources, equipment, and trading products. Moreover, with the influence of globalisation social and economic elements have become determinant circumstances which affect the standards of living of every person, no matter their location. From a social transformative dimension, the aviation industry is integral to globalization as it allows people to have adventures in new countries, to build business relationships and to visit friends and family. As the global economy grows ever more linked, aviation is the factor that brings people together.

## 2.2 Conceptual Framework

The study conceptualised the variables as shown in the following conceptual framework.




**Source: The Researcher**

**Fig 2.1: Conceptual Framework**

According to the conceptual framework of the study, the independent variables will entail all that pertains to airport development. The development will have an impact on creating employment, generating revenue and it will cut cost in air transportation. The dependent variables as shown in Figure 2.1 consist of economic development. Economic development will, in this case, include, increase in infrastructure, job opportunities, better remunerations for employees and better housing.

## 2.3 Empirical Review

The link between appropriate infrastructure provision and economic development is commonly recognised in academic literature (Canning & Pedroni, 2014; Frankel, 2017). Infrastructure investments have been proposed in the development literature as an influential factor in economic development, working through at least two of the three classic drivers of economic development directly via capital accumulation and indirectly via total factor productivity gains.

Infrastructure investments are hypothesized to facilitate private investments by lowering production costs and opening new markets, thereby creating new production, trade and profit opportunities (Fedderke & Bogeti, 2016). The effects, with time, are trickled down to the citizens as there is more revenue collection, job creation and generally improvement of life. Button, Leitham, Mcquaid, and Nelson (1995) state that modernising our infrastructure will help keep America competitive, create thousands of jobs while stimulating the economy, and improve the lives of all citizens. This type of recognition of the importance of infrastructure to the national economy and its growth is now also commonly recognised in African countries (Trichet, 2010; Manuel, 2017).

Studies by Hakfoort, Poot, and Rietveld, (2011); Brueckner (2003) have investigated the impact of infrastructure investment or put differently public capital on economic development. Many of these studies concentrated on the components of infrastructure investment as the determining factors. This study focuses on the importance of infrastructure investment on economic development and gives more details to studies that investigate the impact of transport infrastructure investment.

Hakfoort *et al*. (2011) and Brueckner (2003) studied the impact that airports have upon metropolitan employment. Using an input-output framework to analyse the effects on the Greater Amsterdam region from an expansion at Amsterdam's Schiphol Airport, Hakfoort *et al*. (2011) found out a one to one relationship, that is, one job increase at Schiphol was producing one job from indirect and induced effects. Exploring linkages between employment and air traffic in the Chicago metropolitan area, Brueckner (2003) found out that a 1% increase in passenger enplanements increase employment in service related industries by 0.1%. This has important implications for metropolitan development from airport expansions. Findings from Brueckner's study indicate that expanding Chicago O'Hare International Airport would generate 185,000 service related jobs.

Green (2007) in his study on *Airports and Economic Development,* uses various measures of airport passenger and cargo activity to analyse the linkage between airports and metropolitan growth in the USA. After controlling for various factors, Green finds out that passenger activity is a strong predictor of population and employment growth than cargo.

According to Kazda and Caves (2015), international airports have landside and airside sections. Landside includes sections such as public transport areas and parking lots for private cars and taxis. Airsides are protected areas that are accessible to aircrafts. Large airports have more than one runway meaning that they can accommodate large aircrafts. Airports may also have special sections providing VIP services.

The primary concerns, for the purposes of this study, are the actual airfield facilities and the access facilities. The airfield facilities include runways, aprons, taxiways and main buildings which are the passenger terminals and cargo buildings. The access facilities include primarily the roadways that lead into the airport terminals and cargo areas. These two components of airport infrastructure are important in terms of regional economic development (Kazda & Caves, 2015).

### 2.3.1 Economic Development

The term development and growth are often used interchangeably to refer to change and progress. That is not the case for this study. Growth refers to cumulative or increases but development for this study is not just measured in figures. As economic growth refers to a quantitative increase in a country's income in terms of goods and services produced in an economy, economic development is the quantitative and qualitative increase in terms of goods and services in a particular economy and its positive effect on the life of the people (Todaro, 2010). Economic development involves the aspect of quality; its concern entails many things that must change favourably. It is, therefore, a multi-dimensional process involving changes in structures, institutions and attitudes leading to the uplifting of the quality of lives of the average citizens in a given economy.

According to Todaro (2010), development cannot be measured numerically. The perception of quality differs from one person to another in line with the adage that one man's meat is another man's poison. Development is, therefore, subject to value judgment (personal judgment) and may differ from person to person, community to community and from country to country.

Today, the only generally accepted measure of development of the world over is the persistence increase in the volume and quality of output per head, (GNP per person or income per capita). Kazda and Caves (2015) summarises economic development as "the process where the real per capita income of a country increases over a long period of time provided that the number of people below an absolute poverty line does not increase and that the income distribution does not become more unequal". All these clearly demonstrate that the problem of development is not that of increasing income in LDCs. It is also a problem of finding ways to remove the related evils of poverty, inequality and unemployment. Economic growth and economic development are not synonymous. Airport infrastructure is, therefore, an essential ingredient if economic development has to occur.

Airports are specifically considered critical to the economy of any region. Aside from supporting trade and tourism, as well as providing critical global linkages, airports are generally accepted as significant contributors to employment, the fiscal and the gross domestic product (GDP) of a region (Europe ACI, 2014; IATA Economics, 2007). An Air Transport Action Group (ATAG) report of 2015 estimates that the global economic impact of air transport totals approximately 8% of the world's GDP. Employment (again direct, indirect, induced and catalytic impacts) is estimated at a global total of 29 million,

5 million of which are employed directly by airports, airlines and the aerospace industry. It is widely acknowledged that the air transport industry is a significant contributor to the total global economic activity and these figures provide some indication of its magnitude and importance. The industry provides a worldwide transportation network essential for global trade as well as tourism. It plays a vital role in facilitating economic development, particularly in developing countries (ATAG, 2015; Sheard, 2014).

The economic impact of a particular airport would, however, be significantly undervalued if considered in global terms only. Any airport has a considerable impact on the region within which it is situated, including on the employment within the region, the tax base and the GDP (Florida, 2012). Aviation has an influence on tourism, as well as trade. It also has an impact on where companies invest and is particularly important for key growth areas. Users depend on airports for network connectivity while aviation, in general, supports business efficiency. Airport development, however, could have wider GDP benefits and reduce congestion costs (Oxford Economic Forecasting, 2016). Air transport also facilitates world trade and boosts productivity across the global economy. Air transport improves the efficiency of the supply chain and is widely regarded as an enabler of investment both into and out of countries and regions. It also acts as a spur to innovation and provides consumer welfare benefits to individuals using air transport (ATAG, 2015). Airports globally create thousands of jobs; generate considerable income through sales and generally contribute significantly to the total economic activity of their surrounding region through wages, income generated by tourism and business spending, airport activities and operations and airport-related businesses (Washington State Department of Transport, 2011).

In the Kenyan scenario, the study focuses on Jomo Kenyatta International Airport and it seeks to inform decision-makers on the relative impact of investments in such infrastructure. The typical impacts of an airport can, therefore, be pointed out as the creation of employment, create wealth, stimulate tourism, revenue generation and contribute to world trade (ATAG, 2015; Florida, Mellander & Holgersson, 2015). These factors have an impact on any nation's economy hence stimulating development.

As Green (2007) points out, the impact study considers only direct on-airport employment within all of the functional activities and the indirect employment opportunities generated by the various employment multiplier effects. Direct employment will be estimated from the survey results. Indirect employment refers to employment opportunities that are generated by related and spill-over off-airport activities.

### 2.3.2 Revenue Generation and Economic Development

Airport infrastructures provide access to air transportation services to regional and global residents and businesses. They operate as utilities providing infrastructure to service providers and their supply chain under 'revenue neutral' financial regulations (Rietveld & Bruinsma, 2012). The service providers collaborate to provide seamless, safe, and secure service to all the consumers of air travel.

Once an airport is operating, it must generate sufficient revenues to retire debt and cover operating expenses. Airports generate revenue from landing fees and terminal leases, concessions (parking fees), departure taxes and passenger facility charges, and other sources (advertising and fuel sales). Airport operating revenue funds the airports'

operating expenses debt service and at times non-operating expenses such as capital development (under a pay as you go financing scheme) (Oxford Economics, 2011).

Airport revenue falls into two broad categories revenues derived from air traffic operations and revenue generated from ancillary (non-aeronautical) operations. Air traffic operations are a major revenue stream. These include aircraft landing and parking charges, passenger and cargo charges, and lease of airline hangars and gates. Ancillary or non-aeronautical activities include concession fees (for instance, rentals and profit sharing agreements with concessionaires such as restaurants and shops), revenue derived from rental of land, premises and equipment (hotels and airline cargo space, kitchens and office space rent), income derived from the airport's shops and services (baggage handling and packing), and various fees charged to the public (Oxford Economics, 2011).

According to ACI (2010), 54% of airport revenue worldwide comes from aeronautical sources (such as landing fees, aircraft parking, lighting and air bridge charges), and 46% is derived from non-aeronautical sources (such as concessions, parking, rental car facilities, and advertising). The challenge faced by airport operators is building the infrastructure, leasing it to the service providers, and managing the service providers to ensure that a quality service is delivered to customers, and ultimately supporting the growth of the economy. To track performance and manage change and growth, airport operators must measure and benchmark airport performance and their service provider partners in a complex, collaborative service environment.

Air carriers select airports based on the passenger demand for service to and from the airports (revenue generating potential) and on the cost of operating at the airport. The

airlines have the objective of achieving high yields (O'Connell & Williams, 2005). Airports serve the role of providing access to high yield markets. Attractive airports ensure low cost of air carrier operations at the airport. This includes both minimising direct fees charged to air carriers through maximisation of non-aero-nautical revenues (Dawson, 2017), and minimising costs incurred by air carriers through a delay on the ground (Cook, Tanner & Anderson, 2004).

According to Kapur (2015), airside revenues generated by traffic handling and fuel concessions also vary significantly among airports. He adds that this is because these activities either can be owned or operated by a government department, the airport authority, a private operator, or by the airlines. For example, aircraft traffic-handling activities are carried out by the Vienna International Airport Authority and appear as a component of total airside charges (Graham, 2012). In Argentina and Hong Kong, these activities are carried out by the private sector, with the respective airport authorities receiving only concession revenues. In the United States, the airlines perform this function within their dedicated terminal facilities, with no revenues shown on airport authority balance sheets (Graham, 2012). Given these differences, consolidated airside revenues are not easily comparable among airports.

### 2.3.3 Cost of Transportation and Economic Development

Airport infrastructural development and cost of transport have a significant impact on economic development of a country. First, infrastructural development of an airport affects the cost of transportation. Secondly, the benefits of cost, trickle to the economy of a country; positively or negatively. Meanwhile, to understand how the cost of air transport could relate to various sectors of a country, we need to understand the kind of

passengers as well as products benefit from air cost. Hansman and Ishutkina (2009) identify four categories of air transport users: Firstly, there is a class of business passengers. They travel because of economic reasons. They reach out for new markets, selling products and services, and enabling the movement of capital and labour. Their movement from one destination to another depends and is highly affected by the cost of air transportation.

There are those who travel for personal business. They travel for personal reasons; visiting friends and relatives, for medical treatment as well as for studies abroad. Though these purposes do not have a direct impact on the economy, the more they travel, the more revenue is accrued from their travels. The many airlines that land and take off from the airport contribute heavily in paying revenue which in return trickle in the economic development of a country (Hansman & Ishutkina, 2009). There is no denial then these particular kinds of travellers may affect a country's economic development.

Another category of travellers is the leisure passengers. They travel with the purpose to reach their tourist destinations. Though the impact of tourism on a country's economy is a wider research area, this study cannot avoid to mention how low cost or high cost travels which are a result of airport infrastructure can affect economic development of a country (Hansman & Ishutkina, 2009).

Lastly there is the air cargo. Unlike the transportation of passengers, air cargo involves the movement of high valued goods from one place to another. The industry that is affected by air cargo is likely to be manufacturing, agriculture, and trade industry. The movement of these goods and services depend largely on the cost of transportation. The

lower the cost, the more cargo will be transported from one destination to another (Hansman & Ishutkina, 2009). Lower or higher cost therefore is affected by the infrastructure of the airport.

The fact is, expanded and modernized airport infrastructure attracts more international high capacity flights as well as low cost flights. Wider runaways, high level security, passenger lounges and other kinds of infrastructure increase travels (Carruthers, 2013). For example, the introduction of low cost flights offer low fare cost. By accommodating such users air transport thereof influences the level of impact airport infrastructure has on a country's economic development. For instance, if a country is dependent on exporting its high value products, and high foreign income from tourism then there is no option rather than to develop better platform to promote its air cargo industry through better airport infrastructure (Button, Doh & Yuan, 2010).

### 2.3.4 Future Trends

The existing trends towards greater private sector involvement are expected to continue, but with significant variation between jurisdictions. The private sector is now also sufficiently large and mature that an important part of transactions are likely to be sales of shares between private sector entities, in addition to financing and refinancing transactions (Button, 2017).

Looking at the various regions of the world, the expected trends are outlined. In Europe, there continues to be some movement towards additional private sector involvement, including: the ongoing programme of sales of stakes of French regional airports, with Toulouse already sold to a Chinese investor (minority stake) and sales of Nice and Lyon

in process (majority stakes); in Greece, the sale of 14 regional airports has been agreed and is in the process of financing; a potential new airport at Kastelli in Crete is also being considered, and widening of the private sector involvement in Athens; in Turkey several airports are seeking private sector investment, including the new third airport at Istanbul, along with Dalaman and Bodrum; the privatisation of the main airports in Lithuania is under consideration; and the privatisation of Belgrade airport in Serbia is also under consideration.

There are also a number of secondary sales in airports ongoing including the recent sale of London City Airport and a process in Rome. In North America, full privatisation continues to be very rare, despite the recent sale of a concession for San Juan airport in Puerto Rico. Private finance for parts of airport infrastructure are more common, with the construction of a new terminal at New York's La Guardia airport, a new terminal at Des Moines, Iowa, an automated people mover at Los Angeles and terminal enhancements at Denver. In Canada, the terminal at Billy Bishop airport in Toronto is being transferred to the private sector (Coogan, 2010).

In Latin America, important developments include: construction of a new airport for Mexico City; the continuing programme of privatisation of Brazilian airports, following the concessions of airports in Sao Paulo and Brasilia and then at Rio de Janeiro and Belo Horizonte (Graham, 2012). Currently the four airports at Florianopolis, Fortaleza, Porto Alegre and Salvador are in the preliminary stages of a sale process; there is also consideration of selling a stake in the state airport operator Infraero to the private sector and also moves to concession smaller GA and cargo-oriented facilities; in Chile, the new concession of Santiago airport is close to being finalised, while a series of tenders for

other airports has been launched (Graham, 2012). In Colombia, a number of concessions are under consideration, including airports at Bogota (El Dorado), Barranquilla, Armenia, Popoayán and Neiva; and other privatisation or secondary sales of airports in Ecuador and Paraguay (Senguttuvan, 2007).

In China, Haikou Melian airport is being expanded and a programme to introduce seven airport PPP schemes was launched in June 2015. In India, a programme of privatisation has periodically stopped and restarted, following the earlier concessioning of Delhi and Mumbai airports, as well as private sector involvement at Hyderabad, Bangalore and Cochin (George, 2016). A process of privatisation was started at Chennai, Jaipur, Kolkota and Ahmedabad, but then postponed by the new Modi government in 2014. It was restarted it at the beginning of 2015 but was then cancelled again later in the year. Part of the reason for this was the very large increases in aeronautical charges introduced at Delhi and Mumbai, which resulted in a negative report from the Comptroller and Auditor General of India and reducing support from airlines. However, processes to develop Greenfield airports at Goa Mopa and Navi Mumbai are continuing. There are potential risks to these processes although most recent indications are that they are going ahead (Singh, Dalei, & Raju, 2016).

In Japan, a major programme of privatisation is underway. Osaka and Kansai airports have started operating as a concession as of April 2016, and Sendai's concession operation is due to start in July 2016 (Kawasaki, 2017). Other airports which are being considered for the programme include Fukuoka, Hiroshima, New Chitose (bundled with smaller airports on the island of Hokkaido), and Takamatsu (Gong, Cullinane, & Firth, 2012; Kawasaki, 2017).

In other parts of Asia and the Middle East privatisation programmes are still ongoing too. In the Philippines and Vietnam (airport terminal at Hanoi and Phu Quoc airport) have been launched, with the government of Vietnam recently agreeing to sell 166 million shares to Aeroports de Paris which will become a strategic investor in the country's airports (Williams, 2016). In Myanmar there are plans to enlarge Mandalay Airport and to build a new airport outside Yangon (Kyaw, 2014). Indonesia has plans to privatise some of its outlying airports (Williams, 2016). In Saudi Arabia, Madinah airport has already been privatised under a BOT concession, while the operation and maintenance of the new International terminal at Jeddah is to be concessioned, with the Saudi government also developing plans for the privatisation of Riyadh and Damman airports. The government of Iran has signed MoU's with French groups Aeroports de Paris/Bouygues Batiments and VINCI Airports for the redevelopment of airports in Tehran, Mashhad and Isfahan (Ashford, Mumayiz, & Wright, 2011).

In Africa, private sector involvement has been relatively slow, partly due to the relatively low traffic volumes outside South Africa and the North African states (where airports have been privatised in Egypt and Tunisia). There are airport operating concessions, but involving relatively low capital investment, at Lagos's domestic terminal and in francophone countries including Ivory Coast and Gabon. The concession for Madagascar's main airports has now reached the preferred bidder stage. A new airport in Rwanda and a new terminal at Nairobi airport in Kenya are being progressed through Chinese investment, but it is unclear if these will actually come to fruition (Canning & Pedroni 2014). One more general feature of the trend towards commercialisation and

privatisation of airports is that different countries have chosen to adopt different strategies in relation to which airports are included:

Some countries have chosen to maximise returns by privatising the most attractive airports (generally hubs or those with the largest traffic base), but this can have the effect of leaving the remaining, smaller airports, under state management and, potentially, loss-making due to their smaller size. This applies to many countries including Brazil and India. In contrast, other countries have sought to privatise a national airport operator as a whole, or privatising groups of airports. Examples of this include AENA in Spain and ANA in Portugal and to a lesser extent the recent sale of 14 Greek airports (however, this excludes the prime asset, Athens, which was sold separately) and the groupings of airports in Mexico (which excluded Mexico City) (Brueckner, 2003).

Styles of airport management are often driven to some extent by the ownership structure and also by the regulatory regime. Where airports are run from entirely within the public sector, the management style may be somewhat bureaucratic, with the emphasis on conformity to regulation, and at times can be used as a tool for a social policy through employment and less focus on either revenue generation or cost control.

Conversely, the introduction of commercialisation or corporatisation was to a significant extent motivated to improve the airports' commercial performance. Consequently, management at commercialised airports, whether ultimately controlled by the private or public sector, tends to focus on enhanced revenue generation through improved commercial revenue generation, for example through a better retail offer and an airport layout designed to encourage passengers to spend time and money in retail outlets. In

addition, such management generally attempts to manage operating costs through reducing in-house workforces and using methods such as outsourcing and competitive tendering. Private operators also frequently improve airport performance with respect to service quality, as minimum levels of service may be written into concession contracts or regulatory oversight requirements, with financial penalties for missing targets (Airports Council International, 2012).

It is notable that many airport owning groups include a combination of airport operators and private investors, reflecting winning consortium from the bidding process for a concession, as well as, in many cases, a residual public sector interest. The airport operators within the owning groups tend to be responsible for the management of the airport, with the private sector investors focusing on providing finance and achieving good returns. In some cases, private sector involvement is largely limited to managing the airport operation, either as a management contractor with a concession requiring relatively little capital investment. This is an approach which has been used in Africa (for example at Abidjan), where in many cases the size of the airport does not justify the significant upfront capital investment, but where improved management is urgently needed (Pacheco & Fernandes, 2003).

However, in many cases, airport concessions have been established where an important condition for bidders for the concession is to commit to very significant capital expenditure, this being the rationale of the process from the public sector side. Examples include the privatised airports in India and Brazil, where airport expansion and service quality improvement were key objectives of the governments. In India the results have been dramatic in terms of the improved passenger experience, though it is also

noteworthy that aeronautical charges have increased significantly- a fact which is thought to explain, together with the discontent and subsequent lobbying of airlines that the momentum towards further privatisation in India has slowed down (Brueckner, 2003).

Another important aspect of airport management is the applicable regulatory regime. In all countries there is a safety and security regime to which airports are subject and even in the case of airports fully within the public sector, the regulatory authority is often a separate organisation. However, this separation is not always perfect and creating a proper licensing regime for safety can be part of the motivation for a more corporatized management structure for airports. Where airports have private sector involvement, such separation of operator and safety regulator is almost universal (Canning & Pedroni, 2014).

More significant variation is found in the economic regulation to which airports are often subject. Where airports are wholly managed within the public sector, there may be felt to be no need to protect the economic interests of airport users (i.e. principally airlines and, by extension, airlines' customers, the passengers). However, as the separation of airport management from the state increases, there may be an increasing need for economic regulation (Phang, 2016).

In most cities, there is only one significant airport. Where there are multiple airports serving a city, it is very frequently the case that the airports are owned by the same organisation, whether private or public sector (as for example in both Paris and New York). Airports which directly compete for traffic in the locality are rare, with London being the most obvious example, with Heathrow, Gatwick and Stansted all owned by

different organisations following the enforced sale of Gatwick and Stansted by the UK's Competition Authorities. To some extent, airports which act as airline hubs do compete, since they provide alternative routeings for passengers between pairs of airports which do not themselves have good direct connections, and this can exert a downward pressure on prices. However, for the local markets served, there might be a need for a legal framework on the airport charges requested from airlines (Button, 2017).

For this reason, regulation of aeronautical revenues is a common place where airports are privately owned, and often also the case when acting as corporatized entities with a mixture of public and private ownership. The way prices which airports can charge for use of facility are calculated can take a number of different forms, but there are two broad applicable approaches: dual till, where only aeronautical revenues (i.e. those paid by airlines for use of the airport facilities, runways and terminals), cost and assets are regulated, with commercial revenues, costs and assets from other sources freely set; and single till, where aeronautical revenues are regulated taking into account the non-aeronautical revenues of the airport and total costs and assets of the airport (Coogan, 2010).

In a dual till regime, it is necessary to separate out both capital and operating costs which are related to the operation of the airport as an aeronautical facility. The regulation then considers what level of charges is sufficient to allow these costs to be funded (with an adequate return to investors). In a single till regime, all operating costs and assets are in scope, and the level of expected commercial revenues are considered when assessing the level of aeronautical charges which would generate sufficient revenues (when added to

the commercial revenues) to cover the full costs of the airport (Button, Doh & Yuan, 2010).

It is noteworthy that IATA, the airline association, supports single till regulation, because, in its view, the benefits of commercial revenues at airports especially those generated by airlines' passengers are, to some extent, shared with the airlines (the higher the commercial revenues, the less needs to be recovered from airlines through airport charges) (Airports Council International, 2012).

Under either approach, it is necessary to assess several factors which include; the efficient level of operating costs; the appropriate level of capital investment; the appropriate level of return on capital (e.g. the riskiness of the business and hence the appropriate risk factor or beta applicable to a risk-free rate of return); and the expected level of traffic growth (i.e. the number of flights or passengers over whom the aeronautical charges will be spread to generate the allowable aeronautical revenues) (Button, 2017).

The ground handling market, as defined in EU Directive 96/67 covers a range of services including passenger handling: assistance with tickets, travel documents and baggage, etc.; baggage handling: in the sorting and reclaim area; ramp handling: marshalling, aircraft parking, engine start, food and beverage loading; cargo handling: freight and mail documentation review, customs; fuel and oil handling: fuelling and its storage. Other services would include ground administration and supervision; aircraft services; aircraft maintenance; surface transport: between the terminal and to aircraft; catering services; and flight operation and crew administration.

The global market for ground handling is estimated as having a value of €70 - €90 billion per year. The market is commonly served by one or a combination of self-handling by the airlines; airport's own ground handling company; and/or third party, independent ground handling companies (Cidell, 2014). Each country and airport has different rules and processes for market entry. Some of this is related to available infrastructure on the ramp and in the terminal - for example in the United States airlines often own or control the terminal and gate infrastructure, however, a competitive third-party ground handling market has still existed in the USA for a number of years. IATA estimates that up to 50% of ground handling services globally are outsourced to third parties. In the US, some 65% of the market is serviced through the main airlines (United, Delta, Southwest and American) own ground handling companies (Cameron, Crawley, Loureiro & Rebentisch, 2008).

The building of the airports provides an increase in economic benefits for not only the surrounding and immediate community but also the country as a whole. The benefits include; addition of new destinations; higher frequency of service; facilitate new entrants into the market; improved reliability of services; enabling of airlines to consolidate operations at a single airport, and increased competition. Other immediate and easily cognisable effects are increased productivity in the industries forming the airport's hinterland and an increase in employment opportunities in both the formal and informal sectors (Airports Council International, 2012).

Second to these are another cluster of benefits which are experienced by the industry players who feed directly into the airport. These include ease of recruiting skilled workers in larger, shared labour markets; knowledge-sharing through formal and informal

communication; access to more competing suppliers; and, access to more potential customers (Airports Council International, 2012).

In addition to these, connectivity generates wider economic benefits for businesses, both through the efficiency of direct linkages and also by providing an environment that benefits businesses. In an international business world, air transport provides access to an international labour force, as well as customers, suppliers and knowledge-sharing around the world. These catalytic and 'spillover' effects, increase the efficiency and productivity of UK businesses, as well as attracting inward investment and high-profile businesses to choose to locate in the UK over comparator areas (Airports Council International, 2012) .

Major national inward investment agencies always promote their international connectivity, particularly air connectivity, as a means to attract foreign direct investment. It is widely recognised that air connectivity plays a crucial role in recruiting foreign business (Ashford, Mumayiz, & Wright, 2011). Furthermore, the availability of air freight services further facilitates trade by enabling businesses to operate in a more flexible and time-sensitive scale, benefiting from services such as 'just-in-time' delivery (Brueckner, 2003).

### 2.4 Research Gap

Previous studies have examined the contribution of airports to fiscal growth (Brueckner, 2003) and its contribution to the gross domestic product (Coogan, 2010). Other studies have also examined the link between connectivity and the wider economic benefits for businesses (Cidell, 2014). However, there is a paucity of information on the relationship between employment creation and economic development resulting from airport

development. Previous studies have also not adequately examined the nexus between revenue generation in the aviation industry and the various indicators of economic development such as infrastructure, job opportunities, remunerations for employees and living conditions. There is also scarce information on the cost of air transportation on economic development. This study, therefore, seeks to bridge the identified gaps.

## 2.5 Conclusion

This chapter explored literature related to the study, theoretical and conceptual framework. The knowledge gaps established to confirm that indeed, improving airport will lead to economic development. The first part established that investments in various facets of the airport's infrastructure are influential factors of economic development. The second part sought to evaluate how revenue generated by the airports contributes to economic development in Kenya. The third part sought to determine the contributions of airport on the economic development of Kenya. It also provided an analysis through a case study of airport ownership and management around the world and finalised with an analysis of some of the economic effects brought about by the budding of airports in a given economy.

# CHAPTER THREE

# RESEARCH DESIGN AND METHODOLOGY

## 3.0 Introduction

This chapter discusses the methodology applied in achieving the objectives of the study. It provides a general framework for the research. The chapter covers the research design, the target population for the study, sample size and sampling procedures used, research instruments used to collect data, data analysis procedure used and ethical considerations to be applied while carrying out the study.

## 3.1 Research Design

This study used descriptive research design. A descriptive design was used to describe characteristics of a population or phenomenon being studied (Babbie, 2015). The design enabled the researcher to acquire complete and possibly accurate information related to the issues under enquiry. Kothari (2014) affirms that descriptive survey design allows making an in-depth investigation to gain valuable and unique insights, as it focuses on relationships and processes within social settings which tend to be interrelated. The reason for choosing this study design was based on what Kothari (2014) considers to be the strength of descriptive survey design. He adds that the design is relatively inexpensive, useful in describing the characteristics of a larger population can be administered from remote locations using telephones, methods used are feasible, thus making the results statistically significant even when analysing multiple variables.

While using the descriptive research design the researcher employed both qualitative and quantitative approaches to the study. The study focused on Jomo Kenyatta International

Airport (JKIA). The choice of this airport was based on the fact that it is the largest in the country with the highest traffic. JKIA was also chosen due to its infrastructural expansion projects rolled out by the Kenyan government.

### 3.2 Target Population

The target population of a research is the desired population from which a researcher contextualizes the study and upon which a generalised assumption may be made to form the background against which the research findings can be based (Mugenda & Mugenda, 2009). Babbie (2015) also defines target population as all the items or people under consideration at the time of carrying out the research. It is the total number of elements that have a chance of being picked as research subjects or respondents. Chandra and Sharma, 2007) refers to research population as any given group of individuals who have one or more characteristics in common that are of interest to all researchers.

In view of the type of information needed for the study, this research comprised of Kenya Airport Authority staff working at Jomo Kenyatta International Airport and all operators working within JKIA. According to KAA Human Resource Office statistics, there was 267 KAA staff at JKIA at the time this study was undertaken. They were headed by an airport manager in charge of JKIA. There were 82 registered operators at JKIA with a total staff capacity of 1,204 personnel. Therefore, a total of 1,471, which includes all the KAA employees and staffs working in the 82 registered operators at JKIA formed the target population for the study.

### 3.3 Sample Size and Sampling Procedure

The discussion on the how the sample size and the sampling procedure for this study are discussed in the following section.

### 3.3.1 Sample Size

For the purpose of this study, the researcher drew a sample from the target population. The researcher sampled the size to be used in this study by considering the population size, the level of precision and a confidence level. In the calculation of the sample size, the researcher used a formula proposed by Krejcie and Morgan (1970).

$$n = p(1-p)(\frac{Z}{E})^2$$

Where:

*P* is the proportion of target that can be reached (realistically).

*Z* is the confidence level score. The study used 95% confidence level, the score of which is 1.96

*E* is the margin of error is percent. The assumed margin of error in the study was 5%

$$n = p(1-p)\left(\frac{Z}{E}\right)^2 = 0.5(1-0.5)\left(\frac{1.96}{0.05}\right)^2 = 384.2$$

Based on these proportion statistics, the true sample was calculated using the formula

$$True\ Sample = \frac{n * population}{(n + population - 1)}$$

$True\ Sample = \frac{n*population}{(n+population-1)} = \frac{384.2*1471}{(384.2+1471-1)} = 304$ Respondents

Therefore, the study used a sample size of 304 workers of KAA working at JKIA as respondents for the study.

### 3.3.2 Sampling Procedure

Sampling is a systematic process of selecting a number of individuals for a study to represent the larger population (Cohen, Manion & Morrison, 2011). Purposive sampling

technique was used to select the 304 respondents. The reason for using purposive sampling was based on the researcher's own judgment of the kind of respondents to participate in the study (Babbie, 2015). By using purposive sampling technique, the researcher selected only respondents who were working in departmental sections where they could obtain information on key areas of development in the Airport, especially in regards to employment creation, revenue generation and cost of air transportation. This enabled the researcher to access only respondents who were deemed to be information rich with regard to the research objectives.

### 3.4 Research Instruments

A research instrument, according to Cohen, Manion and Morrison, (2011) is a tool used to collect data, designed to measure knowledge attitude and skills. For this study, the researcher used questionnaires to collect primary data from the respondents.

#### 3.4.1 Questionnaire

According to Mugenda and Mugenda (2009), a questionnaire is a common method used in research to obtain information. Both closed and open-ended questions were designed for this study in order to collect information from the respondents. The structured and unstructured questions gave the respondents freedom as well as the opportunity to respond to the questions and to give further explanations where necessary. In the formulation of the questionnaires, the researcher ensured that each section of the developed questionnaires dealt with a specific objective.

The reason why the researcher used questionnaires is that questionnaires are good for maintaining anonymity and high level of confidentiality. Therefore, the participants can

respond to the questions with the assurance that their responses will be anonymous hence making them be truthful and honest.

### 3.5 Data Analysis

Data analysis is the examining of what has been collected in a survey or experiment and making deductions and inferences out of it (Kombo & Tromp, 2016). The researcher used a combination of qualitative and quantitative data analysis in order to improve on evaluation. This is meant to ensure that the limitations of one type of data are balanced by the strengths of another (Creswell, 2014). This will ensure that understanding is improved by integrating different ways of knowing. The use of mixed methods of data analysis ensured that limitations of one type of data were balanced by the strengths of another (Kombo & Tromp, 2016). The closed-ended questions were analysed quantitatively while the open-ended questions were analysed qualitatively.

The study used descriptive statistical tools to analyse the collected data. For descriptive statistics, percentages, means, standard deviations, and frequencies were employed and results presented in tables and charts. Statistical Package for Social Science (SPSS) software was used to analyse the quantitative data.

### 3.6 Logistical and Ethical Considerations

There were ethical issues pertaining to data analysis that had to be considered before doing such research. Considering the nature of the study, the researcher observed the ethical standards set by the institution. The researcher ensured that all works quoted were well referenced to avoid plagiarism and the ownership of the original data was acknowledged.

A written request to conduct a research in a given area or engaging certain respondents can be evidence of informed consent. In the case of this research, a written request was approved by the Ethics Committee of Tangaza University College. A permit to conduct the research in the area of study was also obtained from the National Commission for Science Innovation and Technology. Informed consent was also obtained from the research participants prior to their involvement in the data collection process. Secondly, all respondents were guaranteed that the information they were to share would not be disclosed to third parties before getting their nod. Such kind of information would be private. Lastly, the respondents' identity remained undisclosed to any third parties.

# CHAPTER FOUR

# RESULTS AND DISCUSSIONS

## 4.0 Introduction

This chapter presents the findings, discussions and interpretations on airport development and its effects on the economy of Kenya. Data was collected from 304 respondents that work across various departments at the Jomo Kenyatta International Airport. Data collection relied on questionnaires administered to the respondents. The response rate was 90.1% representing 274 filled and returned questionnaires out of the 304 administered questionnaires. According to Mugenda and Mugenda (2009), a 70% and above response is justified for a study.

## 4.1 Background information

The researcher sought two categories of background information from the respondents including their personal information and information on the status of the airport. These details were necessary to assist in gaining insights on the level of experience and interaction with the factors on the development of the airport that affected Kenya's economy. The demographic information of the respondents was sought for by the researcher in order to determine the suitability of the respondents to participate in this study. The background information was also needed to acknowledge the various characteristics of the respondents who were engaged in the study.

### 4.1.1 Age and gender of respondents

The researcher sought to establish the age and gender of the respondents so as to determine the distribution of females and males as well as the spread of gender across the

sample. Gender generally has an effect on the way individuals relate to each other and their interactions with different responsibilities and circumstances in life. Age, on the other hand, can be attributed to exposure towards life's situations and the experience in handling various circumstances of life. The age and sex of the respondents are presented in Figures 4.1 and 4.2 respectively.

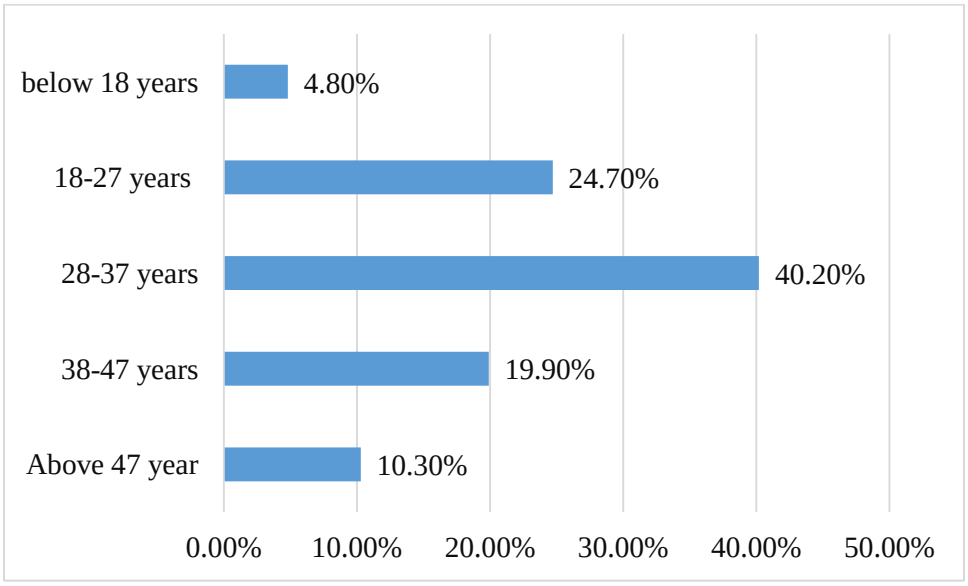



**Figure 4.1 Age of respondents**

The findings of this study indicate that a majority of the respondents who were engaged in this study were aged above 28 years (i.e. 274). The findings on the age of the respondents showed that most of them were over 18 years and therefore, could have had interacted with various forms of activities that affected the development of the Jomo Kenyatta International Airport and hence its effects on the economy.

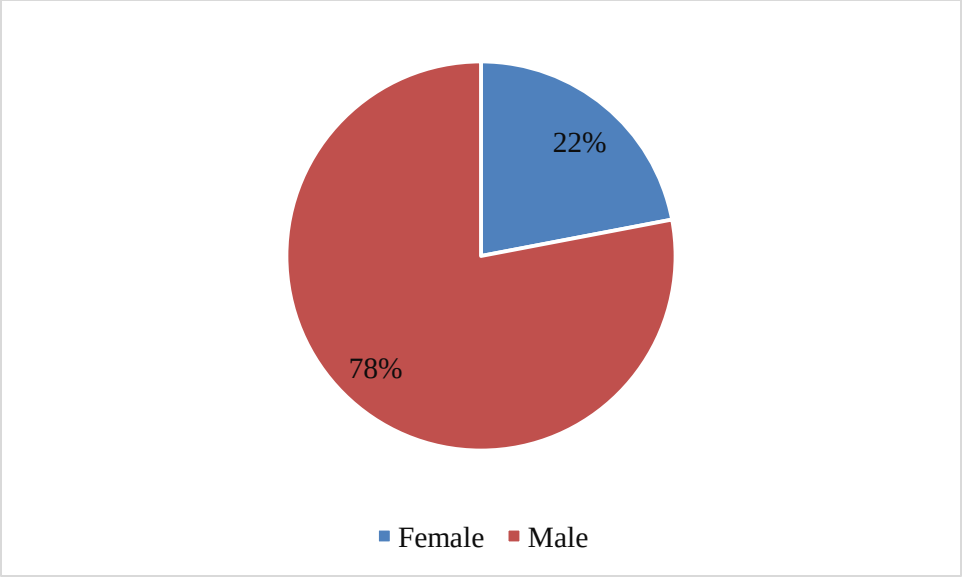



**Figure 4.2 Gender of respondents**

The findings of this study indicate that 78 % (n = 216) of the respondents engaged in the study were male. This implies that a majority of the employees from the departments in which the questionnaires were administered were male. The respondents were then asked to indicate the duration they had worked in an airport. The responses are presented in Figure 4.3.

### 4.1.2 Duration of working in an airport

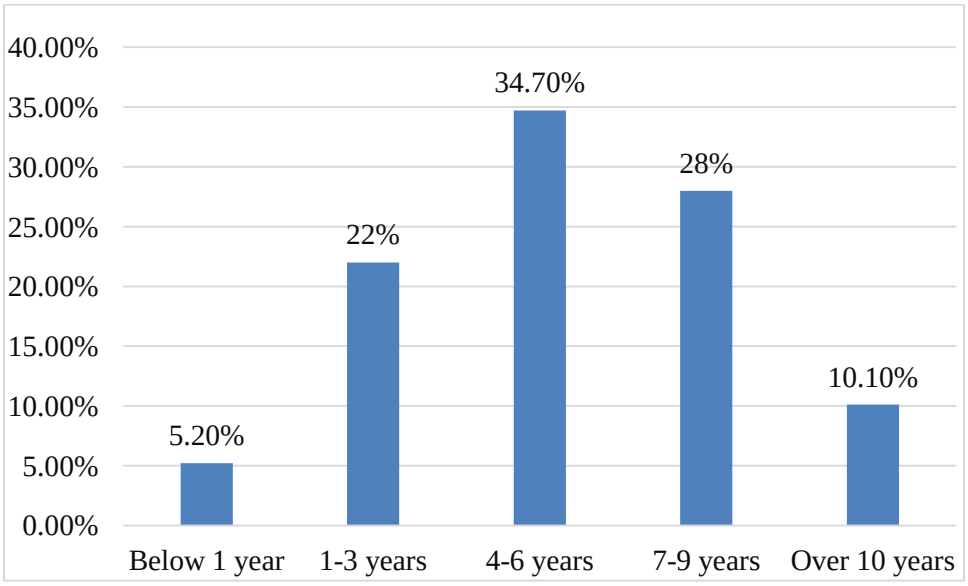



**Figure 4.3 Duration of working in an airport**

The findings presented in Figure 4.3 shows that a number of the respondents, (34.7 %) had worked in the airport for a period of between 4 and 6 years. Generally, most of the respondents had worked in the airport for more than four years. This gave the researcher the assurance that the respondents were at a position of effectively answering the issues on the development of the airport that contributed to economic growth having vastly interacted with them for several years.

### 4.1.3 Department of respondents

The respondents were also asked to indicate the department they worked in at the airport. The findings are presented in Figure 4.4.

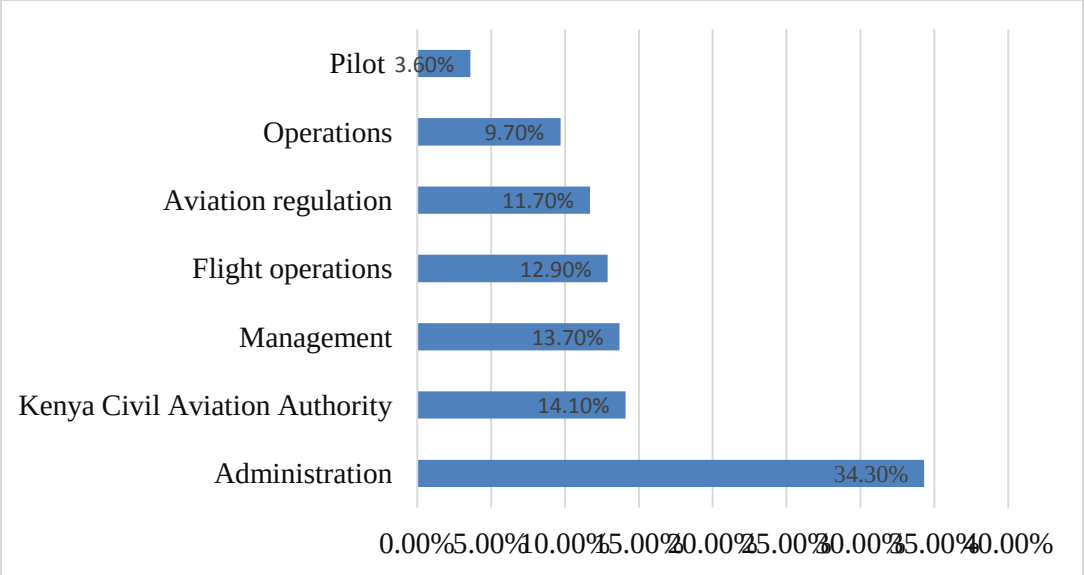



**Figure 4.4 Department of respondents**

From the findings presented in Figure 4.4, most of the respondents who took part in the study were from administration department (34.3%, n = 85). This indicates that the informants had sufficient knowledge of the airport activities.

### 4.1.4 State of the airport

The researcher sought to know from the respondent's details on the state of the airport. The findings are presented in the following sections. The respondents were asked to indicate the number of operational runways that the airport had. The findings are presented in Figure 4.5.

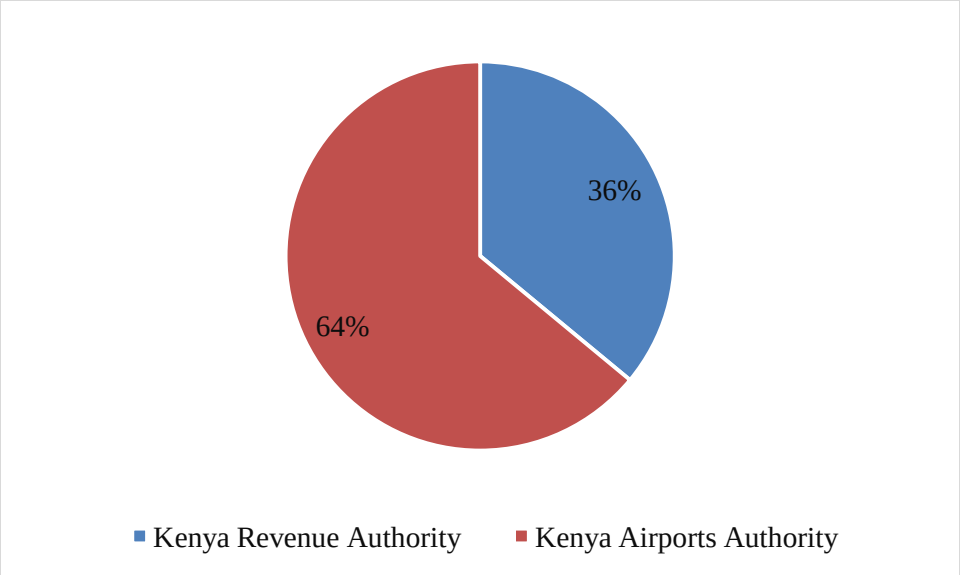



**Figure 4.5 Number of operational runways**

From the findings presented in Figure 4.5 majority of the respondents, 64% (n = 243) indicate that the airport had one operational runway.

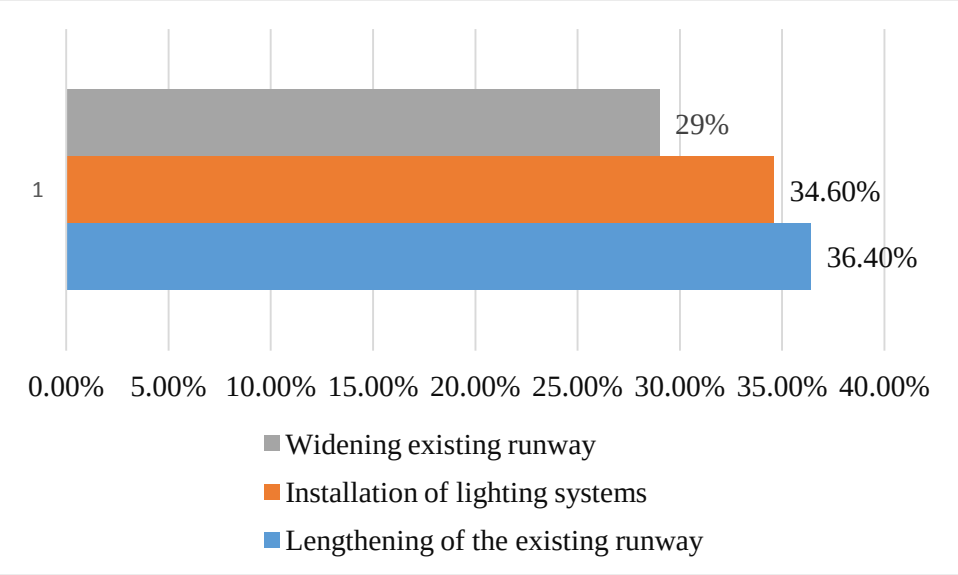



**Figure 4.6 Improvements to the airport runways**

The respondents were also asked to indicate if there were any enhancements that had been undertaken in the airport and the form of maintenance that had been undertaken. The responses are presented in Figure 4.6.

Most of the respondents 36.4% (n = 269) indicated the runways at the airport had been widened as part of the enhancements to the airport. The respondents were also asked to indicate the number of aircraft/aeroplanes that could park in the airport. The responses are presented in Figure 4.7.

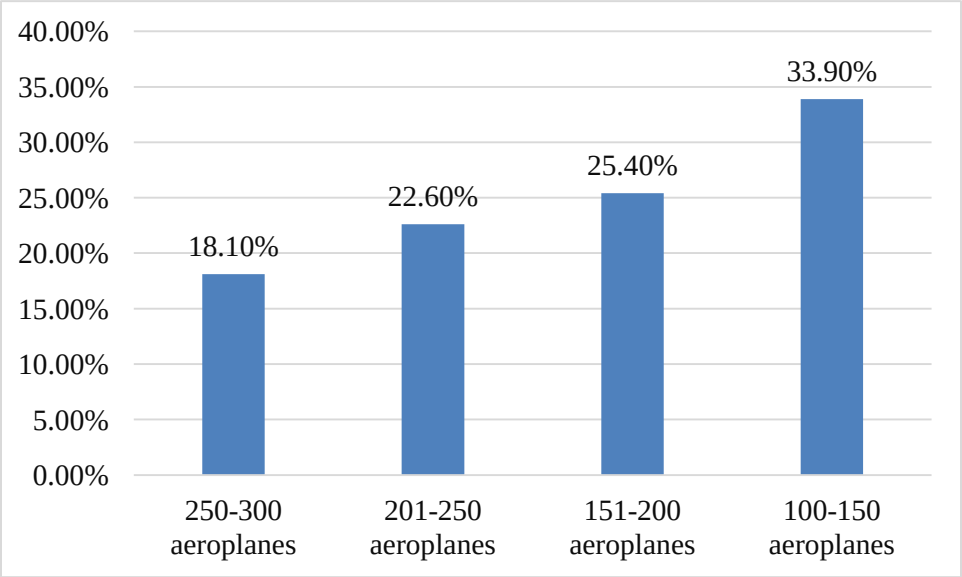



**Figure 4.7 Number of aircrafts that can park at the airport**

The responses by the majority of the respondents show that the airport has the capacity to hold 100 to 200 aeroplanes.

### 4.2 Employment creation

The researcher sought to establish the relationship between airport employment creation and economic development in Kenya as the first objective. The researcher posed several

questions to the respondents with the findings presented in the following section. The researcher sought to know from the respondents the major benefit to Kenya's economy of the Jomo Kenyatta International Airport. The findings are presented in Figure 4.8.

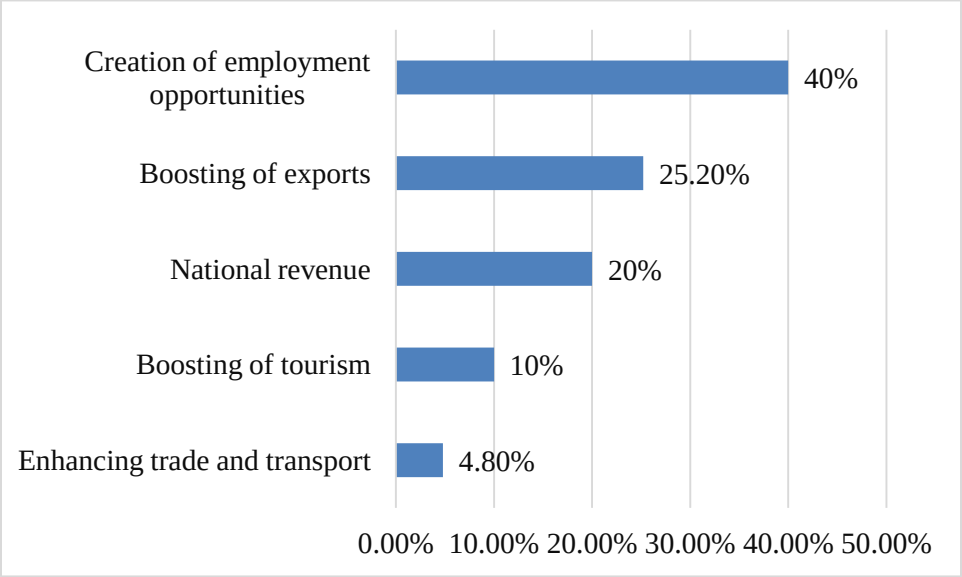



**Figure 4.8 Major benefits of the airport**

From the findings presented in Figure 4.8, some of the respondents (40%) indicated that employment creation was the major benefit attributed to the airport. Todaro (2010) indicates that economic growth is the quantitative increase in a country's income in terms of goods and services produced in an economy, economic development is the quantitative and qualitative increase in terms of goods and services in a particular economy and its positive effect on the life of the people. These benefits generally refer to the economic gains that can be attributed to the airport development. The respondents were then asked to indicate the frequency with which their departments recruited fresh employees and the main reasons for recruiting of the new employees. The responses are indicated in Figure 4.9 and 4.10 respectively.

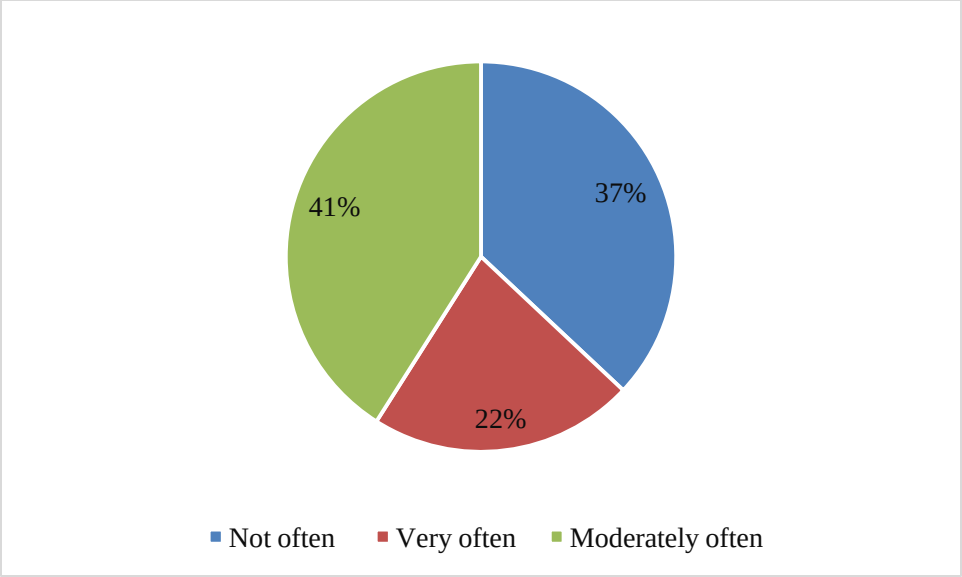



**Figure 4.9 Frequency of departmental recruitments**

From Figure 4.9 most of the respondents indicated the frequency of employment to be between not often and moderate (41% and 37.0%, n = 264).

Reasons for recruiting new staff on the other hand were given as follows:

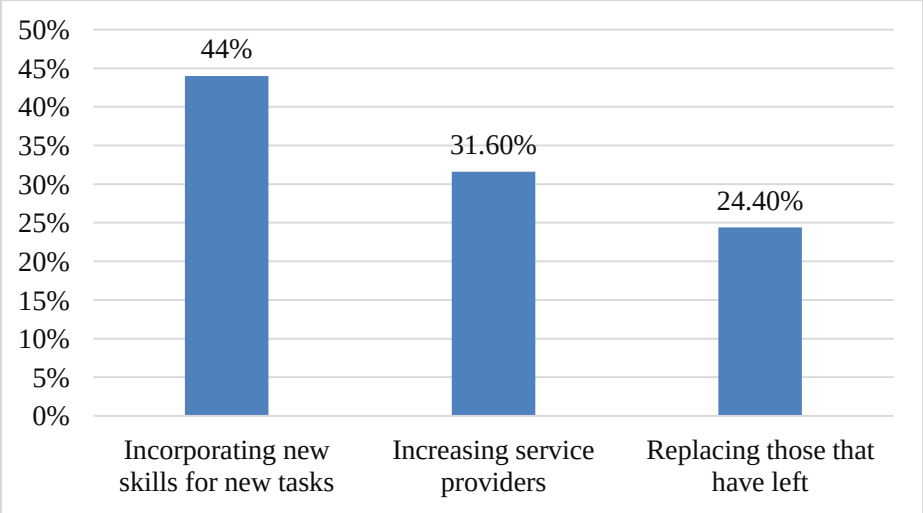



**Figure 4.10 Reasons for recruiting new staff at the airport**

The findings show that the major reasons for recruitment of new staff at the airport was to get new skills for new tasks (44.0%, n = 266). Employment creation is generally linked to the availability of businesses and business opportunities in a given sector. To this effect the respondents were asked to indicate the trend in the establishment of businesses at the airport. The responses are presented in Figure 4.11.

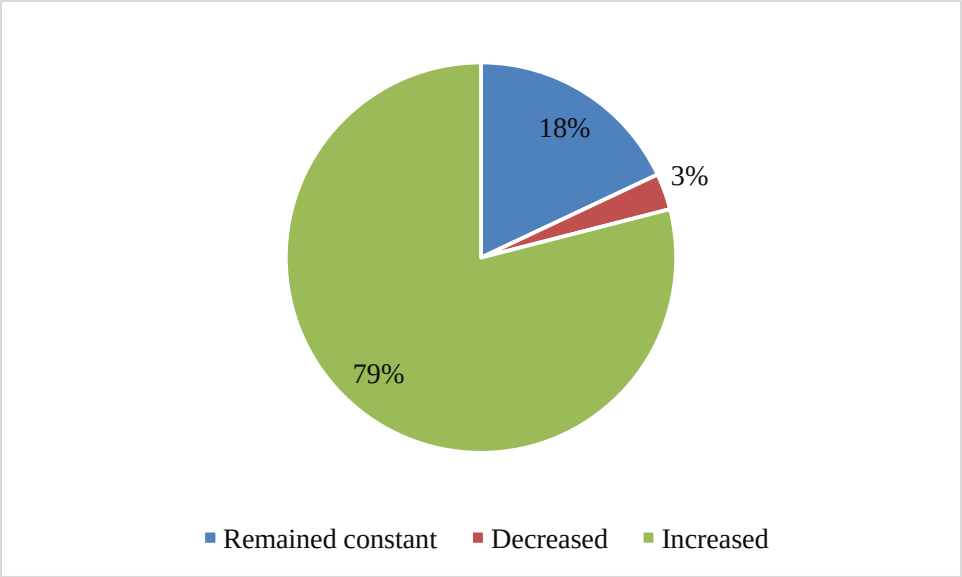



**Figure 4.11 Trends in establishing businesses**

Majority of the respondents (79%, n = 266) indicated that business premises had been established in the airport. This is generally an indicator of the level of employment creation at that the airport.

### 4.3 Revenue generation

The researcher also set out to evaluate the effects of airport revenue generation on economic development of Kenya. In the determination of the effects of the revenue

generated on economic development, the researcher sought to know various aspects from the respondents and the responses are analysed as follows.

Respondents were asked to indicate the average number of industries that imported or exported goods through the airport which all the respondents indicated to be more than ten companies. The respondents were then asked to indicate the most transacted between imports and exports. The responses are indicated in Figure 4.12.

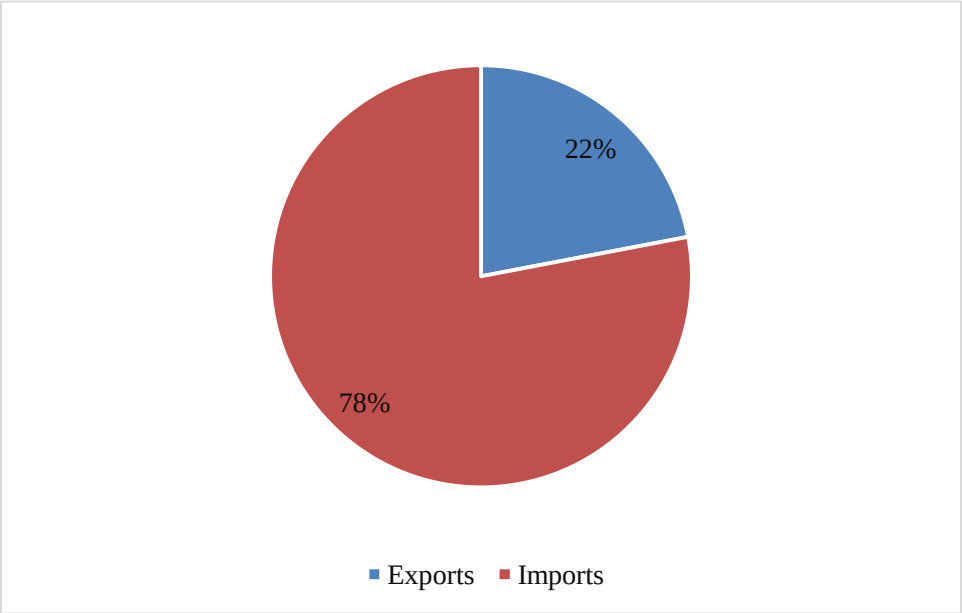



**Figure 4.12 Comparison between exports and imports**

The findings as indicated by a majority of the respondents 78% indicated imports to be the highly traded at the Jomo Kenyatta International Airport. The respondents were also asked to indicate the duration taken to clear goods at the airport which all the respondents indicated to be less than one week.

The respondents were also asked to indicate their satisfaction with the duration taken to have goods cleared at the airport. The responses are indicated in Figure 4.13.

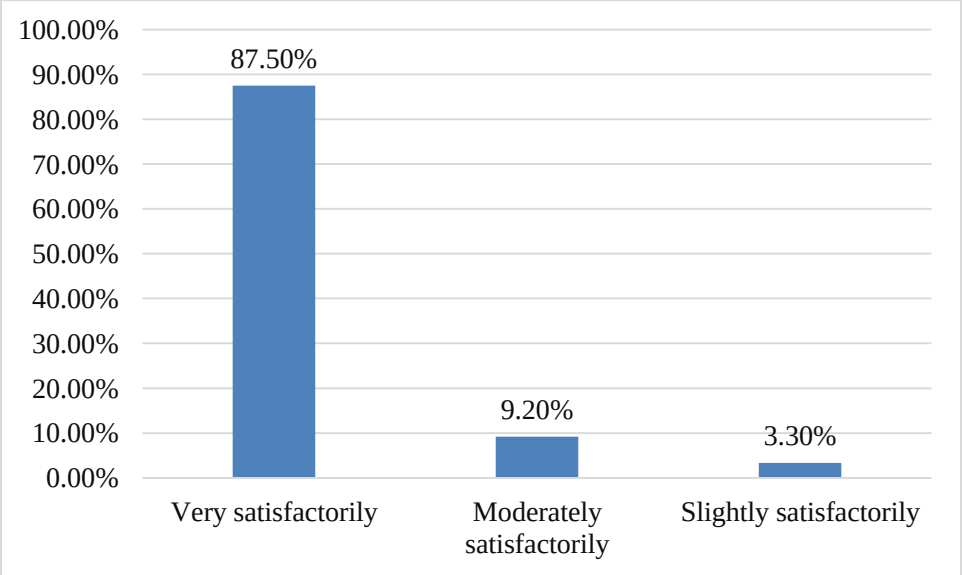



**Figure 4.13 Level of satisfaction with duration of trading goods**

The findings as presented in Figure 4.13 show a majority of respondents (87.5%, n=271) were very satisfied with the duration is taken to have goods cleared at the airport. These findings show that there is a high level of satisfaction with the level of efficiency at the airport in terms of the handling of goods.

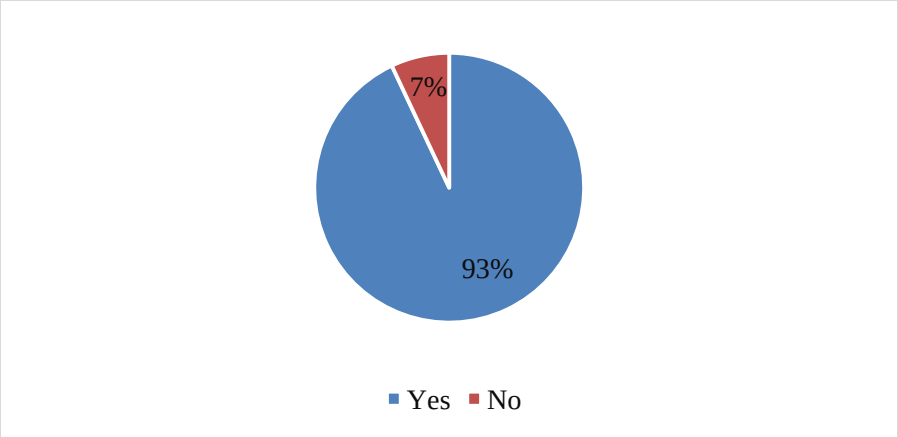



**Figure 4.14 Importance of airport on economic development**

From the findings presented in Figure 4.14, the majority of the respondents (93%, n = 272) indicated that the airport contributed significantly towards economic development.

### 4.4 Sources of Revenue for Airports

The researcher also set out to determine the effects of cost of air transportation on the economic development of Kenya. The findings are presented in the following sections. The respondents were asked to indicate the sources of revenue for the airport. The findings are presented in Figure 4.15.

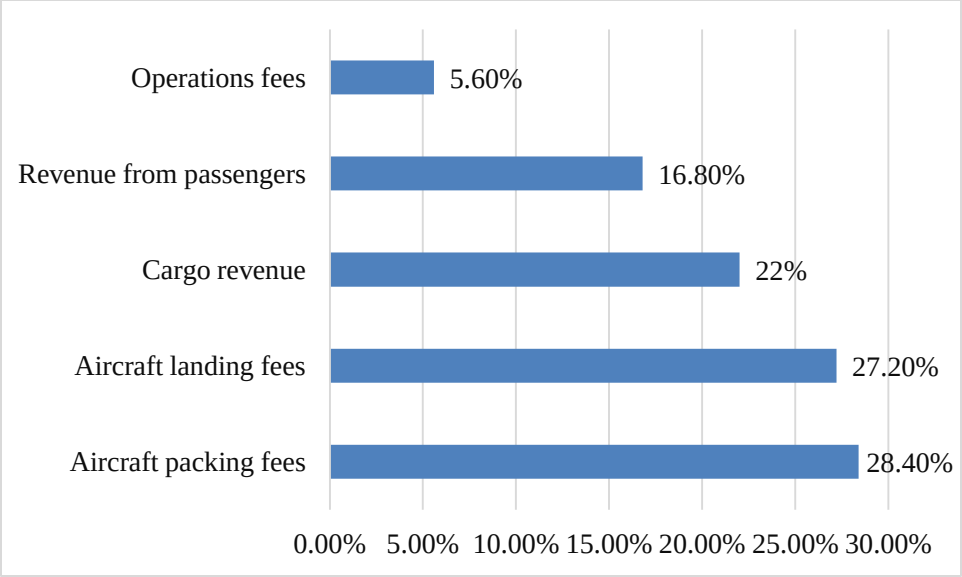



**Figure 4.15 Sources of revenue for airports**

The findings in Figure 4.15 show that the common sources of revenue for airports are aircraft parking fees (28.4%, i.e. 268) and aircraft landing fees (27.2%). The respondents were then asked to indicate the intermediate recipient of the funds collected from the airports. The findings are presented in Figure 4.16.

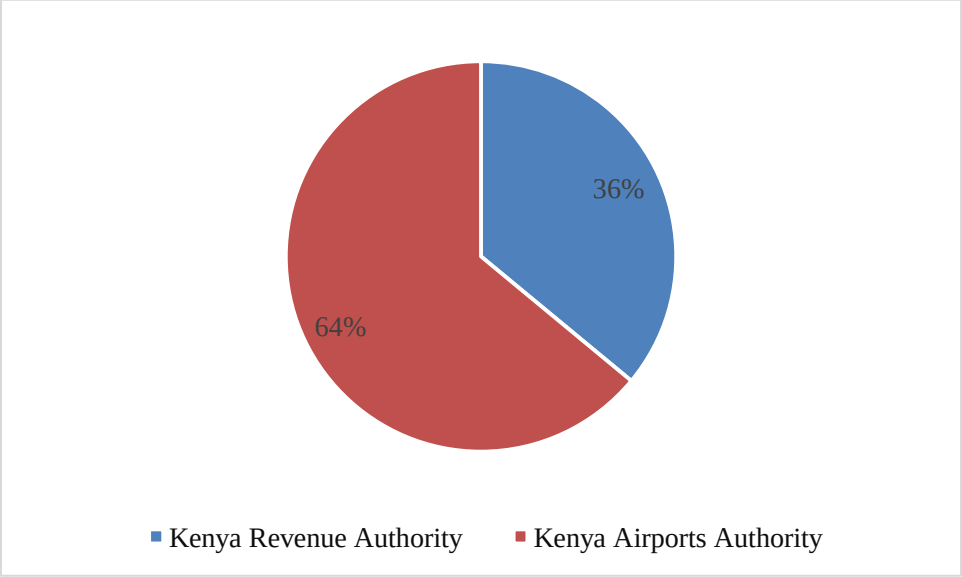



**Figure 4.16 Recipients of airport revenues**

Figure 4.16 shows that The Kenya Airports Authority was the highest beneficiary from the airport's revenue (64%, n = 222). The respondents were also asked to indicate if there were levies charged on goods passing through the airport and the basis of the levies. All respondents indicated that goods were levied and the levy depended on the quantity and type of goods transported through the airport.

Further, the researcher then prompted the respondents to give their opinion on the cost of air transport. The findings are presented in Figure 4.17.

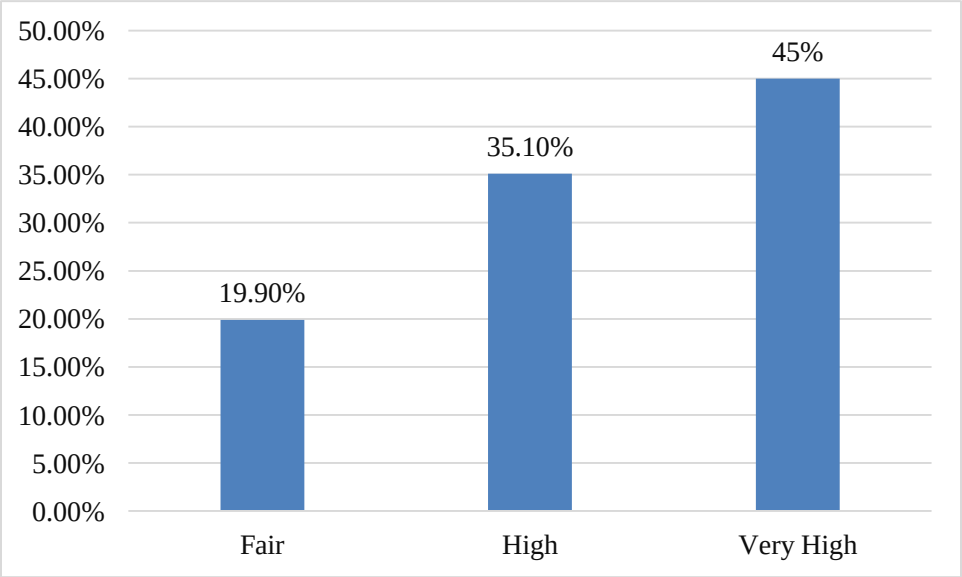



**Figure 4.17 Perception on the cost of air transportation**

Majority of the respondents (45.0%, n = 251) indicated that the cost of air transportation was very high. This had the likely effect of lowering the level of reliance on this mode of transport and the consequence being lowered revenues. The respondents were then asked to indicate the main factors that affected the cost of air transportation. The results are presented in Table 4.1.

**Table 4.1: Factors affecting the cost of air transport**

| Factors affecting the cost of air transport | Frequency | Percentage |
|---|---|---|
| **Cost of fuel** | 75 | 28.4% |
| **Taxes** | 67 | 25.4% |
| **Aircraft operation costs** | 54 | 20.5% |
| **Salaries** | 45 | 17.0% |
| **Competition between airlines** | 23 | 8.7% |
| **Total** | **264** | **100%** |

From the findings presented in figure 4.1, the majority of the respondents indicated that the cost of fuel (28.4%, n = 264) was the highest driver of the cost of air transport. Understanding the effects of air transport on economic development was necessary. The respondents were therefore asked to indicate the best in which the cost of air transportation would promote economic development. A respondent said that:

"*Low cost of air travel will encourage more tourists hence more revenue*".

The cost of air transport is also attributed to an enhancer to the operation of businesses. A respondent said that:

"*Air transport enhances the linkage between entrepreneurs" while another said that: "The cost of transport goods through airlines when low eases businesses, especially when handling exports and imports*.

## 4.5 Conclusion

This chapter has presented the findings, discussions and interpretations that emerged from the data collected on airport development and its effects on the economy of Kenya. The study findings reveal that generally majority of the most of the respondents were of the view that airport development would significantly contribute to the economic development through employment creation and increased usage of the airport facilities by travellers.

# CHAPTER FIVE

# RELIGION AND CULTURE FOR SOCIAL TRANSFORMATION

## 5.0 Introduction

This chapter will examine how religion and cultural trends can be used to address the issues of modernity and development. It is central to this work as it provides a different voice to the various players in the development of airports and related infrastructure. This will be done through a comprehensive analysis of the nexus between airport expansion and economic development.

## 5.1 The Pastoral Cycle as a Process

The pastoral cycle could be described as a six-step process in one's spiritual life. However, the pastoral cycle is more than that. It is the means by which that which a person believes in is exemplified in his life and makes an impact on needy groups in the world (Green, 1990). Consequently, in the pastoral cycle, the believer lives out the orthodox of his belief. This is important since it is created out of belief principles and practicalities of social justice, and the appropriate ways of taking action for the realisation of the same.

The pastoral cycle can be described as a lens through which the user can examine unjust relations in human society in a clearer way. Through this lens, the mechanisms, laws and structures, ideologies and rules that not only lead to life's injustices but also maintain them in their subjugation of mankind are better seen. Through Pastoral Cycle, the transformation of the individual, the society he lives in and the environment in which he subsists are achieved. Hence, through the element of communal faith the community can

embrace life situations and learn from them; decide on the problem that will be tackled; analyse a situation with the aid of insight from the light of faith; identify the most effective means of achieving a solution; strategize on a realistic and suitable plan of action; implement the action and engage in evaluation of the changes achieved and also the learning curve (Holland & Henriot, 1983).

### 5.2 Steps of the Pastoral Cycle.

Pastoral cycle aids one to understand the available steps to understand a situation. It is therefore central to the pursuit of justice and peace as it helps us understand a situation at different times (Henriot, 2005).

#### 5.2.1 Contact

Through contact one is able to get a feeling of the suffering that the concerned people pass through. This is possible through objective observations and also through subjective feelings. These are possible because it is the time to ask questions and make use of available literature on the topic of concern. In the present case study, the experiences of those who live around an airport or those who in one way or another are affected when the airport is under development and those who stand to benefit from operations upon its completion are of concern.

#### 5.2.2 Analysis

Analysis describes the part where the historical element of the issue at hand is dealt with. It involves examination of questions such as the potential beneficiaries in the airport plans, the societal structures which have proven unjust, the societal values that have been incorporated into the airport building, and the general interconnectivity of all these issues. These issues find new life bearing in mind that Kenya is considered a growing economy

and a preferred stop for all international businesses wishing to do business in east and central Africa. In social sciences, this is called needs analysis which is a valuable analytical technique used to gauge or analyse the current situation. According to Ashford, Mumayiz, and Wright (2011), the process must engage all the people that will be affected by the development.

### 5.2.3 Faith Reflection

This calls upon examination of the situation through faith and other shared belief systems. It aids in the discovery of religious teachings, elements of our spirituality and cultural extractions and expectations, the norms that are collective of our societies and wisdom handed down by our ancestors. All these have a veritable influence on how we decide to live and how our morals influence our daily choices.

An integration of Christian beliefs with other prominent religions such as Islam as well as an infusion of traditional ethics and morals which is also applicable would be vital. From a Christian perspective, these teachings are based on God's teachings as written in the bible. The bible for instance in the book of Leviticus 9:35 calls upon the people of God to deal honestly with one another in the society. Psalms 15:5 admonishes those who engage in corrupt deals in the society they lead to inequality.

### 5.2.4 Planning

Planning involves making a decision on the most applicable response to the situation and having in place a truthful and equally effective strategy for action. At this stage, questions as to who, what, when, how, with whom, where, with what resources are all considered and answered. Consequently, the plans for both the national and county government will have to be in sync for the project to be delivered in a viable and economical way.

### 5.2.5 Implementing the action to bring about the desired change

It is through implementation that the planning and analysis that has gone into the process is validated as to its veracity and applicability to the community concerned. Without tangible results for the plans put into place, a grand plan such as the construction of an airport can easily remain among the many fabled white elephants.

### 5.2.6 Evaluation

Evaluation entails assessing the progress and how the situation has changed. It enables one to learn from the successes and failures experienced and plan for future contingencies. These events help the community to grow according to the Pastoral cycle. The Pastoral Cycle being present to avail means and intellectual resources of starting a similar process.

#### a) Ways of participating

In order for the changing paradigm to be realised, there has to be a belief in the change potential in a project. This means that there is need to build on the general willingness of the target population to make the necessary steps towards change. Hence, there is a need for the population to own the vision and take the necessary steps towards its realisation.

In this case, the government, both at the national and county levels, and the people who have the potential to benefit from the airport have to believe in the viability of the project and to have specific areas of action which they will be engaged in.

***b) Forming a core team***

For the success of such a project to be realised, there is a need for the existence of a small core group of people who will provide intellectual input to the project and engage other stakeholders in meaningful discussions.

The importance of this group will be experienced in the leadership given to the rest of the workforce towards the realisation of the program. In order to achieve this, the group engages in a double cycle of reflection with other participants and individual self-reflection.

This core grouping is commonly regarded as the 'leader' team and is placed at an advantage of realising its ideal if there is an understanding between the team members and the community at large. Hence, it is imperative that the group is made as diverse as possible; taking into cognisance the multi-variant nature of the people it is intended to serve. In order to realise this, there is need to create interest and support within the larger group in the project and also create a unifying factor for the whole project. This is best realised by making use of its communication capacities as a catalyst to the realisation of the larger ideal.

***c) Involving the group or community in the pastoral cycle process***

The greatest impact that such a project would have on the population would be to reap from the efforts of working together with the project leaders. As such the old adage 'work with people, not for them' will once again find life.

This is realised by letting them decide on the modalities to be followed in tackling whatever issues that are available to them. The making of mistakes, though not

encouraged, should be understood as being part of the learning process and in the long run, will provide the change required. Through the pastoral process, the community is able to view itself and its issues in a new light and are able to awaken to the possible means of impacting on their lives.

***d) Letting the people grow***

It is through the Pastoral Process that a community will improve its means of boosting its capacity in making life-changing decisions. The Pastoral process aids the freedom of people to learn about life situation and how best to deal with them. Hence, it can be surmised that the greater work for justice begins with identifying and harnessing a people's potential and aiming it at community development. This is further buoyed by the empowering of the community for future development through reflecting on the possibilities available in themselves.

To achieve this, some questions would help in charting the way forward**;** Are community members aware of their power to act together for the benefit of the community? Is there potential for a community process to be inclusive? Do you believe there is a willingness in your community to identify common ground rather than focus on differences? Is community transformation understood as a process that will bring about change? Is there a common issue or challenge facing our community/group?

***e) Starting small and taking easy steps***

It is usually prudent when working with a new community that the researcher starts with an easy problem. It is important to ensure that in the early stages of a new program, the emphasis is laid on community development and also learning. They are very important at this stage as they build confidence and help the community advance to the next step. It

also benefits those actively involved in the program as they learn through reflection and the carrying out of tasks. Of immense benefit will be the community learning how to make decisions as a community.

***f) Building up solidarity***

Solidarity in the community is built through the development of a strong sense of community and togetherness. This is important as the community needs to move as one and also engage in sharing, caring and advancing together towards the realisation of an individual's humanity.

***g) Building up the people's organisation***

In order that a community is kept away from exploitation, there is need to have special attention being given to the building up of the organisation, strengthening of the capacity of service to others and the introduction of structures that will enhance good governance.

***h) Involving young people***

It is high time that the involvement of the youth should be factored into the development of the community. This should incorporate all aspects of their capacities as it will develop leadership qualities in them and also engage their capacity to reflect on their actions.

## 5.3 Conclusion

This chapter has examined how religion and cultural trends can be used to address the issues of modernity and development. It has essentially provided a different voice to the various players in the development of airports and related infrastructure. This has been done through a comprehensive analysis of the relationship between airport expansion and economic development.

# CHAPTER SIX

# TRANSFORMATIVE ORIENTATION STRATEGIES

## 6.0 Introduction

The aim of this study was to examine the relationship between airport development and economic development. This chapter will explore various strategies that can be employed by different stakeholders to address the challenges inherent in the development of airports and contribute to economic development.

## 6.1 Summary of findings

The following section presents the summary of the findings according to the specific research objectives.

### 6.1.1 Employment Creation

The study revealed that not only was there an expected upsurge in the levels of employment with the building of an airport, there was actually an upsurge in the employment available during the actual development. This was further buoyed by the residual effect of businesses being set up to complement the services of the airport which in turn led to the availability of employment opportunities. This finding confirms the report by the Air Transport Action Group (ATAG) (2015). The ATAG report indicates that airport infrastructure is one of the contributors towards employment opportunities in a country, whether directly or indirectly (ATAG, 2015). The finding also agrees with Sheard (2014) in whose study found out that the size of the airport has a direct impact on the employment share of the county.

### 6.1.2 Revenue Generation

With the upsurge in employment opportunities and the growth of businesses around an airport, the resultant effect is that there will definitely be an increase in revenue collection. The revenue generation will be realised through the collection of taxes by the Kenya Revenue Authority (KRA) and also the county governments increasing their uptake through licences and other allied lesser taxes such as land rates. The finding agrees with the report by Oxford Economics (2011) on *Economic Benefits from Air Transport in Kenya.* The report states that airports infrastructure remains key in realising economic development, especially through its revenue generation.

The increase in revenue generation portends better times for both governments as there is a better chance for implementation of programs meant for the betterment of the population. This, however, needs greater involvement of external parties so as to ensure accountability and transparency in the utilisation of the funds. This is where the church, through Faith Based Organisations, and other related bodies including Non-Governmental Organisations will find work cut out for them to ensure that both governments are keen to implement socially relevant projects.

### 6.1.3 Cost of air transportation

With the building of many airports in a given country and the increased proximity to each other, there is the ripple effect of having air transportation costs reducing. This will have an effect on a number of issues, principal among them being an increase in travellers and particularly tourists; both local and international. It will also lead to an increase in locals using the mode of transport which in turn leads to better and less expensive services. The other effect will be the increase in air cargo transportation as it offers the fastest means of

transporting high valued cargo. The finding on the cost of transportation corroborates with various studies as pointed out in chapter two which point out that there is an impact on the cost of air transport with the expansion of airport infrastructure (Hansman & Ishutkina, 2009; Carruthers, 2013; Oxford Economics, 2011).

### 6.1.4 Secular ideology, policies and media on economic development

The study revealed that most respondents believed that secular ideology, current policies and media had an impact on increasing the potential available in economic development and the building of airports.

## 6.2 Strategies and Systems for Advocacy in Transformation

The study recommends that both the national and county governments should step up endeavours to curtail the spread of corruption which has seen the pilfering of much-needed revenue from the central coffers. This will be better achieved by stringent measures being put in place on fiscal management and also the incorporation of extra-governmental bodies in the management of such funds (Aidt, 2003). Further to these would be the involvement of civil society, government and the public in the management of projects which have been funded by both governments so as to ensure that there is no embezzlement of funds meant for development and that the community gets the required quality of work done.

### 6.2.1 Building grievance-based relationships for societal economic development

The Kenyan society historically relied on grievance-based lobbying where some communities raise grievances so as to realize the desired economic development. The involvement of various players in society in planning for the required economic development will potentially change this narrative. According to Schaar and Sherry

(2010), an airport such as KJIA is a public utility that comprises many stakeholders. Being a public utility there is need to include stakeholders in its development. In the very same way that negotiations are made between the national and county government and also between the national government and the respective landowners for compensation, there is need to have a more inclusive negotiation for setting up of economic development projects in certain localities. This will enhance inclusivity and a sense of ownership of the project by the locals. This will also bring in the expertise of various stakeholders such as the ministry of transport, the Kenya Airports Authority, employees, passengers and the community.

**Strategy for advocacy**

| **Target Group/ Stakeholders** | **Focus and involvement** |
|---|---|
| Ministry of Transport | Airports in Kenya fall under the ministry of transport. As a policy-making body, the ministry will have to be involved in ensuring the best policies related to infrastructure are developed and implemented. The ministry plays the political goodwill role as it negotiates and elucidates the impact of airport infrastructure to the government. |
| Kenya Airports Authority (KAA) | KAA is the owner and operator of all civilian airports and airstrips in Kenya. It is therefore charged with the daily management of the airports and airstrips in Kenya. Its role will, therefore, be measured on the implementation of policies. |
| Employees | The employees at JKIA have a big role in ensuring the implementation of all policies. A needs analysis to determine what actually needs to be developed can be |

| | |
|---|---|
| | given by employees who work closely with the passengers and facilities within the airport. |
| Passengers | The passengers should be the biggest concern of in any development of an airport. They are the customers or recipients of services offered by the airport. Their views and input should, therefore, be incorporated. |
| Community | The surrounding community is a key stakeholder in any development. In the context of JKIA, other than the immediate surrounding community, Kenyan people have a higher stake in such a facility which is a great contributor to the country's economy. A Kenyan taxpayer has the right to be consulted considering that the airport as a key entry and exit point in and out of the country is facilitated by his or her taxes. |

### 6.2.2 Defining shared values

Since the economic development projects will help a local community from where they will operate, it is prudent to incorporate a set of values which are shared by both the government, in its quest to improve the economic wellbeing if a country and the ideals of the community as they seek value for their labour and even land. For this to be realised there is a need for thoughtful leadership to be incorporated in the planning and implementation of the project. There is also need to involve teachers, who in many communities are well respected, businessmen who hold the reins on local economies and other societal leaders. This is meant to give the project a local face and also to

incorporate local values in the project from inception to finalisation and operationalisation.

### 6.2.3 Encouraging community-led interventions

As is common in any project, there is bound to occur issues which will be contentious. It is better if the local community, through their laid down processes, handles the issue as far as it will bring homogeny to the community and acceptability to the project. The advantage of using community-led interventions is that there is a better chance of addressing social alienation and hence provide a better understanding of what a good person from the community would do to support the project.

### 6.2.4 Building Business Incubation Centres

In order to enable the local community to benefit from such a big government investment as an airport, it is prudent to avail self-help mechanisms to the community. This can best be done using business incubation which will not only build on the nascent business ideas available at the community but also introduce new models which will enable the locals to offer competitive services for the clientele arriving from outside.

There is need to engage in partnership between the private and public sectors for the empowerment of the youth in employment (Shen, Platten, & Deng, 2006). This would be done by making investments in leadership, good governance, training, the building of institutional capacity and also engaging the media in highlighting the progress being made. This would be greatly boosted if such initiatives would receive mention and acknowledgement during formal occasions where the information will have the chance to be disseminated due to the good coverage available. This can be further boosted by the diligent encouraging of partnership opportunities for the funding of youth projects which

will further encourage cooperation and building of trust between government and the community groups.

This would be further enhanced by encouraging the involvement of more female workers as opposed to the current setup where the men had an upper hand in the workforce at the airports. This would bring an almost uniform development in the individual lives of both the men and women in a population. The areas which would easily, and for a longer determinable future, provide employment include trade and transport, tourism, and exports. Hence through providing solutions in the transport sector, youths would be better placed to not only get employment but also have it for a longer phase and also on a multitude of possibilities.

Further to these is in the identification, development and exploitation of tourism avenues presenting themselves through the presence of the airport in the locale. As devolution is quickly bringing out its intended benefits, the youths should be encouraged to exploit the available opportunities since they know the spots in their county which can be beneficial as far as tourism is concerned. It would also be an avenue for employment if the sourcing of items ready for the export market was engaged. This includes food, agricultural products, animal products and other items which are in demand in the international market.

All in all these parameters would greatly enhance the economic growth and development of the said area and also continue in the increase in employment and development.

Through increased sensitization and exposure to educational opportunities, the youths can also be guided in availing themselves for employment opportunities as they arise at the

airport. This will be mainly tagged to the needs of the airport which include the need to incorporate new skills and new staff, increase the service providers and also replacements of persons who have left through natural attrition. This will also enable them to take advantage of the industries which will be set up within and around the airport for the handling of imports and exports. This would mean that personnel well versed with import guidelines and also clearance and forwarding of goods would be absorbed well in the locale; an advantage the locals would need to take in improving a lot of the youths around them through education.

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# APPENDICES

## Appendix I: Questionnaire

***Dear Respondent,***

My name is Hussein I. Amin. I am a Master of Arts student in Sustainable development at the Institute of Social Ministry in Mission Tangaza University College. As part of the requirements of my study, I am expected to conduct a research in order to partially fulfil the requirements for the award of this MA. My topic of study is ***"Benefits of Airport development on Economic Development in Kenya."*** You are kindly requested to contribute towards the fulfilment of this exercise by filling in the questionnaire provided so as to help in gathering information that will help in explaining how countries can achieve maximum economic development if they invest in an improved infrastructure in their airports. The information you give will strictly be used for the purposes of this study and ethics of research will be highly observed in ensuring that your identity remains confidential. Thank you for your co-operation

……..

**Hussein I. Amin**

**Part I: Personal Information**

1) Age below 18 Years [ ] 18-27 [ ] 28-37 [ ] 38-47

Above 48 [ ]

2) Gender Male [ ] Female [ ]

3) Duration worked in the airport

Below 1 year [ ] 1-3years [ ] 4-6 Years [ ] 7-9 years [ ]

Over 10 years [ ]

4) Department ……..

**Part II: State of airport infrastructure**

5) How many operational runways does this airport have?

One [ ] Two [ ] Three [ ] More than 4 [ ]

6a) Has there been any form of improvement that has been done on the state of the runways in this airport in the past 5 years?

Yes [ ] No [ ] I do not know [ ]

b) If yes, what form of improvement?

New runway(s) have been build [ ]

Existing one has been widened [ ]

Existing ones have been lengthened [ ]

Lighting has been installed [ ]

All the above [ ]

Any other (Specify)……

7) How many aeroplanes/ aircrafts can park in this airport when it is full to its capacity?

……

8) How many planes/aircrafts depart and land in this airport within a span of 24 hrs?

[…….]

**Part III: Employment Creation**

9) Mention **ONE** of the greatest benefits of this airport to the Kenyan people

……...

10a) How often do the various departments in this airport recruit new employees?

Very often [ ] Moderately Often [ ] Not often [ ]

b) What is the major reason why new employees are recruited? **(TICK ONLY 1)**

To replace those who have left [ ]

To increase the number of service providers [ ]

To bring in new skills to accomplish new tasks [ ]

Others (Specify)…….

11) What is your level of agreement with the following statements that relate to employment creation and economic development

**Use a scale of 1-5 where 1= Very great extent; 2=Great extent; 3=Moderate extent; 4= Low Extent and 5= Very Low Extent.**

| **Statements** | **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|---|
| Airports contribute to the creation of job opportunities and economic development | | | | | |
| There is a relationship between airport employment creation and economic development | | | | | |

12) What has been the trend of establishing business premises in this airport in the past 5 years? Number of business premises have:

Increased [ ] remained constant [ ] Decreased [ ]

13) What is the average number of operating business premises within this airport? […….]

**Part IV: Economic Development**

14) How many companies or industries on average import or export goods through this airport

None [ ] 5 and below [ ] 10 and below [ ] More than 10 [ ]

15) If you compared import and export commodities, which one is mainly transacted through this airport? ……..

16) How long does it take on average to clear goods arriving through this airport?

Less than one week [ ] 2-4 weeks [ ] A month and above [ ]

17) In your opinion how satisfactory is the duration taken to clear goods arriving through this airport?

Very Satisfactory [ ] Moderately satisfactory [ ]

Slightly satisfactory [ ] Not satisfactory [ ]

18) Do you think this airport is crucial to the economic development of this country?

Yes [ ] No [ ]

**Part V: Airport Revenue and Economic development**

19) What is the main source (s) of revenue for this airport?

……

……

20) Who is usually the immediate recipient of this money?

……

21) How is revenue collected spent?

……

……

22a) Is there any fee that is charged to have imported goods cleared from this airport?

Yes [ ] No [ ]

b) If yes, How much……..

23) Do you think revenue collected by the airport contributes to the economic development of this country?

Yes [ ] No [ ]

**Part VI: Cost of Air Transportation and Economic development**

24) What is your view on the cost of air transportation?

Affordable [ ] Expensive [ ]

25) What has been the trend on the cost of air transportation in the last few years?

Increasing [ ] Decreasing [ ] Constant [ ]

26) Do you think the cost of air transportation affects economic development?

Yes [ ] No [ ]

**Thank You**