

**EFFECT OF DIASPORA REMITTANCES ON REAL
ESTATE GROWTH IN KENYA**

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**A RESEARCH PROJECT SUBMITTED IN PARTIAL
FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF
THE DEGREE OF MASTER OF SCIENCE IN FINANCE AT THE
UNIVERSITY OF NAIROBI**

2015

DECLARATION

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

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ACKNOWLEDGEMENTS

All glory unto God from whom all the blessings flow. I wouldn't have accomplished this research work without Him

I sincerely appreciate Dr. Duncan Elly Ochieng who supervised my project and Dr Kennedy Okiro who assisted in moderating this research study. Their professional guidance throughout the time of this research project was very helpful. Be blessed

I would also like to acknowledge my parents Mr & Mrs. Muiruri, siblings and my friends who supported and encouraged me throughout the project session and the entire Masters period. God bless you all.

DEDICATION

This research work is dedicated to my parents Mr &Mrs. Muiruri for their great sacrifice to educate me and always challenging me to aim higher. I also dedicate it to my wife Dorcas Muthoni and daughter Amanda Wanjiku for the great moral support.

TABLE OF CONTENTS

| | |
|--|-------------|
| DECLARATION..... | ii |
| ACKNOWLEDGEMENTS | iii |
| DEDICATION..... | iv |
| LIST OF TABLES | viii |
| LIST OF FIGURES | ix |
| ABBREVIATIONS..... | x |
| ABSTRACT..... | xi |
| CHAPTER ONE:INTRODUCTION..... | 1 |
| 1.1 Background of the Study | 1 |
| 1.1.1 Diaspora Remittances..... | 2 |
| 1.1.2 Growth in Real Estate..... | 3 |
| 1.1.3 Relationship between Diaspora Remittances and Real Estate Growth | 5 |
| 1.1.4 Real Estate Sector in Kenya | 7 |
| 1.2 Research Problem | 8 |
| 1.3 Objective of the Study | 10 |
| 1.4 Value of the Study | 10 |
| CHAPTER TWO: LITERATURE REVIEW..... | 11 |
| 2.1 Introduction..... | 11 |
| 2.2 Review of Theories | 11 |
| 2.2.1 Pure Altruism Theory | 11 |
| 2.2.2 Pure Self Interest Theory | 12 |
| 2.3 Factors Affecting growth of real estate firms. | 13 |
| 2.3.1 Diaspora Remittances | 13 |
| 2.3.2 Inflation..... | 14 |
| 2.3.3 GDP Per Capita Annual Growth in Percentage Ratio | 15 |
| 2.3.4 Demographic Change..... | 15 |

| | |
|---|-----------|
| 2.3.5 Deposit Interest Rates..... | 16 |
| 2.4 Empirical Review..... | 17 |
| 2.4.1 International Evidence | 17 |
| 2.4.2 Local Evidence..... | 20 |
| 2.5 Summary of Literature Review..... | 22 |
| CHAPTER THREE:RESEARCH METHODOLOGY | 24 |
| 3.1 Introduction..... | 24 |
| 3.2 Research Design..... | 24 |
| 3.3 Population | 24 |
| 3.4 Data Collection | 25 |
| 3.5 Data Analysis | 25 |
| 3.5.1 Analytical Model | 26 |
| 3.5.2 Test of Significance | 27 |
| CHAPTER FOUR:DATA ANALYSIS, RESULTS AND DISCUSSION | 28 |
| 4.1 Introduction..... | 28 |
| 4.2 Descriptive Statistics..... | 28 |
| 4.3 Diagnostic Statistics..... | 29 |
| 4.3.1 Correlation Analysis..... | 29 |
| 4.3.2 Regression Analysis | 31 |
| 4.3.2.1 Model Summary..... | 31 |
| 4.4 Interpretation of the Findings..... | 33 |
| CHAPTER FIVE:SUMMARY, CONCLUSIONS AND RECOMMENDATION ... | 35 |
| 5.1 Introduction..... | 35 |
| 5.2 Summary of the Findings..... | 35 |
| 5.3 Conclusions..... | 37 |

| | |
|--|-----------|
| 5.4 Policy Recommendations..... | 37 |
| 5.5 Limitations of the Study..... | 38 |
| 5.6 Suggestions for Further Research | 38 |
| REFERENCES..... | 40 |
| APPENDICES | 44 |
| APPENDIX 1: LIST OF REAL ESTATE COMPANIES IN KENYA..... | 44 |
| APPENDIX II: RAW DATA | 46 |

LIST OF TABLES

| | |
|---|----|
| Table 4.1: Descriptive Statistics | 28 |
| Table 4.2: Correlation Analysis | 30 |
| Table 4a Model Summary..... | 32 |
| Table 4b Analysis of Variance..... | 32 |
| Table 4c: Regression Coefficients | 33 |

LIST OF FIGURES

| | |
|--|----|
| Figure 4.1 Relationship between Real Estate Growth and Diaspora Remittance (2004-2013) | 31 |
|--|----|

ABBREVIATIONS

| | |
|------------------|---------------------------------|
| ARM | Adjustable Rate Mortgage |
| BPO | Business Process Outsourcing |
| CBK | Central Bank of Kenya |
| FDI | Foreign Direct Investment |
| GDP | Gross Domestic Product |
| ICT | Communication and Technology |
| ODA | Overseas Development Assistance |
| OLS | Ordinary Least Squares |
| REITs | Real Estate Investment Trusts |
| S & L | Savings and Loans |
| SSA | Sub-Saharan Africa |
| USD | United States Dollar |

ABSTRACT

Kenyans in the Diaspora are constantly sending money home. Experts call this money, the Diaspora remittance. The Government of Kenya recognizes the key role that Kenyans abroad play in the development of our nation. However, this huge potential remains largely untapped. To successfully harness this potential, the government has committed to involving Kenyans abroad in the national development agenda, their role in the realization of the Kenya Vision 2030 is recognized especially in driving investments in the priority sectors of the economy such as education, financial services, health, housing, ICT enabled services, Business Process Outsourcing (BPO), manufacturing and tourism. This study therefore sought to investigate the effect of Diaspora remittances on real estate sector growth in Kenya. Further, the study investigated whether GDP, Unemployment (% of total labor force), Inflation and Interest rates also affect the real estate sector growth in Kenya. The study used a descriptive research design covering a period of ten years from 2004-2013. Secondary data was collected and was then analyzed using SPSS and Microsoft Excel statistical soft wares. The findings showed that diaspora remittances, Unemployment, GDP and lending interest rates negatively impacts on the real estate investment in Kenya. However inflation rate has a positive effect on the real estate investment in Kenya. The study concludes that at 5% level of significance, diaspora remittance, Unemployment, GDP, inflation rate and lending interest rates are not statistically significant in affecting real estate growth in Kenya. The study recommended that the regulatory authorities of macroeconomic variables should regulate them in such a way that they lead the economy towards the growth. Future scholars can do a similar study on other firms besides the real estate firms in Kenya, for instance, the banking industry, the insurance industry among others. Upcoming studies can also cover a longer study period which can reveal more sufficient and conclusive information on how changes in the values of diaspora remittances affect the growth of firms.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Kenya has witnessed for the last few decades after independence, migration in crowds of its citizens to foreign countries. This can be attributed to a group of the population holding an image of the western world as a financial heaven or high youth unemployment rate among other reasons, forcing some to migrate, seeking greener pastures. These transnational movements of skilled, semi-skilled and un-skilled Kenyan citizens bring deleterious effects to the economy in terms of labour force because of brain drain (Akinpelu et al. 2013).

On the other hand, if we concentrate on the positive side of migration, statistics show that Kenyans living and earning in Diaspora are contributing to growth of Kenyan economy through diaspora remittances. This surge of remittances to countries of origin, exceeding aid and foreign direct investment (FDI) to developing countries, has reignited debate on their development potential in receiving countries (Bett, 2011).

The Government of Kenya recognizes the key role that Kenyans abroad play in the development of our nation. However, this huge potential remains largely untapped. To successfully harness this potential, the government has committed to involving Kenyans abroad in the national development agenda, their role in the realization of the Kenya Vision 2030 is recognized especially in driving investments in the priority sectors of the economy such as education, financial services, health, housing, Information, Communication and Technology (ICT) enabled services, Business Process Outsourcing (BPO), manufacturing and tourism (Republic of Kenya, 2014)

Housing is considered to be the most valuable asset of a household and a fundamental part of its portfolio. It provides positive externalities in terms of social environment, public health and economic development (Panagiotidis & Printzis, 2015). Real estate investment plays the crucial role of providing employment opportunities, offering shelter to households, enhancing income distribution and poverty alleviation. In the recent past, Kenya has witnessed an upsurge in real estate investment owing to increased quest for Kenyans to own homes coupled by an increased demand for residential homes due to increased rural urban migration, as well as demand for office space as more small and medium enterprises come into being. The national accounts, show that the contribution of the real estate sector to Kenya's gross domestic product (GDP) was 10.6 per cent in 2014 which is more than double from the previous estimate of 4.9 per cent in 2013 (Knight Frank, 2014) and (Juma, 2014).

The development of the housing sector is widely recognized as an integral part of economic development. In addition to the large share that the housing sector occupies in the economy, its importance also arises from the positive externalities and spillover effects, and its impact on the social and political climate, issues of particular importance in developing countries. In most countries, and increasingly so in emerging economies, housing represents a large proportion of a household's expenditure and takes up a substantial part of lifetime income. Usually, it is the largest asset owned by households (Mwathi, 2013). However, there has been little research on their economic impact on Africa (Singh *et al.*, 2009). This study therefore seeks to investigate the impact of Diaspora remittances on real estate growth in Kenya.

1.1.1 Diaspora Remittances

Diaspora Remittances are the transfers of money, goods and diverse traits by migrants or migrant groups back to their countries of origin or citizenship (Oucho, 2008).

Kenyans in the Diaspora are constantly sending money home. It could be for investments, to support to family members among other reasons. Experts call this money, the Diaspora remittance. The Kenyan Diaspora remittance is steadily rising and In 2013 according to World Bank Reports, the figure was at USD 1,290.6 (About Kshs. 113 Billion accounting for 2.98% of GDP) but registered an 11% increase when it rose by USD 137 million in 2014 to read at USD 1,428.5 million. This figure accounts for about 3% of the country GDP, a figure that is higher than what the country earns from mining (1.08%).

Diaspora remittances are one of the Vision 2030 flagship projects under the financial sector. The Kenyan Diaspora continues to play an imperative role in the development of the country through remittances and the government recognizes the role these remittances play in economic growth. There is 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 and therefore, continues to encourage policies to fully exploit diaspora potential needs. This has seen banks making moves to maximize on the same. For instance, Chase Bank is through its subsidiary Genghis Capital- supporting Kenyans in the Diaspora to invest in the Nairobi Securities Exchange. The idea is to have Kenyans in the Diaspora personally and professionally invest and/or bank their money. Should this plan work, the government will be able to more accurately account for the remittance while also see it go into formal investments (Ngugi, 2015).

1.1.2 Growth in Real Estate

Growth of a firm can be viewed an annualized rate of escalation in a company's cash flow, explained by the increase in revenues, earnings, dividends, sales, market share among others which raises the total value of a firm. Kenya's real estate sector and the

booming property market continues to grow immensely highlighting and responding to the rising demand that has been created by the expanding middle class and investor confidence in the entire sector. Kenya's lucrative real estate sector has rapidly expanded to become the fourth biggest contributor to the country's wealth. Kenya's GDP increased to 55.2 billion US dollars in 2013 from 44.1 billion US dollars, a 25.3 per cent jump and the real estate sector contributed 5.9 per cent accounting for some of this change in the level of the country's GDP. The national accounts in 2014 showed that the contribution of the real estate sector to Kenya's gross domestic product (GDP) is 10.6 per cent which is almost double from the previous estimate in 2013 (Knight Frank, 2014).

In its 2012 Wealth Report, real estate management company, Knight Frank, ranked Nairobi as the fastest-growing real estate market in the world, outpacing cities like Miami and Monaco. Real estate prices in Nairobi rose by 25 percent between January and December 2011. Nairobi was also voted as one of the top 10 cities to watch by global real estate firm, Jones Lang LaSalle, out of 150 cities globally. It is projected that Kenya will have a population of over 60 million people by the year 2030 and more than 50% of them will be living in urban areas, creating a huge demand for new housing units. There is therefore an urgent need to increase the supply of new and affordable housing units (Mwathi, 2014).

Growth ratios, or growth rates, tell the analysts just how fast a company is growing. These ratios could be: Sales percentage normally stated in terms of a percentage growth from the prior year. Net Income percentage growth in net income calculated as percentage growth from the prior year. This ratio is even more important than sales because net income tells the investor how much money is left over after all

of the operating costs are subtracted from sales. We also have a dividends percentage or Earnings per share EPS a good indicator of the financial health of a company. In this context we will look at the real estate growth in terms of real estate investing which will encompass the purchase, ownership, management, rental and/or sale of real estate for profit. The Juma, 2014 calculated real estate growth rate as the “average annual growth in real estate investments” obtaining the data from HassConsult and the Central Bank of Kenya.

1.1.3 Relationship between Diaspora Remittances and Real Estate Growth

Remittance growth positively affects GDP growth through its multiplying effect on domestic demand. This means that remittances spent by any given recipient can create multiplier effects for national economies such that 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. (Karapetyan and Harutyunyan 2013)

Scholars have identified remittances as a contributor of economic growth especially to developing countries. Mirzosaid (2013), revealed that remittances through import of production goods were discovered to promote domestic production and import of consumption goods thus increasing living standards. He 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

Cherono (2013), sought to establish the effect of remittances on private investment. He argues 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. Remittances can therefore 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. Remittances can therefore complement the allocation of capital by credit markets to private investment activities.

All in all, 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). Spatafora (2005) studied 101 developing countries for a period from 1970 to 2003 and found no direct link between remittances and per capita output growth.

1.1.4 Real Estate Sector in Kenya

Legally, Real estate in Kenya is land and anything that is permanently affixed to it. Fixtures in this case include buildings, fences, and things attached to buildings, such as plumbing, heating, and light fixtures. Real estate investing involves the purchase, ownership, management, rental land or sale of real estate for profit. Kenyan real estate property covers all property categories including single and multi-family residential dwellings, commercial and agricultural land, office space, go-downs and warehouses, retail outlets and shopping complexes. Real estate is an asset form with limited liquidity relative to other investment, it is also capital intensive and is highly cash flow dependent. If the factors affecting the growth in the investment are not well understood and managed by an investor, real estate becomes a risky investment (Masika, 2010).

In the recent past, Kenya has witnessed an upsurge in real estate investment and as a result, property prices in the urban areas have taken an upward trend. This explains the emergence of real estate firms in Kenya. As at December 2014, there were 78 real estate companies in Kenya (Appendix I). As a result of growth in real estate sector, huge infrastructural projects have been undertaken by the government in recent years, for instance, the construction of Thika super highway, the eastern by-pass in Nairobi have also contributed to the rise of property prices in the adjacent areas. Kenyans strongly lean towards renting properties unlike many of its neighboring countries, where buying and renting interests are somewhat balanced. 71 percent of internet searches are by house-hunters looking for properties to rent, with only 29 percent are

searching to buy. In recent times both mortgage financing and rental prices have been experiencing tighter regulations and increased rates. Currently, the total number of mortgage accounts in Kenya stands at 20,000 which is significantly below the demand for housing units of more than 200,000 per year (Reubenson, 2014).

The major challenges in real estate industry in Kenya is increasing population demanding more housing and financing, both at development stage and in end user finance. First, the Kenyan market as with many other countries in Africa is characterized by a large demand and a chronic undersupply of formal housing. Secondly, Kenya has only two financial institutions specializing in real estate funding which are Savings and Loans (S & L) and Housing Finance Corporation of Kenya. Because of the limited financing options, the real estate industry in Kenya has been characterized by fairly rigid financing conditions and relatively high interest rates. In this regard, the Ministry of Land, Housing and Urban Development says the Kenyan government is committed to working with all the sector players, towards addressing the issue of affordable housing. (Arvanitis, 2013).

1.2 Research Problem

Remittances which remain largely untapped to developing countries have increased in the last two decades. According to the central bank of Kenya (CBK), remittances are now being recognized as an important contributor to the country's growth and development due to the huge sums involved. Consequently, remittance inflows to Kenya picked up in the first half of 2015 by 9.2 percent to USD 754 million from USD 690 million in the first half of 2014. In June 2015, remittance inflows increased by 17.1 percent to USD 136 million compared to USD 116.1 million in June 2014 an indication of just how important the remittances are evolving to be a major contributor to Kenya's GDP. Taking a look beyond Kenyan Borders, the World

Bank's officially recorded figure of remittance flows to developing countries in 2012 was \$ 401 billion and projection for 2015 has been put at \$515. This has ignited the debate among policy makers on their development potential and on whether remittances contribute to the economic welfare of the recipient countries.

Available studies uncover some variables of economic growth, mortgage financing and urbanization as the factors attracting investment in the real estate sector ignoring other important variables like exchange rate and diaspora remittances. 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.

Based on the reviews, it is evident that few studies have been conducted to establish the impact of diaspora remittances on real estate growth. Knowing from statistics that both diaspora remittances to Kenya and real estate growth have experienced phenomenal growth notably in the recent past, it remains unclear whether the two are related and it is importance to bring clarity to policy makers, various stakeholders and the academia of any existing gaps. It is also important to know their relationship nature so as to harness the great potential of the two components to foster economic growth. The purpose of this study will be therefore to empirically answer the

question: What is the effect of diaspora remittances on real estate sector growth in Kenya?

1.3 Objective of the Study

To investigate the effect of Diaspora remittances on real estate sector growth in Kenya.

1.4 Value of the Study

The outcome of this study will benefit the policy makers in coming up with robust measures targeting to harness the great potential of diaspora remittances and its impact on the various macroeconomic variables that affect the general growth of the economy.

The study will also guide the government in setting up administrative structures and mechanisms for it to tap (leverage) directly into these foreign inflows from the Diaspora as an asset for investment and national development. Scholars and academicians will also be able examine any existing gaps in the outcome of this study and help beef up the study by making valuable contribution on various variables that might affect the diaspora remittances in respect to growth in the real estate sector in Kenya.

Consequently, realtors will find this study beneficial in aiding them in decision making and strategy formulation as they seek to tap diaspora remittances as an alternative source of funding for their real estate projects. The study is also useful to the Kenyans in 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 recent, there has been a whirlwind of government activity to speak, entice and persuade Kenyans abroad to do more for the country's' economic growth.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter captures literature on theories of diaspora remittances, real estate sector growth in Kenya, empirical literature on the effect of diaspora remittances and a summary of literature.

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.

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; OECD, 2006). Chami et al., (2003), 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). This implies that the migrant is motivated to remit more funds to his family when there are unfavorable 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). In order for the migrant to remit more funds, the economic disruptions or "bad luck", a term used by Chami et al., (2003), 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; Chami et al., 2003). The Bank of Uganda (2007) emphasizes 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 behavioral patterns of remittances under a Pure Altruism model, Brown (2006) suggests that there is an inverse relationship between the volumes of remittances and economic conditions holding in the home country. Under this model, favorable economic conditions in the home country would imply a reduction in the volume of remittance inflows.

This theory is important in this study because the Kenyans lining in diaspora sacrifice their own wealth to help their people back home. It is the act of wanting to help out at home among other reasons that inspires emigrants to give their time, energy, and money to aid in the betterment of others, even when they receive nothing tangible in return. Their Altruism is the unselfish concern for other people. It involves doing things simply out of a desire to help, not because you feel obligated to out of duty, loyalty, or religious reasons.

2.2.2 Pure Self Interest Theory

The Pure Self Interest theory is modeled 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). 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 behavioral patterns have led to the formulation of the Pure Self Interest theory.

Lucas and Stark (1985), 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 favorable spell.

Application of this theory is that Self Interest is the motivator of economic activity. Why do emigrants go to work and when they get paid, why do they send money back home? There may be many reasons, but at their core they probably do it to gain praises and recognition because you of self-interest. To be self-interested simply means that you seek your own personal gain.

2.3 Factors Affecting growth of real estate firms.

Growth of firms is influenced by both internal factors and external uncontrollable factors. This section will debate a number of factors that affect the growth of real estate firms with empirical evidence.

2.3.1 Diaspora Remittances

Remittances are the funds an emigrant sends to their country of origin and these transfers of funds across borders are economically significant for many countries that

receive them. Remittances are a source of inflow of cash, increasing national income extensively. Diaspora remittances registered an 11% increase when it rose by USD 137 million in 2014 to read at USD 1,428.5 million, contributing to at least 3% of GDP in Kenya according to the World Bank Report (2014).

Growth in remittances in Kenya seems to have coincided in growth in the real estate sector. According to Kiptoo (2013), remittance inflows affect positively the rate of domestic savings and a such government's effort should be geared towards improving the inward flow of remittances by considering a favorable tax treatment for migrant investment in securities and offer the same tax treatment offered to foreign investors for certain classes of investment. Juma (2014), established a strong positive relationship between GDP growth and diaspora remittances and concluded that remittances affect real estate investment growth. This is an indicator that the there is a significant portion of the remittances that has trickled into the real estate sector hence enhancing the growth that already gaining momentum.

2.3.2 Inflation

Inflation is the long term rise in the prices of goods and services caused by the devaluation of currency. According to Gathuru (2014), Inflation is one of the macroeconomic and political factors that impose heavy costs and delays in building projects. Generally, overhead costs are calculated as a percentage of direct costs and thus are affected directly by the inflation of unit prices of labour and materials in addition to other cost increases caused by government regulations.

Inflation effects are both gradual and profound because they creep up on us over time, and as we continue our normal spending and consumption habits, the almost imperceptible increase of consumer prices doesn't seem to make a huge difference in

our day to day finances, which means it is all too often vastly underestimated. But the effects of inflation are huge as they affect areas like our salaries and the cost of purchasing a new home, food prices go up, transportation prices increase, gas prices rise, and the cost of various other goods and services skyrocket over time. All of these factors make it absolutely essential that we account for the huge impacts that inflation can have on our long-term savings and ability to fund your golden years of retirement.

2.3.3 GDP Per Capita Annual Growth in Percentage Ratio

GDP per capita is gross domestic product divided by midyear population. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources (World Bank, 2014). Value of real estate supply has shown an upward trend with time given the changes in macroeconomic environment and still the real estate market in Kenya is expected to continue to grow.

Gathuru (2014), investigated the effects of macroeconomic variables on the value of real estate supply in Kenya and his findings showed that there were positive relationships with GDP and value of real estates supplied, being the most significant, followed by Inflation, Cost of construction and Percentage of debt financing. Even without significant changes in the variables, the effect of time is that value of real estate supply continued to grow. This also indicates that the real estate market is significantly stable and will continue to impact greatly of the economic growth of the country

2.3.4 Demographic Change

Demographics are the data that describes the composition of a population, such as age, race, gender, income, migration patterns and population growth. These statistics

are an often overlooked but significant factor that affects how real estate is priced and what types of properties are in demand. (Gathuru, 2014). Differences in immigration from state to state determine the differences in housing prices due to the unpredictability of immigration. Investors in the real estate sector can anticipate a fraction of population growth, the fraction that is due to natural causes (birth and death), but the portion that is due to immigration cannot be predicted. Therefore, major shifts in the demographic figures of a nation can have a large impact on real estate trends for several decades.

2.3.5 Deposit Interest Rates

Interest rate is the amount charged, expressed as a percentage of principal, by a lender to a borrower for the use of assets. Interest rates have a major impact on the real estate markets. Real estate investment requires huge capital, most people are not able to afford on savings, and therefore they turn to banks for a loan. Banks charge an interest rate for lending their funds depending on the length of the loan and security or otherwise referred to as collateral. The interest rate charged to the borrower is based on the Central Bank Base Rate (CBR), which the Central bank uses to control interest rates. Nguyen (2011), in his research found out that Interest rates have a major impact on the real estate markets. Changes in interest rates can greatly influence a person's ability to purchase a residential property. That is because as the interest rates fall, the cost to obtain a mortgage to buy a home decreases, which creates a higher demand for real estate, which pushes prices up. Conversely, as interest rates rise, the cost to obtain a mortgage increases, thus lowering demand and prices of real estate.

Nielsen (2010), in his article on the influence of interest rates on the mortgage industry talked of the basics in acquiring a mortgage. Mortgages come in two primary

forms, fixed rate and adjustable rate, with some hybrid combinations and multiple derivatives of each. A basic understanding of interest rates and the economic influences that determine the future course of interest rates can help consumers make financially sound mortgage decisions, such as making the choice between a fixed-rate mortgage or adjustable-rate mortgage (ARM) or deciding whether to refinance out of an adjustable-rate mortgage.

2.4 Empirical Review

The empirical review will discuss the literature done in the recent past both internationally and locally on diaspora remittances and other factors affecting real estate sector growth.

2.4.1 International Evidence

Karapetyan and Harutyunyan (2013) investigated the economic impact of remittances for Armenia and also for Commonwealth of Independent States (CIS) countries. Regression analysis in this study showed that for Armenia, over the short run, 10 % remittance growth positively affects GDP growth by 0.3 % points through its multiplying effect on domestic demand. The study also revealed that remittances have a poverty-reducing effect and that 10 % point growth in remittances should lead to a 1.7 % point decrease in the poverty rate. Empirical results show that a 10 % point increase in remittances negatively influences GDP growth by 0.2 % points over the long run. This negative effect can create moral hazard in recipient households and, therefore, a contraction in labor supply. Another factor is that remittances do not sufficiently promote productive investments. So remittances have an important influence in terms of aggregate supply meaning the development of the construction and service sectors. Finally, remittances can lead to Dutch disease, as they increase

the effective exchange rate and, therefore, non-tradable sector of economy are changed.

Akinpelu et al. (2013), investigated the impacts of remittance inflows on the economic growth of Nigeria. The study engaged remittance inflows as the independent variable alongside other traditional sources of economic growth as control variables, such as capital represented by Foreign Direct Investment, openness of the economy as measured by the ratio of the sum of imports and exports to GDP, the variation in the exchange. Co integration and causality tests were deployed to analyze the data collected. The result of the study revealed that there are long run equilibrium relationship among the variables that were employed. Furthermore, the causality test showed a uni-direction causality from Gross Domestic Product to Remittance Inflows Gross, Capital Formation to Remittances, and Remittance Inflows to Openness.

Mirzosaid (2013), set out to examine inflows the impact of remittance inflows for the case of Tajikistan. Analyzing empirical data and applying an econometric model to quarterly time series, the paper demonstrated the significant impacts of remittance inflows on imports. Findings showed that imports are very responsive to inflow of remittances. Results also revealed that an increasing share of imports in the economy, while export share is decreasing, brings about a trade deficit, negatively affects GDP, and increases dependence on remittances and imports. Import of production goods was discovered to promote domestic production and import of consumption goods thus increasing living standards. However, increase in imports of goods which can be produced domestically was shown to affect domestic production negatively. Finally, the study concluded that an increasing marginal propensity to import decreases the multiplier effect of remittances.

Mahedi (2014), analyzed the role of remittance on economic growth and investigated the interaction of remittance with the financed development of Bangladesh. The study used annual secondary data, spanning from 1981 to 2013. This study employed the Johansen co-integration test along with vector error correction model and Granger Causality tests to reveal both the short-run and the long-run association between remittance-growth and remittance-financed development. The study found a long run positive relationship between inflow of remittance and gross domestic products (GDP) indicating that remittance will be more likely to contribute to longer-term growth in Bangladesh. It is also revealed that remittances have a significant positive effect on financial development. Therefore, this study posited that the inflow of workers' remittance matters for countries like Bangladesh, which has a relatively growing economy and a developing financial sector.

Omonzejie and Omonzejie (2015), examined the effect of migrant remittances through planned investment in the informal sector. The data employed for this study were obtained from secondary sources Central Bank of Nigeria (CBN) annual reports and statistical Bulletin of various issues for the period 2001 to 2012. Descriptive approach, tables, charts and regression estimation were employed in the study. Ratios and percentages were used to compare the relationship between the workers remittances and some macro-economic indicators. Multiple regression using the ordinary least squares (OLS) estimation technique was also adopted. It was discovered that the myriad problems which hindered the development of the informal economy included inaccurate records, deteriorating or lack of basic infrastructures, unavailability of raw materials, insecurity, among others. Study revealed that apart from the remittances component, the domestic investments are affected by factors such as exchange rates and inflation rate. It also revealed that funding gap is also a

major impediment to investment and general economic growth in developing countries. And in most areas, where funds exist, it is always at high unattractive interest rates.

2.4.2 Local Evidence

Cherono (2013), sought to establish the impact of remittances on private investment in Kenya. Further, the study attempted to establish how financial sector development influences the effect of remittances on private investment in Kenya. Secondary data was collected from the year 1980 through to 2011. The variables augmented in the multiple regression model for this study were the world development indicators, which included: initial level of investment, gross domestic product, inflation rate, remittances, nominal exchange rate, nominal interest rate, foreign direct investment and private sector credit. The study found a positive and statistically significant relationship between remittances and investment in Kenya. Moreover, the coefficient on the interaction coefficient between remittances and financial sector development was found to be positive and statistically significant. This result suggested that remittances can complement the allocation of capital by credit markets to private investment activities in Kenya.

Kiptoo (2013), studied the impacts of remittances on domestic savings levels in Kenya. Secondary data sourced from the World Bank database and Kenya National Bureau of Statistics for the period between 1970- 2011 was used. The Error Correction Model was used. The empirical results showed that GDP per capita, exports and investment affect domestic savings positively and significantly. Real interest rate does not have a significant effect on domestic savings. Remittance affects positively and significantly domestic savings positively. The authors therefore conclude that remittance inflows affect positively the rate of domestic savings and recommends that

government's effort should be geared towards improving the inward flow of remittances by considering a favorable tax treatment for migrant investment in securities and offer the same tax treatment offered to foreign investors for certain classes of investment.

Muchiri (2014), investigated the impact of remittances inflows on economic growth in Kenya. Secondary data sourced from World Bank and Kenya's economic surveys for the period 1970-2012 was used. Besides international remittances as an independent variable against economic growth, financial development, gross fixed capital formation, human capital, openness to international trade and inflation were also included as control variables in the regression model. Augmented Dickey Fuller tests were used to assess for non-stationarity of the variables. In addition, error correction model was employed to estimate short – run and long run relationship using ordinary least square technique. The study found that international remittances inflows and human capital (secondary school enrollment) had a positive but insignificant impact on economic growth. Financial development (credit to private sector by commercial bank), gross fixed capital formation and inflation (consumer price index) were found to enhance economic growth significantly. The results show that emphasis should be placed on accumulating capital and improving financial development to accelerate growth. Openness to international trade was found to have negative and significant impact on economic growth.

Juma (2014), sought to establish the effect of macro-economic variables on growth of real estate investment in Kenya. The study followed a descriptive research design. The study used secondary data on annual real estate investments growth as computed from the Hass Consult. The study obtained the secondary data on the selected macro-economic variables including average annual Exchange Rate (Ksh/USD), average

annual growth in diaspora remittances, average annual growth in money supply, average annual inflation rate, average annual GDP growth from the Central Bank of Kenya (CBK) and Kenya National Bureau of Statistics (KNBS) for the period between the year 2000 and 2013. The study established a strong positive relationship between GDP growth and each of the following macro-economic variables; exchange rate fluctuations, growth in diaspora remittances, growth in money supply, inflation. The study concludes that there is a strong positive relationship between the macro-economic variables and real estate investment growth.

Mwangi and Mwenda (2015), sought to determine the effect of international remittances on the economic growth in Kenya. The study also investigated the causality between international remittances and economic growth. The data used was sourced from World Bank's Development Indicators for the period 1993 to 2013. The study used Granger Causality to investigate the causality between international remittances on economic growth in Kenya. The ordinary least squares estimation was used to determine the effect of international remittances on economic growth. Findings revealed that the international remittances indicators are significant factors influencing the economic growth in Kenya. Thus the study concluded that economic growth in the Kenya is largely driven by international remittances.

2.5 Summary of Literature Review

Under theoretical literature, the first two philosophies illustrate that remittances are sent mainly as a result of pure altruistic and self-interest motives (de Haas, 2007: Schiopu & Siegfried, 2006; Hagen-Zanker & Siegel, 2007: Lucas & Stark, 1985). The literature on remittances is however conflicting when it comes to the question of determining which of the two motives listed above better explain 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), challenges the idea of viewing altruism as the only motive for remitting. He asserts that “remitting is a multifaceted behavior” hence it involves many other explanations besides altruistic and self-interest motives.

From the empirical review, it can be concluded that real estate growth in the Kenya is largely driven by diaspora remittances among other macroeconomic variables. In his study, Juma (2014), concludes that there is a strong positive relationship between the macro-economic variables and real estate investment growth. Diaspora remittances are experiencing growth and due to huge sums involved, it should now be recognized as an important contributor to the Kenya’s real estate sector growth. Diaspora remittances positively impact economic growth through savings and human capital investments such as education. Kiptoo (2013), found out that remittance inflows affect positively the rate of domestic savings and recommends that government’s effort should be geared towards improving the inward flow of remittances in through improving human capital levels. 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.

Existing literature therefore, review reveals that 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. Remittances also improve the livelihoods and survival of families who receive them here in Kenya, hence reducing poverty levels. It also contributes to increased foreign exchange earnings to the recipient country. Just like Mahedi (2014), concluded, the inflow of workers’ remittance matters for countries which have a relatively growing economy and a developing financial sector.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discussed in detail how research for the study was conducted. It explains the different methods, strategies and procedures that were used in steering the research methodology. Specifically, it entails research design, study population, data collection techniques, analytical model and the tests of significance.

3.2 Research Design

Research design refers to the way data quarrying and analyses are structured to fulfill the research objectives through empirical evidence (Cooper & Schindler (2006). This study used descriptive research design. Saunders and Thornhill (2003), define a descriptive research as one that precisely describes profile of the target population. Descriptive statistics are based on summarizing data in a way that enables a particular pattern will be observed from the data. Its primary purpose is to describe the characteristics of the data as collected from the population. It enables a meaningful way of data presentation for easy interpretation. This design is advantageous since it allows the researcher to cost-effectively collect volumes of data from considerable population in order to examine the effect of the independent variables and the growth of real estate growth in Kenya.

3.3 Population

Research study population is a group of objects from which the information is collected to enable researcher fulfill the research objectives. Mugenda and Mugenda (2003). The population for this study were all the 78 real estate firms in Kenya as at

31st December, 2014. These represented the real estate industry in Kenya (Appendix D).

3.4 Data Collection

This study used annual secondary data for ten years between 2004 and 2013. Secondary research data is the already gathered information from previous studies and other scholars on the subject of study (Mugenda & Mugenda, 2003). Annual data was sourced from the published statistics of the Central Bank of Kenya, Kenya National Bureau of statistics (KNBS) and the World Bank Reports on all the macroeconomic variables: diaspora remittances, inflation, GDP, Demographic Change and deposit interest rates. Real estate sector growth data was sourced from Hass Consult reports.

3.5 Data Analysis

Data analysis involves summarizing group data based on the study theme and objectives to be fulfilled. It is the process through which the collected data is sorted, classified and coded to produce units of measure for analysis (Cooper & Schindler (2006). The study used multiple regression analysis to analyze this quantitative data. The multiple regression function expresses the effect of each of the independent variables on the dependent variable. (Julius, 2012). The study analyzed the data using the Statistical Package for Social Sciences (SPSS) version 21. Interpretation of the data involved the use of tables and charts to make inferences among different variables using the Excel software. The study employed Ordinary Least Squares (OLS) technique of regression analysis to investigate the effect of Diaspora remittances, exchange rate and economic growth on real estate growth in Kenya.

3.5.1 Analytical Model

The study used a regression model that comprised of five independent variables and one dependent variable. Real estate growth was the dependent variable and the independent variables were diaspora remittances, inflation, GDP, Unemployment rate and deposit interest rates.

It was as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Where:

Y = Real estate growth which was measured as the Average Annual Growth in Real Estate Investments (%) derived from the Hass Consult reports.

X_1 = Average Annual Growth in Diaspora Remittances (%) was calculated from the CBK remittance inflows survey monthly statistics.

X_2 = GDP was measured as Average Annual GDP Growth (%) ratio which was sourced from the World Bank data.

X_3 = Unemployment, total (% of total labor force) in Kenya represented the demographic changes and will be sourced from the World Bank Data

X_4 = Inflation in Kenya which was sourced from the KNBS.

X_5 = Interest rates were measured as the annual lending interest rates and was sourced from the World Bank

α = Regression constant

ε = Error term normally distributed about the mean of zero.

$\beta_1 \beta_2 \dots \beta_n$ was the coefficients of the variation to determine the volatility of each variable to real estate growth the in regression model.

3.5.2 Test of Significance

The study being based on regression analysis, significance tests involved the use of p-values and F-statistics at 5% level of significance. The study tested the level of statistical significance of the findings at 95% confident level to determine whether the model is a good predictor using the Analysis of variance technique (ANOVA) which tested for the significance of each parameter and the model as a whole respectively. A p-value of < 0.05 implied statistical significance.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter discusses the interpretation and presentation of the findings obtained from the field. Descriptive and inferential statistics was used to discuss the findings of the study. The study used linear regression model models, descriptive statistics and correlation analysis. Correlation analysis shows the strength of the relationships between the variables used in the model.

4.2 Descriptive Statistics

Data were analyzed and the results of descriptive statistics and the distribution of the variables were presented in Table 4.1 below. The table presents the mean value, minimum, maximum and the standard deviation of real estate investments, diaspora remittance, annual GDP growth rate, unemployment rate, inflation and lending interest rate.

Table 4.1: Descriptive Statistics

| Descriptive Statistics | | | | | |
|--|----|---------|---------|----------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| Average Annual Growth in Real Estate Investments (%) | 10 | 4.580 | 20.900 | 9.90800 | 5.233783 |
| Average Annual Growth in Diaspora Remittances (%) | 10 | -.341 | 52.799 | 17.85870 | 17.029477 |
| Average annual GDP growth (%) | 10 | 1.500 | 7.000 | 4.48800 | 1.863836 |
| Unemployment, total (% of total labor force) | 10 | 9.200 | 9.600 | 9.39000 | .137032 |
| Average annual inflation rate (%) | 10 | 4.100 | 16.200 | 9.10000 | 4.243426 |
| Lending interest rates | 10 | 12.500 | 19.700 | 14.75000 | 2.202650 |
| Valid N (listwise) | 10 | | | | |

Source: Research Findings

On the average real estate growth which is the average annual Growth in Real Estate investments had a mean of 9.908% with standard deviation of 5.233783 with maximum and minimum values of 20.900% and 4.580% respectively. Average Annual Growth in Diaspora Remittances registered a mean of 17.86% with a standard deviation of 17.029477. GDP growth rate had a mean of 4.49 % between 2004 and 2013 with a standard deviation of 1.6919554. Unemployment rate recorded a mean of 9.39% with standard deviation of .137032. On the average, inflation rate recorded a mean of 9.1% percent with standard deviation of 4.243426. Lending interest rate registered an average rate of 14.75% with a standard deviation of 2.202650.

4.3 Diagnostic Statistics

Diagnostic statistics test for normality and colinearity of variables. A multiple linear regression analysis was used to determine the significance of the coefficients of the explanatory variables in explaining the variation in dependent variables. Correlation analysis established the direction of the relationship between the dependent and independent variables. Model summary was used to determine the proportion of the dependent variable explained by the explanatory variables while analysis of variance was used to determine the fitness of the model used in the analysis

4.3.1 Correlation Analysis

Correlation analysis establishes the direction of the relationship between the dependent and independent variables. The Pearson product-moment correlation coefficient is a measure of the strength of a linear association between two variables and is denoted by r . The Pearson correlation coefficient, r , can take a range of values from +1 to -1. A value of 0 indicates that there is no association between the two variables. A value greater than 0 indicates a positive association, that is, as the value

of one variable increases so does the value of the other variable. A value less than 0 indicates a negative association, that is, as the value of one variable increases the value of the other variable decreases.

Table 4.2: Correlation Analysis

| | Average Annual Growth in Real Estate Investments (%) | Average Annual Growth in Diaspora Remittances (%) | Average Annual GDP Growth (%) | Unemployment, total (% of total labor force) | Average Annual Inflation Rate (%) | Lending interest rates |
|--|--|---|-------------------------------|--|-----------------------------------|------------------------|
| Average Annual Growth in Real Estate Investments (%) | 1 | | | | | |
| Average Annual Growth in Diaspora Remittances (%) | -0.143 | 1 | | | | |
| Average Annual GDP Growth (%) | -0.41 | 0.337 | 1 | | | |
| Unemployment, total (% of total labor force) | 0.074 | 0.044 | 0.406 | 1 | | |
| Average Annual Inflation Rate (%) | 0.34 | 0.15 | -0.499 | 0.13 | 1 | |
| Lending interest rates | -0.213 | -0.05 | -0.338 | -0.878** | -0.114 | 1 |

** . Correlation is significant at the 0.01 level (2-tailed).

Table 4.2 above gives a summary of the correlation between the dependent variables and the explanatory variables. The relationship between Diaspora remittances on real estate sector growth in Kenya is very weak and negative ($R = -0.143$). Annual GDP Growth rate has a moderate but negative association with real estate sector growth ($R = -0.410$). Unemployment has very weak but positive relationship with real estate sector growth. Average annual inflation rate has a weak and positive relationship with real estate sector growth ($R = 0.340$) while lending interest rate has a weak but negative relationship with real estate sector growth in Kenya ($R = -0.213$).

Figure 4.1 Relationship between Real Estate Growth and Diaspora Remittance (2004-2013)

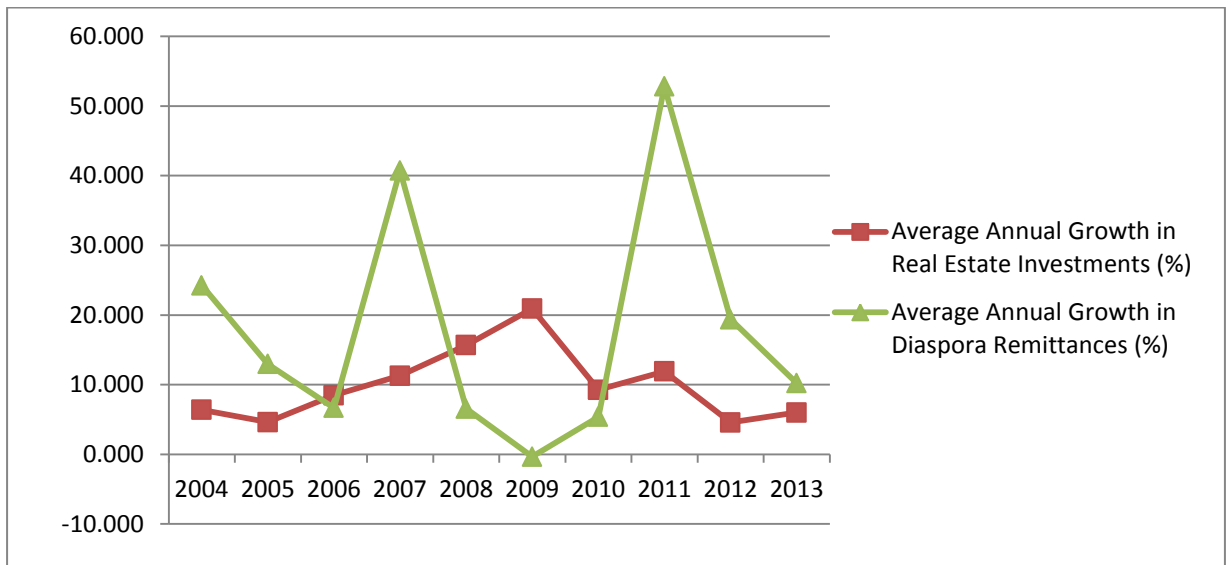


Figure 4.1 above shows that both average annual growth in real estate investments and diaspora remittance fluctuate between 2004 and 2013. The graph above further depicts that real investments peaked at 20.0% and below 0.00% as opposed to diaspora remittance which peaked above 50.0%.

4.3.2 Regression Analysis

Regression analysis looked at the model summary, analysis of variance and regression coefficients. The estimated model as explained in chapter three is given by:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

4.3.2.1 Model Summary

Determination coefficient (R^2) was carried out to determine the proportion of the total variation in dependent variable that is attributed to the changes in the explanatory variables. The study established R^2 of 0.325 which illustrates that 32.5 % of the total variation in changes in real estate sector growth is caused by the changes in independent variables (lending interest rates, Average Annual Growth in Diaspora

Remittances (%) , Average Annual Inflation Rate (%) , Average Annual GDP Growth (%) , Unemployment, total (% of total labour force))

Table 4a Model Summary

| Model Summary | | | | |
|---------------|-------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .570 ^a | .325 | -.518 | 6.448623 |

a. Predictors: (Constant), lending interest rates, Average Annual Growth in Diaspora Remittances (%) , Average Annual Inflation Rate (%) , Average Annual GDP Growth (%) , Unemployment, total (% of total labor force

The study used ANOVA statistics to establish the significance of the relationship between value of the ROA of the insurance firms and the independent variables. The regression model is significant given the level of significance 0.838 which is greater than 0.05; therefore the model is fit not for estimation.

Table 4b Analysis of Variance

| ANOVA ^a | | | | | | |
|--------------------|------------|----------------|----|-------------|------|-------------------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 80.193 | 5 | 16.039 | .386 | .838 ^b |
| | Residual | 166.339 | 35 | 41.585 | | |
| | Total | 246.532 | 39 | | | |

a. Dependent Variable: Average Annual Growth in Real Estate Investments (%)

b. Predictors: (Constant), lending interest rates, Average Annual Growth in Diaspora Remittances (%) , Average Annual Inflation Rate (%) , Average Annual GDP Growth (%) , Unemployment, total (% of total labor force

4.3.2.3 Model Coefficients

Table 4.6 shows the regression coefficients of independent variables that explains the changes in ROA.

Table 4c: Regression Coefficients

| Model | | Coefficients ^a | | | | |
|-------|---|-----------------------------|------------|---------------------------|-------|------|
| | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 141.020 | 357.937 | | .394 | .714 |
| | Average Annual Growth in Diaspora Remittances (%) | -.007 | .154 | -.023 | -.046 | .966 |
| | Average Annual GDP Growth (%) | -1.255 | 1.925 | -.447 | -.652 | .550 |
| | Unemployment, total (% of total labor force) | -11.172 | 35.896 | -.293 | -.311 | .771 |
| | Average Annual Inflation Rate (%) | .109 | .737 | .088 | .148 | .890 |
| | lending interest rates | -1.454 | 2.045 | -.612 | -.711 | .516 |

a. Dependent Variable: Average Annual Growth in Real Estate Investments (%)

From the table above, the following regression model was established:

$$\text{Growth in Real Estate} = 141.020 - 0.023 \text{ Diaspora Remittances} - 0.447 \text{ GDP} - 0.293 \text{ Unemployment} + 0.088 \text{ Inflation} - 0.279 \text{ SIZE} - 0.612 \text{ interest rates}.$$

4.4 Interpretation of the Findings

Other factors held constant, the average annual growth in real estate investment is 141.020%. The regression coefficient shows that diaspora remittance negatively impacts on the real estate investment in Kenya. A unit increase in diaspora remittance will lead to 0.046 unit decrease in real estate investment growth. However, at 5% level of significance, diaspora remittance is not statistically significant in affecting real estate growth in Kenya ($p=0.966$, $p>0.05$). GDP growth rate negatively impacts on real estate growth and one unit increase in GDP growth rate will result to 0.447 unit decreases in real estate investment in Kenya though the effect is not significant at 5% level of significance ($p=0.550$, $p>0.05$),

Unemployment has an insignificant negative effect on real estate investment in Kenya ($p= 0.771$, $p>0.05$) and one unit increase in unemployment rate will lead to 0.293 unit

decrease in real estate investment. Inflation rate has a positive effect on real estate investment and one unit increase in inflation rate will lead to 0.088 units increase in real estate investment though the effect is statistically insignificant at 5% level of significance ($p=0.890$, $p>0.05$). Finally, lending interest rate has a negative effect of real estate investment with one unit increase in lending interest rate leading to 0.612 units decrease in real estate investments. However, the effect of lending interest rate on real estate investment is not statistically significant at 5% level of significance ($p=0.516$, $p>0.05$).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATION

5.1 Introduction

This chapter presents the summary of finds, conclusion, recommendations and suggestions for further research derived from the findings. The chapter also presents the limitations that were encountered with suggestions for further research.

5.2 Summary of the Findings

Statistical analysis in chapter four above provided various results which can be summarized in terms of descriptive statistics and inferential statistics. On the average real estate growth had a mean of 9.908% with standard deviation of 5.233783 with maximum and minimum values of 20.900% and 4.580% respectively. Average Annual Growth in Diaspora Remittances registered a mean of 17.86% with a standard deviation of 17.029477. GDP growth rate had a mean of 4.49 % between 2004 and 2013 with a standard deviation of 1.6919554. Unemployment rate recorded a mean of 9.39% with standard deviation of .137032. On the average, inflation rate recorded a mean of 9.1% percent with standard deviation of 4.243426. Lending interest rate registered an average rate of 14.75% with a standard deviation of 2.202650. The study established R^2 of 0.325 which illustrated that 32.5 % of the total variation in changes in real estate sector growth was attributed to by the changes in independent variables (lending interest rates, Average Annual Growth in Diaspora Remittances (% , Average Annual Inflation Rate (%), Average Annual GDP Growth (%), Unemployment, total (% of total labour force).

Other factors held constant, the average annual growth in real estate investment was established to be 141.020%. The regression coefficient showed that diaspora

remittance negatively impacts on the real estate investment in Kenya. A unit increase in diaspora remittance will lead to 0.046 unit decrease in real estate investment growth. However, at 5% level of significance, diaspora remittance was found to be not statistically significant in affecting real estate growth in Kenya ($p=0.966$, $p>0.05$). GDP growth rate negatively impacts on real estate growth and one unit increase in GDP growth rate will result to 0.447 unit decreases in real estate investment in Kenya though the effect was not significant at 5% level of significance ($p=0.550$, $p>0.05$), Unemployment had an insignificant negative effect on real estate investment in Kenya ($p= 0.771$, $p>0.05$) and one unit increase in unemployment rate will lead to 0.293 unit decrease in real estate investment. Inflation rate had a positive effect on real estate investment and one unit increase in inflation rate will lead to 0.088 units increase in real estate investment though the effect is statistically insignificant at 5% level of significance ($p=0.890$, $p>0.05$). Finally, lending interest rate had a negative effect of real estate investment with one unit increase in lending interest rate leading to 0.612 units decrease in real estate investments. However, the effect of lending interest rate on real estate investment was not statistically significant at 5% level of significance.

The results of this study that diaspora remittances negatively affects growth differ from studies by Cherono (2013), who found a positive and statistically significant relationship between remittances and investment. Muchiri (2014), also found that international remittances inflows had a positive but insignificant impact on economic growth. Findings by Mwangi and Mwenda (2015), also revealed that the international remittances indicators are significant factors influencing the economic growth in Kenya

5.3 Conclusions

The regression coefficient findings show that diaspora remittance negatively impacts on the real estate investment in Kenya and the study concludes that at 5% level of significance, diaspora remittance is not statistically significant in affecting real estate growth in Kenya. GDP growth rate negatively impacts on real estate growth though the effect is not statistically significant. Unemployment has a negative effect on real estate investment in Kenya. Inflation rate has a positive effect on real estate investment though the effect is not statistically significant. Finally, lending interest rate has a negative effect on real estate investment the effect is not statistically significant.

5.4 Policy Recommendations

The government of Kenya should encourage policies to fully exploit diaspora potential needs and set administrative structures and mechanisms to enable tapping of (leverage) directly into these foreign inflows from the Diaspora as an asset for investment and national development. For example, the government can do this by supporting Kenyans in the Diaspora to invest in the Nairobi Securities Exchange. With this plan, the government will be able to more accurately account for the remittance while also see it go into formal investments

The CBK and other regulatory authorities of macroeconomic variables should regulate them in such a way that they lead the economy towards the growth and also lead to real estate growth. They should plan in advance and influence the macroeconomic variables in the right direction. This study established that 32.5 % of the total variation in changes in real estate sector growth is caused by the changes in independent variables (lending interest rates, Average Annual Growth in Diaspora

Remittances (%) , Average Annual Inflation Rate (%) , Average Annual GDP Growth (%) , Unemployment, total (% of total labour force))

5.5 Limitations of the Study

This study is likely to have been limited by use of secondary data. Information was obtained from the annual reports of Hass Consult, the Central Bank of Kenya, World Bank on order to investigate the effect of Diaspora remittances on real estate sector growth in Kenya. Secondary data may be subject to errors, being out of date so there are always concerns on credibility, accuracy, validity and dependability of secondary data. Another limitation is the study period covered in the study. A ten year period of study from 2004-2013 is not fully adequate to make conclusions about the effect of Diaspora remittances on real estate sector growth in Kenya. A longer period can be more reliable.

Cost of doing research cannot be ignored .Completing the entire research was costly and it involved internet fees, printing and binding costs, among others. Future researchers will need to spare to fund empirical investigations. Time was limited to conduct data collection, reading relevant materials, data analysis and completing the project in time. Future researchers will need to allocate more time to the project work.

5.6 Suggestions for Further Research

Future scholars can do a similar study on the effect of Diaspora remittances on growth of other firms besides the real estate firms in Kenya, for instance, the banking industry, the insurance industry among others. This can help identify how changes in the values of diaspora remittances affect the growth in Kenyan firms.

Having used only to years as the study period, the researcher recommends that further studies on the effect of Diaspora remittances on growth of real estate growth be done

covering a longer study period which can reveal more sufficient and conclusive information.

Unlike this study that used five independent variables, future studies on the effect of Diaspora remittances on growth of real estate growth should incorporate more variables both micro and macro for example operational efficiency, market structures, capital structure, firm size, exchange rate which will help the stakeholders of real estate firms to identify more determinants of growth of real estate investment so that appropriate measures will can be put forward.

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APPENDICES

APPENDIX 1: LIST OF REAL ESTATE COMPANIES IN KENYA

1. Active Homes
2. Afriland Agencies
3. Ark Consultants Ltd
4. Barloworld Logistics (Kenya) Ltd
5. Betterdayz Estates
6. British American Asset Managers
7. Canaan Properties
8. Capital City Limited
9. CB Richard Ellis
10. Colburns Holdings Ltd
11. Coral Property Consultants Ltd
12. Country Homes and Properties
13. Crown Homes Management
14. Crystal Valuers Limited
15. Daykio Plantations Limited
16. Double K Information Agents
17. Dream Properties
18. Dunhlill Consulting Ltd
19. East Gate Apartments Limited
20. East Gate Apartments Limited
21. East Gate apartments limited
22. Eastwood Consulting Limited
23. Ebony Estates Limited
24. Economic Housing Group
25. Elgeyo Gardens Limited
26. Fairway Realtors And Precision Valuers
27. FriYads Real Estate
28. Gimco Limited
29. Greenspan Housing
30. Hajar Services Limited
31. Halifax Estate Agency Ltd.
32. HassConsult
33. Hewton Limited
34. Homes and lifestyles
35. Housing Finance
36. Jacent Properties Limited
37. Jimly Properties Ltd
38. Jogoo Road Properties
39. Josekinyaga Enterprises Ltd
40. Josmarg Agencies
41. Kali Security Co Ltd
42. Karengata Property Managers
43. Kenya Prime Properties Ltd
44. Kenya Property Point
45. Kilifi Konnection

46. Kiragu & Mwangi Limited
47. Kitengela Properties Limited
48. Knight Frank Limited
49. Kusyombunguo Lukenya
50. Land & Homes
51. Land & Homes
52. Langata Link Estate Agents
53. Langata Link Ltd
54. Lantana Homes
55. Legend Management Ltd
56. Lloyd Masika Limited
57. Mamuka Valuers (M) Ltd
58. Mark Properties Ltd.
59. Market Power Limited
60. Mentor Group Ltd
61. Merlik Agencies
62. Metrocosmo Ltd
63. Mombasa Beach Apartments
64. Monako Investment Ltd
65. Muigai Commercial Agencies Ltd.
66. Myspace Properties (K) Ltd.
67. N W Realite Ltd
68. Nairobi Real Estates
69. Neptune Shelters Ltd
70. Oldman Properties Ltd
71. Oloip Properties
72. Ounga Commercial Agencies
73. Palace Projects Limited
74. Property Investment Network
75. property zote.com
76. Raju Estate Agency Limited (REAL)
77. Tysons Limited
78. Urban Properties Consultants & Developers Ltd

Source: <http://softkenya.com/property/>

APPENDIX II: RAW DATA

| Year | Average annual growth in real estate investments % | Average Annual Growth in Diaspora Remittances (%) | Average Annual GDP Growth (%) | Unemployment, total (% of total labor force) | Average Annual Inflation Rate (%) | lending interest rates % |
|------|--|---|-------------------------------|--|-----------------------------------|--------------------------|
| 2004 | 6.39 | 24.25 | 4.6 | 9.6 | 11.6 | 12.5 |
| 2005 | 4.61 | 12.9553 | 5.9 | 9.5 | 10.3 | 12.9 |
| 2006 | 8.48 | 6.6562 | 6.3 | 9.5 | 6.0 | 13.6 |
| 2007 | 11.29 | 40.7388 | 7.0 | 9.5 | 4.3 | 13.3 |
| 2008 | 15.67 | 6.5543 | 1.5 | 9.4 | 16.2 | 14 |
| 2009 | 20.9 | -0.3411 | 2.7 | 9.4 | 10.5 | 14.8 |
| 2010 | 9.27 | 5.3824 | 5.8 | 9.3 | 4.1 | 14.4 |
| 2011 | 11.9 | 52.7992 | 4.4 | 9.3 | 14.0 | 15.0 |
| 2012 | 4.58 | 19.3711 | 4.6 | 9.2 | 9.4 | 19.7 |
| 2013 | 5.99 | 10.2217 | 2.08 | 9.2 | 4.6 | 17.3 |