ASSESSMENT OF EFFECTS OF MORTGAGE ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

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21ST MAY 2012
DECLARATION

This research project is my original work and has not been presented for any degree or diploma in any other university.

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I wish to thank my entire family members for their unending love, and understanding of the long absence throughout this programme.

I also thank my parents, for instilling the value of education in me at a tender age.
The completion of this project was not easy. It was not created by the author alone, but relied on the cooperative assistance of many unseen hands. This work would not have been possible without the invaluable contributions of the following persons:

Special gratitude goes to my supervisors in the School of Business for always being available and never too busy to read, comment, advise and guide on the best way to move forward throughout the programme. Their dedication, guidance and special interest were of great inspiration in the completion of this project. Without them this project would not have taken the direction it has taken.

I would also like to acknowledge the encouragement from all my colleagues and my MBA classmates, friends and relatives whose remarkable devotion and dedication throughout the project work was incredible. To those I am unable to mention but assisted me either directly or indirectly, I say thank you all. May God bless the work of your hands!

Finally I acknowledge the many miracles that happened in the course of carrying out this project and I believe they all came from above. I acknowledge God’s miracles. Thanks in abundance and may the miracles continue to flow in similar ways.
ABSTRACT

The rapid development of a variety of mortgage-backed securities has led to a radical transformation in mortgage sector in Kenya in recent years. The changing home mortgage market and unique financing requirements brought about by widespread homeownership have caused a continuing evolution in mortgage lending practice. Commercial banks are financial intermediaries that serve as financial resource mobilization points in the global economy. Banks play a great role in financing houses. The main objective of the study was to investigate the effects of mortgage in commercial banks in Kenya. The study sought to answer the following specific objectives to determine effects of mortgage saving on financial performance in commercial banks, to establish effects of mortgage diversification on financial performance of commercial banks. To determine effects of mortgage income on financial performance of commercial banks and to assess the effects of mortgage economic growth on financial performance of commercial banks. This study adopted descriptive research design for it portrays an accurate profile of situations. The design helped the study in obtaining information concerning the current status of the factors affecting commercial banks mortgage lending. The population of this study comprised of financial managers and credit officers from the selected mortgage financing institutions in Kenya. The target population of this study was 44 commercial banks in Kenya. The study adopted census survey of the all the banks. The study used primary data and secondary data. Primary data was obtained through self-administered questionnaires with closed and open-ended questions. Secondary data was collected from bank report and central bank. Descriptive statistics such as means, standard deviation and frequency distribution were used to analyze the data. Data presentation was done by the use of pie charts, bar charts and graphs, percentages and frequency tables. The inferential analysis which included regression and correlations was done to establish effects of mortgage financing on financial performance in commercial banks in Kenya. The study concluded that commercial banks in Kenya emphases on mortgage financing to improve bank performance. The study concluded that mortgage financing is influenced by market and financial factors which includes increased investment and Improve Profitability of the firm, improvement of risk management, attraction of more customers, promotion of innovations, Market Penetration, diversification of investment and encountering competitions in the market lowering of interest on Treasury bond, Kenya financial laws require bank to have less cash in reserve and High interest from Mortgage, creating of wealth and Improving savings. The study therefore established that there is positive relationship between commercial bank performance with effects of mortgage financing which are core saving, diversification of portfolio, increase income and economic growth.
<table>
<thead>
<tr>
<th>Abbreviation</th>
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<tr>
<td>ARM</td>
<td>Adjustment Rate Mortgage</td>
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<tr>
<td>CBK</td>
<td>Central Bank Of Kenya</td>
</tr>
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<td>FFIEC</td>
<td>Federal Financial Institutions Examination Council</td>
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<td>FSA</td>
<td>Financial Services Authority</td>
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<td>GHLC</td>
<td>Government Housing Loan Corporation</td>
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<td>GSE</td>
<td>German Stock Exchange</td>
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<td>KENSUP</td>
<td>Kenya Slum Upgrading Program</td>
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<td>KREP</td>
<td>Kenya Rural Enterprise Programme</td>
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<td>MBS</td>
<td>Mortgage Backed Securities</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<td>MDO</td>
<td>Mortgage Debt Outstanding</td>
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<td>MFI</td>
<td>Microfinance Institutions</td>
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<td>NPL</td>
<td>Non-Performing Loans</td>
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<td>PWSPC</td>
<td>Pension Welfare Services Public Corporation</td>
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<tr>
<td>SACCO</td>
<td>Saving Credit Co-operative Society Organization</td>
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<td>UK</td>
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OPERATIONAL DEFINITION OF TERMS

Commercial Banks
They are profit maximizing institutions facing different risks in the financial market.

Credit Risk
The risk of loss of principal or loss of a financial reward stemming from a borrower's failure to repay a loan or otherwise meet a contractual obligation (Basel, 2010).

Mortgage:
Is the transfer of an interest in property to a lender as a security for debt usually a loan of money.

Non-Performing Loans
A loan is nonperforming when payments of interest and principal have not been paid for 90 days or more.
CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Mortgage financing over the years has been a preserve for mortgage financing companies but with time, commercial banks have started engaging in mortgage financing. An efficient housing finance system has significant importance both in meeting the housing needs of individuals and in reinforcing the development of the construction, finance and other related sectors of an economy. International experience suggests that, the widespread availability of residential mortgages has favourable impact on poverty alleviation, quality of housing, infrastructure, and urbanization (Erbas and Walley, 2005). Today, developed countries have advanced housing finance systems in which funds flow from people with fund surpluses to the ones that are in need of them by the aid of mortgage markets. On the other hand, despite its recognized economic and social importance, housing finance often remains under-developed in developing countries mainly due to lack of stable inflation and employment (Ho Hahm, 2004).

Mortgage financing normally centers around two specific goals (Dolde, 2006). First, the financing seeks to create revenue for the lender and secondly the extension of mortgages allows qualified individuals and business entities to secure properties that can be repaid in terms that are within the ability of the recipient of the loan to pay off in a timely manner (Okwir, 2002). Mortgage loans are secured by the real property, and provide a schedule of payments of interest and repayment of the principal to a bank. Most mortgage contracts arrange for loans to be fully amortized with adjustable mortgage...
interest rates and either payment or maturity is fixed for the term of the loan. The mortgage market is important for housing because it makes the investments of real property divisible thereby allowing households more flexibility in adjusting intertemporal allocation of savings and housing consumption between the present and the future as desired (Mehdian, 2001).

Mortgage loans are generally structured as long-term loans, the periodic payments for which are similar to an annuity and calculated according to the time value of money formulae. The most basic arrangement would require a fixed monthly payment over a period of ten to thirty years, depending on local conditions. Over this period the principal component of the loan would be slowly paid down through amortization. In practice, many variants are possible and common worldwide and within each country (Tse, 2002).

Coles (1996) argued that the UK mortgage market has experienced three stages of change. The first stages is the early to mid-1980s. Loans and high gearing were seen as low risk, by both borrowers and lenders. The amelioration of mortgage market rationing contributed to this demand (Leece, 1995 and Meen, 1990). Second stage was on the early 1990s witnessed a new perception of high risk. Finally, the third stage was in the mid-1990s and onwards there is an increased emphasis on hedging and managing risk by economic agents. Though the completeness of insurance markets is an important issue in mortgage lending considerations and risk analysis (Chinloy, 1995), another critical factor is the emergence of new mortgage designs. The emphasis of these new designs is on payment flexibility. The fall in property prices that began in the late 1980s engendered this change of view. Changes in mortgage design do not always lead to fundamentally
different mortgage instruments. For example, the ability to accelerate repayments of capital in a conventional annuity mortgage is not a new instrument. The more rapid crediting of interest on prepayments is a change in design. The emergence of a fixed rather than a variable rate mortgage would be an example of a new mortgage instrument (Dolde, 2006).

Traditionally, role of mortgages was always a predominant form of borrowing in rural economies because land was the most important asset. Landowners borrowed against future rents to finance current consumption or the development of their estates (Miller, 2000). The increase of mortgage financing in Kenya may have been influenced by factors changing mortgage climate, sustained economic growth, cross-selling potential, profitability and market penetration and liberalizations of market. Kenya’s mortgage market has more than tripled in the past five years. The mortgage market has grown from Kshs.19 billion in 2006 to just over Kshs.61 billion by May-2010 year. This translates to an annual average growth of 34%, indicating an exponential increase in mortgage loans (Government of Kenya, 2007).

1.1.1 Overview of Mortgage Financing in Kenya

The Kenyan housing finance system has grown rapidly over recent years in both value of loans and number of loans. The market has now gone through the initial ‘germination’ stage and is preparing to enter its next development phase. Consideration now needs to be given to the requirements for ensuring continued growth. The mortgage market is the third most developed in Sub-Saharan Africa with mortgage assets equivalent to 2.5 per cent of Kenya’s GDP. Only Namibia and South Africa rank higher, with Botswana just
slightly smaller (Hassler and Walley, 2007). Overall lending by banks for mortgage purposes represents the major type of lending at present.

Given the rapid rate of growth in real estate prices and the potential for them to fall back, this should be a concern for both banks and authorities’ monitoring systemic risks (Mutero, 2007). Kenya’s mortgage market has more than tripled in the past five years. Kenya’s mortgage market has grown from Kshs.19 billion in 2006 to just over Kshs.61 billion by May-2010 (nominal growth). This translates to an annual average growth of 34%, indicating an exponential increase in mortgage loans. The number of new loans has also been rapidly increasing. Since 2006, there has been a steady growth in new loans further validating the growing mortgage market. In 2006, new loans were approximately 1,278 whereas by 2009 the new loan portfolio has grown to over 6,000. By May 2010, the number of new loans was 2,966 which is in line with the steady growth seen in the previous years. But the mortgage market is still relatively small by international standards with only 13,803 loans. While the growth rate in mortgage loans has been rapid at just under 50% since 2006 and has been growing steadily at 14% annually, the loan portfolio remains small (CBK, 2010).

Kenya’s mortgage market is mostly offered by large banks, comprising 90% of the outstanding loan assets portfolio. This market is growing fast with a growth rate of 38% on average, followed by medium banks which are growing at 25% on average and large banks closely following at 24% on average. The average mortgage loan is approximately Kshs.4 million which reflects on the expensive housing market or a predominance of high-income mortgage borrowers in Kenya (Mutero, 2007).
Since 2006, the average mortgage loan size has been growing steadily but is still concentrated around the higher-end clientele of Kenya’s mortgage market, based primarily in the Nairobi region. Furthermore, the average loan size of approximately Kshs.4 million is consistent among large and small banks. While there are some outliers that can be attributed to developer financing and/or employee mortgage loan financing, the average loan sizes among large and small banks do not vary, indicating that all commercial banks are targeting the same higher end housing finance market (CBK, 2011).

1.1.2 Mortgage Financing

According to Rogers, (2000), banks and mortgage companies are principal lenders and mortgages are sold to investors in the secondary market as Mortgage Backed Securities (MBS) and this constitutes the major source of funding. Both variable and fixed rate mortgages are issued and the role of government is to regulate securities. Another form of housing finance system is through a directed credit system. The lender is a specialized housing lender who has a privileged source of funding (Ndirangu, 2004). Lenders make long-term loans and the government backs lenders and provides funding. A direct credit system is the major component of the developing housing finance system besides the depository system. MBS are relatively nascent in origin in Japan. Earlier papers (Diamond and Lea 1992) have concerns with the compared efficiency of housing finance systems across countries and their results have not been very categorical in saying which system is best. This paper moves a step ahead in comparing efficiency of mortgage system within a particular country. It is expected that such a comparison would present a
better insight in the housing finance system because the boundary conditions (such as macroeconomic conditions, broad regulatory environment) for all mortgage instruments within a country are similar (Tse, 2002).

Commercial banks, finance companies, the Government Housing Loan Corporation (GHLC), and other public sector organizations provide housing loans in Japan. Both public and private institutions finance homeownership. Among public institutions, GHLC is the largest financier. Besides GHLC, the Pension Welfare Services Public Corporation (PWSPC) and local government bodies also finance home purchases. Among private institutions, commercial banks (City banks and regional banks) are major financiers for home purchases. Specialized housing loan companies, which existed until 1995, also funded homebuyers. These institutions mostly fund individuals and developers. The Bank of Japan regulates these financial institutions except for the GHLC, which is supervised by the Ministry of Infrastructure, Land and Transportation. Institutions other than GHLC compete in the free financial market for lending and funding, and generally use such means as expanding their branch network to get more business and gain a larger share of the market. The GHLC receives a major share of its resources from the treasury allocation of the Fiscal Investment and Loan Program of the national government. Among the financial institutions, commercial banks as a group have mobilized the greatest proportion of household savings and are currently the largest provider of housing loans (Buckley and Kalarickal, 2004).
The Commercial Banking Industry in Kenya

The Banking industry in Kenya is governed by the Companies Act, the Banking Act, the Central Bank of Kenya Act, and the various prudential guidelines issued by the Central Bank of Kenya (CBK). The banking sector was liberalised in 1995 and exchange controls lifted. The Central Bank of Kenya, which falls under the Ministry of Finance, is responsible for formulating and implementing monetary policy and fostering the liquidity, solvency and proper functioning of the financial system. Central Bank of Kenya publishes information on Kenya’s commercial banks and non-banking financial institutions, interest rates and other publications and guidelines (CBK, 2011).

Banks represent a significant and influential sector of business worldwide that plays a crucial role in the global economy. Commercial banks are financial intermediaries that serve as financial resource mobilization points in the global economy. They channel funds needed by business and household sectors from surplus spending to deficit spending units in the economy. A well developed efficient banking sector is an important prerequisite for saving and investment decisions needed for rapid economic growth. A well functioning banking sector provides a system by which a country’s most profitable and efficient projects are systematically and continuously funded. The role of banks in an economy is paramount because they execute monetary policy and provide means for facilitating payment for goods and services in the domestic and international trade (Government of Kenya, 2007).

Commercial banks are custodians of depositor’s funds and operate by receiving cash deposits from the general public and loaning them out to the needy at statutorily allowed
interest rates. Loans are based on the credit policy of the bank that is tightly coupled with the central bank interest rate policy. These in effect determine the level of financial risk in a particular bank (CBK, 2010). Commercial bank in Kenya comprises 90% of the outstanding loan assets portfolio.

1.2 Statement of the Problem

Kenya has a large housing gap which is growing every year and is increasingly prevalent in urban areas due to differences in income levels in the economy. The current annual housing deficit is estimated at 156,000 units per annum based on the population growth and urban migration taking place (UNHSP, 2006). Avery, et al (2006) indicated that low interest rate schemes in commercial banks made between 2001 to 2004 made a positive impact on the credit growth of mortgage finance loans from loan takeovers from existing lenders. Over a period of time the growth rates of banks ranged between 40-50% in 1990 to 70% in 2004 is linked to mortgage firms ability to match services to the need of the customers (CBK, 2008). This generated adequate risk-adjusted returns, besides being influenced by the overall growth in the mortgage finance market (Ndirangu, 2004). Commercial banks have continued financing mortgages with a potential size of the mortgage market which is currently around Ksh.800 billion (CBK, 2011). This is far below expectation bearing in mind the large unexploited urban and rural market due to low income level earnings by individuals in the country. Despite this fact, banks have continued financing mortgage undertaken by individual and corporate firms aiming at improving its financial performance. There is need, therefore, to assess the effects of
mortgage financing on financial performance in commercial banks in Kenya (Mutero, 2007).

While Kenya’s mortgage market is growing, the industry is dominated by the commercial banks indicating barriers to entry or high risk for medium and smaller banks (Ndungu, 2010). However, the growth rates indicate that the small sized banks have the fastest growth rate of 38% on average, followed by medium banks which are growing at 25% on average with large banks closely following at 24% on average (Ndungu, 2010).

Previous studies have focused on perceived quality of service in commercial banks and effects of mortgages on firm’s performance. For instance, Ndirangu (2004) did a study on effect of adopting different types of mortgages on financial performance of mortgage institutions in Kenya. Murugu (2003) carried out a study on perceived quality of service in the mortgage sector. This study, therefore, sought to assess the effects of mortgage financing on financial performance of commercial banks in Kenya.

1.3 Objectives of the Study

Established the effects of mortgage financing on financial performance of commercial banks in Kenya.

1.3.1 Specific Objectives

The study was guided by the following objectives,

(i) The research sought to determine effects of mortgage saving on financial performance in commercial banks.
(ii) The research sought to establish effects of mortgage diversification on financial performance of commercial banks.

(iii) The research sought to determine effects of mortgage income on financial performance of commercial banks.

(iv) The research sought to assess the effects of mortgage economic growth on financial performance of commercial banks.

1.3.2 Research Questions

The study was guided by the following research questions,

(i) What are the effects of mortgage saving on financial performance of commercial banks?

(ii) What are the effects of mortgage diversification on financial performance of commercial banks?

(iii) How do mortgage incomes affect financial performance of commercial banks?

(iv) How do mortgage pricing affect financial performance of commercial banks?

1.4 Significance of the Study

This study would be of great benefit to banking institutions in Kenya since it outlined risk factors involved in financing mortgages. The development of the bank depends on several factors of which mortgage financing plays a major role in the current banking sector. This study has ascertained the benefits of mortgage financing to banking institutions in Kenya. This would help in developing more innovative strategies of financing mortgages to enhance bank's financial performance.
The study is significant to the government in developing policy pertaining to mortgage and asset financing. Due to knowledge gained by most applicants through the study most applicants will comfortably embrace mortgage financing and this will lead to high returns to most banks and high tax return to the government. It is also significant to the researchers and scholars as it forms a background reference for future studies and contribute to the existing knowledge of literature.

1.5 Scope of the Study

The study was seeking to carry out an assessment of effects of mortgage financing by the commercial banks in Kenya. The study has assessed the effects of mortgage saving, mortgages diversification, mortgage income and economic effects on mortgage and its effects on financial performance in commercial bank which were measured in terms of return on assets. The study respondents were financial managers and credit officer in commercial banks in Kenya. This was because they are in the better position of offering the relevant information on effects of mortgage on financing on financial performance of commercial banks offering mortgage in Kenya. The choice of commercial banks was due to the fact that it is the largest mortgage financier and offer mortgage to a large market share.

1.6 Limitations of the Study

The findings on assessment of effects of mortgage funding on financial performance of commercial banks. The study findings cannot be generalised to other financial institutions such as microfinance institutions due to different financial policies governing different financial institutions.
The study was limited in seeking to assess the effects of mortgage financing on financial performance of commercial banks that offer mortgage in the market. The study would have covered more institutions which finances mortgages such as housing corporations and Microfinance institutions so as to provide a more broad based analysis but the study only focussed on commercial banks as the main profit making financial institutions in Kenya. The study was further constrained by limited financial and time resources. The researcher drew a time schedule and a budget that enabled the study to be completed using the budget drawn and within the required time of the study.

The study also encountered unwillingness by respondents’ financial managers and credit officers to reveal information, which was thought confidential. However, the researcher assured the respondents that the information they offered will be held confidentially and will be used for academic purposes only in seeking to assess the effects of mortgage financing on financial performance of commercial banks.

1.7 Assumptions

The study assumed that the respondents who were financial managers and credit officers in the commercial banks are knowledgeable on the effects of financing mortgages in commercial banks. The study also assummed that the respondents would fill the questionnaires correctly without delaying for effective data collection hence reliable data was obtained. The study further assumed that the management would allow the collection of data on effects of mortgage financing to enable the study collect sufficient data to be collected for effective assessment of effects of mortgage financing on financial performance in commercial banks.
CHAPTER TWO

REVIEW OF LITERATURE

2.1 Introduction

This chapter reviewed the past literature on the study. The theoretical and empirical review is critically reviewed. The chapter also reviewed more studies on mortgage financing in an economy. Possible factors influencing mortgage financing are also presented in this chapter.

2.1.1 Features of Mortgage

A mortgage loan is a loan secured by real property through the use of a mortgage note which evidences the existence of the loan and the encumbrance of that through the granting of a mortgage which secures the loan. However, the word mortgage alone, in everyday usage, is most often used to mean mortgage loan (Mehdian, 2001).

A home buyer or builder can obtain financing (a loan) either to purchase or secure against the property from a financial institution, such as a bank, either directly or indirectly through intermediaries. Features of mortgage loans such as the size of the loan, maturity of the loan, interest rate, method of paying off the loan, and other characteristics can vary considerably (Kluger and Miller, 2000). In many countries, though not all, it is normal for home purchases to be funded by a mortgage loan. Few individuals have enough savings or liquid funds to enable them to purchase property outright. In countries where the demand for home ownership is highest, strong domestic markets have developed.
In Kenya the institutions that lend money for real estate projects include: banks, mortgage firms, saving and loan firms, insurance companies, government parastatals, pension funds, trusts and other real investment institutions as noted by Lwali (2008). Unlike unsecured loan, mortgage finance is a secured loan whereby the mortgaged property acts as collateral by the customer as a pledge for security of the extended credit. (Copeland and Weston, 1995)

UN Habitat (1991) categorizes housing finance as governmental or parastatal housing banks, authorities or corporations who receive funds through forced taxation, payroll levies on all or some individuals or organization but may also allow individual or institutional deposits subject to approval from regulating authorities. Private housing banks are established by the private sector and their source of funds includes deposits, bonds and debentures, though they might have governmental and or external (international) funding as well (Green and Wachter, 2005).

2.2 Theoretical Literature

2.2.1 Title Theory and Lien Theory of Mortgages

Some banks retain and treat the mortgage as a title theory. Since the mortgage is said to hold a title interest, she has the right to possession under this theory. Some banks apply a lien theory. This theory only gives the mortgagee a lien interest in the property. In a title theory bank, the mortgage is treated as having transferred title to the mortgage, subject to the mortgagee’s duty to recovery if payment is made. The title is said to remain in the mortgagee until the mortgage has been satisfied and foreclosed. Although the mortgagee has the right of possession to the property, there is generally an express agreement giving
the right of possession to the mortgagor. The mortgagee is said to hold the title for security purposes only. The mortgagor is given the right of possession (Buckley and Kalarickal, 2004).

In a lien theory bank, the mortgagor retains legal and equitable title to the property, but conveys an interest that the mortgagee can only foreclose upon to satisfy the obligation of the mortgagor. This is equivalent to a future interest in the property which allows the mortgagee to use the process of foreclosure. The interest is a security interest or mortgage, which forms a lien on the property. In this theory the right to possession arises upon a default. The mortgagor has a right to sue the mortgagee for any interference with his right of possession (Buckley and Kalarickal, 2005).

For practical applications there is usually very little difference between a lien theory and a title theory. The principle difference arising in the title theory bank is that the mortgagee is given the right to possession before the foreclosure is complete. The language of the mortgage provides for possession rights being in the mortgagor up to the time of the foreclosure.

2.2.2 Innovation Theory of Mortgage Financing

Innovations are often adopted by organizations through two types of innovation-decisions: collective innovation decisions and authority innovation decisions. The collection-innovation decision occurs when the adoption of an innovation has been made by a consensus among the members of an organization. The authority-innovation decision occurs when the adoption of an innovation has been made by very few individuals with
high positions of power within an organization (Rogers, 2005). Unlike the optional innovation decision process, these innovation-decision processes only occur within an organization or hierarchical group. Within the innovation decision process in an organization there are certain individuals termed "champions" who stand behind an innovation and break through any opposition that the innovation may have caused. The champion within the diffusion of innovation theory plays a very similar role as to the champion used within the efficiency business model Six Sigma. The innovation process within an organization contains five stages that are slightly similar to the innovation-decision process that individuals undertake. These stages are: agenda-setting, matching, redefining/restructuring, clarifying, routinizing. There are both positive and negative outcomes when an individual or organization chooses to adopt a particular innovation. Rogers states that this is an area that needs further research because of the biased positive attitude that is associated with the adoption of a new innovation (Rogers, 2005). In the Diffusion of Innovation, Rogers lists three categories for consequences: desirable versus undesirable, direct versus indirect, and anticipated versus unanticipated.

The innovation adoption curve of Rogers is a model that classifies adopters of innovations into various categories, based on the idea that certain individuals are inevitably more open to adaptation than others. The concept of adopter categories is important because it shows that all innovations go through a natural, predictable, and sometimes lengthy process before becoming widely adopted within a population (Calomiris, 2001). Roger's categories include; innovators (2.5 %), early Adopters (13.5 %), early Majority (34 %), late Majority (34 %) and laggards (16 %). Rogers's adopter's
characteristics are important because a person's innovation adoption characteristic affects the rate of uptake of an innovation over time. Different adopter groups buy into innovation for different reasons and have different expectations. People who are innovators and early adopters are easier to convince to innovate. Mainstream adopters (early and late majority) who make up 64% of any population and these adopters determine whether an innovative practice is embedded. Mainstream adopters need different support structure from early adopters in terms of support, different emphasis on technology and teaching practice. Innovators may require looser and less tightly controlled conditions, while mainstream adopters may require more stability and support (Repp, 2004).

Innovators and early adopters make up only a small proportion of any population (2.5% are innovators and early adopters about 13%) and there are not enough of them to have an impact on embedding innovation in an organization. The early and late majority (called the mainstream adopters) makes up 64% of any population and these are the ones who can make the difference to whether an innovative practice is embedded in an organization. The early majority are more practical: they do think through the pros and cons of a new idea before they adopt, so they help to make it more tangible and acceptable. But if the support systems and infrastructure aren’t there, they’ll hold back on a commitment (Daphni and Ferguson, 2004).

The late majority, on the other hand, are creatures of habit and predictability. They want to know the rules, they love systems. The beautiful thing about the late majority is that when they don’t find rules or systems, they’ll start figuring them out. Laggards are very
set in their way, and will only adopt innovation when it has become mainstream i.e. standard practice in an organization (Repp, 2004).

Another important concept described by Rogers (2000) is the S-shaped adoption curve i.e. successful innovation goes through a period of slow adoption before experiencing a sudden period of rapid adoption and then a gradual leveling off (forms an S-shaped curve). Rapid expansion of most successful innovations will occur when social and technical factors combine to permit the innovation to experience dramatic growth (De Cleene and Wood, 2004).

2.3 Mortgage Financing Systems

State of Mortgage Financing is a number of housing finance systems around the world and they differ from each other in sources of fund, linkage with secondary market, mortgage products and in the role of government (Le, 2001; Stephens, 2000). The Mortgaging system of Germany and Denmark is characterized by specialized mortgage banks with mortgage bonds backed by collateral pool as the principal source of funding. Government has stringent control of the system. The UK has a depository-type housing finance system with commercial banks and savings banks as mortgage lenders. The source of fund is mainly retail deposits and the mortgage instrument is ‘variable rate mortgage’. The government insures deposits. The housing finance system of the USA is linked to the secondary mortgage market (Lea, 2001).

Banks and mortgage companies are principal lenders and mortgages are sold to investors in the secondary market as mortgage backed securities (MBS) and this constitutes the
major source of funding. Both variable and fixed rate mortgages are issued and the role of
government is to regulate securities. Another form of housing finance system is through a
directed credit system. The lender is a specialized housing lender who has a privileged
source of funding. Lenders make long-term loans and the government backs lenders and
provides funding. A direct credit system is the major component of the developing
housing finance system besides the depository system. MBS are relatively nascent in
origin in Japan. Earlier papers (Diamond and Lea 1992) have concerns with the compared
efficiency of housing finance systems across countries and their results have not been
very categorical in saying which system is best (Diamond and Lea 1992: Ch. 9). This
paper moves a step ahead in comparing efficiency of mortgage system within a particular
country. It is expected that such a comparison would present a better insight in the
housing finance system because the boundary conditions (such as macroeconomic
conditions, broad regulatory environment) for all mortgage instruments within a country
are similar (Tse, 2002).

Commercial banks, finance companies, the Government Housing Loan Corporation
(GHLC), and other public sector organizations provide housing loans in Japan. Figure 3
is a graphical illustration of the housing finance system in Japan. Both public and private
institutions finance homeownership. Among public institutions, GHLC is the largest
financier. Besides GHLC, the Pension Welfare Services Public Corporation (PWSPC)
and local government bodies also finance home purchases. Among private institutions,
commercial banks (City banks and regional banks) are major financiers for home
purchases. Specialized housing loan companies, which existed until 1995, also funded
homebuyers. These institutions mostly fund individuals and developers. The Bank of Japan regulates these financial institutions except for the GHLC, which is supervised by the Ministry of Infrastructure, Land and Transportation. Institutions other than GHLC compete in the free financial market for lending and funding, and generally use such means as expanding their branch network to get more business and gain a larger share of the market. The GHLC receives a major share of its resources from the treasury allocation of the Fiscal Investment and Loan Program of the national government. Among the financial institutions, commercial banks as a group have mobilized the greatest proportion of household savings and are currently the largest provider of housing loans (Buckley and Kalarickal, 2004).

The GHLC is the only specialized housing finance institution in the country. It is a state enterprise providing subsidized credit backed by government funding. A well-functioning housing finance system must be able to allocate enough resources for housing project development as well as for home mortgage financing. In Japan, the allocation of funds for private financial institutions is now done through market forces; that is, mortgage interest rates reflect market rates. Since housing finance from private financial institutions is completely integrated in the overall financial system, its effectiveness is closely linked to the health of the overall economic and financial sector.

The Government Mortgage Loan Corporation (GMLC) which is supervised by the government, Infrastructure and Transportation, is a special-purpose financial institution established under the Government Housing Corporation Law of 1950. Its share of housing loans outstanding for individuals has grown rapidly, from 16% in 1973 to 36% in
1995 and 37% in 2000, the highest market share for any single financial institution. A major source of funding for the GHLC is the Treasury Investment and Loan Program of Government, which is funded by postal savings, pension funds, postal life insurance, government-guaranteed bonds and an industrial investment special accounts fund. Of the total Treasury Investment and Loan Program, GHLC’s share has been around 20–25%. The GHLC also floats specialized bonds to raise finance. Loans to individuals for home purchases are offered by GHLC at a subsidized rate (the amount of interest rate subsidy has been around 200 basis points). The difference between the lending rate of GHLC to individuals and the borrowing rate from the Treasury Investment and Loan Program is subsidized through the General Account of Government. Besides lending to individuals for home purchase, GHLC also finances entrepreneurs/developers for construction of houses. However, funding to entrepreneurs is not subsidy-based. The position of GHLC in the housing finance system is very typical. It does not lend directly to the borrowers but operates through commissioned financial institutions (typically banks).

2.3.1 Factors Influencing Mortgage Financing

The rapid development of a variety of mortgage-backed securities has led to a radical transformation in mortgage sector in recent years. By integrating the mortgage market into the traditional capital markets, these securities have broadened the financial base for home mortgages. By attracting a variety of new types of investors to the mortgage market and by integrating the mortgage market into the broader, more highly developed capital markets, mortgage backed securities promise to stabilize the supply of funds to the housing sector of the economy once an early casualty in any period of credit stringency.
The changing home mortgage market. The unique financing requirements brought about by widespread homeownership have caused a continuing evolution in mortgage lending practices (Gulyani et al, 2006).

Calomiris (2001) highlights the general perception that the chartering of national mortgage intermediaries did offer large potential efficiency gains from economies of scale, where the intermediaries are able to spread the fixed costs over a larger portfolio, and to achieve superior portfolio diversification by holding a national mortgage portfolio. The Comptroller General of the US report of 1996 highlights the potential increase in interest rate by 15 to 35 basis points if the cost advantage of housing financing, since the enterprise cost is likely to be increased. This historical argument, however, cannot justify perpetuating the current home mortgage market. In fact, the argument actually supports the chartering of competitive banks nationwide where new entrants are encouraged into the market. Because economies of scale can be realized when there is competition, there is no need for any government subsidies for these institutions (Wood, 2004).

Mortgage financing has led to competition among the financing firms leading to achieving optimal efficiency and resource allocation decisions can be determined by financial responses to relative price signals. The lack of competition delays the financial firms' clients' enterprise's ability to operate efficiently, respond to market forces and compete against private sector firms. By going on to full privatization, the time and cost for setting the financial target(s) for the public enterprises will also be eliminated (Waterman, 1992). The above arguments are supported by Wallison (2002), who believes that competition among financial institutions is desirable to make the public enterprises,
like Fannie Mae and Freddie Mac, transmit some of their cost to their customers. It is therefore crucial and beneficial for financial institutions to internalize more of their own cost of risk-taking, and to adsorb losses, while reducing tax-payers' risk in case of mortgage default. He further explains that homebuyers can also take advantage of the many competitive housing loan packages offered in the private mortgage sector. Homebuyers can thus benefit from more choice in the private loan sector. Hess (2003) supports this view and states that by introducing competition in order to raise the market share for new entrants, more options can be created for homebuyers, who need to finance their housing purchases. This allows monopolies like Fannie Mae and Freddie Mac to earn profits, through any profit based on performance and on their creditworthiness rather than on legislations, government-sponsored tax and regulatory advantages that creates, in the market participants' eyes an implicit federal guarantee.

Economy theories suggest that monopolistic enterprises, as profit-maximizing entities, produce goods and or services, until marginal cost equals marginal revenue, unlike under perfect competition where production stops when price equals marginal cost. In practical terms, monopolies will often produce well below the demand, and overcharge to maximize profits. This results in an inherent efficiency loss and a misallocation of scarce resources Hess (2003). In addition, Albon (1985) also finds that monopolies like public enterprises that are expected to operate under a minimum required rate of return that is hurdle rate, often show different degrees of inefficiency. Asare and Whitehead (2006) explains that the reason for such inefficiency is that the public enterprise's performance, in the absence of market discipline, will manifest itself in both price and quantity
performances. In pricing terms, creditors demand a yield on Fannie Mae and Freddie Mac debt that approximates the risk-free rate, rather than market rate. In quantity terms, the credit support provided to Fannie Mae and Freddie Mac, and the Treasury-like characteristic of their borrowing instruments, give the two policy instruments the ability to raise funds in amounts in excess of that. Meanwhile, this is not the case with non-GSEs, which bear similar risks. Such support reduces the required yield and even if the GSEs under-perform, they will continue to have sufficient funding support from the government – thereby significantly reducing corporate competency and efficiency (Wood, 2004).

Mortgaging financing loans today make use of a variety of techniques to aid in their loan decisions. Most lenders make judgments simply based on “rules-of-thumb” derived from their personal experiences and their feel for the market. However, such ad hoc heuristics can easily generate bias and create an unrecoverable loss. It is important that an objective analytical technique be applied to the analysis of the causes and prediction of mortgage default risk. The mortgage financing lead to better analysis of risks facing mortgage loans portfolio. Dolde (2006) indicated that some mortgage loan defaults were believed to have a significant relationship with the characteristics of both mortgages and borrowers at the time of loan origination. Chinloy (1995) made significant contributions to the indirect identification of risk through the structure of mortgage interest rates. Incidentally, Ferguson (2003) argued that government-insured home mortgages were generally financed on much more liberal terms with a larger loan-to-value ratio.
Kenya’s changing mortgage climate, which according to an article in the Washington post began when Kenya’s financial laws changed, requiring banks to have less cash in reserve, Lower interest rates on treasury bonds, encouraged banks to find other ways to invest money. These days, Barclays offers interest rates around 13 percent (from a previous high of 30 %). This has made banks to venture into mortgage business in order to supplement their business income. Premier mortgage financier, Housing Finance and UN Habitat have signed a framework agreement establishing the terms for future cooperation in provision of affordable housing (UN-Habitat, 2005).

One East African bank has managed to buck the trend of lending exclusively to high income customers. With mortgages starting from as little as $6, Kenya’s Equity Bank has experienced considerable commercial success by targeting precisely those segments of the market shunned by other banks. Equity’s pre-tax profits increased from Ksh 74m in 2002 (then $0.9m) to KSh2.4bn in 2007 (then $41m). For the first nine months of 2008 alone it posted a 177 percent pre-tax profit increase to KSh4.24b ($53.66 million) (NHAZ, 2002).

Today, with 2.8m account holders, Equity claims to be home to almost half of all the bank accounts in Kenya. This success is due to what is described as a unique business model that is suitable for low income, or “bottom of the pyramid” consumers. “It is readily accessible; it is conveniently located and generally affordable for that segment. This is in the sense that the transactions have been reduced to small units that are suitable for that segment. On the back of its success, Equity has recently started operations in Uganda and South Sudan. In 2007, the bank acquired a 25 percent stake in the Kenyan
mortgage company Housing Finance, where it hopes to apply its model to affordable housing for low income consumers (Dolde, 2006).

2.4 Empirical Review

Altogether, there has been a steady increase in the supply of and demand for home mortgage finance as well as a number of new, often large, suppliers. Although Flanagan, et al (1998) in 1999 still maintained that “Italian households still opt for more liquid and, thus, less risky investments,” this conclusion would be hard to sustain today. The changes in the mortgage market resulted in lower interest rates, higher possible loan-to-value ratios, higher possible loan-to-income ratios, and longer loan periods. In particular, the higher loan-to-value ratios are important as it means that the level of down-payments required to buy a house is lower, and that has a potentially strong effect on the young, who are the most likely to need a mortgage when buying a home, but it “also shifted the burden of homeownership from large down-payment to greater mortgage payments” (Del Boca and Lusardi 2003). By 1993, when the landslide changes in mortgage market had just been initiated, mortgage instalments rose as high as 52% of family income (Villosio 1995). Since 1993, changes have had more impact, and Italian banks have also extended maturities.

De Cleene and Wood (2004) indicated that quarter to a third of households in most emerging markets can afford a mortgage to purchase the least expensive developer built unit” However, in low-income countries, where most SSA countries are located, the percentage is far lower. In Zambia for example, the maximum percentage with access based on having formal tenure alone, is around 8%. The review of post-1999 housing
finance literature found that the UN-Habitat (2005), World Bank and IMF, as well as other researchers and consultants. Merrill (2006) noted that development of mortgage finance in South Saharan African countries over the past twenty years have improved for 8 - 10%. As a factor in the economy, housing remains important (Del Boca, Daniela, Lusardi and Annamaria, (2003).

Different parties, depending, in part, on the type of mortgage originated, hold the mortgage debt outstanding (MDO). The principal types of residential mortgages loans in the USA are uninsured conventional loans, privately insured conventional loans and government insured loans. Approved private lending institutions originate government-insured loans using specific programs. These loans can be pooled into mortgage-backed securities through Ginnie Mae. All three types of loans are made on new construction, existing property and on dwellings for owner occupancy and rental (Buckley and Kalarickal. 2005).

Lenders provide funds against property to earn interest income, and generally borrow these funds themselves. The price at which the lenders borrow money therefore affects the cost of borrowing. Lenders may also, in many countries, sell the mortgage loan to other parties who are interested in receiving the stream of cash payments from the borrower, often in the form of a security (by means of a securitization (World Bank.2006). Mortgage lending will also take into account the perceived riskiness of the mortgage loan, that is, the likelihood that the funds will be repaid usually considered a function of the creditworthiness of the borrower, that if they are not repaid, the lender will be able to foreclose and recoup some or all of its original capital; and the financial,
interest rate risk and time delays that may be involved in certain circumstances (Stiglitz and Weiss 2005).

In most mortgage financing arrangements, the property that is purchased with the financing is used as collateral for the debt. For the duration of the mortgage, the lender functions as the mortgage holder on the property (Asare and Whitehead 2006). Should the owner of the mortgaged property default on the loan, the lender has the right to secure full ownership of the property and offer it for resale to another party. The traditionally role of mortgages was always a predominant form of borrowing in rural economies because land was the most important asset. Landowners borrowed against future rents to finance current consumption or the development of their estates. The traditional form of mortgage lending was a direct loan from one individual to another, both of them usually wealthy (Miller, 2000).

Kenya as a nation has embraced the capitalist system of economy where the provision of housing is left to private developers and to a smaller extends to National Housing Corporation, a government body (Mutero, 2007). Despite the good effort and policies created by the Government over the last seven years on improvement of living conditions through creation of better economic environment for investors. Alder and Mutero (2007) indicated that only a small proportion of urban households - estimated to be less than 10% have traditionally qualified for mortgage loans from HFIs, with the majority ruled out by their low incomes. Borrowers generally consist of high net worth individuals. Even with the fall in interest rates since the 1990s, and the recent extension of lending terms to 25 years by some HFIs, the impact of mortgage lending is still very limited.
The housing sector targeting low income earner has continued to perform poorly. This sector is characterized by inadequacy of affordable and decent housing units, lack of amenities, units of semi permanent nature and high tenancy turn over (Gulyani et al 2006). Millennium Development Goals (MDGs No. 7) stipulates that access to housing is fundamental right for every citizen. Housing fulfills physical needs by providing security and shelter from weather and climate. Adequate housing is essential for human survival with dignity. Without a right to housing, many other basic rights will be compromised including right to family life and privacy (shelter, 2009).

In Nairobi, with a population of around 4 million people, nearly 60% of households live in slum areas. A recent survey of these settlements showed that 73% of households live on less than a dollar a day (below the poverty line). Moreover, around 90% are tenants, forced into this type of tenure by poor access to land and, in some cases, by the deliberate choice to invest in their rural homes (Mutero, 2007).

Like many other emerging markets, Kenya has struggled to provide basic housing for poor and modest income households (Edmister and Hatfield, 2004). Estimated housing demand for urban areas is 150,000 units a year, but formal production of housing by both the public and private sectors is 200 other slum areas in and around the city. Previous governments had made almost no effort to bring sanitation and improved shelter to the slums, and corruption and land grabbing by the political elite exacerbated ineffective land policies. Optimism has increased with the advent in 2004 of the new National Housing Policy and KENSUP -the Kenya Slum Upgrading Program—which reflect a strong
commitment to improve living conditions. Kenya's formal housing market is now providing upper income 1 Source: Kenya Slum Upgrading (Mwangi, 1997).

Program, Ministry of Housing, Kenya shelter at a rapid rate. Benefiting from improved macro-economic fundamentals and a reinvigorated banking and mortgage finance sector, international banks such as Barclay's and Standard Charter have entered the mortgage market, providing vigorous competition for Kenya's restructured housing lenders such as HFCK and Savings and Loan. Kenya also has a well developed microfinance sector, including four large microfinance banks (Equity Bank, K-Rep Bank, Family Bank and Cooperative Bank) which serve the upper lend of the microfinance market, and about 50 microfinance organizations, a number of which are quite large. The microfinance banks and MFIs had $225 million in outstanding loans, 3 million savers, and 500,000 borrowers at the beginning of 2006. As one example, the Kenya Women's Financial Trust, the largest MFI in Kenya, has a loan portfolio of over $32 million. Kenya's commercial banks movement, with 3000 active societies, is the largest in Africa, with outstanding loans of $1.15 billion. With a few exceptions, however, the microfinance sector has not addressed the gap in financing low income shelter. Housing lending has not gone very far downmarket, and the majority of Kenyans, especially the very poor still lack access to formal financial services (Alder and Mutero, 2007).

Government has estimated a housing need of 150,000 dwellings per year in Kenya's urban areas. Government further estimates that formal production by the public and private sectors is not more than 30,000 units per year and concludes that the annual deficit of more than 120,000 housing units is met by slum housing. The demand for urban
housing in Kenya is severely constrained by low incomes relative to housing costs, and the limited financing options available to most households. Slums in Mombasa, the second largest town, are also characterized by high levels of poverty, and renting is the predominant tenure. In the other principal towns the poorest people typically live as tenants in slums except in Kisumu, the third largest town, where the degree of owner-occupation is relatively high (Mwangi, 1997).

There are no readily available data on the distribution of household income in urban areas, the localities where housing markets are typically found, making it difficult to determine what types of housing are affordable. But income data from the Nairobi slums survey referred to above allow a limited analysis of affordability. The median household income of the non-poor in these slums was just over Ksh 10,000 (USD 125) in 2004. Households earning this income can afford a dwelling costing Ksh 175,000 (USD 2,600), equivalent to two rooms built of permanent materials ((Goebel and Ma, 2003).  

It must be the case that overcrowding in the existing formal housing stock also helps meet the housing shortage. Gulyani et al. (2006), using an expenditure-based poverty line, defined as an expenditure of Ksh 3,174 (US$42) per adult equivalent per month, excluding rent, find that about 73 percent of the slum households in Nairobi are “poor” and 27 percent are “non-poor.” A large part of the land in Kisumu’s slums was at one time owned communally, held in trust by the municipal council. Later, this land was adjudicated and demarcated, and freehold titles issued (Wijkander, 2000).

Affordability should take future income into account, especially income from subletting Gulyani et al. (2006). Households would be prepared to pay more for housing was the
options to purchase to be offered. But given the very low incomes of the majority of slum dwellers, the bulk of which is spent on food, it is impossible for such households to afford conventional dwellings if only current income is considered. Ferguson, (2003) has demonstrated that where a strong subletting market exists, for instance in Nairobi, even households with virtually no income can afford a housing loan, serviced from subletting income (Murugu, 2003).

Housing demand in low-income markets should therefore take into account, not just current income, but future income from subletting. Where other income generating activities are integrated into housing programmes, still more income would be available to service housing loans. That said, it does not appear as if any lenders have responded to this, suggesting an area for future growth. As in most developing countries, only a small proportion of urban households – probably not more than 10% have traditionally qualified for mortgage loans from HFIs, with the majority ruled out by their low incomes. Banks typically do not offer mortgage loans smaller than Ksh 500,000 (USD 7,500) and borrowers generally consist of high net worth individuals. Even with the fall in interest rates since the 1990s, and the recent extension of lending terms to 25 years by some HFIs, access to mortgage loans is still very limited, although it has improved (Ndirangu, 2004)

2.5 Mortgage Financing and Financial Performance

Linbo Fan (2004) examined efficiency versus risk in large domestic USA banks. He found that profit efficiency is sensitive to credit risk and insolvency risk but not to
liquidity risk or to the mix of loan products. Ho Hahm (2004) conducted an empirical study on interest rate and exchange rate exposures of institutions in pre-crisis Korea. Results indicated that Korean commercial banks and merchant banking corporations had been significantly exposed to both interest rate and exchange rate risks, and that the subsequent profitability of banks institutions was significantly associated with the degree of pre-crisis exposure. The results also indicated that the Korean case highlights the importance of upgrading financial supervision and credit risk management practices as a precondition for successful financial liberalization (Hancock and Wilcox, 2006).

Credit Risk management dictates that as long as the demand for liquidity from depositors and borrowers is not too highly correlated, the intermediary should pool these two classes of customers together to conserve on its need to hold costly liquid assets the buffer against unexpected deposit withdrawals and loan take downs. Liquidity risk management is entering a new and much more demanding era. The Basel Committee on Banking Supervision and the International Institute of Finance has set high hurdles in terms of principles and recommendations. The UK Financial Services Authority (FSA), meanwhile, will soon be publishing its proposals for reinvigorating its liquidity risk regulations (Erbas Vand Walley, 2005).

2.5.1 Core Saving
Funding growth through core saving has become largely a thing of the past. The advent of nonbank competition and the rise of third-party funding mean that community banks now operate in a dynamic funding market, which requires the use of more sophisticated liquidity risk management practices. Industry experts point to many different underlying
causes for the demise of growth in deposits, such as the increased financial sophistication of the public, demographic shifts, the rise of nonbank competitors offering a whole wave of alternative investment products, new delivery systems such as the Internet, and competition from credit unions and insurance companies (Michael, 2004).

The commercial banks had developed strategies of raising long term funds from the capital markets. However, another way of extending the funding base of lenders is by lengthening the term of deposits. A traditional way of doing this in established mortgage markets has been by creating savings groups with the purpose of building houses or developing savings products designed specifically for housing (Immergluck, 2009).

The Kenyan market has some schemes already, most notably that offered by Housing Finance. The scheme called 1stHop is targeted at first time home buyers. The product allows savings for as long as 10 years. It is an open scheme without restrictions as long as the saver has not owned a property before. It is generally aimed at younger home buyers with regular income and a regular savings capacity. Up to Ksh4,000 a month can be put in the scheme and is tax exempt. Savings can accumulate up to Ksh 3 million with the interest earned being tax free. There is a minimum monthly contribution of Ksh 1,000. (Murugu, 2003)

The Income Tax Law makes specific provisions for a Home Ownership Savings Plan (HOSP). There are few limitations on how the scheme can function, but the main points are that interest earned on the savings is tax exempt and the amount saved is tax deductible. This represents a significant benefit, although it is only permissible up to Ksh
4,000 a month or equivalent to about USD 600 annually. Any withdrawals from the scheme need to be used for housing purchase or construction with 12 months of the withdrawal (Ho Hahm, 2004).

Given that the minimum deposit necessary to purchase a property is in the region of Ksh 1 million, it would take 250 monthly payments to save this much or just over 20 years. Extending the tax benefit could allow for a more rapid accrual of the necessary deposit and, whilst it is being accumulated, it provides lenders with an increased pool of long term deposits. If this is then complemented with further funds from demand deposits and capital market funding, Treasury departments of lenders have a good funding mix for managing their assets and liabilities.

### 2.5.2 Diversification of Portfolio

Banks that offer mortgage loans hold diversified portfolios of mortgage loans and therefore spreading risks in a manner that would be impossible if individuals were making mortgage loans directly. Since commercial banks are large in size and number they gain in economies of scale. They also have more expertise in analyzing credit, setting up loans, and making collections than individuals; thus reducing costs of processing loans and subsequently increasing the availability of real estate loans. Mortgage financing requires borrowers to put in some savings to finance part of the cost of property by making a down payment. Debt in total housing finance in Japan is around 60–70%. Housing finance systems struggle to create instruments that will efficiently finance the purchase of owner-occupied housing. Design of mortgages depends on the
nature of the housing system, the allocation of risk and the economic and institutional
factors in a country (The World Bank, 2004).

Positively, the level of NPLs has been relatively low indicating prudent mortgage
diversification evaluations by the commercial banks but could be masked by the
increasing portfolio of outstanding loans. The rapidly rising property prices mean that it
is more likely that an agreed sale will be reached if a borrower has repayment problems,
rather than risk losing money by going through the forced sale process. This means that
any payment difficulties are likely to be rapidly resolved. The majority of NPLs reflect
legacy issues, largely concentrated in a small number of banks, which are gradually being
written off. Compared to the number of outstanding loans, the number of NPLs has been
decreasing and is close to half its 2006 level.

A potential way of dealing with this and improving affordability is to introduce a product
such as a Graduated Payment Mortgage (GPM). This is a mortgage product where in the
initial period of the loan, the monthly payments rise on an annual basis. This means that
the repayment burden is spread more evenly over the lifetime of the loans and can help
improve affordability in the initial years by allowing for a larger loan. The firm’s choice
to diversify is undertaken when the benefits of diversification overcome its costs, aid the
firm stay focused when the opposite occurs. On the one hand, some theoretical arguments
points to diversification as a value-increasing strategy for the firm. For instance, Fluck
and Lynch (1999) argue that diversification permits marginally profitable projects, which
cannot get financed as stand alone units, to be financed. Matsusaka (2001) shows that the
banks chooses to diversify through mortgages when the gains from searching for a better bank fit outweigh the costs of reduced specialization.

2.5.3 Increased Income

Incomes are growing and people feel a lot more confident to take on loans to buy their homes. Changing peoples’ perception of debt and consumer borrowing in Kenya is an important step in homeownership. Some Kenyans perceive debt as a negative thing because they don’t understand the products (Hancock and Wilcox, 2006). Personal finance has the potential to transform Kenyan society. It is still in its infancy but there is no doubt about it (Immergluck, 2009).

Kenya’s nascent personal finance markets are being fuelled by the sustained economic growth that underpins the development of the rest of the banking sector. High commodity prices, relative political stability and economic reform in the Kenya have seen average annual growth rates in excess of 6 percent, and the International Monetary Fund expects Kenya to grow at an average rate of 6.4 percent in 2008 (McLeod, 2002). Economic success has manifested itself in the emergence of a middle class and increasing numbers of educated professionals from the diaspora returning to the continent. As more people enter the formal economy, the market for personal finance is seeing ever greater demand (Linbo, 2004).

When a bank has a borrower, he stays with the bank for a couple of years. That allows the bank to not just give a housing loan but to sell life insurance, a current account and other savings products. According to Roy (2003), mortgage lending in Ghana increased from
$2.4m in 2002 to $44.1m in June 2008, and there are signs that the customer base is widening. Since its inception in 2006, Ghana Home Loan’s average loan cost has dropped from $150,000 to $35,000. Yet even at these prices, mortgages remain out of reach for much of the country’s population. A $35,000 home loan is still around 35 times Ghana’s average household income.

One East African bank has managed to buck the trend of lending exclusively to high income customers. With mortgages starting from as little as $6, Kenya’s Equity Bank has experienced considerable commercial success by targeting precisely those segments of the market shunned by other banks. Equity’s pre-tax profits increased from Ksh 74m in 2002 (then $0.9m) to KSh2.4bn in 2007 (then $41m). For the first nine months of 2008 alone it posted a 177 percent pre-tax profit increase to KSh4.24b ($53.66 million) (NHAZ, 2002).

Today, with 2.8m account holders, Equity claims to be home to almost half of all the bank accounts in Kenya. This success is due to what is described as a unique business model that is suitable for low income, or “bottom of the pyramid” consumers. “It is readily accessible; it is conveniently located and generally affordable for that segment. This is in the sense that the transactions have been reduced to small units that are suitable for that segment. On the back of its success, Equity has recently started operations in Uganda and South Sudan. In 2007, the bank acquired a 25 percent stake in the Kenyan mortgage company Housing Finance, where it hopes to apply its model to affordable housing for low income consumers (Dolde, 2006).
2.5.4 Economic Growth

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Financial reform emphasizes the abolition of interest rate and credit ceilings and the promotion of a competitive environment with reduced government control and ownership. Although achieving competitiveness does not imply nonexistence of an interest rate spread, Ho and Saunders (1981) note that the size of the spread is much higher in a non-competitive market, which also calls for strengthening the regulatory and legal framework to enhance the stability of the market. Caprio (1996) notes that a weak legal system, where the courts are not oriented toward prompt enforcement of contracts and property rights are ill defined, increases credit riskiness and banks have no incentive to charge lower rates.

Mortgaging financing loans today make use of a variety of techniques to aid in their loan decisions. Most lenders make judgments simply based on rules-of-thumb derived from their personal experiences and their feel for the market. However, such ad hoc heuristics
can easily generate bias and create an unrecoverable loss. It is important that an objective analytical technique be applied to the analysis of the causes and prediction of mortgage default risk. The mortgage financing lead to better analysis of risks facing mortgage loans portfolio. Dolde (2006) indicated that some mortgage loan defaults were believed to have a significant relationship with the characteristics of both mortgages and borrowers at the time of loan origination. Chinloy (1995) made significant contributions to the indirect identification of risk through the structure of mortgage interest rates (Ferguson, 2003). The standard mortgage product in Kenya is a discretionary variable rate fixed maturity amortizing loan. This is the standard product used in the United Kingdom and has been copied in many countries influenced by the UK system. However, it is not necessarily an ideal product especially under the stress conditions of high inflation.

2.6 Critical Review

Mortgage loans are secured by the real property, and provide a schedule of payments of interest and repayment of the principal to a bank. Most mortgage contracts arrange for loans to be fully amortized with adjustable mortgage interest rates and either payment or maturity is fixed for the term of the loan. As it is the case with most types of loans, mortgage financing involves the full repayment of the amount borrowed to acquire the property, plus applicable interest that is applied according to terms outlined in the mortgage agreement. The interest rate may be fixed, meaning it remains the same for the duration of the contract. However, it is also possible to obtain mortgage financing that carries a variable rate of interest. This allows the homeowner to take advantage of any
decreases in property interest rates that may take place during the life of the mortgage (Hancock and Wilcox 2006). Mwangi (2006) noted that cost of funds determination mortgage facilities is influenced by factors such as inflation rate, inter-bank funds rate; creditworthiness of risk of the borrower; saving rate; maturity period; CRR for banks; liquidity ratio; minimum discount rate; growth of bank credit to the economy; growth of money supply, the rate of economic growth; loan-deposit ratio of banks and overhead cost.

Avery, et al (2006) indicated that low interest rate schemes in commercial banks made positive impact on the credit growth of mortgage finance loans from loan takeovers from existing lenders. Over a longer term, the growth rates of banks was linked to mortgage firms ability to match services to the need of the customers and generate adequate risk-adjusted returns, besides being influenced by the overall growth in the mortgage finance market. The home mortgage market has grown rapidly in the past decade. The home mortgage debt as percentage of GDP has increased from 40-50% in 1990s to more than 70% in 2003 and 2004 (Green and Wachter 2005). The growth is largely attributable to the homeownership encouragement policy that the government adopted. Several programs were established to foster mortgage lending, construction and encourage homeownership. These programs include the Government National Mortgage Association, the Federal National Mortgage Association (known as Fannie Mae) and the Federal Home Loan Mortgage Corporation known as Freddie Mac (Petersen and Rajan 2002). As a result of readily available funding for home mortgages, denial rate for conventional home purchase loans in 2002 and 2003 decreased to 14%, half of the denial
Other than the government policies, the innovation in the home mortgage market also helped the growth of the home mortgage lending. Many mortgage products were introduced to the market, such as Adjustment Rate Mortgage (ARM), balloon loans, interest-only loans, piggy back loans (Goebel and Ma 2003).

2.7 Summary

Commercial banks that offer mortgage loans hold diversified portfolios of mortgage loans and therefore spreading risks in a manner that would be impossible if individuals were making mortgage loans directly. Since mortgage companies are large in size and number they gain in economies of scale. They also have more expertise in analysing credit, setting up loans, and making collections than individuals; thus reducing costs of processing loans and subsequently increasing the availability of real estate loans. Mortgage financing requires borrowers to put in some savings to finance part of the cost of property by making a down payment. Design of mortgages depends on the nature of the housing system, the allocation of risk and the economic and institutional factors in a country (Michael, 2004).

The housing finance market has become more competitive as new providers have been encouraged to enter the market. Such providers have been seeking new customers to extend their activities. Therefore, the extension of mortgage services is a commercial response to market conditions. The commercial banks have been looking for the market to address housing needs (Arimah, 2000).
In the developed world, mortgage lending is at an all-time high. The aim has been to encourage increased homeownership. This has meant that in countries like Australia and the United States, the percentage of owner-occupiers with mortgages is 45 per cent and 63 per cent respectively. In the US, homeownership has become a significant measurement of economic health. Commercial banks point to many different factors influencing growth of mortgage, such as the increased financial investment (Mutero, 2007).

2.8 Conceptual Framework

Conceptual framework is a schematic presentation which identifies the variables that when put together explain the issue of concern. The conceptual framework is therefore the set of broad ideas used to explain the relationship between the independent variables (factors) and the dependent variables (outcome). Conceptual framework provides the link between the research title, the objectives, the study methodology and the literature review (Coulthard, 2004). This study adopted some concepts generated by mortgage financing theories and models and conceptualized them in framework explaining the relationship between (the independent variables-factors) such as increased saving, diversification, economic growth on mortgage financing and how they affect mortgage financing by the commercial banks shown in the schematic figure 2.1 below.
Commercial banks play an essential role in mortgage sector as a viable component. In Kenya, they finance mortgages to improve on financial performance. For the purpose of this study, financial performance of the commercial banks financing mortgage was measured using profitability ratio Return On assets (ROA). It was calculated as a percentage of after tax profit to total assets. Factors influencing funding of mortgage assets are quantified and measured against total bank Asset, to establish influence of mortgage financing on financial performance of the commercial banks. The return on assets (ROA) is a financial ratio used to measure the relationship of bank’s profits or earnings and the total mortgage assets. This measure assessed the profitability performance of total assets, and could be treated as a measure of financial performance in this study. Return on Assets contains two elements, efficiency that is total assets turnover, and effectiveness that is profit margin. ROA is reflecting the bank management ability to
generate profits by financing mortgages and reveals the earning capacity of profit by commercial banks on its total assets which are employed in the mortgage financing.
CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter described the methods that were used in the collection of data pertinent in answering the research question. It was divided into research design, study population, sample size sampling design, data collection and data analysis methods.

3.2 Research Design

The study adopted descriptive research design for it portrays an accurate profile of situations (Cooper and Schindler 2008). This was designed to describe the characteristics of a particular phenomenon in a situation. It was used to obtain information concerning the current status of the industry, to survey what exists with respect to the conditions in a situation. The design helped the study in obtaining information concerning the current status of the effects of mortgage financing on the financial performance of the commercial banks.

3.3 Target Population

Target population is the specific population about which information is desired. The population of this study was 44 commercial banks in Kenya where the financial managers and credit officers were the respondents (CBK, 2011). The study was a census. The respondents of the study were the financial managers and credit manager from all the banks making a total of 88 respondents.
3.4 Research Instruments

The primary data for this study was collected using the questionnaires and complemented by desk research hence ensuring that detailed and relevant information on the subject of study was collected. Questionnaires were used in collecting data and consisted of a mixture of open ended and close ended questions and according to Polit, and Beck (2003), this allowed for intensity and richness of individual perceptions in respondents' responses. The study used questionnaires because they are flexible and facilitated the capture of in-depth knowledge of the respondents, promoted respondent co-operation and allowed the respondents to probe further for clarification of issues (Patton, 2002). As a method of data collection questionnaires were appropriate because they were easy to analyze, and were cost effective (Streubert and Carpenter, 2003).

3.5 Data Collection Procedure

The study used primary and secondary data. Primary data was obtained through self-administered questionnaires with closed and open-ended questions. The researcher selected the questionnaires since they were the most appropriate tool to gather information that can determine the effects of mortgage financing in commercial bank in Kenya and to ascertain the benefits of mortgage financing to Commercial bank. The questionnaires included structured and unstructured questions and were administered to the respondents who were financial managers and credit managers. The closed ended questions enabled the researcher to collect quantitative data while open-ended questions enabled the researcher to collect qualitative data. Secondary data was collected from banks records, books and central bank of Kenya.
3.6 Validity and Reliability of Instruments

Validity is the degree to which results obtained from the analysis of the data actually represent the phenomena under study (Mugenda, 1999). External validity which has to do with the representation of the sample with regard to the target population was done on pilot study in five commercial banks mortgage managers who were used in the pilot study.

The validity of data collected was made through collecting data from the relevant respondents credit and financial managers having been permitted by the University and the management of commercial banks in Kenya.

Reliability is used to focus on the degree to which empirical indicators or measures are consistent across two or more attempts (Mugenda and Mugenda, 2003). The researcher used the test-retest method whereby questionnaires were administered twice to the same group of commercial mortgage banks financial managers and credit managers. A time lapse of two weeks was allowed before the questionnaires were administered again. A comparison between the two sets was made using Pearson’s correlation co-efficient to determine the reliability of the questionnaires.

3.7 Data Analysis and Presentation

The collected data was thoroughly examined and checked for completeness and comprehensibility. The data was then summarized, coded and tabulated. Descriptive statistics such as means, standard deviation and frequency distribution were used to analyze the data. Data was coded and entered into the Statistical Package for Social Sciences (SPSS 17) for analysis. SPSS was used to perform the analysis as it aids in
organizing and summarizing the data by the use of descriptive statistics such as tables. Data presentation was done by the use of pie charts, bar charts and graphs, percentages and frequency tables. Inferential statistics regression was done to establish the relationship between mortgage financing and financial performance of commercial banks in Kenya. Performance of mortgage financing banks was return on asset as a measure of financial performance. To be able to establish the effects of mortgage financing on financial performance of commercial banks in Kenya the model below was used.

The logistic regression used in this model was:

\[ Y = \alpha + \beta_1 X_1 + \beta_1 X_2 + \beta_1 X_3 + \beta_1 X_4 + \epsilon \]

Where

\( Y = \) Firms Performance
\( \alpha = \) Constant Term
\( \beta_1 = \) Beta Coefficients
\( X_1 = \) Core Saving
\( X_2 = \) Diversification of Portfolio
\( X_3 = \) Increased Income
\( X_4 = \) Economic Growth
\( \epsilon = \) Error Term

Financial performance was measured in terms of increases in return on assets. ROA gives an idea as to how efficient management is at using its assets to generate earnings. Calculated by dividing a bank's annual earnings by its total assets, ROA was
displayed as a percentage. Using ROA as a comparative measure is best to compare it against a bank's previous ROA numbers or the ROA of a similar company.

3.8 Expected Output

The study expected to establish effects of mortgage financing on financial performance of commercial banks and the extent to which mortgage financing influences return on assets in commercial banks in Kenya.
CHAPTER FOUR
DATA ANALYSIS AND INTERPRETATION OF FINDINGS

4.1 Introduction

This chapter discusses the interpretations and presentations of the findings. The general objectives of this study was to establish the effects of mortgage financing on financial performance of commercial banks in Kenya. This chapter focussed on data analysis, interpretation and presentation.

4.1.1 Response rate

From the study, the study population was 88 respondents who were the financial managers and credit manager from all the 44 commercial banks in Kenya. 75 respondents filled and returned the questionnaires. This constituted 85.22% response rate. Mugenda and Mugenda (2003) indicated a respondent rate of 50%, 60% or 70% as sufficient for a study and therefore a respondent rate of 85.2% for this study was very good.

4.1.2 Reliability Statistics

Table 4.1 Reliability Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach’s</th>
<th>No of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Saving</td>
<td>0.8930</td>
<td>75</td>
</tr>
<tr>
<td>Diversification of Portfolio</td>
<td>0.7862</td>
<td>75</td>
</tr>
<tr>
<td>Increased Income</td>
<td>0.9001</td>
<td>75</td>
</tr>
<tr>
<td>Economic Growth</td>
<td>0.7642</td>
<td>75</td>
</tr>
<tr>
<td>Total</td>
<td>0.8813</td>
<td>75</td>
</tr>
</tbody>
</table>

Source: Author (2012)
The Table 4.1 illustrates the findings of the study concerning the reliability analysis. In this study, reliability was ensured by piloted questionnaire with a selected sample from commercial banks’ employees who were financial managers and credit officers and were not included in the actual data collection. From the findings, the reliability coefficient for cost saving was 0.8930 indicating that the items in the questionnaire on cost saving collected reliable data as 0.8930 was close to 1. The coefficient correlation on diversification of portfolio as a factor influencing mortgage financing was 0.7862, that of need to increase income for the bank was 0.9001 while economic growth had coefficient correlation of 0.7642. This implied that the questionnaire collected reliable data. The coefficient of all variable was 0.8813 approximately 0.88 was closer to 1 making the instrument very reliable.

4.2 General Information

Figure 4.1 Gender of the Respondents

Gender of the Respondents

- 34% Male
- 66% Female

Source: Author (2012)
The study sought to know the gender of the respondents. From the findings, majority 66% of the respondents were male while 34% of the respondents were female. This implies that information was collected from both men and women.

### Table 4.2 Respondents Age Bracket

<table>
<thead>
<tr>
<th>Age Bracket</th>
<th>Frequency</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>26-30 years</td>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td>31-35 years</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>20-25 years of age</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>36-40 years</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Above 40 years</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Author (2012)

The table 4.2 indicated the findings on respondent age. From the findings, it was found out that most 40% of the respondents indicated that they were aged between 26-30 years, 20% were aged between 31-35 years of age, 18% of the respondents were aged between 20-25 years, 13% were aged between 36-40 years while 9% of the respondents indicated that they were above 40 years of age. This implied that the commercial banks in Kenya employees were of age and therefore the data given validated.
Respondent's Highest Level of Education

Figure 4.2 Respondent's Highest Level of Education

Source: Author (2012)

This study sought to investigate the highest level of education attained by the respondents. From the findings, majority 52% of the respondents indicated that they had attained degree highest level of education and 39% of the respondents had attained diploma level of education. The study found that 9% of the respondents had attained postgraduate level of education. This implied that commercial banks employed qualified and competent employees who could understand the effects of mortgage financing on commercial bank financial performance.

Table 4.3 Working Period

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-7 years</td>
<td>32</td>
</tr>
<tr>
<td>8-10 years</td>
<td>23</td>
</tr>
<tr>
<td>1-3 years</td>
<td>10</td>
</tr>
<tr>
<td>Less than one year</td>
<td>7</td>
</tr>
<tr>
<td>Above 10yrs</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
</tr>
</tbody>
</table>
The study requested the respondents to indicate the working period in years that they had been working in the commercial bank as indicated in the table 4.3. From the findings, most 42% of the respondents indicated that they had been working in the commercial bank for 3 to 7 years, 30% of the respondents indicated that they had been working in their commercial banks for 8 to 10 years while 14% of the respondents indicated that they had been working in the banks for 1 to 3 years. The study also found that 10% of the respondents had been working in the bank for less than one year while 4% of the respondents indicated they had been working in the bank for more than 10 years. This implied that the majority of the respondents had worked in the commercial banks for a long period and were in a position of offering information on how mortgage financing influence the financial performance in commercial banks.

4.3 Market Factors Leading to Mortgage Financing Adoption

Table 4.4 Types of Mortgage Bank Offer

<table>
<thead>
<tr>
<th>Types of Mortgage Bank Offer</th>
<th>Frequency</th>
<th>Percentages of yes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Interest – Only Fixed Rate Mortgage</td>
<td>59</td>
<td>16</td>
</tr>
<tr>
<td>Graduated Payment Mortgage Loan</td>
<td>55</td>
<td>20</td>
</tr>
<tr>
<td>Adjustable Rate Mortgage Loan</td>
<td>61</td>
<td>14</td>
</tr>
<tr>
<td>Negative Amortization Mortgage</td>
<td>50</td>
<td>25</td>
</tr>
</tbody>
</table>

Source: Author (2012)
The study sought to know the types of mortgage the bank offers. From the findings, majority 81% of the respondents indicated that the banks offered adjustable rate mortgage loan, 79% indicated that their banks offered interest-only fixed rate mortgages, 73% respondents indicated that banks offered graduated payment mortgage loan while 66% of the respondent indicated that the bank they were working for offered negative Amortization mortgage respectively. This clearly incated that the commercial banks mostly offers either Adjust rate Mortgage Loan or Interest only fixed rate Mortgage.

Figure 4.3 Extent to Which Bank Emphasize on Mortgage Financing

The Figure 4.3 indicates the extent to which commercial banks emphasises on mortgage financing. From the findings, majority 78% of the respondents indicated that commercial banks emphasises on mortgage financing to a very great extent while 22% of the
respondents indicated that commercial banks emphasises on mortgage financing to a great extent. This implies that banks emphasises more on the mortgages and investing more on mortgage investment to increase financial performance.

Influence of Market Factors Influence Bank to Adoption of Mortgage Financing

Table 4.5 Extent to Which the Given Factors Influence Bank to Adoption of Mortgage Financing

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>St dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Penetration</td>
<td>4.43</td>
<td>0.53</td>
</tr>
<tr>
<td>Cross selling potential</td>
<td>4.11</td>
<td>0.57</td>
</tr>
<tr>
<td>Competition from other banks</td>
<td>4.38</td>
<td>0.33</td>
</tr>
<tr>
<td>Relative political stability</td>
<td>3.86</td>
<td>0.77</td>
</tr>
<tr>
<td>Economic reform in the kenya</td>
<td>4.33</td>
<td>0.49</td>
</tr>
<tr>
<td>Market liberalization</td>
<td>4.70</td>
<td>0.87</td>
</tr>
<tr>
<td>Improving profitability of the bank</td>
<td>4.71</td>
<td>0.67</td>
</tr>
<tr>
<td>To improve risk management</td>
<td>4.00</td>
<td>0.75</td>
</tr>
<tr>
<td>Diversification of investment</td>
<td>4.77</td>
<td>0.56</td>
</tr>
<tr>
<td>Promote innovation mortgage financing</td>
<td>4.06</td>
<td>0.59</td>
</tr>
<tr>
<td>Attract more customers</td>
<td>4.03</td>
<td>0.69</td>
</tr>
<tr>
<td>Encounter competitions in the market</td>
<td>3.37</td>
<td>0.54</td>
</tr>
<tr>
<td>Increase investment</td>
<td>4.85</td>
<td>0.37</td>
</tr>
<tr>
<td>Improve saving</td>
<td>4.51</td>
<td>0.45</td>
</tr>
<tr>
<td>Provides a means of managing risk</td>
<td>3.43</td>
<td>0.46</td>
</tr>
<tr>
<td>Creating of wealth</td>
<td>4.49</td>
<td>0.43</td>
</tr>
</tbody>
</table>

Source: Author (2012)

The study sought the extent to which the market factors influenced adoption of Mortgage financing by commercial banks. From the finding, majority of the respondents indicated that increased investment, diversification of portfolio, improving profitability of the
banks, market liberalization and improving of savings influenced adoption of mortgage financing by banks to a very great extent as indicated by a mean of 4.85, 4.77, 4.71, 4.70 and 4.51 respectively. The study also found that creating of wealth, need for market penetration, high competition from other banks and economic reforms influenced commercial banks adopting mortgage financing to a great extent as indicated by a mean of 4.49, 4.43, 4.38 and 4.33 respectively. The study further found that cross selling potential, need to improve risk management, attraction of more customers, innovation mortgage financing and relative political stability influenced adoption of mortgage financing to a great extent as indicated by a mean of 4.11, 4.06, 4.03, 4.00 and 3.86 respectively. The study further found that managing risk and encountering competitions in the market influence adoption of mortgage financing in commercial banks to a moderately extent as indicated by a mean of 3.43 and 3.37. This clearly revealed that the need to increased investment, diversification of portfolio, need to improve bank’s profitability, market liberalization and improving of bank’s savings greatly influence commercial banks towards offering mortgages. These were indicated as the major factor that influence banks financing mortgages in the markets with an objective of improving bank financial performance. The findings concurred with Ndirangu (2004) found that adoptions of different types of mortgages influence financial performance of mortgage institutions.

Other Market Factor Influencing Banks to Adopt Mortgage Financing

The respondents were requested to indicate other market factors that influenced mortgage financing adoption by the commercial banks. From the finding, 51% of the
respondents indicated that the need to manage high risk facing banks influenced bank offering of mortgages while 63% of the respondents indicated that emergence of new mortgage designs in the market motivated banks financing mortgages. The study further found that 43% of the respondents indicated that introduction of dynamic mortgage structures in the market targeting a specific income level customer also yet another factor that influenced banks to finance mortgages.

Table 4.6 Effects of Mortgage Financing

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortgage financing reliably provide housing to Kenyans</td>
<td>4.80</td>
<td>0.89</td>
</tr>
<tr>
<td>Mortgage financing provide mechanism of aggregating funds through financial intermediation</td>
<td>4.30</td>
<td>0.30</td>
</tr>
<tr>
<td>Mortgage financing encourage bank customers to save</td>
<td>4.46</td>
<td>0.58</td>
</tr>
</tbody>
</table>

Source: Author (2012)

The respondents were requested to indicate the extent to which they agreed with the given statement concerning mortgage financing as indicated in the Table 4.6. From the findings, majority of the respondents indicated that mortgage financing reliably provided housing for Kenyans to a very great extent as indicated by a mean of 4.80 with standard deviation of 0.89. The other effects of mortgage financing was encouraging bank customers to save as well as providing mechanism of aggregating funds through financial intermediation to a great extent as indicated by a mean of 4.46 and 4.30 with standard deviation of 0.58 and 0.30.
Table 4.7 Extent to Which Market Factors Affect Mortgage Commercial Banks

<table>
<thead>
<tr>
<th>Market Factor</th>
<th>Mean</th>
<th>Std deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effects of mortgage financing on financial performance</td>
<td>4.53</td>
<td>0.55</td>
</tr>
<tr>
<td>Core saving</td>
<td>4.29</td>
<td>0.44</td>
</tr>
<tr>
<td>Diversification of portfolio</td>
<td>4.84</td>
<td>0.79</td>
</tr>
<tr>
<td>Increased Income</td>
<td>4.77</td>
<td>0.61</td>
</tr>
<tr>
<td>Economic Growth</td>
<td>4.82</td>
<td>0.68</td>
</tr>
</tbody>
</table>

Source: Author (2012)

The Table 4.7 indicates the responses of the respondents on the extent to which they agreed that the given markets factors influence mortgage financing by commercial banks. From the finding, majority of the respondents strongly agreed that diversification of portfolio, economic growth, increased income and effects of mortgage financing on financial performance influence mortgage financing in commercial banks as indicated by a mean 4.84, 4.82, 4.77 and 4.53 supported by a standard deviation of 0.79, 0.68, 0.61 and 0.55. The study further found that most of the respondents agreed that the core saving influence mortgage financing in commercial banks as indicated by a mean of 4.29 supported by a standard deviation of 0.44.
## Extent to Which Mortgage Influence Financial Performance

### Table 4.8 Extent to Which the Given Effects of Mortgage Influence Financial Performance

<table>
<thead>
<tr>
<th>Effect</th>
<th>Mean</th>
<th>Std. dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Conditions</td>
<td>4.82</td>
<td>0.75</td>
</tr>
<tr>
<td>Credit risk premium due to various risks, including interest risk,</td>
<td>4.17</td>
<td>0.35</td>
</tr>
<tr>
<td>credit risk, foreign exchange risk and legal risk, as a result of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>uncertainty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquidity premium or Excess Liquidity in the Inter-Bank Market</td>
<td>4.73</td>
<td>0.61</td>
</tr>
<tr>
<td>Competition leading to Interbank rate</td>
<td>4.63</td>
<td>0.66</td>
</tr>
<tr>
<td>Overnight facility rate</td>
<td>4.81</td>
<td>0.74</td>
</tr>
<tr>
<td>Policy rate that is linked to the Open Market Operations</td>
<td>4.07</td>
<td>0.26</td>
</tr>
<tr>
<td>Profitability</td>
<td>4.30</td>
<td>0.46</td>
</tr>
<tr>
<td>Demand and supply</td>
<td>4.89</td>
<td>0.88</td>
</tr>
<tr>
<td>Return on Asset</td>
<td>4.44</td>
<td>0.54</td>
</tr>
<tr>
<td>Market expectations</td>
<td>4.21</td>
<td>0.34</td>
</tr>
</tbody>
</table>

Source: Author (2012)

The table 4.8 indicates the extent to which effects of mortgage influence on financial performance of commercial Banks. From the finding, majority of the respondents indicated that Demand and supply, market conditions, overnight facility rate, liquidity premium or Excess Liquidity in the Inter-Bank Market, and competition leading to Interbank rate influence on Financial performance of commercial banks to a very great extent as indicated by a mean of 4.89, 4.82, 4.81, 4.73 and 4.63 with standard deviation 61.
of 0.88, 0.75, 0.74, 0.61 and 0.66. Respondents indicated that return on asset, profitability, market expectations, credit risk premium due to various risks, including interest risk, credit risk, foreign exchange risk and legal risk, as a result of uncertainty and policy rate that is linked to the Open Market Operations influence on Financial performance of commercial banks as indicated by a mean of 4.44, 4.30, 4.21, 4.17 and 4.07 with standard deviation of 0.54 0.46, 0.34, 0.35 and 0.26. This clearly reveal that market factors such as risk management, competition in the markets, interbank rate of mortgage and customer demand influence banks mortgage financing affecting bank’s financial performance.

**Mortgage Rate Adopted Influence Financial Performance**

The respondents were requested to explain mortgage rates influenced bank’s financial performance. From the findings, respondents indicated that most commercial banks adopt adjustment rate mortgage (ARM), balloon loans interest, interest-only mortgage a and piggy bank loans as they are more competitive rates that earn higher returns for the banks influencing bank earning more profits. The respondents further explained that mortgage rates are market focus attracting more customers increasing bank’s customer translating to more business transactions hence more income and better return on investment.
Financial Factors Influencing Leading to Mortgage Financing

Table 4.9 Financial Factors Adoption of Mortgage Financing

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>High interest from mortgages</td>
<td>4.66</td>
<td>0.54</td>
</tr>
<tr>
<td>Kenya's financial laws requiring banks to have less cash in reserve</td>
<td>4.88</td>
<td>0.91</td>
</tr>
<tr>
<td>Kenya's financial laws requiring financial institutions to</td>
<td>4.74</td>
<td>0.87</td>
</tr>
<tr>
<td>Lower interest rates on treasury bonds</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author (2012)

The Table 4.10 indicated the extent to which financial factors influencing banks to adopt mortgage financing. From the finding, majority of the respondents indicated that the Kenya’s financial laws requiring banks to have less cash in reserve, lower interest rates on treasury bonds and high interest from mortgages influencing banks to adopt mortgage financing to a very great extent as indicated by a mean of 4.88, 4.74 and 4.66 with standard deviation of 0.91, 0.87 and 0.54.
Table 4.10: Extent to Which Given Factors Influences Mortgage Financing

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean</th>
<th>Std.dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>High interest from mortgage improve Financial performance of the mortgage firms</td>
<td>4.86</td>
<td>0.87</td>
</tr>
<tr>
<td>Sound credit risk management practices are built on good-quality portfolio management</td>
<td>4.45</td>
<td>0.37</td>
</tr>
<tr>
<td>Mortgage financing encourage Bank Customer to Save leading to High interest earnings for the Bank</td>
<td>4.73</td>
<td>0.69</td>
</tr>
<tr>
<td>Encountering competitions in the market improve mortgage firm’s assets</td>
<td>4.40</td>
<td>0.39</td>
</tr>
<tr>
<td>Mortgage financing lead to increase mortgage firm’s investment yielding to high yield performance</td>
<td>4.67</td>
<td>0.68</td>
</tr>
<tr>
<td>The mortgage firms attract more customers leading to increase customer base</td>
<td>4.80</td>
<td>0.81</td>
</tr>
<tr>
<td>Customers are offered good free consultant service.</td>
<td>4.30</td>
<td>0.45</td>
</tr>
<tr>
<td>Mortgage investment has made the firm to result to diversification of investment increasing firm’s earnings.</td>
<td>4.62</td>
<td>0.65</td>
</tr>
</tbody>
</table>

Source: Author (2012)

The study sought the extent to which mortgage financing influenced financial performance of the firms. From the findings in table 4.10, majority of the respondents strongly agreed that high interest earned from financing mortgages improve financial performance of the commercial banks, that mortgage attracted and increased bank’s customer base, encouraged customers to save, leading to high return on investment for the Bank as indicated by a mean of 4.86, 4.80, and 4.7, supported by a standard deviation of 0.87, 0.81 and 0.69. The study also found that most respondents strongly agreed that mortgage lead to increased mortgage firm’s investment resulting to high yield returns and enabled that bank to diversify its investment increasing commercial bank’s earnings as indicated by a mean of 4.67 and 4.62 and standard deviation of 0.68 and 0.65 respectively. It was further found that most of the respondents agreed that through
mortgage financing, the bank developed sound credit risk management practices by building good-quality portfolio management, improved mortgage bank’s assets and influence offering of good free consultant services to customers as indicated by a mean of 4.45, 4.40 and 4.30 with a standard deviation of 0.37, 0.39 and 0.45. This revealed that through financing of mortgage, bank improved on its assets, earn interest, manage risk effectively and increase on it investments thereby improving commercial banks’ financial performance. This concurred with NHAZ, (2002) findings which revealed that Equity’s bank pre-tax profits increased from Ksh 74m in 2002 to KSh. 4.24b ($53.66 million) in the year due to its increased mortgage financing. The study also concurred with Immergluck, (2009) findings who found that banks offer mortgage loans to diversified portfolios of mortgage loans and therefore spreading risks in a manner that would be impossible if individuals were making mortgage loans directly mitigating risks facing the banks, promoting repayment of mortgage loan enhancing financial performance.

Ways Through Which Mortgages Could be Enhanced

The respondents were requested to indicate ways through which mortgages could be enhanced to influence commercial banks financial performance. From the findings 67% of respondnets indicated commercial banks should sought strategies that could ensure consumer protection in the mortgage market to minimise risks that led to failure in repayment of mortgage. From the findings, 76% the respondents indicated that commercial banks should develop innovative and affordable mortgages to the market. 56% of the respondents indicated that, mortgage players the government, developing partner market, financial institutions should define mechanism that promote mortgage
delivery channels that suite even the middle income earners to meet high demand in the market. The respondents also indicated that, due to the long-term nature of the mortgage, commercial banks needed to develop effective framework that supports the growth of the mortgage including the land bill, government policies, base lending rates; fiscal policies, technology advancement, market demand and supply should also be enhanced. This concurred with Gulyani (2006) who indicated that attracting a variety of new types of investors to the mortgage market and by integrating the mortgage market into the broader, more highly developed capital markets, mortgage backed securities promise to stabilize the supply of funds to the housing sector of the economy once an early casualty in any period of credit stringency. The changing home mortgage market.

4.4 Regression Analysis

A multivariate regression model was applied to assess the effects of mortgage on financial performance of commercial banks in Kenya.

The Linear regression used in this model was:

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon \]

Where

\[ Y = \text{Financial Performance} \]
\[ \alpha = \text{Constant} \]
\[ \beta = \text{Coefficient of the factors} \]
\[ X_1 = \text{Core Saving} \]
\[ X_2 = \text{Diversification of Portfolio} \]
\[ X_3 = \text{Increased Income} \]
\(X_4 = \text{Economic Growth}\)

\(\varepsilon = \text{Error Term}\)

### 4.4.1 Model Summary of Regression Analysis

#### Table 4.11 Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>(R)</th>
<th>(R^2)</th>
<th>Adjusted (R^2)</th>
<th>Std. Error of Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(R^2) Change</td>
</tr>
<tr>
<td>1</td>
<td>.087(a)</td>
<td>.728</td>
<td>.788</td>
<td>0.34</td>
<td>1.762</td>
</tr>
</tbody>
</table>

Source: Author (2012)

a Predictors: (Constant) Core saving, Diversification of portfolio, Increased income and Economic growth.

Dependent: Financial Performance

\(R\) is the square root of \(R\)-Squared and is the correlation between the observed and predicted values of dependent variable implying that the association of 0.087 between mortgage financing factors affecting financial performance that include Core saving, Diversification of portfolio, Increased income and Economic growth was strong.

\(R\)-Squared is the proportion of the variance in the dependent variable financial performance that was explained by variations in the independent variables Core saving,
Diversification of portfolio, Increased income and Economic growth. This implied that there was 72.8% of variance or correlation between variables in general.

Adjusted $R^2$ is called the coefficient of determination which indicates how the financial performance varies with variation in factors affecting financial performance which includes Core saving, Diversification of portfolio, Increased income and Economic growth. From table above, the value of adjusted $R^2$ is 0.788. This implies that, there was a variation of 78.8% of financial performance varied with variation in mortgage financing factors affecting financial performance which includes Core saving, Diversification of portfolio, Increased income and Economic growth and was statistically significance with P-Value of 0.01 which was less than 0.05 at a confidence level of 95%.

4.4.2 ANOVA (b)

Table 4.12 ANOVA (b)

<table>
<thead>
<tr>
<th>Mode</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>4.104</td>
<td>9</td>
<td>.227</td>
<td>5.231</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>1.762</td>
<td>36</td>
<td>.021</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>6.466</td>
<td>45</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author (2012)

a Predictors: (Constant) Core saving, Diversification of portfolio, Increased income and Economic growth.

Dependent: Financial Performance
The total variance was the difference into the variance which could be explained by the independent variables (Model) and the variance which was not explained by the independent variables (Error). The strength of variation of the predictor values influence the financial performance dependence variable at 0.01 significant levels.

4.4.3 Regression Coefficients (a)

Table 4. 13 Coefficients (a)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant) 7.000</td>
<td>.535</td>
<td>4.601</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>Core saving 0.732</td>
<td>.455</td>
<td>.787</td>
<td>3.191</td>
</tr>
<tr>
<td></td>
<td>Diversification of portfolio 0.944</td>
<td>.626</td>
<td>.972</td>
<td>3.383</td>
</tr>
<tr>
<td></td>
<td>Increased income 0.678</td>
<td>.248</td>
<td>.619</td>
<td>2.606</td>
</tr>
<tr>
<td></td>
<td>Economic growth 0.771</td>
<td>.710</td>
<td>-.692</td>
<td>2.272</td>
</tr>
</tbody>
</table>

Source author (2012)

A Predictors: (Constant) Core saving, Diversification of portfolio, Increased income and Economic growth.

Dependent: Financial Performance

\[ Y = 7.000 +0.732X_1 + 0.944X_2 + 0.678X_3 + 0.771X_4 \]

Where \( X_1 \) - Core saving, \( X_2 \) - Diversification of portfolio, \( X_3 \) - Increased income \( X_4 \) - Economic growth

The values, 0.732, 0.944, 0.678, 0.771 are the unstandardized coefficients. These were
the coefficients that the study would obtain when standardized of all of the variables in the regression, including the dependent and all of the independent variables, and running of the regression.

The column of coefficient shows the predictor variables of constant, core saving, diversification of portfolio, increased income and economic growth. The first variable constant of 7.000 represented the constant which predicted value of financial performance when all other variables influencing financial performance were constant at zero (0). An increase in core saving through mortgage financing, would lead to an increase in financial performance in commercial banks by factor of 0.732 with P value of 0.002 while adoption of diversification of portfolio practices through mortgage financing would lead to an increase in financial performance in commercial banks by a factor of 0.944 with P value of 0.004. The study also found that effective increased income on mortgages influenced financial performance in commercial banks by a factor of 0.678 with P value of 0.003 while a unit increase in economic growth would result to an increase in financial performance in commercial banks by factor of 0.771 with P value of 0.006. This clearly indicated that there existed a positive relationship between effects of mortgage financing and financial performance in commercial banks clearly indicating that mortgage financing improve financial performance of commercial banks through encouraging core saving, diversification of portfolio and increased income were statistically significant with a P-Value of 0.02, 0.04 and 0.03 at 95% confidence level. The study also found that though economic growth influenced mortgage financing to improve financial performance in commercial banks it was not significant it was not
statistically significant as the P-value was 0.06 which does not lies within acceptable region as it is greater than 0.05. This implied that core saving, diversification of portfolio, increased income due to mortgage financing improves financial performance of commercial banks.
CHAPTER FIVE
DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

From the analysis and data collected, the following discussions, conclusions and recommendations were made. The study sought to establish the effects of mortgage financing on financial performance of commercial banks in Kenya.

5.2 Discussions

The study established that commercial banks in Kenya were emphasizing on mortgage financing commonly offering adjustable rate mortgage loan, interest only fixed rate mortgage and variable rate mortgage to their clients. The study discovered that mortgage financing was influenced by need to increase investment, improve profitability, improve risk management, attraction of more customers and promotion of development of innovative mortgage products. The study also revealed that commercial banks finances mortgages to penetrate the stiff competitive financial, increase market diversification and encountering competitions in the market. The finding concurred with CBK,(2008) which indicated that growth rates of banks by 25% was linked to growth of mortgage portfolio ability which matched services to the need of the customers.

From the findings, that study revealed that earnings from high interest rate, creation of wealth and the need for improving saving are financial factors influencing mortgage financing in Kenya also influence adoption of mortgage financing by financing. Mortgage financing had been found to increased bank profit (NHAZ, 2002).
The study established that commercial banks finance mortgage in to improve financial performance by increasing return on assets. From the findings, majority of the respondents strongly agreed that high interest from mortgages and increase in number of customers increased bank' sales improving financial performance. The study also revealed that mortgage financing influenced diversification of the banks leading to increasing earnings, and banks' investment. The banks were found to improve on their risk management through to yield high performance, adopting sound credit risk Management practices built on a good quality portfolio management, minimizing losses and eventually yielding high firm performance.

The study revealed that commercial banks were influenced to finance mortgage to improve cross selling potential due to improved economic reforms in Kenya, market liberalization, relative political stability and development of innovative mortgage products being offered to customers. This concurred with Matsusaka (200) who found developing mortgage products. Graduated Payment Mortgage (GPM) which made repayment spread more evenly over the lifetime of the mortgage help improve affordability in the initial years by allowing for a larger loans and eventually .

5.3 Conclusion

The study concludes that commercial banks in Kenya are emphasizing on mortgage financing to improve bank performance. The study concludes that mortgage financing is influenced by market and financial factors which includes increase investment and Improve Profitability of the Bank, improvement of risk management, attraction of more customers, promotion of innovations, Market Penetration, diversification of investment
and encountering competitions in the market. Lowering of interest on Treasury bond, Kenya financial laws require bank to have less cash in reserve and High interest from Mortgage, creating of wealth and Improving savings.

The study concludes that factor influencing mortgage financing in Kenya has positive effects on performance of the banks as majority of the respondents strongly agreed that high interest from mortgage, Market liberations and attraction of more customers leading to increased customer’s base improve mortgage firm performance.

The study further concludes that mortgage financing improvement on diversification of the firms lead to increasing earnings, encountering competitions as well as marketing improving Mortgage firms investment to yielding high performance, lead to adopting sound credit risk Management practices resulting to better performance of the commercial banks.

The study concludes that factors influencing mortgage financing can be classified into three factors which are improve profitability of the mortgage firms which constitutes attracting more Customers, increase investment, improve Profitability of the mortgage firm; encounter competitions in the market, promotion of innovation and improve saving.

The study also conclude that prevailing market conditions influences mortgage financing through seeking to improve market penetration, improve cross selling Pontetial, improvement of economic reforms in Kenya, promotion of market liberalization, relative political Stability, competition from other banks and the types of mortgage being offered in the market.
Finally the study concludes that the third category of factors influencing mortgage financing in Kenya is for the purpose of wealth creation from improvement of risk management and providing mean of managing risks.

5.4 Recommendations of the Study

The study found that mortgage financing influence financial performance of the banks. From the findings and conclusions, the study recommends that banks seeking to venture in mortgage financing should be influenced by improvement of bank profitability, attraction of more Customers, increase investment, improve profitability of the mortgage firm; encountering competitions in the market, promotion of innovation and improve saving.

The study found that mortgage financing enhance bank diversification. The study recommends that mortgage financing improved on diversification of the firms lead to increasing earnings, encountering competitions as well as marketing improving Mortgage firms investment to yielding high performance, lead to adopting sound credit risk Management practices resulting to better performance of the commercial banks.

The study also recommends that banks should consider prevailing market conditions influences mortgage financing influenced by improve market penetration, improve cross selling potential, improvement of economic reforms in Kenya, promotion of market liberalization, relative political stability, competition from other mortgage firm and the types of mortgage being offered in the market to ensure it gain a niche in the market.

The study found that mortgage financial improve market performance of the banks. From the findings and conclusions, the study recommends that commercial banks should put
more emphasize on encountering competitions in the Marketing, creating of wealth, improving saving, high interest from mortgage, diversification of investment, Increase investment as this factor significantly influences firm performance.

5.5 Recommendations for Further Study

The study established the effects of mortgage financing on financial performance of commercial banks in Kenya. A further research should be carried to establish the extent to which the mortgage financing influence profitability of the commercial banks. The study also recommends that a further study should be carried out to determine the challenges facing commercial banks in financing through mortgages. This could be carried out in this study due to limited time and financial resources. It was also not addressed in the scope of the study.
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APPENDICES

Appendix I: Questionnaire

Section A : General Information

1. Kindly indicate your Gender
   
   Male [ ] Female [ ]

2. Indicate by ticking your age bracket
   
   i. 20-25 years of age [ ]
   ii. 26-30 years [ ]
   iii. 31-35 years [ ]
   iv. 36-40 years [ ]
   v. Above 40 years [ ]

3. What is your highest level of Education? (Tick as applicable)
   
   a). Diploma [ ]
   b). Degree [ ]
   c). Post graduate [ ]
   d). Others (specify) ...........................................................

4. Indicate the period in years you have been working in your bank.
   
   a) Less than one year [ ]
   b) 1-3 years [ ]
   c) 3-7 years [ ]
   d) 8-10 years [ ]
   e) Above 10 years [ ]
Section B: Market factors leading to mortgage financing adoption

5. Which of the following types of mortgages does your bank offer?

- Interest-only fixed rate mortgages [ ]
- Graduated payment mortgage loan [ ]
- Adjustable rate mortgage loan [ ]
- Negative amortization mortgage [ ]

6. Please indicate the extent to which your bank emphasises on mortgage financing.

- Very great extent [ ]
- Great extent [ ]
- Moderate extent [ ]
- Low extent [ ]
- Not at all [ ]

7. To what extent do the following factors influence your bank to adoption of Mortgage financing? (Where 1-Not at all, 2-Less extent, 3-Moderate Extent, 4 -Great extent and 5 - Very Great extent)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Very great extent</th>
<th>Great extent</th>
<th>Moderate extent</th>
<th>Low extent</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market penetration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross selling potential</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competition from other banks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>relative political stability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>economic reform in the Kenya</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market liberalization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Improving profitability of the bank
To improve Risk management
Diversification of investment
Promote innovation mortgage financing
Attract more customers
Encounter competitions in the market
Increase investment
Improve saving
Provides a means of managing risk
Creating of wealth

8. Please indicate any other market factor influencing your bank to adopt mortgage financing

i. ..............................................................................................................................

ii. ...........................................................................................................................

iii. ...........................................................................................................................

9. To what extent do you agree with the following statements on mortgage financing.
(Where 1-Not at all, 2-Less extent, 3-Moderate Extent, 4 –Great extent and 5 - Very Great extent)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Very great extent</th>
<th>Great extent</th>
<th>Moderate extent</th>
<th>Low extent</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortgage financing reliably provide housing to Kenyans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortgage financing provide mechanism of aggregating funds through financial intermediation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortgage financing encourage bank customers to save</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10. The following are Market factors that affect mortgage commercial banks in Kenya. To what extent does the following markets factors influence mortgage financing by commercial banks? (1-means strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree).

<table>
<thead>
<tr>
<th>Effects of mortgage financing on financial performance</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core saving</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diversification of portfolio</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic Growth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. To what extent do following effects of mortgage influence on Financial performance of commercial Banks

<table>
<thead>
<tr>
<th>Market Conditions</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit risk premium due to various risks, including interest risk, credit risk, foreign exchange risk and legal risk, as a result of uncertainty.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquidity premium or Excess Liquidity in the Inter-Bank Market</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competition leading to Interbank rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overnight facility rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Policy rate that is linked to the Open Market Operations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profitability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demand and supply</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on Asset</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market expectations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section C: Financial factors influencing leading to Mortgage financing

13. To what extent do the following financial factors influence your bank to adopt mortgage financing.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Very great extent</th>
<th>Great extent</th>
<th>Moderate extent</th>
<th>Low extent</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>High interest from mortgages</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kenya’s financial laws requiring banks to have less cash in reserve</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kenya’s financial laws requiring financial institutions to lower interest rates on treasury bonds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. To what extent do you agree with each of the following statement about mortgage financing and financial performance of the financial performance of the mortgage firm? (1-means strongly disagree, 2-disagree, 3-neutral, 4-agree and 5- strongly agree).

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>High interest from mortgage improve Financial performance of the mortgage firms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

87
Sound credit risk management practices are built on good-quality portfolio management.

Mortgage financing encourage Bank Customer to Save leading to High interest earnings for the Bank.

Encountering competitions in the market improve mortgage firm’s assets.

Mortgage financing lead to increase mortgage firm’s investment yielding to high yield performance.

The mortgage firms attract more customers leading to increase customer base.

Customers are offered good free consultant service.

Mortgage investment has made the firm to result to diversification of investment increasing firm’s earnings.

Market liberalization lead to improvement of mortgage finance.

Cross selling potential has promoted mortgage financing.

Mortgage finance has led to Improving profitability of the bank.

15. Kindly indicate ways through which mortgages could be enhanced to influence commercial banks financial performance?
Appendix II: List of Commercial Banks in Kenya

1. African Banking Corporation Ltd
2. Bank of Africa Kenya
3. Bank of Baroda (K) Ltd
4. Bank of India
5. Barclays Bank of Kenya Ltd
6. CFC Stanbic Bank Ltd
7. Charterhouse Bank Ltd
8. Chase Bank (K) Ltd
9. Citibank N.A. Kenya
10. Commercial Bank of Africa Ltd
11. Consolidated Bank of Kenya Ltd
12. Co-operative Bank of Kenya Ltd
13. Credit Bank Ltd
14. Development Bank Kenya Ltd
15. Delphis Bank
16. Diamond Trust Bank (K) Ltd
17. Dubai Bank of Kenya Ltd
18. Ecobank Kenya Ltd
19. Equitorial Commercial Bank Ltd
20. Equity Bank Ltd
21. Family Bank Ltd
22. Fidelity Commercial Bank Ltd
23. Fina Bank Ltd
24. First Community Bank Ltd
25. Giro Commercial Bank Ltd
26. Guardian Bank Ltd
27. Gulf African Bank Ltd
28. Habib Bank Ltd
29. Imperial Bank Ltd
30. I&M Bank Ltd
31. Jamii Bora Bank Ltd
32. Kenya Commercial Bank Ltd
33. K-rep Bank Ltd
34. Middle East Bank (K) Ltd
35. National Bank of Kenya Ltd
36. NIC Bank Ltd
37. Oriental Commercial Bank Ltd
38. Paramount Universal Bank Ltd
39. Prime Bank Ltd
40. Standard Chartered Bank (K) Ltd
41. Trans National Bank Ltd
42. United Bank of Africa Kenya Ltd.
43. Victoria Commercial Bank Ltd
44. Industrial Development Bank