DEMAND FOR KENYA AS A TOURIST DESTINATION, 1980-2013

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DECLARATION

This research project is my original work and has not been submitted for award of a degree in any other university.

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This research project has been submitted for examination with my approval as university supervisor.

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Dr. Kamau Gathiaka

DEDICATION

I wish to dedicate this study to my lovely family. I particularly have in mind my three triplet boys Jeremy, Josh and Jabari. I love you guys to the moon and back.

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I am truly grateful to God for granting me good health and wellbeing throughout the entire period of writing this project. You are indeed an amazing God.

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ACRONYMS

WTO	World Tourism Organization
ESCAP	Economic and Social Commission for Asia and the Pacific
UNWTO	United Nations World Tourism Organization
GDP	Gross Domestic Product
OLS	Ordinary Least Squares
UK	United Kingdom
USA	United States of America
OECD	Organization for Economic Cooperation and Development
VIF	Variance Inflation Factor
KNBS	Kenya National Bureau of Statistics

ABSTRACT

The National Tourism Strategy (2013-2015) of the Ministry of Tourism positions tourism industry as one of the key drivers behind Kenya's economic development. It has a contribution of 13.7 percent of the gross domestic product (GDP) of Kenya. Fluctuations in the number of international tourists arriving in Kenya motivated this study to be conducted. The study sought to establish the determinants of international tourism arrivals in Kenya. The study specifically sought to identify the factors that affect international tourist flows in Kenya, to investigate how demand for Kenya as a tourist destination could be increased in the face of challenges such as terrorism and to provide policy recommendations to raise the demand so as to help re-energize the industry. The study adopted the inter-consumer demand theory for modeling. The study employed time series data collected for a period of 33 years (1980- 2013) collected from World Bank national accounts and indicators on GDP per capita for OECD countries, Central Bank of Kenya reports (on the exchange rate) and the KNBS for the period 1980-2013. An ordinary regression model was used to investigate the determinants of international tourism arrivals in Kenya. The study findings indicated that in the long run, only per capita GDP of OECD countries and insecurity dummy significantly affected the international tourist arrival in Kenya. Per capita GDP of OECD countries positively affected international tourist arrivals while insecurity negatively affected it. The findings of the study also indicated that in the short run there is a negative and significant relationship between insecurity and international tourist arrivals. Based on the conclusions, the study recommended that the Kenyan Government should put in place measures to improve the security level. This is because insecurity is seen to reduce the number of international tourists visiting Kenya and as a result that leads to a negative impact on the GDP of the Country.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

In recent times tourism has become one of the largest industries that have contributed to the socio-economic growth of many countries, especially countries where tourism is the main stay of the economy (World Tourism Organisation [WTO], 1998). The industry is a vehicle for promoting cultural exchange and international understanding. Tourism creates goodwill among diverse peoples of the world, besides being a catalyst for employment opportunities, foreign exchange and infrastructural development (*Economic and Social Commission for Asia and the Pacific [*ESCAP], 2002).

Tourism in Africa is a means of enhancing economic growth and development. It also projects the image of the continent to the outside world (Gbadel, 2007). The WTO (2009) reveals that there has been growth of about 4 percentin international tourist arrivals in Africa. Records show that about 2.5 percent of the GDP and 5.5 percent of all employment in Africa is attributable to the tourism industry (Karreen, 2008).

According to the United Nations World Tourism Organization (UNWTO, 2013), worldwide tourist arrivals in 2012 transcended the 1 billion mark for the very first time in history. The tourist arrivals recorded stood at 1,032 billion tourists crossing borders and staying overnight, this was an upward trend from 995 million recorded in 2011. Majority of these visitors arrived from emerging markets in Asia, Africa, Central and Eastern Europe that lead growth in tourism demand.

While Europe still continues to be the most preferred destination worldwide, Asia and the pacific on the other hand recorded the strongest growth in arrivals, followed by Africa. In 2012, Africa was able to recover well from its hitch of the previous year when arrivals dramatically declined, largely attributed to a reduction in tourists travelling to North Africa. Whereas Africa only attracted a staggering 17.4 million international tourists in 1990, this number has gradually risen to 63.6 million in 2012 (UNWTO, 2013). It is commendable that African countries have realized the need to develop more sustainable tourism strategies to enhance destination competitiveness so as ultimately increase tourist flows exponentially. However, there is still a lot to be done to compete with Europe and Asia which are still the most preferred destinations worldwide as depicted in the tables below.

Table 1.1: Tourist Arrivals and Receipts in Africa by Region (2011)

Region	Total Tourist Arrivals	Total Long Haul	Receipts US$M
North Africa	26,554,000	24,383,000	$18,296
Southern Africa	11,048,000	2,599,000	$10,090
East Africa	7,621,000	2,727,000	$7,596
West Africa	6,611,000	4,838,000	$3,412
Central Africa	667,000	475,000	$674
Total	52,501,000	35,022,000	$40,068

Source: UNWTO, 2013

Table 1.2: International Tourist Arrivals 2012

Sub Region	Millions
Europe	534.2
Asia & The Pacific	233.6
North America	106.7
Caribbean	20.9
South America	26.7
Africa	63.6
Middle East	40.8
World	1,035

Source: UNWTO, 2013

Christie and Crompton (2001) argue that the greatest obstacle to growth in Africa's tourism sector is lack of price and quality competitiveness; Airfares on scheduled flights in Africa are among the highest in the world. The World Tourism Organisation's 'Tourism 2020 Vision' recognize the significant potential of tourism in Africa, but notes there are serious obstacles that need to be addressed if the potential is to be realized. Poirier (2011) reveals that country indicators such as income in the country of origin, cost of travel and prices are less significant in making the decision to travel.

The potential of political of risk in a country is also not always a constraint to international tourism. Some tourists are known to tolerate political insecurity if the attractiveness of the destination is greater than political insecurity. Pleasure travelers are usually indifferent or insensitive to political risks unlike business travellers (Christie and Crompton, 2001). However, acts of terrorism, international war, or civil war no matter how temporary are

significant factors that can dramatically decrease the number of international tourists (Mansfield, 2009).

In Kenya, tourism is accepted as an economic boon and a valuable asset to the national economy. This can best be illustrated by looking at the current Five Year National Development Plan 1997-2002, where the government spells out an ambitious programme of expansion of the tourism industry to ensure that the tourism flows increase and this entails substantial public expenditure to ensure the right infrastructure is put in place (Republic of Kenya, 1997).The contribution of tourism to the national economy cannot be underestimated.

It plays an ever increasing and crucial role in the growth and development of Kenya's economy in the face of declining foreign exchange earnings from agriculture, which traditionally is the country's main source of foreign exchange earnings. Since 1987, tourism has been Kenya's largest single source of foreign exchange earnings, with receipts accounting to about 10% of GDP (Republic of Kenya, 1988). The rapid growth in tourism coupled with a strong international demand has yielded high economic returns and stimulated the economy by creating jobs and encouraging investments.

Tourism Competitiveness

Tourism competitiveness is influenced by a wide set of factors or determinants. The literature recognizes tourism competitiveness as a relative, multi-dimensional and complex concept that is determined by a range of economic, political, ecological, cultural and political variables (Craigwell, 2007).

Cunha (2011) identifies a set of potential determinants that can influence the decision to travel. He classified them into the following categories: socioeconomic factors, such as,

income, relative prices between the origin and the destination, demography, urbanization and length of the leisure time; technical factors related to ease of communication and transport facilities; psychological and cultural factors reflecting personal preferences and the style of life of the potential travelers; and random factors related to unexpected events, such as political instability, weather conditions, natural disasters and epidemic diseases.

Income is an important factor in the decision to travel. Literature shows that the demand for tourism and the length of stay are directly related to personal income and wealth of the travelers and inversely related to the domestic cost of living. The purchasing power of the travelers is the dominant factor in explaining tourist flows and the causality is expected to be strong (Crouch, 2004).

The demand for travel to a particular destination tends to depend positively on income and expenditure in the country of origin and negatively on relative prices of tourism products and travel costs (Eilat and Einav, 2011). Thus, the price of tourism, the income of the country of origin, and taste are critical determinants of international tourism demand. According to the law of demand an increase in price reduces demand. The price of tourism includes the cost of commodities consumed by tourists in the destination country; the cost of accessing facilities and transport costs, from theoretical considerations, tourism is a consumption good. Its price is differentiated by competition in different destinations. Subject to his income constraint a tourist decides whether to consume a tourist product or other types of goods, especially consumer durables. After he decides to travel he has to choose the destination taking into account (among other factors) the overall cost of the journey. He will choose a destination that maximizes his utility subject to his budget constraint.

Tourist demand does not only depend on its own price but also on the price of other alternative goods and services and the general price level of the domestic goods. An increase in domestic prices reduces the purchasing power of the potential travelers, reducing their demand for tourism. An increase in the prices of the destination country discourages tourists to move to this place. They reallocate their demand to cheaper but competitive places. When a country's currency is overvalued, it becomes an expensive place to visit and tourism declines. Two types of prices have to be considered in the demand for tourism: the relative price between the receiving and the sending country, and the relative price between different competing destination places. Choice of destinations has a substitution effect based on prices (Proença and Soukiazis, 2012).

According to Hamilton, Maddison and Tola (2010), climate change would lead to a gradual shift of tourist destinations towards higher latitudes and altitudes. Climate change will also make the currently dominant group of international tourist sun and beach lovers from Western Europe to stay closer to home. This implies a drop in total international tourist flows and total distance travelled. However, the changes induced by climate change are generally smaller than those resulting from population and economic growth.

Tourism is important for economic development through its effects on employment, exports, stimulation of infrastructure development, generation of tax income and the promotion of international understanding and thus world peace. Tourism in Africa is similar to selling differentiated products. Thus, different African countries can be treated as supplying same but differentiated tourist products (Eilat and Einav, 2011).

Tourism Sector in Kenya

The development of tourism in Kenya can be traced back to as early as 1930's when Kenya was still a colony of the British. Many foreign explorers and travelers came to Kenya for expedition related to big-game hunting. Over the years, the government with assistance from foreign and multinational capital has promoted the development of large-scale tourism and hospitality projects such as beach resorts, high-rise hotels, lodges and restaurants, and condominiums in Mombasa and other tourism centers in the country (Sindiga;2010, Akama, 2004) Today, tourism is the country's leading foreign exchange earner and a significant portion of this tourism is wildlife-based.

Tourism has had the highest growth rate, of 13%, among all the economic sectors of Kenya. According to the data collected by the Ministry of Tourism, tourism surpasses manufacturing and is the second largest economy contributor to Kenya. It accounts for about 12% of GDP. Along with tea and horticulture, tourism is one of the three largest foreign exchange earners in the country. Tourism is also a major source of government revenues, in forms of taxes, duties, license fees, and park entry fees (Kenya Ministry of Tourism, 2007).

Kenyan Governments (local and national) have mainly promoted large scale, capital-intensive tourism and hospitality projects such as beach resorts, high-rise grand hotels and lodges. Most have been initiated through foreign and multinational investments (Akama, 2004; Sinclair, 2010) and have tended to preclude local participation in tourism project design, planning and management (Bachmann, 2008; Sindiga, 2010). Moreover, the formulation of tourism policy and planning in Kenya is highly centralized, mainly involving top officials, elites and foreign consultants hired by central government. Local people are rarely involved in the provision of the core and profitable tourism and hospitality services

such as transportation, accommodation, catering services and management of tourism facilities.

Tourism demand in destination can be influenced by changes in the exchange rates. Changes in exchange rate will affect the currency value of the origin country. Any change in exchange rate will lead to an appreciation or depreciation of tourist currency. The transportation cost variables are often measured by the distance in kilometers between the capital cities of the source and destination country (Khadaroo and Seetanah, 2007).

1.2 Problem Statement

According to the National Tourism Strategy (2013-2015) of the Ministry of Tourism, the industry is one of the key drivers behind Kenya's economic development. Its contribution is in reducing unemployment, raising GDP and improving the country's balance of payment. 13.7 percent of the gross domestic product (GDP) is from the sector. The sector's earnings have multiplier effects on the rest of the economy, statistics show that tourism is the third largest foreign exchange earner after tea and horticulture. It is a major employer accounting for about 12 percent of the total wage employment. Given the importance of this sector it is imperative to investigate the determinants of the demand for Kenya as a tourist destination and more specifically by international tourists.

Lim (2007) reviewed more than 70 studies on international tourism demand. None of these focused in detail or exclusively on Africa. Kusa (2010) conducted a comparative analysis of the tourism industry in Kenya and the sector in South Africa. He recommended that Kenya should employ policy shifts and more so consultative policy with stakeholders to make the sector as competitive and successful as the sector in South Africa. This calls for a proper

understanding of determinants of demand for international tourism. It is in the determinants that competitiveness can be derived. But such information is not readily available.

The economic dimensions of tourism in Africa, and specifically the determinants of the demand for Kenya as a tourist destination, are neglected in the economic literature. Therefore, the study tries to address this gap. In addition, it is an open secret that Kenya has been facing unprecedented wave of terrorist attacks and kidnappings from the infamous Alshaab extremist group leading to travel advisories from our key source markets. Such incidences of insecurity hinders the tourists from touring the country.

Seddigh et al,(2001); and Stafford et al, (2002) argue that the effects of terrorist attacks can cause political instability in the short run, which leads to the decline of tourist arrival in the destinations affected. Literature and statistics confirm that terrorist attacks have a tendency to alter tourism demand patterns, indicating an increasing demand to cancel travel or holiday plans or diverting to other alternative safe destinations. In Kenya, the security situation needs to improve drastically to save the sector from short term and long term damage because as it is Kenya tourism sector continues to be affected adversely by such attacks. The study therefore, will also delve in to strategies that the Government and key players in the industry can adopt to ensure that the industry is unabated even in the midst of such imminent attacks.

1.3 Research Questions

i. What are the factors influencing international tourism flows in Kenya?

ii. Is insecurity a significant factor in determining tourism demand for Kenya?

iii. What are some of the policy recommendations that can be fronted from the study to increase tourism arrivals in Kenya?

1.4 Objectives

The general objective of this study is to establish the determinants of international tourism arrivals in Kenya. The main objective will be pursued in line with the following specific objectives;

i. To identify the factors that affect international tourist flows in Kenya.
ii. To investigate how demand for Kenya as a tourist destination could be increased in the face of challenges such as terrorism.
iii. Provide policy recommendations to raise the demand so as to help re-energize the industry.

1.5 Significance of the Study

The study findings will assist policy makers' gain vital understanding of the determinants of tourist arrivals in the country. With such an understanding, the sector players particularly the Ministry of Tourism, Kenya Tourism Board and the Tourism Fund will put in place effective measures to raise the demand and make the country competitive.

This study will also provide this sector with useful insights on how best to make Kenya a better tourism destination. It will seek to add growing literature on determinants of tourism arrivals.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses theories relevant to the study. It is divided into theoretical and empirical literature review.

2.2 Theoretical Review

This subsection identifies the various theories related to determinants of tourism arrivals. They include consumer demand theory and the destination competitiveness model theory.

Neoclassical Consumer Demand Theory

Neoclassical consumer demand theory basis its argument on the observation of the way individuals act to divide their limited resources among the commodities that provide them with satisfaction (Samuelson and Nordhaus 2005). Further, the theory states that the demand of a good or a service by a consumer is dependent upon level of satisfaction/utility the consumer derives from it. On the other hand, the theory argues that consumers are constrained by their levels of income and may not necessarily end up having what they want at all times. A consumer is assumed to be rational and has well-defined preferences over all of the alternative bundles and that the consumer attempts to select the most preferred bundle from among those bundles that are available.

The theory assumes that a negative relationship exists between the quantity demanded for a particular product and that product's price. As prices for goods decline, consumers purchase more of those goods and purchase less as the prices increase, holding other factors constant.

This assumption sprung up from assumptions made by economists about consumers. One of these is that consumers would rather have more of a particular good than less.

Since tourism is a luxury good, this theory is relevant to our study in that potential tourists evaluate their consumer basket with tourism as a commodity and decide whether to purchase it by travelling to a particular destination subject to their income constraint. This implies that an increase in income would result to an increase in demand of tourism and vice versa. In addition, as the price to purchase the tourism experience in a particular country increases there is a high likelihood that the tourism demand for that country will decrease. Gauci et al. (2004) attributes the slowdown in global tourism, prior to 2001, to a slowdown in global economic activity. Estimated income elasticities range from 1.0 to 2.0 indicating that tourism is a luxury good. However, this also implies that international tourism is pro-cyclical, hence countries in which tourism makes a significant contribution to the economy are the worst affected by recessions.

Destination Competitiveness Model

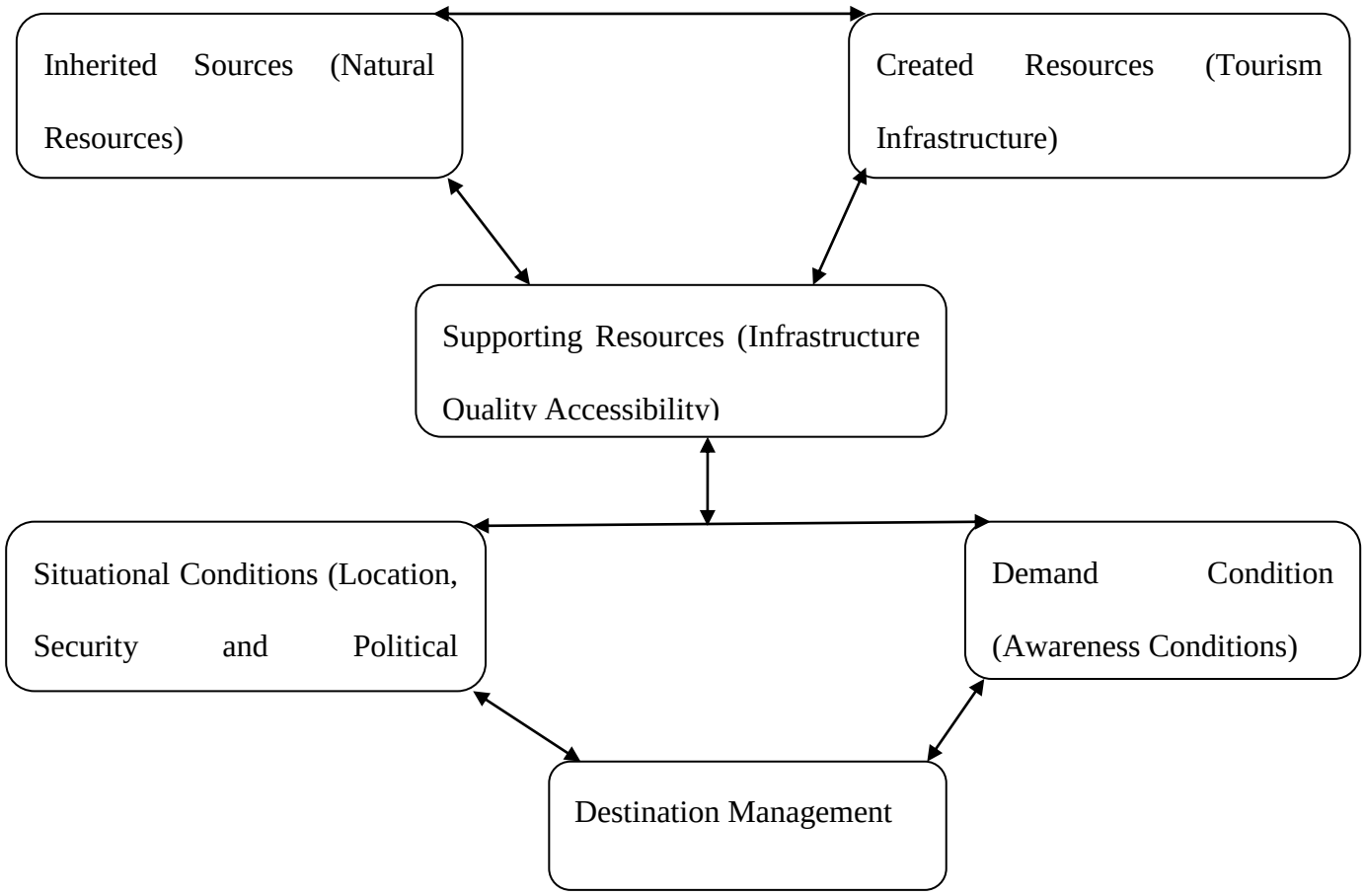
The destination competitiveness tourism model relates to the interaction and behavior of different types of industry which operate in any given environment or destination and the socio economic impact generated in that area (Hassan, 2000). However, several authors have provided some inputs into understanding destination and practical research of the competitiveness tourism model in the area of tourism destination. For instance, Faulkner (2000) considers the environmental component in his illustration of the Destination Competitiveness Tourism Model in his study of hot spring hotel in Taiwan. Destinations competitiveness relates to the environment, comparative advantage, industry structure and demand factors. These are the four determinant of tourism competitiveness.

The model is based on various assumptions which include; supply of supporting factors or components in any tourism destination increases demand and attractiveness of the environment, influx of people in any given destination is a function of attractiveness and individual disposable income, every destination has its own competitiveness advantage over one another, tourists tend to cluster where high level of supporting facilities is allocated and demand situation supports tourism competitiveness. These have a positive influence on the development of added value in tourism and complementary activities in any tourism industry increase visitors' satisfaction.

Keyser and Vanhove (1994) argue that the analyses of a competitive position should take six groups of competitive factors into account which include tourism policy, macroeconomic supply, accommodation, transport and demand factors. Crouch and Ritchie (1999) argue for a destination to be competitive, a destination development of tourism must be sustainable, not just economically and not just ecologically, but socially, culturally and political as well.

Destinations should mainly focus on long term economic prosperity as the yardstick by which destinations can be assessed competitively. Thus the most competitive destinations are those that most effectively create sustainable well-being for its residents. Crouch & Ritchie (1999) present the most recently improved version of their competitiveness model, a conceptual model of destination competitions. According to their analyses, there are four key determinants that makes destination attractive which include destination policy, core resources, attractors and supporting factors.

Figure 2.1: Destination Competitiveness Tourism Model



Source: Adapted from Dwyer 2004

They further explain that inherited resources, created resources and supporting resources encompass the various characteristics of a destination that make it attractive to visit. Destination Management covers factors that enhance the attractiveness of the inherited and created resources, strengthen the quality of the supporting factors and those, which best adapt to the situational condition (Crouch and Ritchie, 1999). The category includes the activities of destination management organization, destination marketing management, destination policy, planning development, human resource development and environmental

management. These comprise the three main elements of tourism demand awareness, perception and preferences (Johnson, 2001). The factors of situational conditions can moderate, modify or even mitigate a destination's competitiveness. There would seem to be many types of such factors, examples include destination's location, micro and macro environment, security and safety and price competitiveness (Johnson, 2001). Baloglu (1999) examine the attributes of a destination and show that destination attachment will influence tourists in the process of choosing a destination, the subsequent evaluation of the trip and in their future intentions. He further stresses that destination image exercises a positive influence on perceived quality and satisfaction. Kim and Dwyer (1989) widely acknowledge that destination attractiveness affects tourist subjective behaviour perception, consequent behaviour, and destination choice. Tourists' behaviour is expected to be partly conditioned by the image that they have of destinations. Middleton and Clark (2001) highlight the inter-dependence of sub-sector inter-linkage of tourism products. Results reveal that tourists experience is a medley of services such as hotels, restaurants, shops, attractions among others and they may evaluate each service element separately. Satisfaction with various components of the destination leads to overall satisfaction (Kozak and Rimmington, 2000). However the destination competitiveness model would help to evaluate whether the development of tourism potentials and the attractiveness of a State capital were the comparative advantages of the increasing number of hotels and influx of visitors. Besides, this model will help to evaluate whether tourism potentials influence or attract tourists in Kenya.

Kimuyu (2009) uses OLS to estimate a log-linear single equation demand for tourist model in Kenya. In the long-run, the results suggest that there is no relationship between the international tourist arrivals and aircraft accident as proxy for safety, number of reported

crimes as proxy for security, cost of Jet fuel as proxy for transportation costs, GDP per capita income as proxy for tourist incomes, real exchange rate as proxy of tourism price of goods and services and political and civil unrest as well as terrorism attacks. This could be explained by the fact that increases in long-term prices and cost of tourism deter tourists, particularly "high budget" tourists. Using a log-linear single equation model, the empirical results showed that in short-run the aircraft accident as a proxy of tourist safety and the real exchange rate as proxy of tourism prices for goods and services in the country relative to countries of tourist origin have significant influences on inbound tourism arrivals in the Kenya. The single-equation regression model revealed that international tourism demand by world tourist for Kenya is safety and cost/price inelastic. This is in the short-run, indicated that most holidays are not planned well in advance.

2.3 Empirical Literature

This section provides a review of general literature on tourism arrivals and the empirical review which is done on the determinants of international tourism demand.

Determinants of International Tourism Demand

Kusa (2010) has a comparative analysis of the basis for policy shifts in the tourism industry in Kenya. it is difficult to make a definite assessment of tourism given that Kenya's sectoral planning for tourism is weak in marked contrast to its good negotiating ability and its high strategic ambitions, hence a rational evaluation of a tourism strategy was necessary, based on the knowledge of the goal it is intended to find alternative ways of furthering them from other countries. A key element brought about by the study in order to improve the Kenyan sector is the introduction of the Tourism Trust Fund, a joint venture between the government

and the European Union, which accounts for the bulk of visitors to the country. The study concludes by suggesting that the tourism industry in Kenya should employ policy shifts borrowed from the South African sector in order to beat the South African competition. In addition, the study suggests that the national policy on the industry should be reviewed through consultative policy with the stakeholders to make the sector as competitive and successful as the sector in South Africa.

Kipruto, Sitati and Ngoriarita (2012) seeks to identify the challenges confronting tourism development in the North Rift region of Kenya by reviewing related literature, carrying out interviews with officials from six hotels and four tour companies. Two Kenya Tourist Board officials were also interviewed, and field observations utilized. Results show that the key challenges confronting tourism development in the region related to development of tourism products, accessibility, marketing, coordination among stakeholders and insecurity. The study recommends that these problems should be addressed jointly by the central government, local governments, hotels, tour operators and the host community if meaningful tourism is to be realized.

Iwara, Ukwayi, and Ojong (2012) critical analysis of the success factors that will determine tourist arrivals in Nigeria is to provide a data base that will guide policymakers in their decisions with respect to tourism development in Nigeria. Fifteen states are used for this study of which one thousand five hundred questionnaires were administered in this destination to capture the determinants factors influencing tourist arrivals in Nigeria. Data was obtained from Tourism Bureau and from the questionnaires administered to residents around the potential tourist sites. The dynamic panel and the ordinary least square analysis were used to analyze the data collected in the area. Findings indicate that endogenous and

exogenous factors are not the only major determinants of tourist's arrivals but other factors such as tourist experience and level of infrastructures are observed as also determinants of tourist arrivals in Nigeria.

Bashagi and Muchapondwa (2009) investigate the factors affecting international tourism demand for Tanzania. The autoregressive distributed lag approach to cointegration was applied. Results show that local tourism prices, tourist preference, tourist income and the 2001 terror attack in the USA have a significant impact on international tourism demand for Tanzania between 1996 and 2006. The study recommends that the Government needs to maintain macroeconomic stability, especially low inflation, if the country is to reap full economic benefits from tourism. To reduce sensitivity to local tourism prices, the tourism providers ought to put more effort into diversifying tourism products away from the universally available ones. For example, packaging a game drive in the same basket as Masaai traditional dance would constitute a unique tourism product. There is also a need to improve customer satisfaction to enhance tourist preference for the Tanzanian experience. In this regard, there is a need to train staff in the tourism industry, improve tourism infrastructure such as roads and hotels, and market Tanzanian tourism products aggressively to the world.

Proença and Soukiazis (2012) account for several elements which receive little attention in empirical literature. The study uses a panel data to estimate the demand function of tourism in Portugal by considering four main countries as the basic tourism suppliers, viz., Spain, Germany, France and the U.K. The four are responsible for almost 90% of the total tourism inflows in this country. Second, in the demand function the study introduces both the demand factors (per capita income, relative prices) and the supply factors (public investment ratio,

accommodation capacity) to explain tourism performance in Portugal. Third, dynamic panel data techniques is used to estimate the demand function of tourism, avoiding misspecification errors, estimation inconsistency and overall explaining the adjustment process of tourism flows. Results reveal that per capita income is the most important demand determinant and accommodation capacity the most important supply determinant explaining thus the tourism movement in Portugal. The dynamic panel data estimation highlights the importance of the accommodation capacity as the most important factor in attracting more tourism to Portugal.

Song, Li, Witt and Fei (2010) compares aggregate and per capita these two measures in the context of econometric modelling and the forecasting of tourism demand. The empirical study focuses on demand for Hong Kong tourism by residents of Australia, the UK and the USA. Using the general-to-specific modelling approach, results reveal that the key determinants of tourism demand are identified based on different demand measures. In addition, the forecasting accuracy of these demand measures is examined. Results show that tourist arrivals in Hong Kong are influenced mainly by tourists' income and 'word-of-mouth'/habit persistence effects, while the tourism price in Hong Kong relative to that of the tourist origin country is the most important determinant of tourist expenditure in Hong Kong.

Walle (2010) seeks to determine the determinants of tourism flows in Ethiopia. The study uses an in-depth review research design. Secondary data is obtained through review of simple historical explanation of tourist flow time series data, panel data analysis of tourist flow determinants and destination competitiveness analysis. The review of history illuminates the detrimental effects of civil wars, famine and nationalization of private companies on the performance of the Ethiopian tourism sector. The panel data analysis takes into account the positive and significant impact of previous year's tourist arrivals, the Ethiopia's

infrastructural development as well as the per capita GDP and the total population of the sending countries. The analysis reveals that the price differential between Ethiopia and Kenya and distance negatively affect tourist flows in Ethiopia. In addition, the dummy for Africa is significant and positive. Finally, the destination competitiveness analysis indicates that Ethiopia is better rated in inherited endowments than in created and supporting resources (like tourism infrastructure). Yet almost every rating exhibits considerable improvement after tourists visited the country, suggesting that the famine-related bad image of the country still hinders Ethiopia's tourism sector.

2.4 Overview of Literature Reviewed

In the empirical literature some papers use time series and co-integration models in attempt to forecast future tourism flows between one or more countries and other papers estimate the determinants of tourism demand using multivariate regressions. Most of the studies which have been done on the determinants of tourism in Kenya have mainly used either OLS or logarithmic estimation approach. This paper therefore takes a different approach by using time series econometric modelling of international tourism demand. The study will be more inclusive as it will focus on six major source markets of international tourism as opposed to one or two major source markets as has been the case on most studies, the project has also included other economic variables and dummy variables that have been excluded in other studies. Therefore, the study aims at giving a more holistic approach as regards international tourism demand for Kenya.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This section presents the model, how it is estimated and how it can be used to establish the determinants of international tourist arrivals in Kenya.

3.1 Model Description

This section presents both the theoretical and empirical models. The theoretical model is a collection of concepts and their hypothetical interrelationships. The theoretical model will borrow heavily from theories presented in literature review. The empirical model on the other hand is the econometric model that is modified from theory to suit the study.

3.2 Theoretical Model

The theory that informs the model is the inter-consumer demand theory. The theory base its argument on the observation of the way individuals act to divide their limited resources among the commodities that provide them with satisfaction (Samuelson and Nordhaus, 2005).Further, the theory states that the demand of a good or a service by a consumer is dependent on the level of satisfaction/utility the consumer derives from it. In essence, tourism arrivals will be determined by factors affecting its demand. These factors include; price of tourism in Kenya, prices of tourism in other tourist destinations in this study we use South Africa, GDP per capita for the OECD countries, GDP per capita for the host country, Marketing /advertising, trade openness and the transport costs.

$D_t = f$(GDPKEN, GDPOPC, EXCH, TRANSP, TRADEOPEN, CPISA, MARKET)….(1)

The model constructed in this study is based on the neoclassical consumer demand theory which assumes that income and price factors are probably to play an important role in determining the demand for international tourism. In economic theory, the law of demand and supply is considered one of the fundamental principles governing an economy. It is described as the state where as demand increases the price of the commodity decreases and vice versa. Demand refers to both willingness and ability to pay for a commodity or service. On the other hand, Quantity demanded can be viewed as the total amount of a good that buyers would choose to purchase under given conditions. The given conditions include price of the good, income, price of substitutes and complements, population, preferences and expectations of future prices, this can be constructed to a model.

$Q_d = f(P_n, P_r, T, Y, E, O)$

This model is relevant to the study because tourism can be viewed as a commodity which has willing consumers and who are ready to purchase it by travelling to a particular destination. Therefore, we will be looking at the factors that influence its demand. It is also important to note that Several empirical studies have found that the conduct of tourists may also be affected by non-economic factors, such as political instability, terrorism and natural disasters (Hisao et al; 2008;Page et al,2006;Ritchie,2003;Wang,2008). We will capture these random events by use of the dummy variable insecurity. We estimate the model to explain the demand for Kenya international tourism by using data on number of tourists arriving from eight countries from the OECD countries who are the main tourists to Kenya. These

eight countries are United Kingdom, Germany, Italy, France, USA, Canada, Switzerland, and Scandinavia.

We specify the model as:

$$TA = \alpha, \beta 1X1t, \beta 2\ X2t, \beta 3X3t, \beta 4\ X4t, \beta 5\ X5t, \beta 6\ X6t, \beta 7\ X7t, \ \beta 8\ X8t + \varepsilon$$

…….. (2)

Where

TA= Tourist Arrivals

X_1 = per capita GDP of OECD countries (a proxy for income)

X_2 = Real exchange rate (A proxy for Price)

X_3 = per capita GDP of Kenya

X_4 = Transport costs (the proxy being international oil prices since it is a major driver for both road transport and air fare.)

X_5 = Trade Openness $(EX_{i,t}+IM_{i,t})/GDP_t$ where $EX_{i,t}$is the export volume between Kenya and Origin country i at time t and $IM_{i,t}$ is the import volume between Kenya and origin country i at time t, and GDP_t is the Gross Domestic Products Kenya at time t.

X_6 = Price of substitutes (the proxy being CPI for South Africa)

X_7 = dummy for Insecurity (1= incidental year e.g1992/3, 1997/8, 2007/8, 2011, 2013, 0= other years)

X_8 = dummy for financial innovation (0=1980- 2003, 1=incidental year e.g 2007-2013)

ε = Error term

The study has employed dummies such as financial innovation; Kenya has been at the forefront in the development and realization of new financial products in the payment systems and providing alternatives to holding money. One such example is the rapid use of plastic money and online banking and payment facilities (MPESA) etc.

Table 3.1: Definition of Variables, Measurement and the Expected signs

Definition of Variable	**Period**	**Measurement of Variable**	**Data source**	**Expected Sign**
Income	1980-2013	Real per Capita GDP(OECD countries)	World Bank Database	+
Price	1980-2013	Real Exchange Rate	Central Bank of Kenya	_
GDP of Kenya	1980-2013	Real Per Capita GDP(Kenya)	World Bank Database	+
Transport costs	1980-2013	International Oil Prices	World Bank Database	_
Trade openness to Kenya	1980-2013	$TO_{i,t}= (EX_{i,t} + IM_{i,t})/GDP_t$	World Bank Database	+
Price-of Substitute(SA)	1980-2013	CPI index of South Africa	World Bank data base	+
Insecurity	1992/3,1997/8 2007/8,2011 2013	Dummy Variable	World Bank Database	_
Financial innovation	2007-2013	Dummy Variable	Central Bank of Kenya	+

Source: Author

3.4 Estimation Issues

This study used time series methodology. Eviews 7.1 and STATA statistical software package were used for analysis. Many macroeconomic time series are usually non-stationary and OLS regressions between such series may give spurious results. It was

therefore important to test and correct the various flaws of time series data before applying OLS regression on the data.

Unit roots test

The study established Stationarity of the data using ADF test. The ADF regression equation to test unit root in time series Y is written as:

$$\Delta Y_t = \alpha + \beta_1 y_{t-1} + \beta_2 T + \sum_{j=1}^{K} \gamma_j \Delta y_{t-j} + \varepsilon_t \quad ..(3)$$

Where yt and Δyt are the level and first difference of the relevant time series, T is the time trend variable, and α, β1, β2 and γ are parameters to be estimated. The k lagged difference terms are added to remove serial correlation in the residual. εt is the error term with zero mean and constant variance. Equation (3) is applied to each variable in equation (2).The null hypothesis is that H0: β1 = 0 and the alternative hypothesis is that H1: β1 < 0. If the computed ADF statistic is greater than the ADF critical value at a given level of significance, do not reject the null hypothesis, i.e., unit root exists and if computed ADF statistic is less than ADF critical value, reject the null hypothesis (unit root does not exist/series is stationary) in levels. If not stationary in levels, then all the series are differenced once to make them stationary. These series are therefore said to be integrated of order one, 1(1).

Testing for co-integration

The study established for the existence of cointergrating systems in the model by use of Johansen co integration test because it has been has been cited as more robust and more accurate in identifying the presence of co integration. The Johansen test requires

that the appropriate lag length to be known. The lag length (p) was determined by the Schwarz criterion to ensure that the residual is white noise.

Tests for Multicollinearity

Multicollinearity is a phenomenon in which two or more predictor variables are highly correlated. In this scenario, the ultimate estimates of the coefficients in the regression are likely to be unreliable and unstable. It is therefore crucial to undertake diagnostic tests to counteract the effects of multicollinearity on the regression. The study used a correlation matrix to establish whether there was multicollinearity. A pearson coefficient value greater than 0.7 indicates presence of multicollinearity (Field, 2009).

3.5 Diagnostic Tests

Test for Normality

The residuals of regression models should be normally distributed and the study used the graphical method (Histogram) and Jarque-Bera test for normality. This is to ascertain whether the variables used in the analysis are normally distributed. Under the null hypothesis of a normal distribution, the Jarque-Bera statistic is distributed with 2 degrees of freedom. The reported Probability is the probability that a Jarque-Bera statistic exceeds (in absolute value) the observed value under the null—a small probability value leads to the rejection of the null hypothesis of a normal distribution.

Test for Heteroscedasticity

The error terms/residuals from a regression model should have a constant variance (Homoscedastic) and thus to ascertain whether the residuals meet this criteria the study used

Breusch Pagan Godfrey test for Heteroskedasticity where the null hypothesis under this test is that residuals are Homoscedastic.

Test for Autocorrelation:

The residuals from regression should also auto-correlated and thus the study tested for autocorrelation using the Breusch-Godfrey (BG) test. In this case the null hypothesis of the test is that the residuals do not suffer from autocorrelation.

3.6 Data Collection, Sources and Limitations

The study employed the time series data for the period 1980- 2013. Data sources were the World Bank national accounts and indicators on GDP per capita for OECD countries, Central Bank of Kenya reports (on the exchange rate) and the KNBS for the period 1980-2013. The marketing and advertising variable is a crucial variable in the study however data may not be available for earlier years therefore it may be a challenge to use this variable in the study.

CHAPTER FOUR

DATA ANALYSIS AND RESULTS

4.0 Introduction

This chapter presents the descriptive statistics, trend analysis, and the pre-estimation and post-estimation tests. The chapter further presents the results of the model that was adopted in order to achieve the study's objectives.

4.1 Descriptive Statistics

Table 4.1: Descriptive Statistics

Variable	Observations	Mean	Std. Dev.	Min	Max
Tourist arrivals	34	474.22	191.44	195.30	752.20
Per Capita GDP of OECD countries	34	26435.40	11584.60	10657.82	45279.63
REER	34	50.76	28.33	7.42	88.81
Per Capita GDP of Kenya	34	520.99	272.71	222.60	1238.47
Transport costs	34	48.16	22.60	13.07	95.95
Trade openness	34	873.10	1013.56	113.90	4637.84
Price of Substitutes	34	51.12	34.95	2.26	119.23
Insecurity Dummy	34	0.24	0.43	0.00	1.00
Financial Dummy	34	0.21	0.41	0.00	1.00

Source: Author

Results in Table 4.1 indicate the descriptive statistics of tourist arrivals, per capita GDP of OECD, REER, per capita GDP of Kenya, transport costs, Trade openness, price of substitutes, Insecurity dummy and financial dummy. The mean tourist arrival in the study period was 474.22 with a standard deviation of 191.44 which indicates a wider variation in the tourist arrivals in the study period. Per capita GDP of OECD countries on the other hand had a mean of 26435.40 with a standard deviation of 11584.60 which also indicates wider

variations in Per capita GDP among OECD countries. The real exchange rate values reported in the study period had an average value of 50.76 with a standard deviation of 28.33 which also indicated wider variations in the Real exchange values reported over time. The results in the Table also indicate a mean per capita GDP of 520.99 for Kenya with a standard deviation of 272.71 which implies that the Kenyan Per capita GDP has been varying widely since 1980 to 2013. The mean transport cost for the study period was 48.16 with a standard deviation of 22.60 which indicated a wider variation in transport costs over the study period while a standard deviation of 34.95 for price of substitutes also indicated a wider variation in the prices over the study period. After descriptive statistics, the study went ahead to do the trend analysis of the variables under the study. The results are presented below.

4.2 Trend Analysis

This section presents the trend analysis of tourist arrivals, per capita GDP of OECD, REER, per capita GDP of Kenya, transport costs and Trade openness. The trend analysis is conducted so as to help establish the movement of the variables under study and thus help in performing unit root analysis as the trend analysis graphically indicates the pattern of movement in the variables. The results in Figure 4.1 indicates that the tourist arrivals in Kenya have been increasing and decreasing unsteadily before a sharp decline in 2007 and 2008 after which it started to rise steadily again.

Trend Analysis for Tourist arrivals

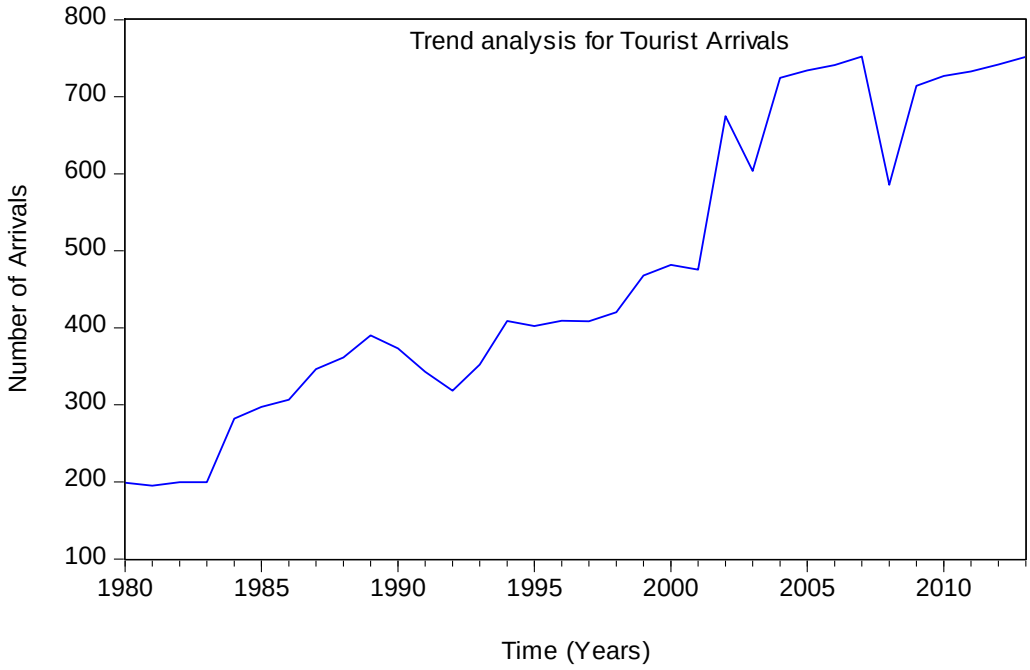


Figure 4.1 Trend Analysis for Tourist Arrivals
Source: Author

Trend Analysis for Per capita GDP of OECD

The per Capita GDP of OECD countries has been increasing unsteadily over the study period as indicated in Figure 4.2.

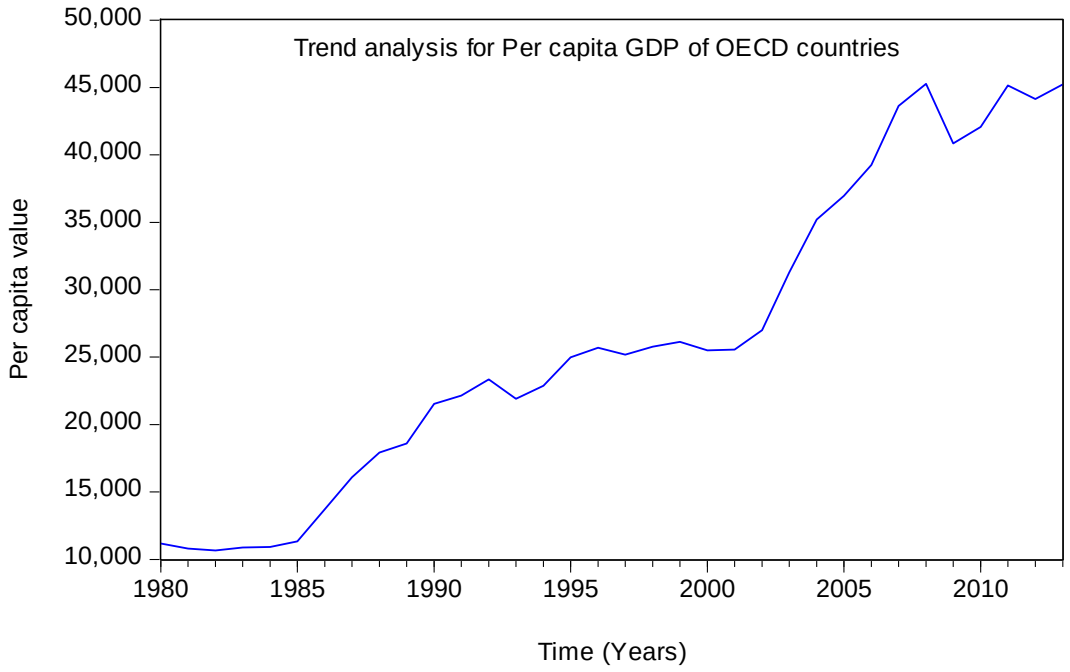


Figure 4.2 Trend Analysis for Per Capita GDP of OECD countries

Source: Author

Trend Analysis for Real Exchange rate

The value of real exchange rate has been rising unsteadily with increases and decreases over the study period.

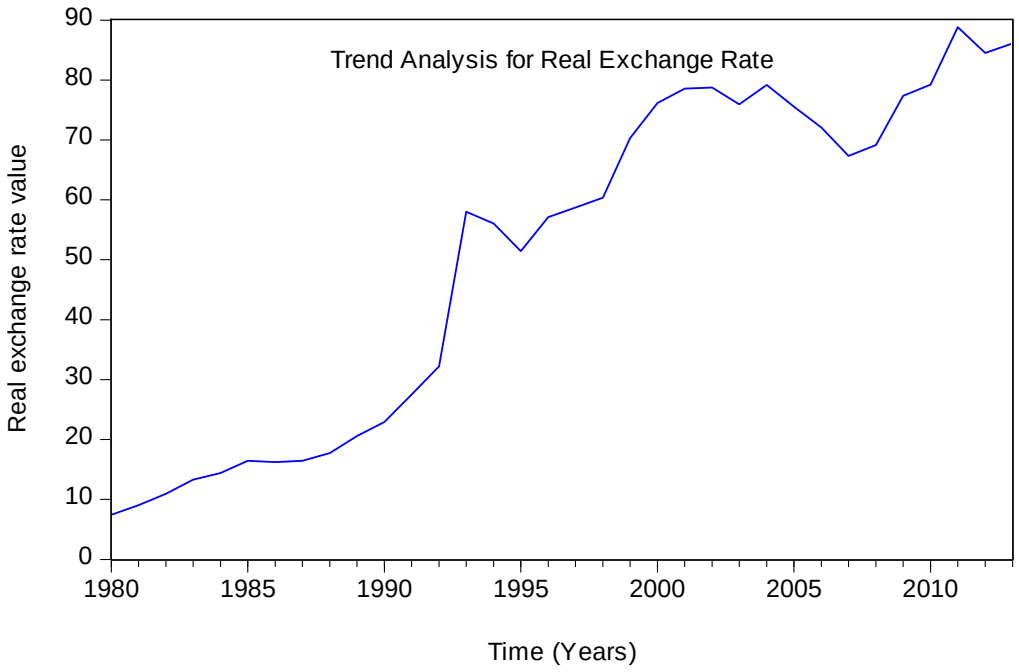


Figure 4.3 Trend Analysis for real exchange rate

Source: Author

Trend Analysis for Per capita GDP of Kenya

The per capita GDP of Kenya has been unsteady in its trends. It had decreasing trends upto 1985 after which it started to increase before hitting the lowest figure in 1993 after which it has been increasing unsteadily.

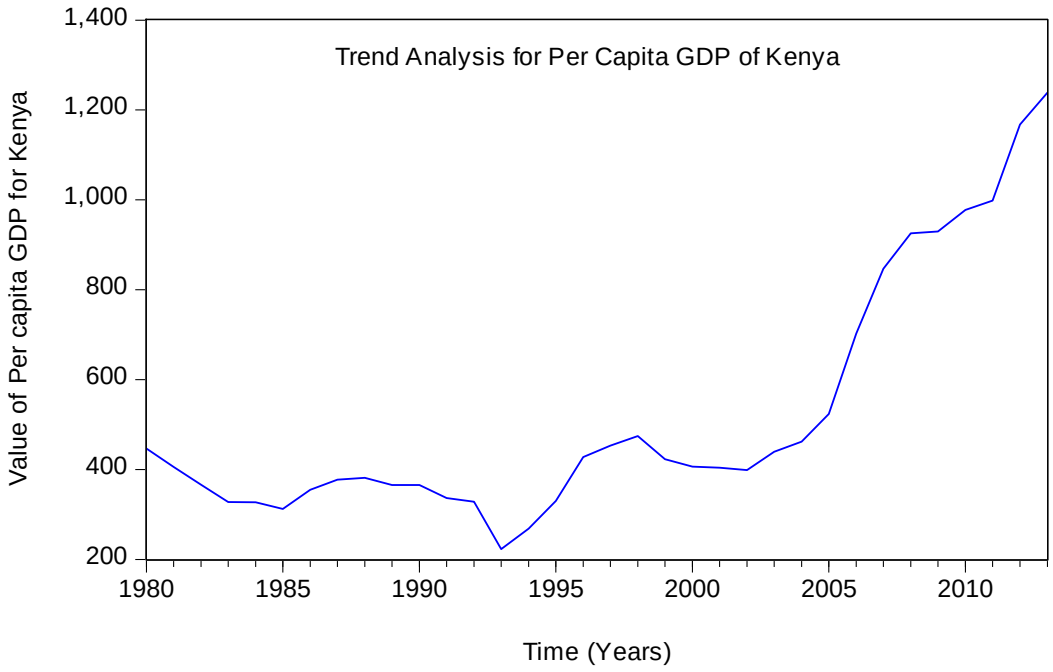


Figure 4.4 Trend Analysis for Per capita GDP of Kenya

Source: Author

Trend Analysis for Transport costs

The trends for transport costs increased unsteadily up to 1994 after which it decreased sharply and started to increase unsteadily after 1998.

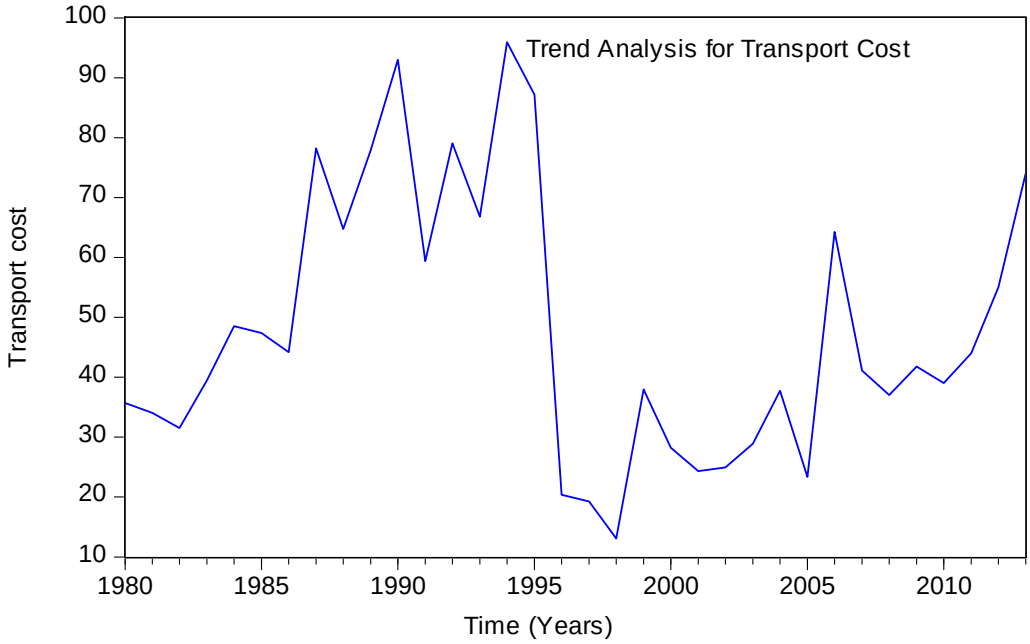


Figure 4.5 Trend Analysis for Transport costs

Source: Author

Trend Analysis for Trade openness

Trade openness indicated decreasing trends in the study period as shown below.

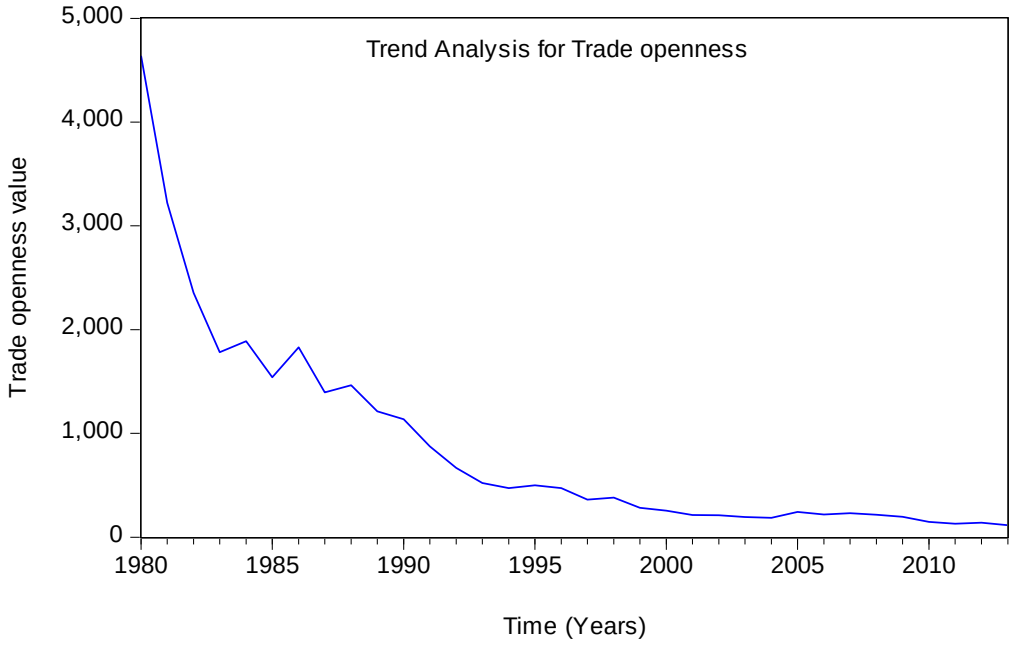


Figure 4.6 Trend Analysis for Trade openness

Source: Author

4.3 Pre-Estimation Tests

Prior to running a regression model pre-estimation tests were conducted. The pre-estimation tests conducted in this case were the unit root tests and test of multicollinearity. This is usually performed to avoid spurious regression results from being obtained.

Test for Multicollinearity

In severe cases of perfect correlations between predictor variables, multicollinearity can imply that a unique least squares solution to a regression analysis cannot be computed (Field, 2009). Multicollinearity inflates the standard errors and confidence intervals leading to unstable estimates of the coefficients for individual predictors. Multicollinearity was assessed in this study using a correlation matrix. The correlation results presented in Table 4.1 indicated that there was presence of multicollinearity between trade openness and real exchange rate, trade openness and per capita GDP of OECD countries, substitutes price and both real exchange rate and per capita GDP of both OECD countries and Kenya and financial innovation dummy and per capita GDP of OECD countries because they indicated Pearson correlation values greater than 0.7.

Table 4.2: Correlation Matrix

	Tourist arrivals	Transport cost	Trade Openness	Substitutes price	REER	Per Capita GDP (OECD)	Per capita GDP(Kenya)	Insecurity Dummy	Financial Innovation Dummy
Tourist arrivals	1.00								
Transport cost	-0.12	1.00							
Trade openness	-0.74*	0.00	1.00						
Substitutes Price	0.94*	-0.17	-0.77	1.00					
REER	0.88*	-0.26	-0.83*	0.94	1.00				
Per Capita GDP (OECD)	0.94*	-0.08	-0.74*	0.97*	0.87*	1.00			
Per Capita GDP (Kenya)	0.75*	-0.08	-0.38*	0.83*	0.60	0.84*	1.00		
Insecurity Dummy	0.19	-0.03	-0.30	0.34	0.28	0.39*	0.34*	1.00	
Financial Innovation Dummy	0.65*	-0.02	-0.36	0.75	0.51*	0.77*	0.93*	0.40	1.00

Source: Author

Unit Root Tests

Most economic variables are usually non-stationary in nature and prior to running a regression analysis. Unit root tests were thus conducted using the ADF test to establish whether the variables were stationary or non-stationary. The purpose of this is to avoid spurious regression results being obtained by using non-stationary series. Results in Table 4.3 indicated that all variables are non-stationary (i.e. presence of unit roots) at 1%, 5% and 10% levels of significance with the exception of insecurity dummy and trade openness. This called for first differencing of the non-stationary variables. Results are presented in Table 4.4.

Table 4.3: Unit root tests at Level

Variable	ADF statistic	1% level	5%level	10%level	Conclusion
Tourist Arrival	-0.6425106	-3.6537297	-2.95711	-2.61743	Non stationary
Insecurity Dummy	-4.1635649	-3.6463424	-2.95402	-2.61582	Stationary
Per capita GDP 9Kenya)	2.5545936	-3.6463424	-2.95402	-2.61582	Non stationary
Per capita GDP (OECD)	0.1120397	-3.6463424	-2.95402	-2.61582	Non stationary
REER	-0.9271503	-3.6463424	-2.95402	-2.61582	Non stationary
Substitutes Price	2.325307	-3.6616605	-2.96041	-2.61916	Non stationary
Trade Openness	-8.6445129	-3.6463424	-2.95402	-2.61582	Stationary
Transport cost	-2.618796	-3.6463424	-2.95402	-2.61582	Non stationary

Source: Author

The results in Table 4.4 below indicate that all the non-stationary variables became stationary at first differencing.

Table 4.4 Unit root tests at first Difference.

Variable	ADF statistic	1% level	5%level	10%level	Conclusion
D Tourist Arrival	-8.0241142	-3.6701697	-2.96397	-2.62101	Stationary
D Per capita GDP (Kenya)	-7.5127753	-3.6616605	-2.96041	-2.61916	Stationary
D Per capita GDP (OECD)	-7.9216056	-3.6701697	-2.96397	-2.62101	Stationary
DREER	-6.4814264	-3.6701697	-2.96397	-2.62101	Stationary
D Substitutes Price	-5.9094772	-3.6891938	-2.97185	-2.62512	Stationary
D Transport cost	-5.960072	-3.6891938	-2.97185	-2.62512	Stationary

Source: Author

4.4 Diagnostic Tests

Diagnostic tests for normality, Heteroskedasticity and autocorrelation were conducted so as to ensure that all the Ordinary Least Squares assumptions are not violated. This was to be able to control for them in the final regression model.

Normality test

The normality test was conducted graphically and also using Jarque bera test as indicated in Figure 4.7. The Jarque Bera test which is more conclusive was also used. The null hypothesis of the residuals not being statistical different from normal distribution was accepted at 55 level of significance as indicated by a P-value of 0.7259.

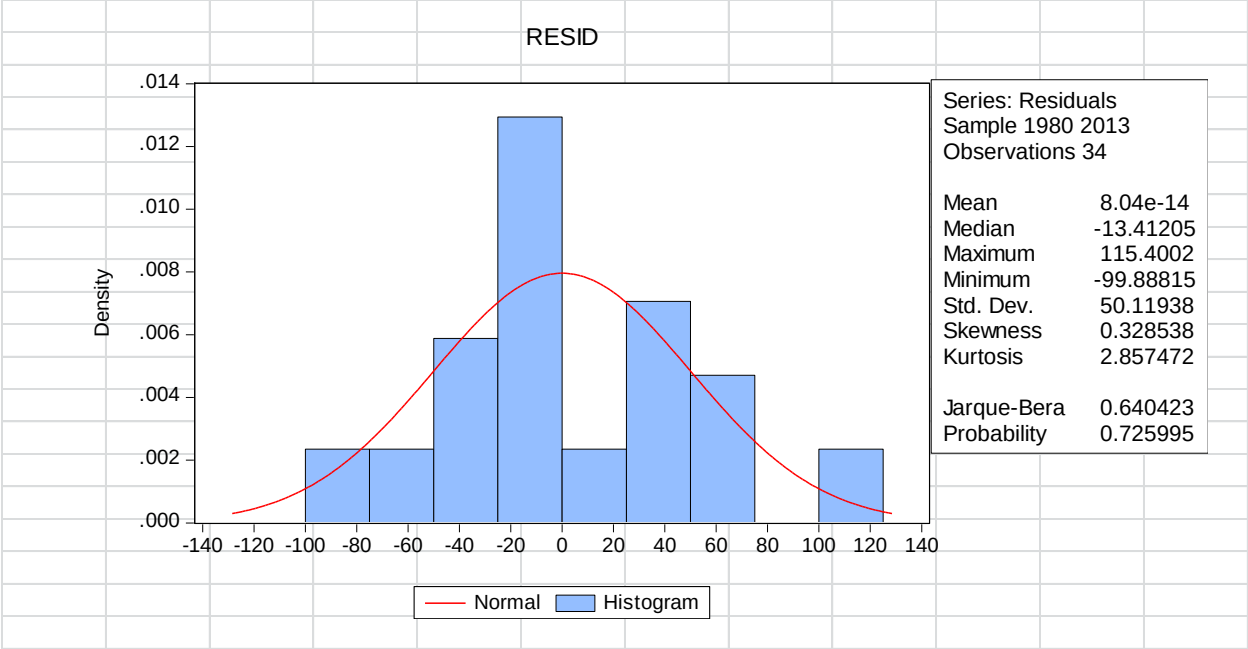


Figure 4.7 Normality Test of residuals

Source: Author

Test for Heteroskedasticity

Ordinary least squares (OLS) assumption stipulates that the residuals should have a constant variance (i.e. they should be Homoscedastic). The study used Breusch Pagan Godfrey test to test for heteroskedasticity. The null hypothesis that the error terms were homoscedastic was not rejected since the observed R squared was greater than 5% level of significance.

Table 4.5: Heteroskedasticity Test Results

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	1.292296	Prob. F(8,25)	0.291982
Obs*R-squared	9.946824	Prob. Chi-Square(8)	0.268778
Scaled explained SS	4.99458	Prob. Chi-Square(8)	0.758155

Source: Author

Test for autocorrelation

The test for autocorrelation was performed to establish whether residuals are correlated across time. OLS assumptions require that residuals should not be correlated across time and thus the Breusch–Godfrey serial correlation LM test was adopted in this study. The null hypothesis is that no first order serial /auto correlation exists. The results of Table 4.6 indicated that the null hypothesis of no autocorrelation is not rejected and that residuals don't suffer from first order serial autocorrelation.

Table 4.7: Serial Correlation Tests

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	1.190857	Prob. F(2,23)	0.322017
Obs*R-squared	3.190419	Prob. Chi-Square(2)	0.202866

Source: Author

4.5 Tests for Co-integration

The study used a Johansen cointergrating test to test for the existence of cointergrating systems in the model. The Johansen cointegration test was used since its more accurate and superior to Engel granger test of cointegration. Johansen results indicate that the null hypothesis of at most 4 co integration equations for the model linking tourist arrivals to its determinants was rejected at 5% significance level. The trace statistic for the null hypothesis for the existence of at most 4 cointergration equations was larger than the set critical value at

5%.This implies that more than 4 cointegrating equations exist. This further implies that all the variables in the tourist arrival model converge to an equilibrium in the longrun (i.e are co intergrated) as shown in Table 4.8

Table 4.8: Johansen test

Johansen Cointergration Test				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.970981	351.4075	208.4374	6.39E-58
At most 1 *	0.861599	238.134	169.5991	1.12E-07
At most 2 *	0.80374	174.8508	134.678	2.98E-05
At most 3 *	0.720347	122.7448	103.8473	0.001586
At most 4 *	0.648858	81.97027	76.97277	0.019738
At most 5	0.445065	48.48017	54.07904	0.143758
At most 6	0.306539	29.6352	35.19275	0.175673
At most 7	0.250084	17.92129	20.26184	0.101736
At most 8	0.238334	8.711899	9.164546	0.060901
Trace test indicates 5 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

Source: Author

4.6 Long run Regression Results on the Determinants of international tourism arrivals in Kenya

The study ran the long run regression model for the determinants of international tourism arrivals in Kenya. The results in Table 4.9 below indicate a coefficient of determination of 0.931 which implies that all the variables used in the model, explain 93.1% of the changes in international tourist arrival in Kenya in the Long run. The F-statistic of 42.468 was significant at a p value of 0.000 which implied that the long run model fit well.

The results further indicated that in the long run, only per capita GDP of OECD countries and insecurity dummy significantly affected the international tourist arrival in Kenya. Per capita GDP of OECD countries positively affected international tourist arrivals while insecurity negatively affected it.

The other variables in the model were not found to significantly affect the international tourist arrivals in Kenya in the long run.

Table 4.9: Long run regression Model

Dependent Variable: TOURIST ARRIVAL				
Method: Least Squares				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Trade Openness	0.006003982	0.025594	0.234583	0.816443
Transport Cost	-0.18174456	0.529132	-0.34348	0.734112
Substitutes Price	4.120896803	4.045036	1.018754	0.318078
REER	-1.61572396	2.714688	-0.59518	0.557074
Per capita GDP of OECD Countries	0.012228907	0.004141	2.953088	0.006757
PER CAPITA GDP of KENYA	-0.10135982	0.224778	-0.45093	0.655925
Insecurity Dummy	-72.0617653	27.27249	-2.64229	0.014003
Financial Innovation Dummy	-69.9339183	71.88784	-0.97282	0.339962
C	109.9974945	98.72017	1.114235	0.275776
R-squared	0.931459652			
Adjusted R-squared	0.90952674			
F-statistic	42.46858225			
Prob(F-statistic)	0.000			

Source: Author

4.7 Error correction model

The error correction model is a model consisting of stationary variables. It is applicable only when co integration is found to exist among long run/non stationary variables. Since the variables in the model linking international tourist arrival to its determinants are cointegrated, then an error-correction model was specified to link the short-run and the long-run

relationships. Residuals from the co integrating regression are used to generate an error correction term (lagged residuals) which is then inserted into the short-run model. The estimates of the error-correction model are given in table 4.10.The short run results in table 4.10 indicated that the goodness of fit (r squared) for the short run models was 48.92% implying that the variables explain only 48.92% of changes in international tourist arrivals in the short run. The short run relationship between insecurity and international tourist arrivals was found to be positive and significant. The relationship between other short run variables and international arrival was insignificant in the short run.

Table 4.10 Short run Regression Model / Error correction Model

Dependent Variable: DTOURIST				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D Substitutes price	-3.39687	6.850511	-0.49586	0.624506
DREER	0.729389	2.510253	0.290564	0.773881
DPer capita GDP of OECD countries	0.007474	0.007148	1.045567	0.306178
DPer Capita GDP of Kenya	-0.01054	0.230909	-0.04564	0.963974
DTransport	0.662327	0.455774	1.453192	0.159122
DFinancial innovation dummy	22.01397	32.31748	0.681178	0.502279
Insecurity Dummy	-62.9645	26.47792	-2.378	0.025717
Lagged residual	-0.82453	0.227789	-3.61969	0.001369
C	28.99336	26.21759	1.105874	0.279743
R-squared	0.489273			
F-statistic	2.873978			
Prob(F-statistic)	0.021474			

Source: Author

4.8 Summary of Findings

This section presents the summary of the findings in line with the objectives of the study. The study's objectives hinged on identifying the major factors that influence tourist attraction in Kenya. Among the factors under investigation were per capita GDP of OECD countries,

Per capita GDP of Kenya, REER, Transport costs, Trade openness, financial innovations, security and price of substitutes.

The findings of the study indicated that in the long run, per capita GDP of OECD countries, Per capita GDP of Kenya, REER, Transport costs, Trade openness, financial innovations, security and price of substitutes explain 93.1% of the changes in international tourist arrival in Kenya in the Long run. The results further indicated that in the long run, only per capita GDP of OECD countries and insecurity dummy significantly affected the international tourist arrival in Kenya. Per capita GDP of OECD countries positively affected international tourist arrivals while insecurity negatively affected it. This study findings conform to other empirical studies done, focusing on GDP of the tourist source countries (Song Li, witt and Fei, 2010). The focus on the tourists to increase their expenditures of the number visits to Kenya; the country can consider increasing their attractiveness, especially more on marketing its strongholds in terms of tourist attraction.

The findings of the study also indicated that in the short run, per capita GDP of OECD countries, Per capita GDP of Kenya, REER, Transport costs, Trade openness, financial innovations, security and price of substitutes explain 48.92% of changes in international tourist arrivals. The findings also indicated that there is a negative and significant relationship between insecurity and international tourist arrivals. This negative impact of insecurity also conforms to other empirical studies which considered insecurity as a factor in their analysis of determinants of tourist arrivals in the respective countries (Seddigi et al 2001, Stafford et al 2002, Johnson 2001, Bashagi and Muchapondwa 2009). This implies tourists will always be attracted to a safer country for their own safety. The relationship between other short run variables and international arrival was insignificant in the short run.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

The chapter presents conclusions of the study based on the study findings and also the policy recommendations made based on the conclusions.

5.1 Conclusions

Based on the study findings, the study concluded that the GDP of the OECD countries significantly affected the number of international tourists arriving in Kenya. This implies that the more the income of the countries where the visitors coming to Kenya increases, the more the living standard of the visitors improves, and the more they visit Kenya as tourists.

The study also concluded that insecurity in Kenya is a significant factor in explanation of the fluctuations in the number of international tourists visiting both in the long run and in the short run. There is a negative and significant relationship between insecurity and the number of international tourists visiting Kenya.

Lastly, the study concluded that Per capita GDP of Kenya, REER, Transport costs, Trade openness, financial innovations and price of substitutes does not significantly explain the fluctuations in the number of international tourists visiting Kenya.

5.2 Policy recommendations

Based on the conclusions, the study recommends that the Kenyan Government should put in place measures to improve the security level. This is because insecurity is seen to reduce the number of international tourists visiting Kenya and as a result that leads to a negative impact on the GDP of the Country.

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