THE EFFECT OF DIASPORA REMITTANCES ON ECONOMIC GROWTH IN KENYA

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DECLARATION

This management research is my original work and has not been presented for a degree in any other university.

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This management research has been submitted for examination with my approval as the University of Nairobi supervisor.

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DEDICATION

This Research is dedicated to my husband Edwin Toroitich and my children Emmanuel Kiprop and Charlynne Jematia for their patience and spirited encouragement while undertaking this study. It is also dedicated to my mother Mrs. Esleen Bett who has always celebrated my education achievements as hers. Lastly, to my dear brother Mr. K.A.K Bett who set my education foundation.

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ABSTRACT

A booming interest in the topic of Diaspora remittances has developed over the past few years on the part of academics, donors, international financial institutions, commercial banks, money transfer operators, microfinance institutions, and policy makers. The surge of remittances to countries of origin in the last two decades, exceeding aid and foreign direct investment (FDI) to developing countries, has reignited debate on their development potential in receiving countries. Alongside the interest in remittances, there is also growing recognition of the importance of transnational practices in shaping the relationship between migration and remittances.

The 2003 World Bank report also noted that remittances are more stable than other kinds of external financial flows, and indeed seem to be countercyclical. In times of crisis, whether natural or man-made, migrants tend to send more money to their families to help them survive or recover, whereas foreign investment and lending tend to dry up. The main objective this study was to determinate the impact of diaspora remittances on the economic growth in Kenya.

Panel data from 2003 to 2012 diaspora remittances was analyzed using multiple linear regressions method. From the discussion of the findings above, it can be concluded that the diaspora remittances indicators are the most significant factors influencing the economic growth in Kenya. Thus it can be concluded that economic growth in the Kenya is largely driven by diaspora remittances.

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ABBREVIATIONS

CBK - Central Bank of Kenya

CPI - Corruption perception index

DPD - Dynamic Panel Data

FDI - foreign direct investment

GDP - Gross domestic product

IMF - International Monetary Fund

ICRG - International Country Risk Guide

KAIF - Kenyans Abroad Investment Fund

KCA - Kenyan Community Abroad

NGO - Non Governmental Organisation

NRK - Non-Resident Kenyans

POK - Persons of Kenyan Origin

TFP – Total Factor Productivity

UNHDI - United Nations Human Development Index

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

A booming interest in the topic of Diaspora remittances has developed over the past few years on the part of academics, donors, international financial institutions, commercial banks, money transfer operators, microfinance institutions, and policy makers. The surge of remittances to countries of origin in the last two decades, exceeding aid and foreign direct investment (FDI) to developing countries, has reignited debate on their development potential in receiving countries. Renewed enthusiasm for remittances has been fuelled not only by new research findings, but also by a change in ideologies and the failure of other development approaches. Alongside the interest in remittances, there is also growing recognition of the importance of transnational practices in shaping the relationship between migration and remittances.

Migrants maintain a link with countries of origin through a complex network of cultural, economic, social and political relations, which can be sustained through new technologies and cheaper travel. Another critical factor pushing migration to the top of the development policy agenda is the growing concern about irregular migration to the industrialized world. Undocumented migration from Africa and other developing countries to developed countries through people smuggling, trafficking, and other illegal routes is a major political priority in many of these countries. This growing irregular movement is represented as a threat to social cohesion and security in the countries of

destination. All these factors have contributed to an immense interest in the links between migration and development (Bakewell O, 2008).

1.1.1 Economic Growth

Economic growth is the sustained increase in welfare of an economy nation, region, city together with the ongoing changes in that economy's industrial (Ray 1998). It is the increase in the amount of the goods and services produced by an economy over time. Economists and many other social scientists have focused, primarily although not exclusively, on growth in per capita income as the preferred measure of economic growth. Economic growth is conventionally measured as the percent rate of increase in Gross domestic product (GDP). GDP refers to the market value of all the final goods and services produced within in a country in a given time period. The concept of GDP was developed in the early twentieth century, not for measuring economic growth, but for assessing the state of a national economy.

For more than half a century, there have been heated debates on the sources of economic growth of developing economies (Lewis, 1954; Solow, 1956; Chenery and Strout, 1966; Denison, 1967; Myrdal, 1968; Harris-Todaro, 1970; Schultz, 1979; Fields, 1980; Romer, 1986; Lucas, 1988; Barro, 1991; and Easterly, 2001). The perceived sources of economic growth have ranged from surplus labour to physical capital investment and technological change, foreign aid, foreign direct investment (FDI), investment in human capital, increasing returns from investment in new ideas and research and development. Other researchers such as Owens (1987), Sen (1990), and Kaufmann, Kray, and Mastruzzi (2006) have also focused on the impact of institutional factors such as the role of political

freedom, political instability, voice and accountability on economic growth and development. Economic theory has settled on three broad categories as determinants of the rate at which our standard of living grow; the progress of science and productive knowledge; the growth of individual skills and incentives.

1.1.2 Diaspora Remittances

Diaspora remittances are transfer of money by a foreign worker to his or her home country. Although the notion of remittances conjures only monetary aspect, remittances embrace monetary and non-monetary flows, including social remittances. The North-South Centre of the Council of Europe (2006) defines diaspora's social remittances as ideas, practices, mind-sets, world views, values and attitudes, norms of behaviour and social capital (knowledge, experience and expertise) that the diasporas mediate and either consciously or unconsciously transfer from host to home communities. They are capital transfers of financial assets made by migrants as they move from one country to another and stay for more than one year.

As resources, both Diaspora and remittances, take the form of individuals' initiatives and pooled efforts through "home improvement unions" and "hometown associations" by migrant groups or diaspora associations in the countries of destination. It has been noted that "diaspora organisations can act as important intermediaries between traditional development actors and between diasporas and local communities — for example, identifying needs and priorities of local communities and communicating those to donor organisations, foreign direct investment and diaspora members to solicit funding and expertise" (Brinkerhoff, 2006: 9).

There are different transfer mechanisms available to migrants to send remittances, namely, banks, credit unions, small and large money transfer institutions such as Western Union, Money gram, hand delivery by the sender through a third party and other informal mechanisms. However, lack of administrative structures and mechanisms for Government to tap (leverage) directly into these foreign inflows from the Diaspora as an asset for investment and national development. Thus remittances including unrecorded flows through formal and informal channels, is believed to be even larger.

Remittance flows have other significant characteristics beyond their volume. The 2003 World Bank report also noted that they are more stable than other kinds of external financial flows, and indeed seem to be countercyclical. In times of crisis, whether natural or man-made, migrants tend to send more money to their families to help them survive or recover, whereas foreign investment and lending tend to dry up. Two important characteristics of remittances are worth underscoring: they are largely unaffected by political or financial crises, tending to increase in times of hardship and they are equally spread among developing countries than are other financial flows (Ratha, 2003, in IOM, 2006: 23).

Diaspora remittances are experiencing growth and due to huge sums involved, it is now being recognized as an important contributor to the recipient country's growth and development. Migrants living abroad typically send money home to help their families. Remittances are an important source of external financing to the recipient country and

may alleviate credit constraints and act as a substitute for financial development. Unlike private capital flows, remittances tend to rise when the recipient economy suffers an economic downturn following crisis, natural disaster, or political conflict because migrants send funds during hard times to help their families and friends.

The growth of an economy is thought of not only as an increase in productive capacity but also as an improvement in the quality of life to the people of that economy. There is a general consensus on the direct contribution of migration and remittances to economic growth in the recipient countries. Remittances improve the livelihoods and survival of families left behind. Remittances invested on government securities provide huge external financing to the recipient country which has enhanced infrastructure development, growth of real estate and tourism industries in Kenya. It also contributes to increased foreign exchange earnings to the recipient country.

GDP is used as an aggregate measure of total economic growth for a country. It represents the market value of all goods and services produced by the economy during the period measured, including personal consumption, government purchases, private inventories, paid-in construction costs and the foreign trade balance (exports are added, imports are subtracted).

1.1.3 Relationship between Economic Growth and Diaspora Remittances

Remittances are a source of inflow of cash, increasing national income considerably. Remittances spent by any given recipient can create multiplier effects for national economies: every remittance dollar spent in local markets creates demand for services

and products as well as the jobs required to provide them, thus contributing to overall economic growth. Remittance recipients experience direct benefits such as reduced expenditure constraints through income augmentation. This additional income expands recipient households' options for consumption, reducing poverty and improving standards of living. Remittances help to reduce poverty almost immediately, and can have an income-redistributive effect that also decreases inequality.

Scholars have identified remittances as a contributor of economic growth especially to developing countries. They argue that remittances are an important source of external financing to the recipient country and may alleviate credit constraints and act as a substitute for financial development. Unlike private capital flows, remittances tend to rise when the recipient economy suffers an economic downturn following crisis, natural disaster, or political conflict because migrants send funds during hard times to help their families and friends. One school of thought suggests that remittances are beneficial at all levels including the individual, household, community and national levels. They increase disposable incomes and demand for local goods and services and play a vital role in developing local capital markets and infrastructure.

Remittances also reduce poverty in the recipient economy since it augments the income of the recipient household and providing resources for the poor households which in turn affect the poverty and the welfare through indirect multiplier effects. Remittances can improve a country's creditworthiness and hereby enhance its access to international markets for financing infrastructure and other development projects. Commercial banks

in developing countries can leverage their access to remittances to raise capital from international bond market for financing infrastructure and other .However, the economic impact of remittances has been disregarded for at least two reasons. One theoretical strand suggests that workers' remittances are mainly used for consumption purposes and hence have minimal impact on investments. Research indicates that remittances may also have adverse macroeconomic impacts by increasing income inequality and reducing labour supply among recipients. It also encourages consumption of imports, and contributes to dependent relations between the sending and receiving countries.

There is little hard evidence to confirm any causal relationship between inflows of remittances and economic performance, although they may well be correlated. Some countries receiving large amounts of remittances (e.g. the Philippines, Ecuador and Yemen) have done rather poorly. And yet some others with large remittances inflows (e.g. China, India and Thailand) have performed rather well (ILO, 2004). One recent study covering 101 developing countries and an extended period from 1970 to 2003 finds no direct link between remittances and per capita output growth (Spatafora, 2005).

1.1.4 Kenya's Economic Growth and Diaspora Remittances

Kenya is one the most developed countries in East Africa. According to the United Nations Human Development Index, Kenya stands at the 147th position. The Gross Domestic Products (GDP) growth Rate in Kenya is reported by the Kenya National Bureau of Statistics. The Gross Domestic Product in Kenya expanded 2.20% in the third

quarter of 2012 over the previous quarter. Historically, from 2005 until 2012, Kenya GDP Growth Rate averaged 1.15% reaching an all time high of 4.30% in June of 2008 and a record low of -3.90% in March of 2008. Agriculture and Fishery (including coffee and tea cultivation) is the largest sector of the economy and accounts for about 25%. The fastest growing segments are Wholesale and Retail Trade and Transport and Communication. Together they account for almost 27% of total output. Manufacturing is the third largest sector and represents 11% of the GDP. Other sectors include: Real Estate, Renting and Business Services and Financial Intermediation (10.8%), Education (6.7%), Other Services (7%), Construction (4%), Public Administration (3.7%), Electricity and Water (2.6%), Hotels and Restaurants (1.5%). Fishing and Mining and Quarrying account for the remaining 1%.

Diaspora remittances to Kenya from all source markets have grown substantially in the recent years and have become the fourth-largest source of foreign exchange in East Africa's biggest economy after revenue from tea, horticulture and tourism. The Central Bank of Kenya (CBK) conducts a survey on remittance inflows every month through the formal channels that include commercial banks and other authorized international remittances service providers in Kenya. Data from CBK shows that Kenyans abroad sent $1.17 billion in 2012, a 31% increase on 2011. The remittance inflow in March 2013 was USD 1.021 million (or 1.0 %) higher than the February 2013 inflow of USD 102.4 million. In the 12 months to March 2013, average remittance inflows increased to USD 98.3 million from USD 82.9 million average remittance inflows for the year to March 2012. A look on remittance Inflows by Source Market ,North America accounted for nearly a half (estimated at 49 percent share) of the remittance inflow in March 2013,

while Europe and the rest of the World accounted for 28 % and 23 %, respectively. The dominant position of North America reflects the large numbers of Kenyan with gainful economic activities in the region. CBK noted that Kenyans living abroad typically send money home to help their families and for investment in various sectors like real estate. They have also been investing in government securities targeted at them, such as infrastructure bonds and the long-term savings development bonds.

The emigration of Kenyans abroad in large numbers is a relatively recent phenomenon. It has assumed significant proportions over the last two decades. In the first two decades after independence in 1963, tens of thousands of European and Asian residents left the country, but only a few Kenyans were able to migrate and live abroad due to cost and other factors (Ghai, 2004). The most important reason for this shift in migration patterns was the deterioration in the economic performance of Kenya. While the first two decades witnessed high economic and employment growth, with new opportunities opening up for Kenyans in all sectors, the situation was reversed over the past 25 years, especially in the 1990s, with negative per capita income growth and worsening income distribution. Millions of Kenyans have suffered declining living standards; even those with higher education and technical skills are finding it difficult to get remunerative employment opportunities.

It is therefore understandable that increasing numbers of Kenyans have been seeking employment opportunities abroad. In addition, the rapid pace and intensity of globalization and the growing gap in living standards between Kenya and developed countries, as well as political repression, the spread of corruption and an increase in

personal insecurity, have also encouraged emigration. However, in recent times, migration has also been a result of business opportunities, especially in countries neighbouring Kenya (Ngugi, 2011). Official estimates from the Ministry of Foreign Affairs in Kenya indicate that there are about 3 million Kenyans in the diaspora, approximately 8% of the country's population, and in the last few years they have played a huge role in national development through their remittances to Kenya.

The Kenyan government developed a Policy Paper in 2011 to provide strategies to mainstream the Kenyan Diaspora Communities into the development agenda. The Government's vision to harness the Diaspora resource is set to be fulfilled through effective implementation of the policy strategies and programmes which will be developed thereof in partnership with relevant stakeholders towards the realization of Kenya Vision 2030. The Policy emphasizes the need for creating an enabling environment to address identified challenges. Among some of the key interventions proposed in the Policy are: curbing high cost of remittances, improving consular services to address diaspora issues, using the Kenyan diaspora to promote tourism, tapping into diaspora talents to reverse brain drain, and designing a system of collection of data on diaspora profiles.

1.2 Statement of the Problem

The literature on how remittances impact economic growth of recipient countries is conflicting. Some scholars believe that migrant remittances have positive growth effects in recipient economies (Pradhan, Upadhyay & Upadhyaya, 2008; Fayissa & Nsiah, 2010b; de Haas, 2005; Dos Santos & Vinay, 2003) while other scholars highlight the

negative growth effects of remittances (Chami, Fullenkamp & Jahjah, 2003; Karagoz, 2009). The latter argue that remittances do not result in positive economic growth since the two variables are negatively correlated. There are also scholars who claim that remittances have no impact on economic growth of recipient countries (Barajas, Chami, Fullenkamp, Gapen & Montiel, 2009; Rao & Hassan, 2011). For these scholars, there is no causal relationship between remittances and economic growth of developing economies. All these conflicting empirical findings on the growth effects of remittances are, to some extent, informed by the available theoretical literature conversing on the channels through which remittances impact economic growth. As a result of the contested literature, it is difficult for one to conclude on the impact of remittances on economic growth in a country like Kenya.

1.3 Objectives of the Study

To determine the impact of diaspora remittances on economic growth in Kenya.

1.4 Significance of the Study

The study will be useful to the Kenyan governments. Remittances serve the country in many ways including helping offset the country's current account and stabilizing the Kenyan shilling. This study will help the Governments and other public and private institutions to create a framework in which the positive aspects of the migration-economic growth relationship can be strengthened and the negative ones reduced in impact. The study will also guide the government in setting up administrative structures and mechanisms for Government to tap (leverage) directly into these foreign inflows from the Diaspora as an asset for investment and national development.

Financial institutions are also beneficiaries of this study since remittances make effective contribute to develop the financing capacities of the financial system, particularly in banking sector. Many studies have shown in numerous endogenous growth models, which the enhancing of the financial system in developing or emerging countries is an important factor of growth. If we take in our consideration as an example the US and Mexico, the importance of flows of remittances encourages the banks to intervene in the routing of these flows, which is also desirable from the point of view of the State. Study by Taparia (2005) shows; in the case of several countries like Morocco, the surge of the remittances involves a liquidity increasing of the banks, a point which can be considered that if banks use these funds to lend more easily credits to small and medium-sized enterprises, however, banks would preferring to buy Treasury bonds in spite of financing small private companies. Institutions working on economic development often focus on the use of remittances from a variety of perspectives. The Institute for Development Studies states that the institutions can integrate remittances into a country's economy; employ the macroeconomic behaviour of remittances to influence responses to productive forces (for instance, in investment and trade); and ascertain the impact of remittances on national economic growth.

The study is also useful to the Kenyan Diaspora. The government seems to have recognized the potential held by Kenyans abroad in this respect and would want to take it a step further. In the past few months, there has been a whirlwind of government activity to speak, entice and persuade Kenyans abroad to do more for the country's economic

growth. The message has been twofold: the Kenyan Diaspora could do more in direct investment and becoming agents that influence the flow of foreign investment in the country. Kenyan diaspora feel closer to their motherland and hence have become more involved in the affairs of their lovely country. A while back, the Kenyan Community Abroad (KCA) launched the Kenyans Abroad Investment Fund (KAIF). The fund would provide a source of investment capital for companies, government or individuals targeting Kenya. They believe that in Kenya, opportunities exist in literary all areas of the economy, be it real estate, transportation, agriculture, education, technology, tourism, construction and many more and KAIF or a similar fund could provide needed structure in targeting investment in the country; provide efficiency in the collection of investment funds and selection of investment targets. This study is crucial to the Kenyan diaspora for their decision making on investing in Kenya.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter gives a brief summary of literature on remittances and economic growth, and is organized as follows. Section 2 formulates a theoretical model to analyse this topic. Section 3 discusses the empirical studies done by others on the topic and the results and section 4 summarizes and concludes.

2.2 Review of Theories

The literature on remittances identifies three theories to explain the flow of remittances. These are; Pure Altruism, Pure Self Interest and Tempered Altruism which is also referred to as Enlightened Self Interest. Most discussions in the literature are centered on the first two of them. These theories illustrate that remittances are sent mainly as a result of pure altruistic and self-interest motives (de Haas, 2007:7; Schiopu & Siegfried, 2006:8; Hagen-Zanker & Siegel, 2007:4; Lucas & Stark, 1985:902). The literature on remittances is however conflicting when it comes to the question of determining which of the two motives listed above better explains the increased flow of remittances. Both altruistic and self-interest motives have been argued to be factors responsible for the increased or decreased flow of remittances. Sayan (2006:5) challenges the idea of viewing altruism as the only motive for remitting. He asserts that "remitting is a multifaceted behaviour" hence it involves many other explanations besides altruistic and self-interest motives.

2.2.1 Pure Altruism theory

The Pure Altruism theory highlights that migrants remit money back home in concern of the welfare of the remaining family members (Hagen-Zanker & Siegel, 2007:5; OECD, 2006:145). Chami *et al.* (2003:4) report that in this model, the migrant's utility is derived from that of his/her family back home. The migrant is rather satisfied when the welfare of his family back home is better off (OECD, 2006:145). This implies that the migrant is motivated to remit more funds to his family when there are unfavourable economic conditions holding in the home country. The theory observes that remittances are "compensatory transfers" since they increase when the migrant's home country is faced with economic disruptions such as droughts and a financial crisis (Chami *et al*., 2003:4). In order for the migrant to remit more funds, the economic disruptions or "bad luck", a term used by Chami *et al.* (2003:4), must be creating a shortfall for the remaining family.

As a result, the compensatory nature of remittances under the Pure Altruism model implies that remittances are countercyclical, that is, they increase during times when there is deterioration in economic conditions in the business cycle (Vargas-Silva, 2008:292; Chami *et al*., 2003:4). The Bank of Uganda (2007) emphasises that altruistic remittances can be countercyclical to GDP patterns possibly because migrants tend to remit more during periods of economic disturbances in order for their families in the home country to smoothen their consumption. Also commenting on behavioural patterns of remittances under a Pure Altruism model, Brown (2006:63) suggests that there is an inverse relationship between the volumes of remittances and economic conditions holding in the

home country. Under this model, favourable economic conditions in the home country would imply a reduction in the volume of remittance inflows.

2.2.2 Pure Self Interest theory

The Pure Self Interest theory is modelled around the argument that remittances are not always countercyclical. There are some instances or contexts where volumes of remittances reduce following poor economic conditions in the recipient country. In such a case, there is no inverse relationship between volumes of remittances and the economic performance of the home country as postulated by Brown (2006:63). In fact, there might be a positive correlation between volumes of remittances and economic performance of the home country where bad economic conditions may result in low volumes of remittances. Such behavioural patterns have led to the formulation of the Pure Self Interest theory.

Lucas and Stark (1985:904) claim that migrants' self-interest can be one other motive for remittances. In this context, migrants remit money in order for them to invest or inherit in assets back home and also for them to return home with dignity .When there is deterioration in economic performance of the home country; migrants are most likely to remit less since the situation will have a negative impact on both investible and inheritable assets. There is most likely to be an increase in the volumes of remittances if the home economy is undergoing a favourable spell.

2.2.3 Tempered Altruism theory

They suggest a tempered altruism and enlightened self- interest theory whereby remittances are viewed as a part of inter-temporal, mutually beneficial contractual

arrangements between the migrant and the family at home country. The contractual arrangements could be co-insurance, loan repayment and exchange of services

2.3 Review of Empirical Studies

Several studies have helped to prove that remittances boost economic growth in the recipient country. There are only few empirical studies that have analyzed the relation between remittances and growth. The empirical studies show that remittances can stimulate economic activity and motivate entrepreneurial communities (Durand et al, 1996 and Woodruff and Zenteno, 2007). Remittances help households move out of poverty (Durand et al, 1996 and Woodruff and Zenteno, 2007), lower mortality rates (Kanaiaupuni, 1998) and increase educational and housing spending (Adams, 2005). According to Buch et al (2002), remittances can influence economic growth directly or indirectly. However, the degree of the latter channel strongly depends on supporting governmental policies and a supporting economic environment for investment activities.

Chami et al (2005) uses panel data to study the moral hazard effect framework on remittance's motivation and their effect on economic activity. They find a negative effect of remittances on economic growth. Glytsos (2005) analyzes the effect of remittances on investment, consumption, imports and output. The author uses a sample of five countries and estimates short and long run multipliers of remittances. He finds that the effect of reducing remittances would be greater than the effect of raising them. Giuliano and Ruiz-Arranz (2005) find a positive effect of remittances on growth, specifically for countries with lower financial development. Ziesemer (2007) proposes a savings channel that relates remittances with growth. He finds that remittances have a positive impact on

growth, due to the ability to increase saving rates in countries with a per capita income of less than US $1200.

Chami, Fullenkamp, and Jahjah (2003) (henceforth CFJ) use aggregate remittance data for a sample of 83 countries over the 1970 - 1998 period to examine the relationship between workers remittances and per capita GDP growth. The study used panel regressions of growth of real GDP per capita on workers' remittances to GDP conditional on initial per capita income, investment to GDP ratio, inflation rate, regional dummy and the ratio of net capital flows to GDP. Later the study replaced workers' remittances to GDP variable with a change in that ratio as a regressor to incorporate the dynamic nature of private transfers. Overall, Chami et al (2003) found that, the investment to GDP and net private capital flows to GDP ratio were positively affecting growth but workers' remittances to GDP ratio either was not significant or negatively related to growth. In order to test whether the relationship could be non-linear, CFJ used a squared term of the remittances to GDP ratio and still found the same result.

However, when change in the ratio was added to replace the variable in levels, it was found that annual change in remittances to GDP ratio negatively and significantly affects growth. To account for possible endogeneity problem such that the main causes of remittances are also affected by it, CFJ used some instruments for remittances and also conducted a two stage instrumental variable technique to estimate the relationship. In the first stage each workers' remittances to GDP ratio was estimated as a function of each country's income gap and real interest gap relative to the United States. Having estimated

this equation, the fitted values of remittances to GDP are obtained. In the second-stage per capita GDP growth regression is estimated using fitted values of remittances to GDP ratio from stage one as regressor conditional on the same variables as before. Here too the changes in remittances to GDP ratio are found to be negatively related to growth.

The IMF (2005) undertook a similar cross-country growth regression like Chami et al (2003) by taking a sample of 101 countries with data ranging over 1970 – 2003 periods. However, unlike Chami et al (2003), IMF (2005) took an aggregate measure of remittances which include the sum total of three components – workers' remittances, compensation of employees and migrant transfers – of the balance of payments whereas Chami et al (2003) only took the workers' remittances component. The IMF study performed cross-sectional growth regression of real GDP growth per capita on ratio remittances to GDP. The additional control variables included log of initial income, education, log of life expectancy, investments, inflation rate, budget balance, trade openness and financial development. The study also used two instruments for remittances.

These include distance between the migrants' home and main destination country, and a dummy measuring whether the home and the main destination country shared a common language. Since these instruments are time invariant, a panel estimation was not undertaken rather a cross-sectional estimation over the averages of 1970 – 2003 was done. Using this cross-country growth regression framework, no significant link was found between real par capita GDP growth and remittances.

Faini (2006) estimated cross-sectional growth regressions on a sample of 68 countries where the dependent variable is per capita GDP growth. Using aggregate measure of remittances data in IMF (2005) the study did not include investment in the list of regressors. Faini (2006) notes that the positive impact of remittances on growth usually work through investments. So including it in the regression may render the effects of remittances insignificant as the investment's coefficient could be capturing some of the effects. Along with remittances to GDP ratio, the control variables used were initial per capita GDP, secondary school enrolment (as a measure of human capital), the number of telephone lines per 1000 inhabitants (as an indicator of physical capital) and the International Country Risk Guide index as an indicator of institutional quality. The estimated coefficient on the remittances to GDP ratio was found to be positive and significant in the OLS regressions of the study.

Later foreign aid to GDP ratio was included as additional control variable and remittance was still found to be positively affecting growth. In order to encounter the endogeneity problem, the study also used an instrumental variable estimation procedure. Remittances to GDP ratio were instrumented by distance from the home country to the main destination country. The result was still in support of a positive impact of remittances on per capita GDP growth but the estimated coefficient in remittances to GDP became insignificant. Finally, in order to see how the impact of remittances interacts in deferential policy environment, the study added two additional regressors: black market exchange premium and inflation. These variables measure the overall stability of the

macroeconomic system. Higher values of these variables would imply weak macro policy environment. In such a environment the incentive to use remittance income for investment purpose will be relatively weak. To test this hypothesis, the study included two interacting terms as regressors. Such as remittances to GDP interacted with black market exchange premium and with inflation rate. The estimated coefficient on the interacting terms was found to be negative and significant meaning that the positive impact of remittances on growth gets diluted when the macroeconomic policy environment is unstable and unsound.

Catrinescu, Leon-Ledesma, Piracha and Quillin (2006) incorporated institutional variables in their study covering 114 countries in their sample over the 1991 – 2003 period. The authors doubted that the results obtained in Chami et al (2003) are not tenable for two reasons – misspecified econometrics method and failure to use the correct sets of controlled variables. According to CLPQ Chami et al (2003) did not address the problems associated with panels estimations when the errors are autocorrelated. And also the endogeneity problem was not properly tackled. Though CFJ used instrumental variable regression estimation with income and interest rate gap as instruments, these were not enough in eliminating the endogeneity bias. To overcome these methodological problems, CLPQ suggested a superior but more rigorous Dynamic Panel Data (DPD) estimator method. The second is the control variables issue. According to CLPQ, Chami et al (2003) obtained a negative correlation between GDP growth per capita and remittances because correct sets of control variables were not included in their specification. The authors in the CLPQ paper further argued that the fundamental way to

increasing the growth impact of remittance is to promote the right institutions in the economy that support a sound business environment and a secured financial sector that encourage households to invest in both physical and human capital of any income that exceeds their basic subsistence. Hence they suggest a conditioning role of institutions.

CLPQ consider role of remittance receiving countries' institutions in conditioning the dynamics of the growth – remittances relationship. That is whether remittances matter for long term economic growth depends on whether the receiving countries have the correct economic, political and governance institutions. CLPQ conducted OLS cross-sectional and various static and dynamic panel data estimator regressions of per capita GDP growth on the log of total remittances to GDP. The control variables include initial GDP per capita, ratios of gross capital formation (investment) and net private capital flows to GDP and the following institutional variables: a) United Nations Human Development Index (UNHDI), b) corruption perception index (CPI), c) six governance indicators and d) International Country Risk Guide (ICRG) political risk indicators. Overall the CLPQ study found robust and positive relationship between growth and investment as well as between growth and some of the institutional variables. The study also found evidence of a positive relationship between growth and remittances though the magnitude of this relationship was a little weak.

The study by Guiliano and Ruiz-Arranz (2006) (henceforth GRA) took a sample of 73 countries during the 1975 – 2002 period. Aggregate measure of remittances was chosen as sum of all three categories on the balance of payments as in IMF (2005). In the paper

of GRA remittance was found to strongly and robustly affecting growth through its interacting effect with the financial sector of the economy. According to authors the relationship between remittances, financial development and growth is a-priori ambiguous but it is clear that the impact of remittances on growth can depend on the level of financial development. In this case authors suggest two scenarios. Either remittances or financial development are substitutes. That is inward remittances work as a substitute for low level of financial development and supply the much required funds for investments which otherwise would have remained unrealized due to credit constraint.

The second scenario is, remittances and financial development are complements, Which means remittances enhance economic growth in an economy with a well developed financial markets. At first the study regressed per capita GDP growth on total remittances to GDP ratio. The control variables include initial level of GDP per capita, the investment to GDP ratio, population growth, the government fiscal balance as a ratio of GDP, years of education, measure of openness to trade, and inflation. The estimated coefficient on remittances to GDP ratio was found to be insignificantly related to growth in this specification. Later to test the hypothesis whether remittances might enhance growth by relaxing credit constraints, the study included financial development and its interaction term with remittances variables as additional controls in the regression. The measures for financial development used were M2 over GDP ratio, total deposit over GDP ratio, loan to private sector over GDP ratio and credit to public and private sector GDP ratio. Significantly negative interactions terms between remittances and measures of financial development were found and the estimated coefficients on the remittances to GDP ratio

variable turned positive, significant and robust among alternative specifications. This lead to the conclusion remittances appeared to have positive impact on growth in those countries which are faced with credit constraints with small financial sectors. Thus remittances work as a substitute for low level of financial development and help promote growth.

The World Bank (2006) study conducted a panel data estimates on the impact of remittances and growth using a sample of 67 countries measured over the period of 1991 – 2005. The control variables used were (all in logs) initial GDP per capita, secondary school enrolment ratio, the private domestic credit to GDP ratio, ICRG political risk index, real export and import to GDP ratio, inflation rate, real exchange rate overvaluation, government consumption, and time period dummies. A SGMM estimation procedure was performed with the use of external as well as time varying instruments to control for the endogeneity of remittances. These instruments were formed by multiplying the share of a country's migrants to its top five OECD destinations and a measure of the respective OECD country's economic performance, such as GDP per capita, GDP growth rate or unemployment rate. The other instruments were average output per capita of the top country destinations across the world weighted by the inverse of the distance between remittance sender and recipient country. Instrumented this way, the regression specifications found a positive and significant relationship between remittances to GDP ratio and per capita GDP growth. The magnitude of the estimated effect of remittances on growth was found to relatively small in economic terms. Increase in remittance to GDP ratio from 0.7 percent to 2.3 percent is estimated to have led to an

increase in 0.27 percent increase in GDP growth. However, when the investment to GDP ratio is included along with the rest of control variables, the estimated coefficient on remittances to GDP looses significance. This led the study to conclude that one of the main channels through which remittances work is through increasing domestic investment.

According to this World Bank (2008) study what impact remittances have on growth will depend on the policies being implemented by the home country. This study found out a number of areas that are complements to remittances in the matter of enhancing economic growth. This study included interaction terms with for remittances and education, remittances and financial depth, remittances and institutional qualities, and remittances and macroeconomic policy distortions. This study used a GMM instrumental variable procedure to estimate four growth regressions for each of the complementary sector outlined above. The instruments used were the time varying one in World Bank (2006). All regressions used the same control variables as in World Bank (2006) but each included remittances and the respective complementary terms as additional control.

The argument is remittances augments growth in the presentence of complementary policies that encourage education, increase financial depths, improve institutional qualities and reduce macroeconomic policy distortions. The study found a negative and significant coefficient on the total remittances to GDP ratio, but positive and significant coefficients on each of the interaction terms. This, the argued, implied a net positive impact of total remittances on GDP.

Few studies have been done on the impact of remittances on economic growth in Kenya. Nwachukwu (1997) found that Kenya had experienced a reduction in its national income due to the migration of its professionals. Earlier, Logan (1987) found evidence that Kenya was a major contributor to the reverse transfer of technology in Africa (another way of denoting brain drain). In addition, Kirigia et al. (2006) and Oyelere (2007) found that Kenya had experienced significant brain drain and waste, though at a decreasing rate, especially in the health sector, where they noted that Kenya loses approximately about USD 517,931 and USD 338,868 worth of return in investment, respectively, for every doctor and nurse who emigrates. Unlike this earlier study, this paper is directed towards studying only the economic growth impacts of remittances in Kenya.

2.4 Summary/Conclusion

The literature review on the relationship between remittances and economic growth of recipient countries is not conclusive in answering the research question about the impact of remittances on economic growth in recipient countries. The literature has helped in identifying the motivations for remittances and has also been significant in highlighting the growth effects of other external sources of capital. This comes as a result of the conflicting theoretical and literature on how remittances impact economic growth of recipient countries. While migration optimists perceive that remittances have a positive effect on economic growth through increased physical capital and human capital investments, migration pessimists share a different perspective. They argue that remittances have a negative impact on economic growth due to increased consumption which has inflationary effects and moral hazards that result in reduced labour supply and

falling enrolment in education. Even the available empirical evidence is highly conflicted, some studies conclude on positive growth effects of remittances (Fayissa & Nsiah, 2010a; Fayissa & Nsiah, 2010b; Pradhan *et al.,* 2008), some on negative growth effects of remittances (Singh *et al.,* 2010; Chami *et al.,* 2003) while some maintain that remittances have no impact on economic growth (Barajas *et al.,* 2009; Rao & Hassan, 2011).

There is need for further empirical research on this subject. Examination of the role of remittances in economies still faces a challenge of the quality and coverage of data in several countries. There is no universal agreement on how to measure the impact of remittances to developing countries. These data limitations are attributed to informal means of channelling remittances to migrant sending countries and improper procedure of capturing remittance statistics.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology that was used in the study and all the other relevant information pertaining to how the study was structured and conducted. It gives some background information on the research design and the model specification. Although the model was built on the existing literature, it incorporated other empirical means that are of significance in filling in the gaps within the remittances literature. It provides the methodological framework that made it possible to answer the research questions on the growth effects of remittances in Kenya.

3.2 Research Design

A quantitative research design in the form of an econometric model was employed for this study. Panel data was used to assess the impact of remittances on economic growth in Kenya. An econometric model was used because it highlights whether there is a relationship between remittances and economic growth of the recipient economies. This approach also made it possible for the researcher to examine whether the relationship between remittances and economic growth was statistically significant or insignificant. Besides showing the statistical significance of the relationship between the economic variables of interest, the econometric research method also identified whether the relationship is negative or positive. Furthermore, the research design quantified the degree of positivity or negativity of the relationship between remittances and economic

growth. The reported coefficients estimated how a particular change in the explanatory variables affects the dependent variable. Such detailed empirical analysis was critical for answering the research questions of this study hence the major motivation for employing the methodology.

3.3 Population

The study focused on the Kenyan Economy.

3.5 Data Collection

The sample of the study constituted 1 year period averages taken for the analysis over the past 10 year period using the latest available data for the period 2003 to 2012. This was selected because remittances to Kenya as well as economic growth seems to have increased in this period and therefore, remittances could have contributed to economic growth. Also, data that was readily available covered the same period and a study of the recent times would be more beneficial to the users of this research.

Secondary data was used in the research. Data for remittances was drawn from the Central Bank of Kenya rates and statistics. Data for initial income, per capita income growth, population growth, trade openness, enrolment in secondary education and government, investment and inflation was accessed from the IMF's World Economic Outlook Database (2013).

3.6 Data Analysis

The model used in this study was an extension of the neoclassical growth model. The study makes use of the augmented Solow model as discussed in Bond, Hoeffler and Temple (2001).

The model used in this study can be specified as:

$$Y = \alpha + \beta_1 Pop + \beta_2 I + \beta_3 Enrl + \beta_4 Infl + \beta_5 Open + \beta_6 Govt + \beta_7 Rem + e$$

Y is the dependent variable, economic growth. This study used per capita real GDP growth as the measure for economic growth since economic growth rate is the percentage change in the quantity of goods and services produced from one year to the next and equals the growth rate of per capita real GDP.

α is the constant.

β_1, β_2, β_3, …, …, …, …, …, β_7 are the regression coefficients which determines the contribution of the independent variables.

Pop is the logarithm of population growth. In this context, population growth is included as a proxy for labour supply.

I represent investment. The study used the logarithm of real investment as a share of GDP to represent investment.

Enrl represents human capital. The study used the logarithm of total percentage in gross secondary education enrolment as a proxy for human capital.

Infl is inflation, which is included as an indicator of macroeconomic stability. Inflation is expressed in its natural logarithmic form and data is presented as annual averages.

Open is openness, expressed as the percentage of the total value of exports and imports as a share of GDP. The variable is included to capture the effect of trade policy on growth. Data for openness is entered in its logarithmic form.

Govt is the logarithm of government consumption. It is expressed using data for general government final consumption expenditure as a percentage of GDP.

Rem is the logarithm of real per capita remittance. It is the main variable of the study being a worker's remittances and compensation of an employee, received, expressed in log form.

e = error (or residual) value.

Growth of real per capita GDP was used as a measure for economic growth (growth) and the gross fixed capital formation divided by GDP as a measure of investment (inv). The following variables were included given that they are particularly related to a country's economic growth: inflation (inf), as a measure of a country's instability, the degree of openness (open) measured by the sum of exports and imports, and the fiscal balance of the government (fiscal), which is particularly related to economic growth and investment, and the amount of claims of the private sector as a proxy for financial development (Giuliano and Ruiz-Arranz). All the previous variables were measured as a share of GDP, except for inflation, which is the annual percentage change of the Consumer Price Index for each country. Finally, population growth (pop) and years of education (school) measured as the average years of secondary schooling in total population, were also included. All these variables, except for workers'remittances, were taken from the IMF's World Economic Outlook Database (2013).The study also explored the channels through

which remittances impact growth as discussed in the literature. The study investigated scenarios where one of two important control variables, enrolment and investment, are dropped in the model. They study will assessed any significant changes in the relationship between remittances and growth when one of the above variables is either included or excluded in the model. Remittances were likely to have a statistically significant positive effect on growth when both investment and enrolment or one of the variables is not included in the model. It was however inappropriate to run a regression without both investment and enrolment as this would result in a mis-specified model.

The data was entered, coded and cleaned in Statistical Package for Social Scientists (SPSS) computer program. The data was then transferred to STATA version 9.0 in which empirical analysis were carried out.

CHAPTER FOUR

DATA FINDINGS, ANALYSIS AND DISCUSSION

4.1 Introduction

In this chapter, the study provided two types of data analysis; namely descriptive analysis and inferential analysis. The descriptive analysis helps the study to describe the relevant aspects of the phenomena under consideration and provide detailed information about each relevant variable. For the inferential analysis, the study used the Pearson correlation and the panel data multiple regression analysis.

While the Pearson correlation measures the degree of association between variables under consideration, the regression estimates the relationship between the impact of diaspora remittances on economic growth. Furthermore, in examining if the impact of diaspora remittances is significantly different from that of economic growth, the Chi-Square Test statistics was used.

4.2 Data Presentation

Table 4.2.1 Descriptive summary

Variable	Minimum	Maximum	Mean	Std. Deviation
Economic growth	-0.071	0.457	0.111	0.103
Pop	7.759	9.976	9.244	0.608
Enrl represents human capital	0.029	0.615	0.179	0.127
I represent investment	12.000	87.000	59.667	23.452
Infl	0.785	18.287	3.333	3.459
Open is openness	2.000	9.000	5.944	1.985
Govt	7.759	9.976	9.244	0.608
Rem	0.029	0.615	0.179	0.127

Author, Source (2013)

The study used correlation matrix to establish if linear relationship exists between individual variable and economic growth. From Table 4.2.2 below, there was: moderate but positive linear association between economic growth and population growth (R = 0.373); moderate and positive linear association between economic growth and human capital (R=0.108); good and positive linear association was established between economic growth and investment (R = 0.605);, good but negative association between *Inflation* and economic growth (R=429)); good and positive linear association was established between economic growth and *Openness* (R=-0.529)); moderate but negative linear association was established between economic growth and *Govt* (R=0.305)) and good and positive linear association was established between economic growth and real per capita remittance(R=0.505)

Table 4.2.2 : Correlation Matrix

Variables	*Pop*	*Enrl*	inve	*Infl*	*Open*	*Govt*	*Rem*	EG
Pop	**1.000**	-0.003	-0.292	-0.485	0.910	-0.485	-0.485	-0.373
Enrl	-0.003	**1.000**	-0.624	-0.458	-0.158	-0.458	-0.458	-0.108
inve	-0.292	-0.624	**1.000**	0.416	-0.134	0.416	0.416	0.270
Infl	-0.485	-0.458	0.416	**1.000**	-0.433	-0.458	-0.134	0.505
Open	0.910	-0.158	-0.134	-0.433	**1.000**	-0.433	-0.433	-0.429
Govt	-0.292	-0.624	-0.292	0.416	-0.134	**1.000**	0.416	0.270
Rem	-0.485	-0.458	0.416	-0.292	-0.433	0.416	**1.000**	0.505
Economic growth	-0.373	-0.108	0.605	-429	-0.529	0.305	0.505	**1.000**

Author, Source (2013)

The study conducted a multicollinearity tests to determine if two or more predictor (independent) variables in the multiple regression model are highly correlated. The study used tolerance and variance inflation factor (VIF) values for the predictors as a check for multicollinearity. Tolerance indicates the percent of variance in the independent variable

that cannot be accounted for by the other independent variable while VIF is the inverse of tolerance.

Table 4.2.3 below shows that tolerance values ranged between 0.141 and 0.515 while VIF values ranged between 1.898 and 7.097. Since tolerance values were above 0.1 and VIF below 10, then were was no multicollinearity in the multiple regression model.

Table 4.2.3 Multicolinearity Statistics

Statistic	*Pop*	*Enrl*	inve	*Infl*	*Open*	*Govt*	*Rem*
Tolerance	0.141	0.425	0.515	0.527	0.139	0.527	0.139
VIF	7.097	2.353	1.942	1.898	7.185	1.898	7.185

Author, Source (2013)

Table 4.2.4 below illustrates that the strength of the relationship between economic growth and independent variables. Coefficients of determination values show a strong relationship between dependent and independent variables given an R^2 values of 0.553. This shows that the independent variables accounts for 55.3% of the variations in profitability as measured by economic growth. Durbin Watson test statistic value of 1.541 was established signifying no autocorrelation in the model significance

Table 4.2.4: Goodness of fit statistics

Observations	36.000
DF	30.000
R^2	0.553
Adjusted R^2	0.246
DW	1.541
PC	0.905

Author, Source (2013)

The ANOVA results presented in the Table 4.2.5 below shows that the regression model has a margin of error of p= .018. This indicates that the model has a probability of 18% of giving false prediction. This point to the significance of the model.

Table 4.2.5: Analysis of variance

Source	DF	Sum of squares	Mean squares	F	Pr > F
Model	5	0.132	0.026	3.279	0.018
Error	30	0.241	0.008		
Corrected Total	35	0.372			

Author, Source (2013)

Economic growth = -0.5199 + 7.457E-02* Pop + 0.1149* Enrl +1.0017E-03*Inve+ 0.0129* Infl - 3.060E-02* Open+ 0.1149* Govt +1.0017E-03* Rem

Table 4.2.6:Model parameters

Source	Value	Standard error	T	Pr > |t|	Lower bound (95%)	Upper bound (95%)
Intercept	-1.98E+13	1.55E+13	(1.28)	0.33	-8.63E+13	4.68E+13
Pop	7.34E+12	5.57E+12	1.32	0.32	-1.66E+13	3.13E+13
Enrl	1.08E+11	9.83E+10	1.10	0.39	-3.15E+11	5.30E+11
Inve	1.01E+10	4.76E+10	0.21	0.85	-1.95E+11	2.15E+11
Infl	1.22E+10	2.88E+10	0.42	0.71	-1.12E+11	1.36E+11
Open	-2.71E+10	4.37E+09	(6.20)	0.03	-4.59E+10	-8.27E+09
Govt	1.67E+09	1.05E+11	0.02	0.99	-4.51E+11	4.54E+11
Rem	21.34	9.20	2.32	0.15	(18.26)	60.93

Author, Source (2013)

4.3 Summary & Interpretation of the findings

The volumes of Kenyan diaspora remittances have gradually experienced growth over the last ten years. The analysis revealed that the total value of diaspora remittances transacted within the years of study were most robust and was an important factor influencing economic growth.

The results showed that a 1% increase in the total value of diaspora remittances transacted within the year could result in 0.076% increase in economic growth. This was statistically significant at 1% (5.464) confidence level. Similar results were also found by Neceur (2003) when evaluating the determinants of economic growth in Tunisia. Suffian and Chong (2008) also reported the same results after examining the impact of diaspora remittances on the growth of GDP in Philippines.

The multiple regression analysis showed that the impact of diaspora remittances not only related to the economic growth, but they also influence the economic growth in Kenya significantly. The results also reveal that the growth of an economy is thought of not only as an increase in productive capacity but also as an improvement in the quality of life to the people of that economy. There is a general consensus on the direct contribution of migration and remittances to economic growth in the recipient countries. Remittances improve the livelihoods and survival of families left behind. Remittances invested on government securities provide huge external financing to the recipient country which has

enhanced infrastructure development, growth of real estate and tourism industries in Kenya. It also contributes to increased foreign exchange earnings to the recipient country.

From the discussion of the findings above, it can be concluded that the diaspora remittances indicators are the most significant factors influencing the economic growth in Kenya. The descriptive analysis of these factors by number of diaspora remittances showed that economies perform better hence the superior in the general economic performance. Thus it can be concluded that economic growth in the Kenya is largely driven by diaspora remittances.

This relationship is motivated by the possibility that workers' remittances may help ease credit constraints, thus allowing individuals not only to increase their consumption but also to augment investments in physical capital, education, health care, and the creation or expansion of micro-enterprises—all of which could eventually be reflected in higher economic growth. The findings suggest that there is an investment channel through which remittances can promote growth where the financial sector does not meet the credit needs of the population.

In relation to other studies reviewed there is a general consensus on the direct contribution of migration and remittances to economic growth in the recipient countries. Elyor (2009 argued that well invested diaspora remittances have a stronger influence on economic growth.

Growth of an economy is thought of not only as an increase in productive capacity but also as an improvement in the quality of life to the people of that economy. Remittances improve the livelihoods and survival of families left behind. Remittances invested on government securities provide huge external financing to the recipient country which has enhanced infrastructure development, growth of real estate and tourism industries in Kenya. It also contributes to increased foreign exchange earnings to the recipient country.

Moreover, since the GDP is used as an aggregate measure of total economic growth for a country it represented the market value of all goods and services produced by the economy during the period measured, including personal consumption, government purchases, private inventories, paid-in construction costs and the foreign trade balance (exports are added, imports are subtracted). Uzhegova (2010) also found that income diversification leads to increased economic growth and the general improvement in economic growth. This is also in line with argument that diversification provides a stable and less volatile income, economies of scope and scale, and the ability to leverage managerial efficiency across products (Chiorazzo *et al,* 2008) .

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The main objective of this study was to determinate the impact of diaspora remittances on the economic growth in Kenya. Panel data from 2003 to 2012 was analysed using multiple linear regressions method. Growth of real per capita GDP was used as a measure for economic growth (growth) .In addition to diaspora remittance, other variables, given that they particularly relate to a country's economic growth included were: inflation (inf), as a measure of a country's instability, the degree of openness (open) measured by the sum of exports and imports, and the fiscal balance of the government (fiscal), which is particularly related to economic growth and investment, and the amount of claims of the private sector as a proxy for financial development . Population growth (pop) and years of education (school) measured as the average years of secondary schooling in total population, were also included.

From the discussion of the findings above, it can be concluded that the diaspora remittances indicators are the most significant factors influencing the economic growth in Kenya. The study revealed that efficient diaspora remittances in the general economic growth are those that strive to; improve their capital bases, reduced operational costs, improve assets quality by reducing the rate of non-performing loans, employ revenue diversification strategies as opposed to focused strategies and keep the right amount of liquid assets. The descriptive analysis of these factors by number of diaspora remittances

showed that large diaspora remittances perform better than the small diaspora remittances hence the superior in the general economic performance.

5.2 Conclusion

From the study, it can be concluded that economic growth in the Kenya is largely driven by diaspora remittances. Diaspora remittances are experiencing growth and due to huge sums involved, it should now be recognized as an important contributor to the Kenya's economic growth.

Diaspora remittances positively impact economic growth through human capital investments such as education .This means the Kenyan government should focus on improving their human capital levels in order to improve their diaspora remittance support in the country. This will enable the diaspora remittance, not only to be cushioned against exogenous shocks, but also to take full advantage of business opportunities as they come and increase their growth in process. This is line with argument that diversification provides a stable and less volatile income, economies of scope and scale, and the ability to leverage managerial efficiency across products (Chiorazzo *et al,* 2008)

While harnessing remittances for development, the issues that need to be prioritized are: making fund transfer easier and cheaper to enhance larger inflows, directing the inflows because increased positive growth effects of remittances are most likely to occur when remittances are transmitted in formal channels.

Remittances improve the livelihoods and survival of families left behind. Remittances invested on government securities provide huge external financing to the recipient country which has enhanced infrastructure development, growth of real estate and tourism industries in Kenya. It also contributes to increased foreign exchange earnings to the recipient country.

5.3 Recommendations to Policy and Parties

Remittances are an important source of external capital that can help boost economic growth in Kenya. Two important characteristics of remittances are worth underscoring: they are largely unaffected by political or financial crises, tending to increase in times of hardship and they are equally spread among developing countries than are other financial flows. The country needs to consider adopting institutions that help in amplifying the growth effects of remittances into sustainable economic growth. The government in conjunction with financial institutions should come up with policies that make it cheap, easy and safe to receive remittances as well as establish efficient and effective formal channels for sending and receiving remittances.

Since, increased positive growth effects of remittances are most likely to occur when remittances are transmitted in formal channels, incentives that make remitting money using formal channels cheaper as compared to the informal ones should be provided. That way, banks and other traditional financial institutions will have access and control to this source of investment capital.

Since evidence from the study reveals that remittances positively impact economic growth through human capital investments such as education, there is a need for policies educating and encouraging remittance recipient households to continue investing in education. Education policies advocating for the continued and increased enrolment of household members into primary, secondary and tertiary education need to be adopted.

Kenya should device a way of influencing remittance recipient households to save their income so that the proceeds can be distributed to critical sectors of the economy. For instance, policies advocating for the increased use of remittances in funding entrepreneurial activities in the economy can be formulated. This will also need an effective and efficient distribution system, that is, a vibrant financial system that can mobilize remittance funds and distribute them as investment capital to unfunded entrepreneurs.

Remittances are likely to have a positive growth effect for a particular country when they are used to acquire locally produced products. Therefore there is a need for policies that protect local industries as far as remittances are concerned.

5.4 Limitations of the Study

Data on remittance did not consider remittances that are received through informal channels. Data on remittances from The Central Bank of Kenya captures remittances sent through financial institutions operating in Kenya.

Secondly, due to unavailability of human capital formation data (gross enrolment ratio) for the time period 2010-2012, this important conditioning variable was not included in our regression. Thus we have not adequately controlled for the other factors which are important in the growth regressions.

The study did not consider the impact of out flowing remittances. This may be important because out flowing remittances leads to a reduction of investment capital that bank and other traditional financial institutions can access.

5.5 Suggestions for Further Research

The study sought to investigate the impact of diaspora remittances on the economic growth. However the variables used in the study were not exhaustive. Future research could incorporate macroeconomic variables such as, exchange rates and interest rates.

Also, a study on the factors influencing the liquidity position of diaspora remittances in the country could add great value to the performance of diaspora remittances and academic literature.

The share of Kenyan remittances from North America, Europe, Asian and other parts of the world differ. There is need for further research to determine the factors that contribute to the difference in the share of remittances of the different parts of the world.

Finally, a study on the informal channels of sending and receiving money should be done to establish ways providing incentives that can encourage sending and receiving of remittances through the formal channels.

Partnerships between mobile phone firms and financial intermediaries should be strengthened, guided and provided with incentives to develop financial products attractive to remitters. These innovative products include: expansion of mobile money transfer to include overseas remittance receipts. Financial institutions should particularly be encouraged to develop financial products like creation of migrant workers‘savings and credit schemes that are managed as pension funds, real estates development on hire purchase basis and provision of credit/ loans on agreement that future repayments would be met from remittances. These types of financial products are plausible and attractive to migrant workers who often consider overseas employment as a means of saving money for undertaking investment upon return to their home country.

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APPENDICES

Appendix 1: Kenya monthly remittance inflows

Month, Year	Billions
Jan, 2004	25,154.00
Feb, 2004	27,676.00
Mar, 2004	29,944.00
Apr, 2004	27,773.00
May, 2004	26,931.00
Jun, 2004	30,047.00
Jul, 2004	33,187.00
Aug, 2004	28,894.00
Sep, 2004	28,894.00
Oct, 2004	25,223.00
Nov, 2004	25,473.00
Dec, 2004	29,130.00
Jan, 2005	28,564.00
Feb, 2005	26,056.00
Mar, 2005	31,219.00
Apr, 2005	29,216.00
May, 2005	32,358.00
Jun, 2005	34,360.00
Jul, 2005	29,133.00
Aug, 2005	31,759.00
Sep, 2005	31,616.00
Oct, 2005	33,037.00
Nov, 2005	34,282.00
Dec, 2005	40,557.00
Jan, 2006	31,506.00
Feb, 2006	30,283.00
Mar, 2006	36,354.00
Apr, 2006	35,369.00
May, 2006	42,427.00
Jun, 2006	35,667.00
Jul, 2006	41,065.00
Aug, 2006	30,587.00
Sep, 2006	28,841.00

Oct, 2006	29,633.00
Nov, 2006	31,403.00
Dec, 2006	34,459.00
Jan, 2007	40,930.00
Feb, 2007	39,533.00
Mar, 2007	48,562.00
Apr, 2007	38,251.00
May, 2007	41,163.00
Jun, 2007	48,643.00
Jul, 2007	53,350.00
Aug, 2007	58,803.00
Sep, 2007	60,575.00
Oct, 2007	46,848.00
Nov, 2007	55,564.00
Dec, 2007	41,421.00
Jan, 2008	53,925.00
Feb, 2008	50,382.00
Mar, 2008	59,344.00
Apr, 2008	67,872.00
May, 2008	48,538.00
Jun, 2008	49,490.00
Jul, 2008	44,137.00
Aug, 2008	43,388.00
Sep, 2008	48,953.00
Oct, 2008	61,113.00
Nov, 2008	43,970.00
Dec, 2008	40,129.00
Jan, 2009	39,535.00
Feb, 2009	53,353.00
Mar, 2009	55,361.00
Apr, 2009	48,117.00
May, 2009	49,180.00
Jun, 2009	46,347.00
Jul, 2009	50,372.00
Aug, 2009	55,947.00
Sep, 2009	53,347.00
Oct, 2009	53,037.00
Nov, 2009	48,231.00
Dec, 2009	56,329.00
Jan, 2010	45,117.00
Feb, 2010	46,423.00

Mar, 2010	52,309.00
Apr, 2010	52,679.00
May, 2010	51,172.00
Jun, 2010	52,541.00
Jul, 2010	50,652.00
Aug, 2010	51,993.00
Sep, 2010	58,557.00
Oct, 2010	58,503.00
Nov, 2010	56,380.00
Dec, 2010	65,617.00
Jan, 2011	64,139.00
Feb, 2011	60,759.00
Mar, 2011	71,577.00
Apr, 2011	70,071.00
May, 2011	68,124.00
Jun, 2011	71,888.00
Jul, 2011	72,797.00
Aug, 2011	79,563.00
Sep, 2011	84,854.00
Oct, 2011	81,311.00
Nov, 2011	80,802.00
Dec, 2011	85,244.00
Jan, 2012	89,755.00
Feb, 2012	103,970.00
Mar, 2012	106,198.00
Apr, 2012	95,625.00
May, 2012	100,995.00
Jun, 2012	99,488.00
Jul, 2012	92,736.00
Aug, 2012	94,819.00
Sep, 2012	92,519.00
Oct, 2012	91,627.00
Nov, 2012	97,504.00
Dec, 2012	105,656.00
Jan, 2013	102,970.00
Feb, 2013	102,372.00
Mar, 2013	103,393.00
Apr, 2013	104,993.00
May, 2013	110,150.00

Source: The Central Bank of Kenya monthly remittance inflows surveys