AN INVESTIGATION INTO SELECTED FACTORS HINDERING ACCESS TO MORTAGAGE FINANCE IN KENYA

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DECLARATION AND APPROVAL

DECLARATION

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DEDICATION

To the almighty God, to my father Jeremiah Kenyanya, my mum Agnes and to my family whose love and support has made this project writing to be successful. I also dedicate my thanks to Dr. Kalui, my supervisor who has guided me through the entire period of writing my project.

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ABSTRACT

The Kenyan mortgage market has been experiencing slow growth despite the upsurge of housing prices over the last few years. All commercial banks offer mortgage finance but still only a small percentage of Kenyans have used mortgages. The objective of this study was to establish the factors that hinder investors from accessing mortgage finance in Kenya. It assesses the effect of income level, property registration, mortgage cost and mortgage information on access to mortgage finance. The study involved a census survey of all the 44 commercial banks in Nairobi as published by the Central Bank of Kenya. The study used descriptive research that presented the results by use of graphs, tables and pie charts. Primary data was collected through issuing questionnaires to the credit analysts in these banks at their head offices in Nairobi. Credit analysts have more information about access to mortgages as they are involved in appraisal of all applications before any approvals are made. These questionnaires were then collected at a later date. Data analysis was done through a regression equation which analyzed the relationship between the factors and access to mortgage finance. The results showed that, the most important factor affecting access to mortgage finance was income level, a low income level increases the chances of defaulting in repayment and also determines affordability to meet the monthly payments. Therefore, high income investors formed the majority of applicants for mortgages. For the cost of mortgage factor, the majority of mortgage applicants require fixed rates of interest. For the property registration, without a title deed, one cannot obtain a mortgage due to lack of collateral for the mortgage. Finally, mortgage information also affects access to mortgage finance but to a little extent. The study recommended for banks to change the design mortgage products with low repayments for the low income groups which would enable them access mortgage. The government should form efficient policies in registration of properties and issue of title deeds to support the mortgage market.

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List of Abbreviations

CBK- Central Bank of Kenya

SACCOs-Savings and Credit Co-operative Societies

KCB- Kenyan Commercial Bank

NSE- Nairobi Securities Exchange

PIN- Personal Identification Number

GDP- Gross Domestic Product

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Mortgage financing is a loan whose collateral is real estate property requiring the borrower to repay over a specific period of time in form of installments (Bienert & Brunauer, 2006). The credit offered is mainly used by individuals and companies to purchase or construct houses after which they are required to repay the mortgage over a long period of time. Owning a home has been one of the main investment demands that many Kenyans have been looking for in their effort to stabilize their income. Despite the huge demand for homes, only few Kenyans have applied for mortgage financing to enable them acquire property (Smith, 2012). The Kenyan mortgage market has improved over the last 10 years but the mortgage uptake is still low as only 11% of the urban population have used mortgage finance in acquiring property (Smith, 2012).

There have been various developments in the Kenyan mortgage sector which are aimed at increasing the uptake of mortgage loans. In regard to this, pension-backed securities were introduced in 2009 by Housing Finance hence allowing borrowers to use up to 60% of their retirement benefit, held by their scheme providers, as security for mortgages (Banking in Kenya, 2012). However, still there has been a low uptake of these loans as recorded by the mortgage financing institutions. Housing finance data collected in 2012 recorded 24 mortgage loans secured by pension benefits and yet there were about 400,000 registered members in all 1200 registered pension schemes in Kenya (Smith, 2012). However, this collateral does not exclude the use of property as the primary security for the mortgage.

In 2006, there were only 7,600 homes registered in Kenya which later rose to 20,000 homes by the year 2012 (Smith, 2012). The mortgage market has raised many expectations especially in the current development of government counties. CBK undertook a survey in order to assess the performance of residential mortgage market through the baseline survey conducted in 2010 (Green, 2012). It revealed that the mortgage market remains untapped as only few Kenyans can access the mortgage products. Even for those who apply, not all of them are successful. This implies that not all property investors get access to mortgage finance.

By June 2011, the increase in number of mortgage accounts that had been opened by the mortgage lenders was estimated to be 2,300 accounts, which is a relatively slow growth that has shown a clear picture that Kenyans do not go for mortgages to support their housing projects (Kiarie, 2011). This slow growth pace implies that many of the Kenyans use SACCO loans, their own savings and even personal loans to enable them finance their projects. This was a 15% rise in mortgage accounts having increased from an estimated 15,000 accounts as at May 2010 to about 17, 300 accounts as at the end of June 2010 (Smith, 2012). This is contrary to an estimated 30,000 houses that had been constructed during the same period. The majority of accounts comprised of real estate developers (Kiarie, 2011).

By the year 2012, there were 764 mortgages accounts classified as non-performing loans which represented about 5% of the total mortgages accounts (World Bank, 2012). It has also been noted that the mortgage market in Kenya is very small as it cannot be sufficient to serve a population of 42million Kenyans (World Bank, 2012). From statistics, an estimate of only 700,000 outstanding mortgage loans has been made, and yet there are over 1.5 million middle-income families in Kenya who may take up mortgages (Wekesa, 2012). Various amendments to the Kenyan Banking Act enabled mortgage finance companies to operate current accounts that attract consumer deposits to expand their lending capacity. In this regard, Housing Finance Kenya launched its current account product in March 2012 (Smith, 2012). This has ensured that it has a high liquidity to facilitate the lending of funds to as many borrowers as possible.

A survey undertaken by the CBK highlighted a few facts about the Residential Mortgage market in Kenya (World Bank, 2012). The value of collateral for outstanding mortgages by May 2010 was about Sh61.4 billion which by December 2011 had risen to sh91.2 billion; a tremendous growth of 49 per cent (Central Bank of Kenya, 2011). It was also noted that five institutions were lending in the mortgage market and therefore dominated the market; Housing Finance (Sh25.7 billion), Kenya Commercial Bank (Sh18.1 billion), CFC Stanbic Bank Ltd (Sh8.8 billion), Standard Chartered Bank Ltd (Sh7.7 billion) and Barclays Bank Kenya Ltd (Sh4.3 billion). The number of mortgage loans were 18,200 in December 2011 up from 15,049 in May 2010 while

the average mortgage loan size increased from Sh4.1 million in May 2010 to Sh5.7 million in December 2011 (Central Bank of Kenya, 2012).

Currently, all commercial banks are offering the mortgage products. Even SACCOs have established a variety of mortgage products in an effort to promote the uptake of mortgages (Banking in Kenya, 2012). Clients can therefore obtain mortgages from these financial institutions. The products are designed to suit the needs of each of the individual investors. For instance, special products for the locals as well as foreigners have been made available to serve specific needs of lenders. The housing sector has improved in terms of development over the past few years whereby real estate has been among the best performing investments whose returns are very high especially through the capital gains (Smith, 2012). A vast majority of the investors do not use mortgages to acquire such properties; instead, they use their savings and business income to finance the construction of houses (Wekesa, 2012). A piece of land in Nairobi may be valued at double the price after a period of five years (Banking in Kenya, 2012).

According to the World Bank (2012), Kenya's mortgage market performance has dropped three places overall, to 109 out of 183 countries. In registering property, Kenya was found to involve many procedures and take 64 days (see figure 1a in the appendix section). The Kenyan mortgage market has not been tapped to a large extent, it lags behind many countries (see figure 1b and 1c in the Appendix 2). By the end of year 2011, only about 16,000 mortgage loans had been offered in the market representing a value of Sh. 91 billion that accounted for 2.5 per cent of the Gross Domestic Product (World Bank Doing Business Report, 2012).

Most people in Nairobi pay very high rents that consume a large proportion of their income. Besides high rent paid, real estate prices have skyrocketed over the past few years. In Nairobi alone, a two bedroom house can be valued between a price of 2million to 10 million shillings depending on the location or estate within Nairobi. On average, a one bed-room house can be rented between sh.7,000 to sh. 15,000 in the middle income areas in Nairobi (Maveke, 2013). Long-term mortgages attract an interest rate of 13%-20% p.a on the borrowings and hence the lowest monthly payments for a sh. 2 million mortgage, on average, are between sh. 30,000 to sh.

39,000 per month for a period of 10 years (Maveke, 2013). For mortgage application, the banks require the client to submit bank statements that will show ability to finance the mortgage. A down payment, of about 20% of the property value may be required besides other additional costs like legal fees and stamp duty (Banking in Kenya, 2012).

The Kenyan mortgage industry has devised various innovative products for the mortgage finance sector which in 2012 had been estimated to be about 60 billion (Banking in Kenya, 2012). This industry offers both fixed rate mortgages and flexible rates mortgages. According to the World Bank report (2012), the fixed rate mortgages can cover a period of about 10-25 years but with a mortgage insurance to cover any losses or default by the lenders. In addition to that, the Retirement Benefits Authority's allowed all pension contributors to secure mortgages on behalf of their members to facilitate access to mortgage products (Banking in Kenya, 2012). Further, housing micro finance provides mortgage finance to the borrowers who have low incomes.

The mortgage market is still dominated by large banks which have been estimated to be holding more than 50% of the total mortgage asset portfolio (Maveke, 2013). The large banks include KCB, Standard Chartered Bank, Co-operative Bank, Barclays Bank and Equity Bank. Kenyan banks have used their aggressive expansion strategies to expand the mortgage market. In regard to this, new markets have now been represented in Uganda, Tanzania, Rwanda and Southern Sudan especially by Equity Bank. Many of these financial institutions are listed at The Nairobi Securities Exchange (NSE) so that they can be able to raise funds from shareholders for lending purposes through the stocks and borrowing from the public in form of bonds. The Co-operative Bank of Kenya has come up with a product called Good Home Mortgage which is aimed at meeting specific needs of Co-operative Societies and other unions. This assists the development of housing projects for the members of such SACCOs. The SACCOs have idle lands due to lack of adequate resources for development and therefore the product is best suited to meet their needs.

Despite the variety of mortgage products available, the mortgage market still remains untapped as expected from the high demand for housing units. The Kenyans who access mortgage finance represent only about 11% of the Kenyan population (World Bank, 2012).

1.2 Statement of the Problem

Mortgage finance enables one to own property without necessarily having to save money for many years. In Kenya, the demand for housing is very high evidenced by the upward surge in prices across various parts in Kenya (& Njiru, 2013). However, according to statistics by the World Bank, it has been shown that Kenyans who access mortgage finance are estimated at 11% of the total Kenyan population (World Bank, 2011). For instance, there were only 16,000 mortgage loans offered in the year 2011 and this represented Sh. 91 billion in value accounting for 2.5% of the Gross Domestic Product (World Bank Doing Business Report, 2012). This leaves Kenya behind compared to South Africa and Namibia with over 20%. In addition, the annual rate of growth of mortgage finance sector has been estimated at less than 3% per annum. This clearly shows serious challenges facing the mortgage market.

In their research, Quercia et. al. (2012) noted that more restrictive credit score and down-payment have a disproportionate effect of reducing mortgage credit access especially for the lower-income borrowers. Boston's researchers observed that loan lenders differently treat loan applicants on the basis of their credit history, financial leverage and collateral (Hunter and Walker, 1995). Kidundi (2010) carried out a study on the profitability of financing low cost housing but did not consider access to mortgages. Muguchia (2011) studied the effect of flexible interest rates on the growth of mortgage finance in Kenya but had only focused on interest rates as a factor and yet there are many factors that affect the uptake of mortgages. Further, & Njiru (2013) took a survey to establish the growth of the mortgage industry in Kenya with focus on the employees of the National Housing Corporation (NHC). This had only narrowed down to NHC which does not provide a comprehensive view given that most mortgages are obtained from commercial banks. So far, no specific study has been done on factors that hinder access to mortgage finance in Kenya.

The study of what specifically hinders access to mortgage finance in Kenya will be very useful especially focusing on commercial banks. This shall facilitate the uptake of mortgage finance in Kenya. From all these studies, the researcher observed that cost of mortgage, income level, information and collateral may have some influence on loan lending decisions and therefore selected these factors for the study. From this study, possible solutions to the challenges facing

mortgage financing shall be obtained. It shall also facilitate adoption of appropriate marketing strategies by the mortgage institutions in order to capture the huge market of existing and potential real estate investors. Finally, scholars who wish to undertake a research on a related subject in future will find it useful in choosing their topic.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective for the study was to investigate the factors that hinder access to mortgage finance.

1.3.2 Specific Objectives

This study was guided by the following objectives:

- i. To determine the effect of income level on access to mortgage finance
- ii. To determine the effect of property registration on access to mortgage finance
- iii. To determine the effect of cost of mortgage on access to mortgage finance
- iv. To determine the effect of mortgage information on access to mortgage finance

1. 4 Research Hypotheses

In the current study, the following hypotheses were tested:

- H₀1: Income level has no significant effect on access to mortgage finance
- H_02 : Property registration has no significant effect on access to mortgage finance
- H₀3: Cost of mortgage has no significant effect on access to mortgage finance
- H₀4: Mortgage information has no significant effect on access to mortgage finance

1.5 Justification of the Study

The benefits of this study span across a wider industry. Major beneficiaries of this research work include: Commercial banks, the Kenyan government, real estate investors and scholars. It will assist the mortgage banks to understand the main challenges faced by investors and areas that need improvement in order to increase the demand for mortgages.

The study provides possible solutions to the challenges facing the uptake of mortgage finance. It shall also facilitate adoption of appropriate marketing strategies by the mortgage institutions in order to capture the huge market of existing and potential real estate investors.

The government shall obtain sufficient information that can be used for making appropriate policies of land ownership and development to ensure that Kenyans obtain better services from all sectors of the economy. This shall help the economy to grow by providing specifications for the development of mortgage products that meet specific interests of investors. In addition, the government can know the existing loopholes in land policies and property laws from which it shall take appropriate actions to fill the gaps. Students under this discipline shall find it useful as a guide for those who wish to undertake a research on a related topic in future. It shall also provide recommendations on possible topics for future research.

1.6 Scope of Study

The researcher undertook a study on access to mortgage finance in all the 44 commercial banks in Kenya as provided by the Central Bank of Kenya directory.

1.7 Limitation of the Study

Firstly, due to the workload of the respondents on which the questionnaires were administered, some of the respondents needed to be informed in advance that the information collected was confidential and was only to be used for the purpose of the study.

1.8 Definition of Terms

The definition of terms used for this study is as follows:

Mortgage: is a borrowing on which real property is used as collateral or security and is usually repaid over a long period of time.

Down Payment: is the amount required to be paid to the lender before one borrows a given sum of money. It is usually computed as a percentage of the total value of the loan or borrowing.

Real Estate: it refers to any kind of investment in property or land

Credit Risk: is the risk or chances of one not being able to repay the amount borrowed within the stipulated period on maturity.

Collateral: is the asset held as security by the lender for the sum borrowed. In case the borrower fails to repay, the asset can be sold by the lender to get back the money.

Loanable funds: it is the amount of money that can be provided as a loan.

Per Capita: income earned per person or national income divided by total population

Real Estate Investors: are the property developers or buyers of property, houses or homes

Commercial banks: Refers to financial institutions that offer loans with interest charges and also accept deposits from customers.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The main purpose of this section was to review mortgages in Kenya and explore how the subject of mortgage financing has been approached by other scholars. It helped the researcher to understand the issues that had been raised as far as mortgage finance is concerned.

2.2 The Evolution of Mortgage Finance

In the past, a mortgage was nothing more than a conveyance of land for a given fee. There was no interest payable by the buyer on top of the fee charged. Clayton (2007) explains that a mortgage is the classical form of real estate debt, a loan whose collateral is real property. The word mortgage as explained by Clayton (2007) comes from two words that have a French origin; 'mort' which refers to death and 'gage', which refers to a commitment. Therefore, it simply means a dying commitment that has a finite lifetime. A mortgage is a debt instrument that is secured by the collateral of specified real estate property and the borrower is obliged to pay back with a predetermined set of payments (Todd et al., 2005).

Land was a source of wealth in the medieval period since it could be pledged as a guarantee to secure a mortgage (Todd et al., 2005). This form of arrangement was very lopsided as the seller or lender could hold the title deed to the land, and therefore had absolute power to do anything over it including selling it, not accepting any payment which caused a lot of problems especially to the buyer.

Since the evolution of mortgage, the U.S. has created different versions of mortgage for each state. According to Taylor (2004), the market for mortgages was virtually non-existent 80 years ago as there were limited options for prospective buyers. The investor could either obtain a short or medium term loan of less than 10 years payment period or pay in cash. Though fundamentally the same in terms of contractual obligation, currently there are many laws and regulations implemented to protect the interest of buyers, sellers and creditors.

2.3 Relative Cost of Owning a House versus Renting

The user cost method is usually used in making tenure choice decision models. This approach compares the cost of owning a house to renting (Rosenthal, 1988). The relative cost in this case is assumed to be valued in one dollar's worth of renting a house. Due to the expectation of house price appreciation, home ownership is highly favored. Under this approach, there is no distinction between the portfolio motives and consumption motives involved in real estate ownership (Rosenthal, 1988). Different households have different user cost because of variations in income tax rates, length of stay in the house, maintenance costs, tax deductions like mortgage interest expenses and the expected rise in value of the house.

The expected capital gain on the houses affects the demand for mortgage as they always come with interest costs. The capital gain should sufficiently cover the costs associated with the mortgages used. However, efficiency in the real estate market would ensure that the rates of return are adjusted for risks and be similar across locations in the long run but would vary across various locations or regions (Rosenthal, 1988). That depends implicitly on the length of time intended by the owner occupier to stay in the house. This in turn, has a direct impact on the relative cost of owning a house to renting (Todd et al., 2005). Substantial transaction costs are incurred during the process of buying or selling, which renters do not incur. In addition, the owners incur legal fees, administrative expenses and other property taxes which may form a significant portion of the property value. Rosenthal (1988) formally found evidence that transaction costs and tax-related costs have actually been able to significantly influence choices on homeownership. Therefore, the high costs associated with mortgages, is a major factor for the slow uptake of mortgages by potential investors.

2.4 Consumption-Investment Model for Housing

The tenure decision which was developed by Henderson (1983) focused on the interplay between investment and consumption demand for housing. When the investment demand for housing by an investor is relatively large in comparison to the consumption demand, then one decides to own a home so that he or she can satisfy his or her portfolio motives, as well as renting out other unused space. There is no need for buying a home that is expected to fall in prices especially after paying high interest costs on the mortgage. In a study carried out by Todd et al. (2005), it

was found that other areas with very high rent encourages people to go for mortgages so that they can own a home as rent may become very costly later on. On the investment side, many factors influence the rate of return on real-estate investments such as tax and transaction costs. Ioannides and Rosenthal (1994) explained that investment demand significantly depends on income as opposed to consumption demand. These findings have significant implications especially when the model is applied to explain why the low income groups continue to show a lower initiative of house ownership as it will be more apparent later on after conducting an indepth study as well as obtaining data from the field.

The consumption-investment model also includes risk factor in every tenure choice decision. Apparently, the features of housing returns vary across different locations geographically, which eventually impacts the risk and return on homeownership (Todd et al., 2005). The risk increases with older houses due to high maintenance and renovation costs incurred. Therefore, the risks associated with such properties may eventually lead to credit default by the investors who commit most of their funds towards huge maintenance costs and are only left with little or no funds to meet their financial obligations (Emrath, 1997).

2.5 Access to Mortgage Loans in Kenya

The average mortgage loan size for new loans in Kenya currently stands at Ksh. 4 million (Maveke, 2013). Among the fees charged on mortgages, legal fees, valuation fee, arrangement fees (1%), stamp duty fee and a mortgage protection policy premium is required (Cooper and Kaplan, 2011). For the purposes of collateral acceptability, the banks require both personal guarantees and mortgage lien, with only a few banks reporting that personal guarantees were not required. The repayment schedule usually applied is the fixed payment. Fixed payment is the most preferred mode of repayment schedules for the duration of the loan, with only a few banks providing variable rate. A majority of banks offer mortgage financing for house construction, purchase and refinancing purposes. Large banks provide longer loan to maturity periods ranging from 5-20 years while small banks typically offer loan to maturity periods of between 5-15 years (Green, 2012). On average, the loan to value is approximately 80% of the property value while the rest of the 20% balance can be financed from other sources (Green, 2012). Few banks are able to provide a loan to value of 90% of the property value.

The developments in the Kenya financial sector over the past three decades have seen several commercial banks developing mortgage products which have made stiff competition with the main housing finance institutions in Kenya. The main institutions are: Housing Finance, Savings and Loans (a subsidiary of Kenya Commercial Bank), East Africa Building Society, Equity Bank (originally Equity Building Society), and Family Finance Building Society (Central Bank of Kenya, 2011). All commercial banks in Kenya offer variety of mortgage products with different interest rates. This improvement in the Kenyan financial sector has positively impacted the financing of houses but the vast majority of investors still may not access the borrowing of funds for building or buying houses. In the 1980s, the mortgage interest rates were slightly over 30%, making it very difficult for individual borrowers to access mortgage finance through banks (Rosenthal 1988). However, with the current decline of interest rates that range from 13-20%, individual investors can obtain the long-term mortgage products available on the market with flexibility in the repayment periods that range between 5-20 years (Central Bank of Kenya, 2011). Despite this relative decline in interest rates, the lower-end families, informal sector workers do find that mortgage finance is unavailable as it is limited to high-end, formal-sector workers and other business owners (World Bank, 2012). The main requirements for mortgages include a completed and signed application form, last 3 months' pay slips certified copies, certified letter from employer stating terms of employment, certified copy of ID/ passport, copy of PIN certificate, a sale agreement, documentary evidence of any other income, certified copies of bank statements for the previous 12 months, 3 color passport size photos, copy of title deed, a clean title free from encumbrances and all rates land rent cleared and opening an account with the bank to enable access to the mortgage (Maveke, 2013).

2.6 Major Issues in Accessing Mortgage Market

2.6.1 Insufficient Information

Tornazky and Torres (2004) revealed that lack of information about the opportunities that exist in the mortgage finance or even an understanding of the mortgage requirements affects the performance of the mortgage market. People who had more knowledge about the mortgage products had been affected by home ownership decisions (Tornatzky & Torres, 2004). The Hispanic who had little information about the process of buying homes could not obtain mortgages due to lack of information.

2.6.2 Affordability Issues

The lack of affordability is a combination of factors which includes the low levels of income (especially in rural areas), volatile level of inflation and relatively high margins charged by banks. Issues on the supply side also create a price barrier for many, where the cost of even the most basic new house is out of reach for the vast majority (Central Bank of Kenya, 2012). In Kenya, low-cost housing has not been successful because the stakeholders who have the duty to undertake the projects have complained that the cost of building materials, land and infrastructure is too expensive to be able to support low-cost housing segment.

Although the government has encouraged developers to invest in low-cost housing projects with a promise of providing proper infrastructure, this has not been the case as most developers and finance institutions have opted to target wealthy households desire to earn quick profits has led to increase in interest rates for borrowers of finance in the institutions and hence it has prevented low-income groups who cannot afford the high interest rates set by the institutions.

2.6.3 Risk Management by Mortgage Institutions

Deficiencies in a lender's ability to capture or understand risks mean that lenders have to charge a high risk premium (Merna, 2008). This is due to the fact that credit bureaus do not yet offer comprehensive credit histories, there is a high level of informality, and the value of collateral is tempered by deficiencies in the foreclosure process, resale market and the valuation process. The banks undergo many challenges on how to manage the risk involved in banking effectively and the best way to reduce this is to identify the source of the uncertainty and magnitude of its potential adverse effect on profitability to the institution by identifying proper measures that ensure the bank is protected effectively from such risks. (Merna, 2008)

Credit risk in business is commercial because it is business-driven and is a major source of loss to commercial banks. This occurs when a customer defaults in payment of the loan given to him or her. This risk is very severe because a small number of clients can cause very big damage to the profitability of a bank and potentially lead to insolvency of the lender who is the commercial bank (Cooper and Kaplan, 2012). Interest rate risk occurs due to the decline in the movement and shift of interest rates in any financial market. Market risk is also referred to as systematic risk because it is a risk that occurs more frequently and all businesses undergo through this type of

risk because assets tend to change in value due to economic factors. Commercial banks and other micro-finance institutions tend to estimate the impact of this type of risk in the performance of the financing activities that they have undertaken. Default occurs in the event that a borrower is unable to pay the amount borrowed as promised and signed when being given the loan (Cunningham et. al., 2004). Default risk is a major risk that most financial institutions are acquiring insurance for the loans to recover the money they loaned incase of default.

2.6.4 Land Registration Procedures

The lack of title deeds makes it difficult for one to apply for mortgage finance. In particular, the multiple land titling and registration mechanisms are grossly inefficient and overly complex (Cooper and Kaplan, 2011). The government of Kenya has created a ministry of roads, housing and planning to try and solve the problems of housing and infrastructure in Kenya. Unfortunately, the government's bureaucratic process of achieving results has not helped either as decisions take a very long time in the ministries (Maveke, 2013).

2.7 Factors Hindering Access to Mortgage Finance

From the empirical studies and issues discussed the main factors that affect the majority of mortgage applicants especially individual applicants are summarized as level of income, cost of mortgage, mortgage information and registration of property.

2.7.1 Income level

Persons with low levels of income or unstable incomes may find it difficult to meet their mortgage repayment obligations (Schafer and Ladd, 2001). Therefore, the mortgage institutions often target wealth households that are able to meet their repayment obligations. Lack of employment or stable income makes the lenders to limit the amount borrowed as they become cautious to reduce the risks that may result in the event of failure to repay the full amount of mortgage (Donald, 2007).

2.7.2 Cost of Mortgage

The costs associated with mortgage finance include down payment, credit risk legal fee, valuation fee, interest rate charges and insurance premiums. When the costs are too high, it becomes difficult for one to afford the payments and therefore discourages people from applying

for mortgage finance. Credit risk is part of the cost and occurs when a customer defaults in repayment of the loan given (Paul et al., 2004). The banks and other micro-finance institutions tend to estimate the impact of this risk in their performance and therefore would not lend any mortgage finance to clients with a poor credit rating. Default occurs in the event that a borrower is unable to pay the amount borrowed as promised (Cunningham et. al., 2004). In Kenya, the credit rating bureaus provide loan repayment history of each client which can be accessed by the banks for screening purposes. Hence, it becomes difficult for the loan defaulters to access mortgage finance. Inflation is the rapid increase in the general price level of the economy. The real estate property in Kenya has been known to be rapidly increasing that it becomes very expensive for one to afford buying a home (East African Standard, 2011). This therefore reduces the demand for mortgage finance which also comes with extra cost of interest rates. Inflation also affects the interest rates which are a major determining variable in demand for mortgage finance.

Muguchia (2011) explains that flexible interest rates can discourage persons from applying for mortgages as the rates can rise later on. The down payment may also be too high for new applicants, including the other fees charged and insurance (Martinez et. al., 2011).

2.7.3 Information

Tornatzky and Torres (2004) assert that lack of knowledge about mortgage finance requirements and products has hindered people from applying for mortgages. The Hispanic who had little information about the process of buying homes could not obtain mortgages due to lack of information. Hence, the people who mainly apply for mortgages to support their housing projects are those educated and are more informed about the general mortgage requirements and benefits.

2.7.4 Registration of property

The registration of property like land is normally done by issue of title deeds. In Kenya, the registration mechanisms are inefficient as they often result in issuing more than one title deeds for possession of the same piece of land (Cooper and Kaplan, 2011). Sometimes, many people buy land on allotment and do not get any title deeds for prove of ownership. Title deed is one of the requirements for one to apply for a mortgage. Hence, lack of title deeds can limit one from accessing mortgage finance (Maveke, 2013).

2.7.5 Government policies

The government policies especially those of controlling ownership of property may affect the investors' access to mortgage finance. For instance in Kenya, the National Lands Commission and The Ministry of Lands and that of housing and planning controls the issuance of land title deeds as well as housing developments (Maveke, 2013).

2.7.6 Political Environment

Kenya is well known for the high influence from the powerful politicians who have vested interest in the implementation of laws that affect investments. In Kenya, foreign investors feared owning property in Kenya especially after the post election violence of 2007 that displaced many Kenyans from their homes (The East African Standard, 2011). Hence, the decline in investment projects leads to low uptake of mortgage finance.

2.8 Empirical Studies

Munnell et al., (1996) in Boston sought to test for discrimination in mortgage lending based on the race of applicants. They examined all loan applications from minorities and whites. The lenders were asked to provide all information obtained from the borrowers before a loan was made. The sample had about 3000 applications, 700 of which were from blacks and Hispanics (Munnell et al., 1996). The Boston Fed study was to estimate a regression equation to explain the probability that a loan would be denied as a function the risk of default and personal characteristics of the borrower. The empirical results found out that the loan denial rate was 10% for whites and 28% for minorities (Munnell et al., 1996). It then concluded that there existed a differential treatment of loan applicants based on both race and credit history.

Sanders et.al, (1997) carried out a study to find out the extent to which gender could be a basis for discrimination in access to mortgage finance. The United States has enacted a variety of laws making it illegal for lenders to discriminate against members of historically disadvantaged groups, particularly women and minorities. A sample with 21% of women applicants and 75% men was selected. The study found out that about 80% of married couples were homeowners. It further revealed that single men were more likely to own a home than single women (US Bureau of the Census, 1995). Therefore, economic and social benefits of home ownership could not be enjoyed by women in comparison to men. The mortgage markets had discriminated clients based

on racial and ethnic groups. The study concluded that women might be investing in those properties that accumulate less equity and may get high interest loans than their counterparts.

Schafer and Ladd (2001) assessed differential patterns on access to mortgage on the basis of income level of applicants in the US. He interviewed various households while controlling for other individual characteristics that can affect the rate of interest charged on the loan. He found out that persons with high streams of income could access mortgage than those with little or no steady income (Schafer and Ladd, 2001). Other scholars have suggested that credit history tends to be worse for men compared to women (Smith, 2012). The differential denial rates have been observed based on a number of variables that need to be studied in depth. Boston's researchers examined whether the perception held by loan lenders on the basis of credit history or financial leverage affects the treatment of loan applicants (Hunter and Walker, 1995). The empirical results had suggested differential treatment of loan applicants based on both race and credit history.

Martinez et al. (2011) carried out an investigation in the US to find ways of reducing mortgage defaults. The study compared the effects of economies using different down payment requirements of 15%, 20% and 25% on the default rates and home ownership. The minimum down payment of 15% based on property value led to a reduction of 30% on mortgage defaults (Martinez et al., 2011). On the one hand, improved credit conditions have a benefit to majority of home owners. It was noted that the down payment requirement led to huge costs that eventually increase the rates of defaulting. Hence, the chances of obtaining a mortgage to buy a house in future are very low. It was concluded that, prospective home buyers are typically worse off with minimum down payment requirements because the requirements make buying a house more difficult (Martinez et al., 2011). The decline in the default rate is observed in the year when the requirement is implemented than the other remaining periods. When a high down payment requirement was imposed in the study, it resulted in the most significant decline in home ownership.

The International Monetary Fund (2012) carried out a study in Ghana that revealed that land title deeds adversely affected the decisions by banks in issuance of mortgages. It further revealed that slow registration processes and lack of title deeds rendered high credit risk accompanied by lack of security that made banks to slow down the issuing of loans.

Quercia et. al.(2012) carried out a study in the US, North Carolina to find out the extent to which underwriting restrictions can limit investors from accessing mortgage finance. The analysis focused on mortgages that had originated between 2004 and 2008. It then considered the performing loans i.e. that were not more than 3 months delinquent. Overall, the study found out that a 10 percent down- payment requirement by the institutions would lead to a 38 percent decline in demand of performing loans from the market (Quercia et. al., 2012). Also a 20 percent down- payment threshold leads to 61 percent exclusion of performing loans. It concluded that more restrictive credit score and down-payment requirements may have a disproportionate effect of reducing mortgage credit access especially for the lower-income borrowers (Quercia et. al., 2012). The study recommended that policymakers should not impose any additional down-payment and credit score requirements on mortgages. Policymakers should not impose additional down payments and credit score requirements on mortgages.

In Kenya, a study was carried out by Muguchia (2011) to investigate the effect of flexible interest rates on the growth of mortgage financing. The study was carried out on 26 Kenyan commercial banks from analysis of their financial reports. Secondary data from the annual reports published by Housing Finance and other 26 commercial banks for the period from 2007 to 2011 was first obtained. Regression analysis was then conducted on the data obtained so that to understand the relationship between flexible interest rates and mortgage financing. From the analysis the study found out that the flexible interest rates reduce the demand for mortgage financing. It also revealed that independent variables like liquidity ratio and inflation had a negative impact on mortgage financing. On the other hand, customer deposits and bank size had a positive relationship. In conclusion, the study recommended that banks should charge a fixed interest rate as they were predictable besides enabling the borrowers to plan in advance on how to repay the mortgage (Muguchia, 2011).

Kimutai and Ambrose (2013) investigated on factors influencing credit rationing by commercial banks in Kenya. In their study, they sampled the commercial banks in Kenya and established that risk profile, interest rates and collateral available influenced credit rationing. The study recommended for banks to employ professionalism and implement policies to stop biasness in issue of credit facilities.

& Njiru (2013) undertook a study to establish the factors that affect the growth of the mortgage industry in Kenya. A stratified sampling procedure was used to collect the information from the employees of National Housing Corporation (NHC). From a sample size of 30% of employees, the study established that the main factors include volatile interest rates, discrimination of low income groups and unclear policies by the government. The study recommended that the government should establish appropriate policies to stop the banks exploiting customers through high costs of getting mortgages.

It clearly shows that the previous studies their scope focused on single factor and this creates a knowledge gap. Therefore it would be essential to determine the combination of the main variables mortgage cost, property registration, income level and mortgage information as a whole. The researcher therefore selected these main factors to determine the extent to which they hinder access to mortgage finance in Kenya.

2.9 Theoretical Framework

The current study shall mainly focus on the theories on loan and interest which are relevant to mortgage financing. The study focused on the loanable funds theory of interest and time preference theory.

2.9.1 Loanable Funds Theory of Interest

According to the Loanable Funds Theory of Interest, the rate of interest is calculated on the basis of demand and supply of loanable funds present in the capital market (Nnadozie, 2003). The concept formulated by Knut Wicksell, the well-known Swedish economist, is among the most important economic theories. Loanable Funds Theory of Interest advocates that both savings and investments are responsible for the determination of the rates of interest in the long run. On the

other hand, short-term interest rates are calculated on the basis of the financial conditions of a particular economy (Nnadozie, 2003). In Kenya, Housing Finance has been providing products that enable people to save for owning a home which has made the interest rates to decline over time as more funds are made available to the banks.

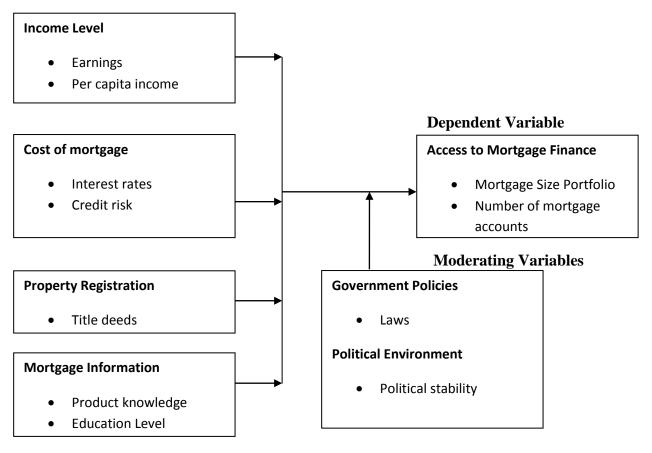
The determination of the interest rates in case of the loanable funds theory, the rate of interest depends essentially on the availability of loan amounts. The availability of such loan amounts is based on certain factors like the net increase in currency deposits, the amount of savings made, willingness to enhance cash balances and opportunities for the formation of fresh capitals (Nnadozie, 2003). Keeping the same level of supply, an increase in the demand for loanable funds would lead to an increase in the interest rate and the vice versa is true. This model has been applied by the Central Bank of Kenya, which has been releasing more funds at low interest rates to the mortgage lending institutions, and has now managed to lower the interest rates to an affordable rate of 14%-16% (Central Bank of Kenya, 2012). If both the demand and supply of the mortgage funds change, the resultant interest rate would depend much on the magnitude and direction of movement of the demand and supply of the funds.

2.9.2 Time Preference Theory

Deferred consumption may in effect imply that when money is loaned the lender delays spending the money on consumption goods. Since according to time preference theory people prefer goods now to goods later, in a free market there will be a positive interest rate. Inflationary expectations can affect the rates of interest. Most developing economies like Kenya, generally exhibit inflation, meaning that a given amount of money buys fewer goods in the future than it will now (Green, 2012). The borrower needs to compensate the lender for this. The lender has a choice between using his money in different investments. There is always a risk that the borrower will go bankrupt, abscond, die, or otherwise default on the loan (Paul et al., 2003). This means that a lender generally charges a risk premium to ensure that, across his investments, he is compensated for those that fail. The financial institutions prefer to invest their funds in treasury bills that are considered risk free, than risk lending funds to loan defaulters. Hence, this theory explains why mortgage finance institutions charge high interest.

2.10 Conceptual Framework Independent variables

Factors Hindering Access



(Source: Author)

Figure 1.1: Factors hindering access to mortgage finance.

In figure 1 above, the factors affecting access to mortgage finance have been classified into different variables. The dependent variable is access to mortgage finance measured in terms of number of approved mortgage portfolio accounts while the independent variables are income level, cost of mortgage, property registration and information. The intervening variables have an indirect impact on mortgage finance and include: government policies and political environment.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter explained the research design, target population, data collection, research instruments and data analysis used for this study.

3.2 Research Design

This study was conducted by a census survey of access to mortgage finance in all the 44 commercial banks in Kenya registered by the Central Bank of Kenya as at December 2012. The study was done at the head offices in Nairobi where credit analysts are based. This ensured that less cost was incurred as the study was within Nairobi and the population was small (Glass & Hopkins, 1984). The researcher had neither intruded in any way as far as data was concerned nor manipulated the results for any personal interests.

3.3 Target Population

The target population for the current study consisted of credit analysts of all the 44 commercial banks within Nairobi County (Central Bank of Kenya, 2009). The credit analysts at head offices receive various applications for mortgages from all branches and then approve or reject them. They also have records of all approved mortgages as well as the initial amount applied by mortgagees. Nkuah (2013) supports the use of credit analysts since they make final decisions on issuing credit and therefore provide sufficient information. The researcher interviewed credit analysts to investigate information on selected factors hindering access to mortgage finance from banks in Kenya.

3.4 Data Collection Methods and Research Instruments

The study used both primary and secondary sources to collect data. Primary source was through the questionnaires provided in the appendix section. This ensured that the researcher had complete control on where to collect the data, from whom it was collected and the purpose for which the data was collected. Questionnaires were designed using the 5 point-likert scales i.e. strongly agree, agree, neither, disagree and strongly disagree (Chambers & Skinner, 2003). The primary data comprised of information collected from the credit analysts at the head offices who had been involved in evaluation of mortgage applications and therefore could provide relevant

information about the mortgages approved and those rejected as well as reasons for rejection. These questionnaires were presented to the credit analysts and then collected at a later date to ensure there was more time for the respondents to read carefully and respond appropriately. For the secondary data, the researcher collected information from the published reports by central bank of Kenya concerning mortgage portfolios and the Kenya National Bureau of Statistics.

3.5 Data Analysis

The researcher had used Statistical Packages for Social Sciences (SPSS) to facilitate the analysis and interpretation of data. The responses obtained from the different questions were presented by the use of pie charts, graphs and tables that made it easy for interpretation (Seidman, 2006). Descriptive statistics provided more information about the variables of the current study (Mugenda & Mugenda, 2012). Regression analysis was useful in explaining the relationship between the selected factors hindering access to mortgages and access to mortgage finance by the investors. Regression model for the study was as follows:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where:

Y = Access to Mortgage Finance $\varepsilon = Error term$

a= Constant

 β =coefficients of variables

 X_1 = Income level,

 X_2 = Cost of mortgage,

 X_3 = Mortgage information

X₄= Property registration

 ε = Error term

3.6.1 Measurement of Variables

Table 1: Measurement of variables

Variable	Operational Definition	Measurement of variable
Access to Mortgage finance	The ability to obtain a	Portfolio of mortgage
	mortgage approval	accounts
Income level	Amount earned by an	Less than Sh. 25000 per
	individual per month	month is low income level
		Sh. 25,000-40,000- lower
		middle income level
		Sh. 40,000-70,000- upper
		middle income level
		Over Sh. 70, 000 - high
		income level
Cost of mortgage	All costs associated with the	Interest rates, down payments
	acquisition of mortgage	
Information	Having general knowledge of	Knowledge of mortgage
	mortgage products	products
		Education level
Registration of property	Is having the legal right to	Possession of land title deed
	own property e.g. land	

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This study sought to evaluate the factors hindering access to mortgage finance in Kenya. The data was collected using questionnaires that had been distributed to 44 credit analysts from all commercial banks in Nairobi County. Out of this, 39 respondents returned duly filled questionnaires representing 88.6% response rate. The data was then analyzed and discussed based on the following objectives: To determine the effect of income level on access to mortgage finance. To determine the effect of property registration on access to mortgage finance. To determine the effect of cost of mortgage on access to mortgage finance and to determine the effect of mortgage information on access to mortgage finance.

4.2 Background Information of the Respondents

This section describes the demographic characteristics of the respondents/credit analysts who had participated in the study. The main focus characteristic is the number of years involved in the mortgage appraisal which will be useful in assessing the reliability of the collected information.

4.2.1 Years of Experience in mortgage appraisal

The study sought to find out the distribution of the respondents in terms of years of experience in the mortgage business. There were 39 respondents in total representing 88.6%.

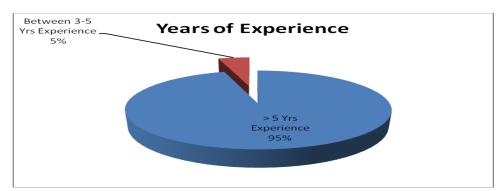


Figure 2: Respondent's Experience in mortgage appraisal

The above pie chart clearly shows that 95.3% of the respondents had worked in the mortgage section over 5 years period while the rest (4.7%) have been in the mortgage business for between

3-5 years period. This means that the respondents are reliable as they can provide accurate and sufficient information given the long period of experience especially in appraisal of a number of mortgage applications.

4.3 Selected factors hindering access to mortgage finance in Kenya

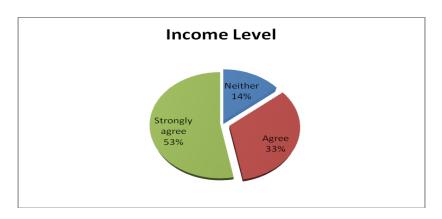
Respondents were asked a number of questions to assess the extent to which the selected factors hinder access to mortgage finance in Kenya. The results were represented using central tendency and percentage tables as follows:

4.3.1 Effect of Income Level on Access to Mortgage Finance Table 2: Effect of Income Level on Access to Mortgage Finance

Income Level Statements	Low Income <sh.25,000< th=""><th>Lower Middle Ksh. 25,000- 40,000</th><th>Upper Middle Ksh. 40,000- 70,000</th><th>Over 70,000</th><th>Ksh.</th><th>Mean</th></sh.25,000<>	Lower Middle Ksh. 25,000- 40,000	Upper Middle Ksh. 40,000- 70,000	Over 70,000	Ksh.	Mean
The investor cannot get a mortgage	72.1%	14%	13.9%	0%		1.42
The investor is likely to default	58.1%	9.3%	32.6%	0%		1.74
Are the majority of applicants	16.3%	11.6%	72.1%	0%		3.40

From the above table, 72.1% of respondents reported that low income investors cannot get a mortgage while 14% of respondents chose lower middle income investors as unlikely to obtain a mortgage. It is clearly shown that high income investors earning over Ksh. 70,000 per month can apply and get mortgages easily than their counterparts earning less than Ksh. 70,000 per month. 58% of respondents chose the low income group as the most likely defaulters of loan repayments while the high income investors earning over sh. 70,000 per month were considered unlikely to default in loan repayment. 72.1% of respondents considered the upper middle income group as the majority of mortgage applicants. In general, majority of mortgage applications are received from the investors earning less than Ksh. 70,000 per month. Even the low income groups apply for mortgages as observed with 16.3% of the respondents.

Figure 3: Overall effect of income level



The overall effect of income level from the survey data showed 14% of respondents neither agreed nor disagreed, 32.6% of the respondents agreed that income level affects access to mortgage finance while 53.4% strongly agreed that income level affects access to mortgage finance. Therefore, income level affects access to mortgage finance.

4.3.2 Effect of Property Registration on Access to Mortgage Finance Table 3: Effect of Property Registration on Access to Mortgage Finance

Property Registration		Pe	rcentages			_
Statements	Strongly Disagree	Disagree	Neither	agree	Strongly Agree	Mean
Title deed is a must in applying for mortgages	0	0	4.7	30.2	65.1	4.60
Land title deed is only used as collateral	0	0	0	74.4	25.6	4.26
Only few applications have had fake title deeds	2.3	11.6	9.3	69.8	7.0	3.67

From table 4, above, 65.1% of the respondents strongly agreed that a title deed is mandatory in applying for a mortgage while 30.2% agreed the same. In total, 95.3% agreed that the title deed is mandatory for mortgage applications.74.4% and 25.6% agree and strongly agreed respectively that the title deed is only used as collateral. In total, 100% of the respondents agreed that 100% of the respondents accepted that the title deed is only used as collateral for the mortgage. 69.8% of the respondents agreed that only few application have had fake title deed, 7% strongly agreed and only 2.3 % strongly disagreed. In total, 76.8% of the respondents agreed that only few applications with fake title deeds had been received.

From the mean scores obtained, the greatest weight in property registration is a title deed which is mandatory for mortgage application with a mean score of 4.60. This is generally the same for all categories of banks. The title deed is mostly used as collateral as shown by the mean score of 4.26. On average, few fake title deeds are encountered but only few times as shown with mean score of 3.67. The overall effect of property registration factor from the survey data showed that 11.6% of respondents disagreed that it affects access to mortgage finance, 18.6% neither agreed nor disagreed, 27.9% agreed while 47.9% strongly agreed that the property registration affects access to mortgage finance. In total, 75.8% of the respondents agreed that property registration affects access to mortgage finance while 11.6% disagreed. Therefore property registration by use of valid title deeds has an effect on access to mortgage finance.

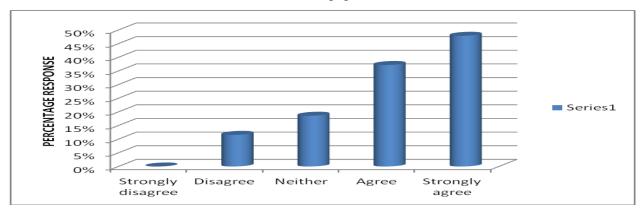


Figure 4: Overall effect of property registration

4.3.3 Effect of Mortgage Cost on Access to Mortgage Finance

Table 4: Effect of Mortgage Cost on Access to Mortgage Finance

Statements	Strongly Disagree	Disagree	Neither	agree	Strongly Agree	Mean
The mortgage interest rates are seen to be too high	7	32.6	11.6	48.8	0	3.0
Many investors consider the down payment as too high to afford	2.3	23.3	16.3	55.8	2.3	3.33
Majority of applications are based on variable interest rates than fixed rates	14	65.1	4.6	11.6	4.7	2.28

From the above table, 48.8% of the respondents agreed that the interest rates are seen to be too high while 32.6% disagreed. In total, the majority of respondents agreed that the mortgage interest rates are too high to afford.55.8% of the respondents agreed that many investors consider the down payment as too high for them to afford, while 23.3 % of the respondents disagreed. In total, 58.1% agreed that the down payment requirements are too high for investors to afford. 65.5% of the respondents disagreed that majority of applications are based on variable interest rates than fixed rates and was supported by14% who strongly disagreed. In total, 83.7% of respondents reported that the variable interest rates form the majority of applications than those of fixed interest rates.

From the obtained mean scores, the main problem in mortgage costs is the down payment not considered too high nor too low to afford with mean score of 3.33 followed by high interest rates with mean score of 3.02. For the majority of applications it was observed that they are not based on variable rates but instead, on fixed rates as shown in the mean score of 2.28. The overall effect of cost of mortgage on access to mortgage finance showed that 4.7% of respondents strongly disagreed, 37.2% disagreed that it affects access to mortgage finance. 25.6% were indifferent; another 25.6% agreed that cost of mortgage affects access to mortgage finance while 7% strongly agreed (Figure 5). Therefore, cost of mortgage has a moderate effect on access to mortgage finance.

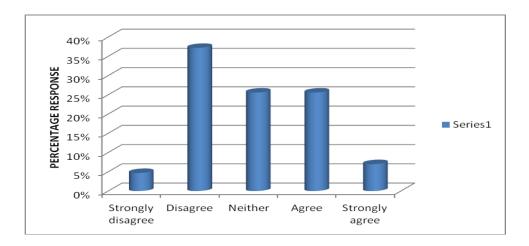


Figure 5: Overall effect of cost of mortgage

4.3.4 Effect of Mortgage Information on Access to Mortgage Finance Table 5: Effect of Mortgage Information on Access to Mortgage Finance

Percentages

Mortgage Information Statements	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Mean
Investors seek mortgage information before applying for it	0	0	4.7	39.5	55.8	4.51
Majority of applicants only get information from our bank sources	2.3	11.6	4.7	74.4	7.0	3.72
On average, investors have utilized all types of mortgage products	4.7	83.6	7.0	4.7	0	2.12
Many buyers using mortgages are university graduates	32.6	16.3	30.2	20.9	0	2.91

From the above table, 39.5% of respondents agreed that investors seek mortgage information before applying for it. 55.8% of respondents strongly agreed and none disagreed. In total, 95.3% agreed that investors do seek information about mortgages before they make applications. 2.3% of respondents strongly agreed that majority of applicants only get information from the bank sources while 11.6% disagreed, 4.7% neither agreed nor disagreed, but 74.4% agreed and 7% strongly agreed. In total, 81.4% of respondents agreed that most of the information is obtained from bank sources. With regard to utilization of mortgage products, 4.7% of respondents strongly disagreed and 83.6% disagreed that all mortgage products have been utilized. However, 7% neither agreed nor disagreed, 4.7% agreed and none strongly agreed that all mortgage products have been well utilized by investors. 32.6% of respondents strongly disagreed and 16.3% of respondents disagreed that many of the buyers using mortgages are university graduates. However, 30.2% of respondents neither agreed nor disagreed, 20.9% agreed that many buyers are university graduates but 20.9% agreed that many buyers are university graduates.

From the above table, seeking information about mortgages has the greatest weight followed by sourcing information from bank sources with mean scores of 4.51 and 3.72 respectively. It was also observed that, majority of applicants are university graduates with mean score of 2.91. The

mortgage products have not been well utilized due to lack of sufficient information as shown with mean score of 2.12.

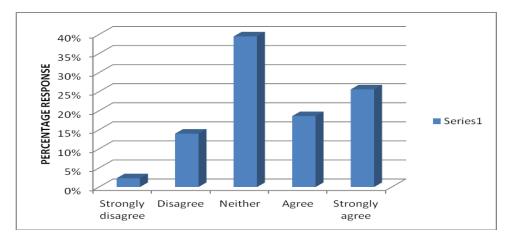


Figure 6: Overall effect of mortgage information

On the extent to which mortgage information affects access to mortgage finance, survey data showed that 2.3% of respondents strongly disagreed, 14% of respondents disagreed that mortgage information affects access to mortgage finance. 39.5% neither agreed nor disagreed, 18.6% of respondents agreed while 25.6% strongly agreed that mortgage information affects access to mortgage finance (Figure). It is therefore evident that mortgage information has an effect on access to mortgage finance. Therefore, the banks should provide sufficient information to the public so that more people can understand the various products available and the advantages of taking mortgage products.

4.4 : Overall Effect of the Selected Factors on Access to Mortgage Finance in Kenya Table 6: Overall Effect of the Selected Factors on Access to Mortgage Finance

Percentages							
Selected Factors	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Mean	SD
Income Level	0	0	14.7	39.4	45.9	4.31	2.31
Property Registration	2.4	23.6	34.0	34.7	5.3	3.41	2.12
Cost of Mortgage Mortgage Information	0 0	23.3 15.4	30.2 52.1	40.9 30.5	5.6 2	3.91 3.23	1.87 2.09

On the extent to which the income level affects access to mortgage finance, survey data showed that, 14.7% of respondents neither agreed nor disagreed, 39.4% of respondents agreed and 45.9% strongly agreed. In total, 85.3% agreed that income level affects access to mortgage finance. For property registration, 2.4% strongly agreed that mortgage information affects access to mortgage finance, 23.6% disagreed, 34% neither agreed nor disagreed, 34.7% agreed and 5.3% strongly agreed. In total, 40% agreed that property registration affects access to mortgage finance while only 26% disagreed. For cost of mortgage, 0% strongly disagreed that cost of mortgage affects access to mortgage finance, 23.3% disagreed, 30.2% neither agreed nor disagreed, 40.9% agreed and 5.6% strongly agreed. In total, 30.2% were not sure as to whether cost of mortgage affects access to mortgage finance while 46.5% agreed. For mortgage information, 15.4% of respondents disagreed that its affects access to mortgage finance, 52.1% neither agreed nor disagreed, 10.5% agreed and 2 % strongly agreed. In total, 32.5% agreed while only 2% disagreed.

From the graph below, it is therefore evident that income level is the greatest factor affecting access to mortgage finance as shown by the greatest mean weight {Mean=4.31, SD=2.31}, followed by cost of mortgage {Mean=3.91, SD=1.87}, property registration {Mean=3.41, SD=2.12} and finally mortgagee information {Mean=3.23, SD=2.09} respectively. Therefore, the banks ensure that the cost of mortgage is reduced to allow even low income earners to afford and also government to assist the unregistered owners of property process title deeds. In addition to that, sufficient information should be provided to the public so that more people can understand the various products available and the advantages of taking these products.

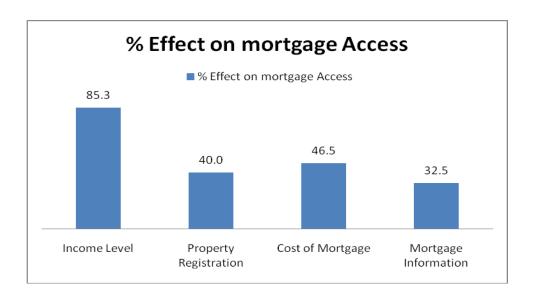


Figure 7: Overall effect of the selected factors

4.4.5 Level of Access to mortgage finance in Kenya

Respondents were asked a number of questions to assess access to mortgage finance in Kenya. The results were represented using central tendency and frequency table as follows:

Table 7: Access to mortgage finance

Access to mortgage finance	Percentages					_
Statements	Strongly Disagree	Disagre e	Neither	Agree	Strongly Agree	Mean
The mortgage terms can favor anyone applying for mortgage finance	0	7	46.7	46.3	0	3.40
Majority of applicants get the exact amount of mortgage applied for	0	69.8	0	11.6	18.6	2.79
Majority of applications received are from individuals than companies	23.3	46.5	11.6	18.6	0	2.26
All applications are thoroughly screened before approval of mortgages	0	0	14	44.2	41.8	4.28

From the above table, 7% of the respondents disagreed that mortgage terms favor anyone applying for mortgages, 46.7% neither agree nor disagree while 46.3% agree that the mortgage terms favor anyone intending to apply for mortgages. 69.8% of the respondents disagreed that

applicants get exact mortgage applied leaving only 30.2% of respondents agreeing that applicants get exact amount of mortgage as applied. 46.5% of the respondents disagreed with the statement that the majority of applicants are received from individuals than companies with only 18.6 % supporting the statement. In total, 69.8% showed that majority of applications are received from companies than from individual applications. Finally, 41.8% of the respondents strongly agreed that there is thorough screening of mortgages and 44.2% agree that applications are thoroughly screened before approvals are made. In total, 86% of respondents agreed that all applications are thoroughly screened before approvals are made. The results show that thorough screening of mortgage applications is the main factor affecting access to mortgage finance followed by favorable terms for anyone to apply as shown by the mean scores of 4.28 and 3.40 respectively. Afterwards, majority of applicants do not get the exact amount applied for as shown by the mean score of 2.79. Finally, individuals who apply for the mortgages are fewer than company applicant as shown by the low men score of 2.26. After establishing the factors hindering access to mortgage finance in Kenya, the researcher analyzed the access to mortgage from year 2006 to 2012 during which period a vast majority of commercial banks had started offering mortgage products. This was measured on the basis of the total mortgage portfolio in the banking sector as provided by the Central Bank of Kenya.

4.4.6 Access to Mortgage Finance and Growth Rate

Mortgage Accounts

Year	Portfolio	% Growth rate
2006	7,275	-
2007	8724	19.91753
2008	11,223	28.64512
2009	13,224	17.82946
2010	15,049	13.80067
2011	16,029	6.512061
2012	19,177	19.6394

From the data, the researcher found out that the growth in access to mortgage was 19.9% in 2007, it rose to 28.6 % growth in 2008, slowed down to 17.8% in 2009, 13.8% in 2010, dropped

to 6.5% growth rate in 2011 and finally rose to 19.6% in 2012. This means that the mortgage uptake has been rising but quite unstable and low in consideration to the Kenyan population.

Table 8: Mean and Standard Deviation for Access to mortgage and Growth rate

	Mean	Standard Deviation
Access to Mortgage	12957.29	4198.88
Growth Rate	17.72	7.33

The average access to mortgage in terms of mortgage accounts for the period 2007 to 2012 was 12957.29 with a standard deviation of 4198. 88. This means that the access to mortgage was low for the years 2006-2008, but only increased at slow pace in 2009 and has been rising but at a lower growth rate as shown by the mean growth rate of 17.72%.

4.5 Regression Analysis

In order to establish the extent to which the dependent variables explain the variance in the dependent variable: access to mortgage finance, regression analysis was employed and the results obtained are as follows:

Table 9: Access to Mortgage Finance Mean and Standard Deviation

Access to Mortgage Finance	Mean	Standard Deviation
Income level	36841.57	2301.14
Property Registration	55.71	13.02
Cost of Mortgage	14.98	2.14
Mortgage Information	56.14	5.87

The average income level was for the period was Sh. 36,842, property registration for collateral use was 55.71%, cost of mortgage was 14.98% interest rate and an average of 56.74 % of applicants had information on mortgages.

Table 10: Pearson's Product Moment Correlation Coefficient

		Access to mortgage	Cost of	Property	Income	Mortgage
		finance	mortgage	Registration	level	Information
Access to mortgage finance	Pearson Correlation	1	817(*)	.956(**)	.987(**)	.968(**)
	Sig. (2- tailed)		.025	.001	.000	.000
	N	7	7	7	7	7
Cost of mortgage	Pearson Correlation	817(*)	1	.681	.716	.860(*)
	Sig. (2- tailed)	.025		.092	.071	.013
	N	7	7	7	7	7
Property Registration	Pearson Correlation	.956(**)	.681	1	.969(**	.924(**)
	Sig. (2-tailed)	.001	.092		.000	.003
	N	7	7	7	7	7
Income level	Pearson Correlation	.987(**)	.716	.969(**)	1	.936(**)
	Sig. (2-tailed)	.000	.071	.000		.002
	N	7	7	7	7	7
Mortgage Information	Pearson Correlation	.968(**)	.860(*)	.924(**)	.936(**	1
	Sig. (2-tailed)	.000	.013	.003	.002	
	N	7	7	7	7	7

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

The above table shows that income level has the strongest positive correlation with access to mortgages (r=0.987*, P < 0.01) which is statistically significant at 99% confidence level. This means that increase in income level strongly increases access to mortgages. There is also a strong positive correlation observed for Mortgage information and access to mortgages (r=0.968**, P < 0.01). There also exists a strong correlation between Property registration and access to mortgages (r=0.956**, P>0.05) and also cost of mortgage (r=0.817*, P<0.05). This means that at 1% level of significance, income level, mortgage information and property registration play a

^{*} Correlation is significant at the 0.05 level (2-tailed).

significant role in determining the level of access to mortgage finance. Also at 95% confidence interval, cost of mortgage significantly affects access to mortgage finance. To avoid multicollinearity, the researcher computed the variance inflation factor (VIF), which assesses how much the variance of an estimated regression coefficient increases if the predictors are correlated. The results showed that the variables were not correlated as the VIFs were all less than 2 which the researcher had set as the cut-off point.

Table 11: Regression of access to mortgage finance and selected factors using multiple regression analysis

Model Summary

				Std. Error
Mode			J	of the
1	R	R Square	R Square	Estimate
1	.928(a)	.861	.753	.4047

a Predictors: (Constant), Mortgage information, Mortgage cost, Property registration, Income Level

Table 12: ANOVA

Mode						
1		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	105743369.005	4	26435842.251	1317.299	.001(a)
	Residual	40136.423	2	20068.212		
	Total	105783505.429	6			

a Predictors: (Constant), Mortgage Information, Cost of mortgage, Property Registration, Income level

b Dependent Variable: Access to mortgage finance

Table 13: Coefficients

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		В	Std. Error	Beta		
1	(Constant)	-47496.327	2832.754		-16.767	.004
	Income level	1.434	.113	.786	12.693	.006
	Property Registration	15.693	34.881	.027	.450	.697
	Cost of mortgage	-427.957	64.935	.219	6.591	.022
	Mortgage Information	1.723	5.854	.020	.294	.044

a Dependent Variable: Access to Mortgage Finance

The table above shows the multiple regression results that estimate the access to mortgage finance against the selected factors. It revealed that the correlation between the observed value of access to mortgage finance and the optimal linear combination of the independent variables (Mortgage cost, income level, property registration and mortgage information factors) as shown in the Multiple R is 0.928.As indicated, the R- Square value 0.861 and the adjusted R-Square value 0.753, 86.1% of the variance in access to mortgage finance in Kenya is explained by the selected independent variables while the remainder (13.9%) can be explained by other factors not included in this model. From, the column B of the unstandardized coefficients, the coefficients of the independent variables including the predictor variables are shown in the regression equation below:

Access to mortgage finance = -47,496.33 +1.43 Income level + 15.69 Property Registration-427.96 Mortgage Cost + 0.198 Mortgage information

From the above equation, a 143% increase in income level leads to a unit increase in access to mortgage, a 1,569% increase in property registration leads to a unit increase in access to mortgage finance, 42796% increase in mortgage cost leads to a unit decrease in access to mortgage and a 172.3% increase in mortgage information leads to a unit increase in access to mortgage.

4.6 Hypothesis Testing

H₀1: Income level has no significant effect on access to mortgage finance

For income level, {t=12.693, P=0.006}, the P-value is less than 0.05 hence the null hypothesis can be was rejected at 5% significant level. With a 95% confidence interval, it was then accepted that income level has a significant effect on access to mortgage finance. These findings are supported by Schafer and Ladd (2001) who found out in their study that persons with high streams of income could access mortgage than those with little or no steady income.

H₀2 Property registration has no significant effect on access to mortgage finance

For property registration, {t=0.450, P=0.0697}, the P-value is more than 0.05 hence the null hypothesis was accepted at 5% significant level. With a 95% confidence interval, it was then

accepted that property registration has no significant effect on access to mortgage finance. This is contrary to a study by Maveke(2013) who had explains that the registration procedures in Kenya makes it hard for persons to access mortgage products.

H₀3: Mortgage cost has no significant effect on access to mortgage finance

For Mortgage cost {t=6.591, P=0.022}, the P-value is less than 0.05 hence the null hypothesis was rejected at 5% significant level. With a 95% confidence interval, it was then accepted that mortgage cost has a significant effect on access to mortgage finance. This concurs with Moronge & Njiru (2013), who after surveying employees of National Housing Corporation (NHC), found out that cost is one of the factors that affect the growth of the mortgage industry in Kenya.

H₀4: Mortgage information has no significant effect on access to mortgage finance

Finally, for Mortgage information {t=0.294, P=0.044}, the P-value is less than 0.05 hence the null hypothesis was rejected at 5% significant level. With a 95% confidence interval, it was then accepted that mortgage information has a significant effect on access to mortgage finance. Another study of the Hispanic people found out that people were affected in making home buying decisions, especially if they had more knowledge about the mortgage products (Tornatzky & Torres, 2004). This concurs with the findings of the current study.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

This chapter presents the summary of findings, conclusion, and recommendations based on the findings of the research. A focus on the research objectives has ensured clarity in the conclusion. The recommendations shall be useful for the government, banks, and researchers who may be undertaking a similar topic in future.

5.1 SUMMARY OF FINDINGS

Based on the objectives of the study and results obtained from the data analysis, the following is the summary findings:

5.1.1 Effect of Income level on access to mortgage finance

The first objective sought to determine the effect of income level on access to mortgage finance. From the results, it was observed that low income investors are not likely to obtain mortgages as the repayments may be too high for them to afford. The low income investors were also likely to default in repayment of mortgage. It was also observed that the upper middle income investors form the majority of applicants for mortgage finance. The null hypothesis that stated that income level has no significant effect on access to mortgage finance was tested at 5% significance level. The results showed that income level played a significant role in determining access to mortgage finance in Kenya {P<0.05}. Thus, the null hypothesis may be rejected and it is accepted that income level significantly affects access to mortgage finance in Kenya. A lower income level hinders access to mortgage finance. These findings are supported by Schafer and Ladd (2001) who found out in their study that persons with high streams of income could access mortgage than those with little or no steady income.

5.1.2 Effect of Property registration on access to mortgage finance

The second objective sought to determine the effect of property registration on access to mortgage finance. From the results, the property registration factors that largely affect access to mortgage finance include possession of a title deed which is mandatory for mortgage application and also use of title deed as collateral for the mortgage. The hypothesis that property registration

has no significant effect on access to mortgage finance was tested at 5% significant level. The results show that property registration does not play a significant role in determining access to mortgage finance (P > 0.05). Thus, the null hypothesis was accepted and it is then accepted that property registration does not affect access to mortgage finance. Inefficient property registration remains a challenge to access to mortgage finance. Unfortunately, the government's bureaucratic process of achieving results has not helped either as decisions take a very long time in the ministries (Maveke, 2013). The government needs to formulate policies governing land title deeds to reduce these challenges.

5.1.3 Effect of mortgage cost on access to mortgage finance

The third objective sought to determine the effect of mortgage cost on access to mortgage finance. From the results, the mortgage cost factors that largely affect access to mortgage finance include down payment requirement and the level of interest charges. It was also observed that, the type of interest influences access to mortgage finance whether on fixed rates basis or variable rate basis. Majority of investors prefer the fixed rate of interest to variable rates. The hypothesis that cost of mortgage has no significant effect on access to mortgage finance was tested at 1% significant level. From the results obtained, at 5% level of significance, cost of mortgage does play a significant role in determining access to mortgage finance (P<0.05). Thus, the null hypothesis was rejected and it is then accepted that cost of mortgage does have a significant effect on access to mortgage finance. High mortgage costs hinder access to mortgage finance. Hence, this also supports the observation by Maveke (2013) who had stated that lack of title deeds can limit one from accessing mortgage finance. Moronge & Njiru (2013) also supports this observation in their study to establish the factors that affect the growth of the mortgage industry in Kenya with a focus on the employees of National Housing Corporation (NHC).

5.1.4 Effect of Mortgage information on access to mortgage finance

The fourth objective sought to determine the effect of mortgage information on access to mortgage finance. From the results, the mortgage information factors that largely affect access to mortgage finance include investors' seeking information before applying for mortgages and sourcing information from bank source. Other factors included level of education and knowledge

of available mortgage products which also had a moderate effect on access to mortgage. The hypothesis that mortgage information has no significant effect on access to mortgage finance was tested at 5% significant level. From the results obtained, at 5% level of significance, mortgage information has a significant effect on access to mortgage finance (P<0.05). Therefore, mortgage information is crucial in determining the level of access to mortgage finance. Lack of information about mortgage hinders access to mortgage finance. & Njiru (2013) had also established from a survey of employees of the National Housing Corporation that lack of sufficient information about the mortgage industry was one of the factors that affect the growth of the mortgage industry in Kenya. Another study of the Hispanic people who had more knowledge about the mortgage products had been affected by home ownership decisions (Tornatzky & Torres, 2004).

5.2 Conclusion

The prime intent of this research was to investigate the selected factors that hinder access to mortgage finance in Kenya. The research was conducted across all 44 commercial banks in Nairobi County. The study evaluated the effect of income level, property registration, mortgage cost and mortgage information on access to mortgage finance in Kenya.

With regard to income level, a low income level increases the chances of defaulting in repayment and also determines affordability to meet the monthly payments. The monthly payments may be very high for some investors to afford. Therefore, high income investors form the majority of applicants for mortgages. For the cost of mortgage factor, it comprises of mortgage interest rates, down payment and the type of interest rate. The majority of mortgage applicants require fixed rates that can be predetermined and do not vary irrespective of the level of inflation. The down payment comprises of processing fee, lawyer fees and valuation fee which is considered too high to afford for low income investors. Therefore, low income level and high costs of mortgage hinders access to mortgage finance.

For the property registration, possession of title deed does not significantly affects access to mortgage finance. Without a title deed, one may still obtain a mortgage due to use of property obtained as collateral for the mortgage. Finally, mortgage information also affects access to mortgage finance but to a little extent. It was observed that most applicants get information from bank sources and therefore banks have not educated the public more about mortgages hence reducing access by those who have no information. Therefore, inefficiency of property registration and lack of sufficient information on mortgages hinders access to mortgage finance.

The study further identified that the selected factors have different levels of influence on access to mortgage finance. However, from the findings, most of the critical factors are considerably common to all categories of banks irrespective of their number of years experience in mortgage finance business.

5.3 Recommendations

The banks should design a variety of mortgage products suited for low income groups who banks have been neglecting. Low income levels hinder access to mortgages as they are considered risky and in this regard, the payment period should be extended to facilitate lower monthly payments that are affordable.

The Kenyan government should ensure that all land owners obtain title deeds as a proof of ownership. This can be done through establishment of land reforms that eliminate the bureaucracy in land registration and also ensure due diligence in the registration of property. Banks should encourage mortgagees to have insurance cover in mitigation of default risks.

The banks should eliminate the down payment requirements and high fees that discourage potential applicants from applying for mortgages. The interest rates should also be reduced by the central bank to enable banks to charge low interest rates especially for mortgages and thereby encourage many people to apply for mortgages. Concerning mortgage information banks should frequently educate the public through the media advertisements, internet and conferences to sensitize the Kenyan public on the benefits of taking mortgage finance. This shall enable the vast majority of the population to apply for mortgages. This will improve the level of access to mortgage finance in Kenya.

Finally, researchers on a related topic can research on the effects of fixed interest rates on performance of mortgages in Kenya and the effect of rising property prices on the growth of mortgages in Kenya.

References

- Anderson, V. (2004). *Research Methods in Management*. London: Chattered Institute of Personnel Management Publishing.
- Banking in Kenya, (2012). *Mortgage Finance*. Retrieved on 13th July 2013 from http://bankinginkenya.com/393/mortgage-finance.
- Bienert, F. & Brunauer, J. (2006). *Funding Options for Housing Development*. New York, NY: Sage Publications Ltd.
- Burns, Z. & Grove, L.(2001). *Validity and Reliability*. Retrieved on 1st July 2013 from http://hsc.uwe.ac.uk/dataanalysis/quantissuesvalid.asp.
- Çetindamar, D. (2003). *The Growth of Interest Rates and Venture Capital: A Cross-Cultural Comparison*. London: Greenwood Publishing Group.
- Central Bank of Kenya, (2012). *Residential mortgage market in Kenya*. Nairobi: Central Bank of Kenya Report.
- Chambers, L. and Skinner, J. (2003): Analysis of Survey Data. New York: Wiley.
- Champy, J. (1995) *Theory of interest rates*. Harper Business: London.
- Chapman, A. (2005). Principles and Methods of Data Cleaning. New York: Pearson Ltd.
- Chisnall, P. (2005). Marketing Research: Seventh Edition. United Kingdom: McGraw-Hill
- Clayton, F. (2007). The history of mortgage concept. Harper: New York.
- Cooper, R. & Kaplan, R. (2011). The Rise of House Prices in Kenya, Englewood: Cliffs
- Cunningham, D., Patrick, H. & Hendershott (1984). 'Pricing Mortgage default insurance.' Housing Finance review 3: 373-380.
- Donald, H. (2007). Homeownership Gaps Among Low-Income and Minority Households, *A Journal of Policy Development and Research* 9(2):6-10. U.S. Department of Housing and Urban Development.
- Duca, V. & Rosenthal (1994). "Borrowing Constraints and Access to Owner-Occupied Housing," *Regional Science and Urban Economics* 24: 300–319.
- Emrath, P. (1997). "Home Vintage and Operating Costs," *Housing Economics* (November): 5.
- Frame, J.(2002). *Liquidity Preference Theory and Expenditure on Investments*. Washington D.C. Harvard Business Review.

- Glass, G.V., & Hopkins, K.D. (1984). *Statistical Methods in Education and Psychology*. Englewood Cliffs, NJ: Prentice Hall.
- Green, R. & White, M. (2012). *Measuring the Benefits of Homeowning: Effects on Children*. Chicago: Center for the Study of the Economy and the State.
- Henderson, P. (1983). Consumption and investment demand for housing. London, Pitman.
- Hunter, W. & Walker, M.B. (1995). *The Cultural Affinity Hypothesis and Mortgage Lending Decisions*. Chicago: Federal Reserve Bank of Chicago.
- Ioannides and S. Rosenthal. (1994). "Estimating the Consumption and Investment Demands for Housing and Their Effect on Housing Tenure Status," *Review of Economics and Statistics* 76 (1): 127–141.
- Kakooza T. (2003). *Introduction to Research methodology*, Monograph, Kampala Makerere University printery.
- Kidundi, P. (2010). *Project Paper on the Profitability of Financing Low Cost Housing in Kenya*. University of Nairobi.
- Kiarie, F. (2011). *Real Estate and Housing Sector Developers in Kenya*. Sage Publications, New York: NY.
- Kimutai, J and Ambrose, J. (2013). Factors Influencing Credit Rationing by Commercial Banks in Kenya. Nairobi: Published Project.
- Kotler, P., Amstrong, G., Wong, V. and Saunder, J. (2008). *Principles of Marketing*: Pearson penguin Longman.
- Martinez, L., Sanchez, J. and Carlos, J. (2011). *Mortgage Defaults*. Research Division Federal Reserve Bank of St. Louis Working Paper Series.
- Maveke, D. (2013). *How to Improve Your Chances of Qualifying for a Mortgage*. Retrieved on 25th August, 2013 from: ">how-to-improve-your-chances-of-qualifying-for-a-mortgag
- Merna, T. (2008). Corporate Risk Management. London: Comwall.
- Mitchell, M & Jolley, J. (2012). Research Design Explained. Florida: Cengage Learning.
- , P. & Njiru, K. (2013). Project paper on Factors that Affect the Growth of the Mortgage Industry in Kenya: A case study of employees of the National Housing Corporation (NHC).

- Mugenda and Mugenda (2012). Research Methodology Dictionary. Kijabe: Printing Press.
- Mulanda, K. (2012). Factors Influencing Demand for Mortgage Financing in Upmarket Nairobi, Kenya. Retrieved on 23rd May, 2012 from
- Muguchia. L., (2011). Project paper on effect of flexible interest rates on mortgage financing in Kenya. Nairobi: University of Nairobi.
- Munnel, H., Lynn E., Geoffrey M., Tootell and James E. (1996). *Mort-gage Lending in Boston: Interpreting HMDA Data*. Boston: American Economic Review.
- Nkuah, J., Tanyeh, P. & Gaeten, K. (2013). "Financing small and medium enterprises (smes) in ghana: Challenges and determinants in accessing bank credit." *International Journal of Research in Social Sciences* 2 (3): 2-3.
- Nnadozie, E. (2003). African Economic Development. London: Emerald Group Publishing.
- Paul S., Calem, and Susan Wachter. (2004). Hitting the Wall: Credit as an Impediment to Homeownership. *Working paper BABC 04-5*. Harvard University, Joint Center for Housing Studies.
- Quercia, R., Pennington-Cross and Tian, Y. (2012). *Mortgage Default Risk and Local Unemployment*. Working Paper, Center for Community Capital, University of North Carolina at Chapel Hill.
- Rosenthal P. (1988). *User cost method in tenure choice decisions*. New York, NY: McGraw Hill/Irwin.
- Sanders, C., Edward S. and Shirley E. (1997). *Mortgage Lending: Is Gender a Factor?* Center for Social Development: Washington University.
- Schafer, R. & Ladd, H. (2001). *Discrimination in mortgage lending*. Cambridge, MA: MIT Press.
- Schindler, M. & Cooper P. (2001). Business Research Methods.7th ed. New York: Mc Graw.
- Seidman, I. (2006). *Interviewing as Qualitative Research: A Guide for Researchers in Education and the Social Sciences*. New York: Teachers College Press.

- Smith, H. (2012). *Kenyan Economic Investment Guide*. Retrieved on 7th of November 2013 from < http://ghazzawilawfirm.com/files/investment%20Guide%202010.pdf>
- Smith, J. (2000). *Income, Housing Wealth and Gender Inequality*. Urban Studies 28,1,65-87.
- Swanson, R. & Holton, E (1997). *Guideline on Development Research Handbook: Linking Research and Practice*. San Francisco: Berrett-Kholer Publishers.
- Stuart S. (1994). "Do Mortgage Rates Vary Based on Household Default Characteristics? Evidence on Rate Sorting and Credit Rationing," *Journal of Real Estate Finance and Economics* 8 (2): 90–111.
- Taylor, G. (2004). Developments in the Mortgage Market. Boston: Emerald Publishing Group.
- The International Monetary Fund (2012). *The Registration of Land Title Deeds in Ghana*. Washington,D.C.: International Monetary Fund.
- U.S. Bureau of the Census (1995). *Housing Market News*. Washington, D.C.: U.S. Government Printing Office.
- The East African Standard (2010). *Kenyan Developers Investing in Low Cost Housing*. Nairobi: Newspaper.
- Todd, Nicholas & Souleles T. (2005). "Owner Occupied Housing as Insurance Against Rent Risk," *Quarterly Journal of Economics* 120 (2): 763–789.
- Tornatzky, V. & Torres F. (2004). *Population Profiling and Home Ownership in USA*. Washington, DC: U.S. Center for Research on Education, Diversity & Excellence.
- Wekesa, M. (2012). *Housing Finance enters into Commercial Property Finance*. Retrieved on 17th of September 2013 from http://www.housing.co.ke/index.php/more-news/142-housing-finance-enters-into-commercial-property-finance>.
- World Bank (2012). Developing Kenya's Mortgage Market. Washington D.C.: The World Bank.

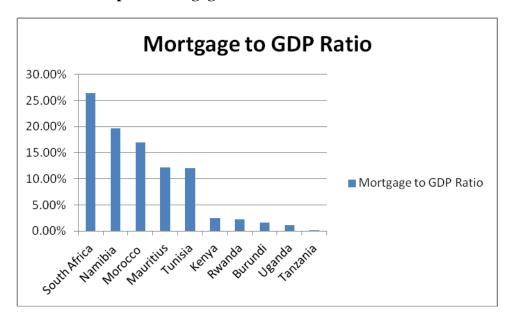
Appendix I

Table 1a Country Ranking

COUNTRY	NO. OF DAYS FOR ISSUING CONSTRUCTION PERMITS	REGISTERING PROPERTY RANKING
Angola	321	184
Botswana	145	16
DRC	117	54
Lesotho	510	101
Mauritius	136	22
South Africa	127	23
Kenya	140	64
Tanzania	303	73
Mali	17	14
Burkina Faso	9	18
Senegal	27	42
Togo	34	40

Source: World Bank Business Report (2012)

Table 1 b: Graph of Mortgage to GDP Ratio



African Countries Ratio of Mortgages to GDP in 2011 Source: World Bank Doing Business Report (2012).

QUESTIONNAIRE

Dear respondent

You have been provided with this questionnaire by the student to enable him collect data which is useful for a research on selected factors hindering access to mortgage finance in Kenya. The student is carrying out a research which required for the award of Master of Business Administration in Egerton University. The data collected shall only be used for the purposes of the research and therefore the information shall be held confidential.

Your response will be very useful for the collection of data.

Section I

Name of Bank								
Name of respondent	t (Optional)							
b) Years of exp	perience in a	appraisal of Mo	ortgage appli	cations.	(Please	tick in o	ne box	
i) Between 1-2ii) Between 3-5iii) More than 5	•							
		SECT	TION II					
Part A: Access to r	nortgage fin	ance						
(1)	(2)	(3)	(4)		(5)			
Strongly disagree	Disagree	Neither	Agree	St	rongly a	agree		
				1	2	3	4	5
The mortgage mortgage finance		avor anyone a	applying for					
								\perp

Majority of applicants get the exact amount of mortgage			
applied for			
Majority of applications received are from individuals			
than companies			
All applications are thoroughly screened before approval			
of mortgages			

Part B: Factors affecting access to mortgage finance

Lower middle income

1. Income Level

Low Income

Using the scale provided, please tick one box your opinion based on income level for the following statements provided below.

Upper middle income

High income None

(<sh. 25,000) (sh. 25,000-40,000 p.m) (sh. 40,000-70,000 p.m) (over sh. 70,000 p.m)

(1) (2)		(3)	(4)	(5)
	1	2	3	4	5
The investor cannot get a mortgage					
The investor is likely to default					
This forms the majority of applicants					

2. Property Registration

Using the scale 1-5 provided, please tick in one box the extent of your agreement with each of the following statements in the space provided

(1)	(2)	(3)	(4)		(5)			
Strongly disagree	Disagree	Neither	Agree		Strongly ag	gree		
			1	2	3	4	5	
Title deed is a must in a	pplying for m	ortgages						
Land title deed is only u	sed as collate	ral						
Only few applications ha	ave had fake	title deeds						

3. Cost of mortgage

Using the scale 1-5 provided, please tick in one box the extent of your agreement with each of the following statements in the space provided

5

(1)	(2)	(3)	(4)	(5	5)	
Strongly disagree	Disagree	Neither	Agree	Str	ongly agree	e
			1	2	3	4

The mortgage interest rates are seen to be too high			
Many investors consider the down payment as too			
high to afford			
Majority of applications are based on variable			
interest rates than fixed rates			

4. Mortgage information

Using the scale 1-5 provided, please tick in one box the extent of your agreement with each of the following statements in the space provided

(1)	(2)	(3)	(4)	(5)			
Strongly disagree	Disagree	Neither	Agree	Str	ongly ag	gree		
				1	2	3	4	5
Investors seek mortgage	information	before applying	g for it					
Majority of applicants of	nly get inforn	nation from our	bank sources					
On average, investors ha	ve utilized al	l types of mort	gage products					
Many buyers using mort	gages are uni	versity graduat	es					

5. Overall Effect on access to Mortgage Finance

Please tick in one box the extent to which the following factors affect access to mortgage finance in Kenya.

(1)	(2)	(3)	(4)	(5)
Strongly disagree	Disagree	Neither	Agree	Strongly agree

Factors	1	2	3	4	5
Income Level					
Property Registration					
Cost of Mortgage					
Mortgage Information					

Thank you for participation

DATA COLLECTION SHEET

<u>Year</u>	Mortgage Accounts Portfolio	Average Interest rates	Collateral percentage	Per Capita income in Ksh.	Information Education enrollments '000'
2006	7,275	13.64	51	33,441	112.2
2007	8724	13.33	54	34,570	118.2
2008	11,223	14.01	55	36,000	122.8
2009	13,224	14.81	60	36,986	177.5
2010	15,049	14.36	68	38,346	177.6
2011	16,029	15.05	66	38,941	198.3
2012	19,177	19.65	69	39,607	240

Source: Central Bank of Kenya, KNBS

Source: (Kenya National Bureau of Statistics, 2006-2013), Central Bank of Kenya (2012)

KNBS KENYA FACTS PAGE 39								
Unit	2006	2007	2008*					
91-day Treas ury bill rate %	5.83	6.87	8.59					
Inter-Bank Offered Rate "	6.34	7.05	6.67					
Overdraft Rates " 13.91 12.96 14.4								
Commercial Banks Loans an"d Advances	13.74	13.32	14.87					
Savings deposits rate "	1.36	1.67	1.65					
INTEREST RATE STOCK EXCHANGE AND MARKET CAPITALISATION								
Uni	t 2006	2007	2008*					
Turnover KSh mn	94,953	88,620	97,524					
Market capitalisation KSh bn	792	851	854					
NSE Index-(Bas e Jan 1966=100)	5,646	5,445	3,521					
Consumer Prices and Inflation (KNBS)								

NOMINAL INTEREST RATE,			percentage							
2009-2012										
2009		2010	2011		2012					
91-day	6.82	2.28	17.90		8.30					
Treasury bill										
rate										
Inter-Bank 2.95		1.18	22.10		5.84					
Offered Rate										
Overdraft 14.13		13.69	59 20.20		17.79					
Rates										
Commercial 14.76		13.87	20.04		18.15					
Banks Loans										
and										
Advances										
Savings 1.73		1.50	1.60		1.60					
deposits rate										
KEY INDICATORS, 2009 – 2012										
Indicator		unit	2009	2010	2011	2012*				
GDP Per capita		(Ksh.)	36,986	38,346	38,941	39,607				
(Constant):		,	,	,	,	,				
Net lending/borrowing		%	(4.9)	(5.9)	(5.2)	(10.9)				
(% of GDP) at Current		, 0	()	(3.7)	(3.2)	(10.5)				
Market Price										
		(Val Ma)	(114.042)	(151 64	(145 027)	(251 661)				
Net lending/borrowing		(Ksh.Mn)	(114,942)	(151,64	(145,927)	(354,664)				
_				5)						
Recurrent Revenue		(Ksh.Mn)	574,135	673,270	781,628	971,325				
and Grants										
Total Expenditure		(Ksh.Mn)	789,361	872,793	990,045	1,282,08				
-						8				
External Debt Service		%	1.0	1.3	1.1	1.0				
Charge as % of GDP			, ,			. ~				
External Debt Service		%	4.2	4.6	3.8	3.7				
		/0	7.2	7.0	5.0	5.1				
as % of Exports of										

Goods & Services
INDEX NUMBERS: (2009=100)
Source: Kenya National Bureau of Statistics