ISSN 2349-7807

International Journal of Recent Research in Commerce Economics and Management (IJRRCEM)
Vol. 4, Issue 2, pp: (191-207), Month: April - June 2017, Available at: www.paperpublications.org

EFFECTS OF MORTGAGE FINANCING ON THE FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN TRANSNZOIA COUNTY

[1]Serem, Kipruto, Isaac, [2]Prof. Namusonge, Gregory, [3]Mr. Okwaro Fredrick

[1]Jomo Kenyatta University of Agriculture & Technology (MBA.Finance)
[2]Jomo Kenyatta University of Agriculture & Technology (Lecturer Ph.D)
[3]Jomo Kenyatta University of Agriculture & Technology (PhD Student)

Abstract: **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 it is practiced by banks in Kitale and to figure out there short coming in mortgage financing do affect the performance of banks. The objectives of the study were to establish the effects of mortgage financing on Financial Performance of commercial banks in Kitale. The study had four specific objectives establish effects of repayment period, interest rates, income levels of borrowers and valuation cost on performance of mortgage financing in Trans Nzoia County of financial performance of commercial banks in Kitale. The study adopted descriptive research design which assists to examine the effects between mortgage financing and financial performance of commercial banks. The target population of the study was 16 Commercial Banks as they fulfil all characteristics and legally accepted by the Central Bank of Kenya. A census was applied as the method of systematically acquiring and recording information from the population. Qualitative and quantitative techniques were used to analyzing the data. After receiving questionnaires from the respondents the responses were edited, classified, coded and tabulated to analyze quantitative data using statistical package for social science (SPSS 21). Tables and charts were used for data presentation for easy understanding and analyzes**.

Keywords: **Repayment period, Interest rate, Mortgage valuation cost and financial performance.**

1. INTRODUCTION

Background:

Mortgage financing existence has been a preserve for mortgage financing companies but with changing era, commercial banks have started to engage in mortgage financing. A well-organized housing finance system has significant value both in meeting the housing needs of individuals and in reinforcing the advance of the construction, investment and other related sectors of an economy. Erbas, (2005) asserts that International practice suggests that, the widespread accessibility of residential mortgages has positive impact on poverty mitigation, worth of housing, infrastructure, and urbanization. The developed countries currently have very advanced mortgage finance systems in which funds flow from people with surpluses to the ones that have deficits funds and need the finances through the various channels provided by the mortgage markets. In the third world countries however it’s very different in that real estate has remained largely unexploited despite the fact that sector players recognize the economic and social importance of the sector. This has been recognized due to the unstable inflation rates experienced and the high level of unemployment Dolde (2006).

ISSN 2349-7807
International Journal of Recent Research in Commerce Economics and Management (IJRRCEM)
Vol. 4, Issue 2, pp: (191-207), Month: April - June 2017, Available at: www.paperpublications.org

Commercial banks play an important role in the economic allocation of resources to countries by basically allocating finances from depositors to investors continuously (Ongore and Kusa, 2013). The author present all significant services of providing deposit and loan services for personal and corporate customers, making credit and liquidity accessible in adverse market situation, and providing entrance to the nation's payments systems (Handley-Schachler et al., 2007) Commercial banks make most of their wealth from lending to their customers in various forms. The soundness of the banks to a larger extent depends on their financial performance which indicates the strength and weakness of a particular bank (Makkar and Singh, 2013). Financial performance is evaluated by the profitability. Mortgage financing is an important line of business for the banking industry, and mortgage financing activities contribute extensively to the Kenyan economy. Most of the commercial banks depend on revenue from this line business to develop and grow (Bienert, 2006). The past has shown, however, that unconsidered risk taking and insufficient risk management, mostly during periods of rapid economic growth, can lead to significant losses and be a major obstacle to the performance of commercial banks with risks of failure being very high. One of the main ways in which this line of business can influences the performance of commercial banks is through the cyclical nature of real estate markets where, as markets peak and decline, banks with large concentrations of mortgage loans may suffer great losses leading to poor performance (Kibirige, 2006).

Statement of the Problem:

The demand for housing in Trans Nzoia County is vast and driven by a growing population and urbanization; thus an efficient mortgage finance system has major importance both in meeting the housing needs of individuals and in reinforcing the advance of the construction in finance and other correlated sectors of an economy. Demand for residential and commercial houses in Kenya improved after the central bank cut its benchmark interest rate which help boost economic development. But the mortgage market is still fairly small by international standards with only 13,803 loans. While the growth rate in mortgage financing has been rapid at just under 50% since 2006 and has been growing steadily at 14% annually, the loan portfolio remains small. Nine out of ten Kenyans cannot afford to buy the houses they live in- even with a mortgage loan in town, if at all they qualify. Highlights of a report by Central Bank and World Bank released indicate that eight per cent of Kenyans can afford a mortgage.

It is generally observed that commercial banks' lending criteria are pro-cyclical in nature. This means that their lending criteria are not very strict in a real estate boom while during the bust they are very strict. As a result of this commercial banks are more likely to underestimate the default risk of real estate loans during a real estate boom. Such a situation leads to real estate price inflation and this increases the banks' credit risk exposure to the real estate (Macharia, 2013). When there is a sharp drop in real estate prices, commercial banks that have a high proportion of real estate loans in their portfolios or loans to other financial institutions that specialize in real estate lending suddenly find themselves faced by a high exposure to real estate risk. This therefore affects their financial performance in a significant manner. As a result, the country's financial system becomes at risk and exposed (Macit, 2011). 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 yearly annual increase in demand for housing in Kenya is of 206 000 units annually of which 82 000 in urban areas. In 2011, the ministry of housing estimated that the formal supply of houses to the market reached 50 000 creating a 156 000 shortfall which added up to the 2 million units existing backlog. In 2012, it is estimated that further 85 000 units were also added to the backlog (CAFA 2011; CAHF 2012).

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. 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). The effects of real estate financing on the economy as well as on the performance of the financial sector in general has not been given a lot of focus by researchers in Kenya. A search for empirical literature on the determinants of financial performance of commercial banks in general and the effect of real estate financing on the financial performance of commercial banks in Kenya revealed several studies. Macharia (2013) find out that the effects of global financial crisis on the financial performance of commercial banks offering mortgage finance in Kenya.

ISSN 2349-7807

International Journal of Recent Research in Commerce Economics and Management (IJRRCEM)
Vol. 4, Issue 2, pp: (191-207), Month: April - June 2017, Available at: www.paperpublications.org

Objectives of the Study:

General objectives:

The objective of the study was to analyze the effect mortgage financial performances among commercial banks in Trans Nzoia County.

Specific objectives of the study:

1. To establish effects of repayment period on mortgage financing performance in commercial banks in Trans Nzoia county.
2. To determine the impacts of interest rates on mortgage financing performance commercial banks in Trans Nzoia County.
3. To determine effects of mortgage valuation on performance of mortgage financing in Trans Nzoia County.

Research Questions:

1. How repayment period does affects mortgage financing in commercial banks in Trans Nzoia County?
2. What are the impacts of interest rates on mortgage financing in commercial banks in County of Trans Nzoia?
3. What effects does mortgage valuation cost have on mortgages financing in commercial banks in Trans Nzoia County?

Justification of the study:

The study was to great benefit to banking institutions in Kenya since it outlined profitable factors involved in financing mortgages. The growth of the banks depend on several factors of which mortgage financing plays a most important role in the current banking sector. The findings of the study is significant to individual investors interested in seeking mortgage financing since it provides the various costs in access to the facility. The findings of this study is of significant to academicians in that it will add to the knowledge of the researchers in this field of study The findings is also significant to policymakers in that it serve as a guide to them when making policies regarding mortgage financing in the country private equity fund allocation.

2. LITERATURE REVIEW

Theoretical Framework:

The theoretical framework aims at giving the meaning of a word in terms of theories of a specific discipline. It contributed to a better understanding of the concept and helped in assuming both knowledge and acceptance of theories that relate to mortgage and Financial Performance.

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, 2004). 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.

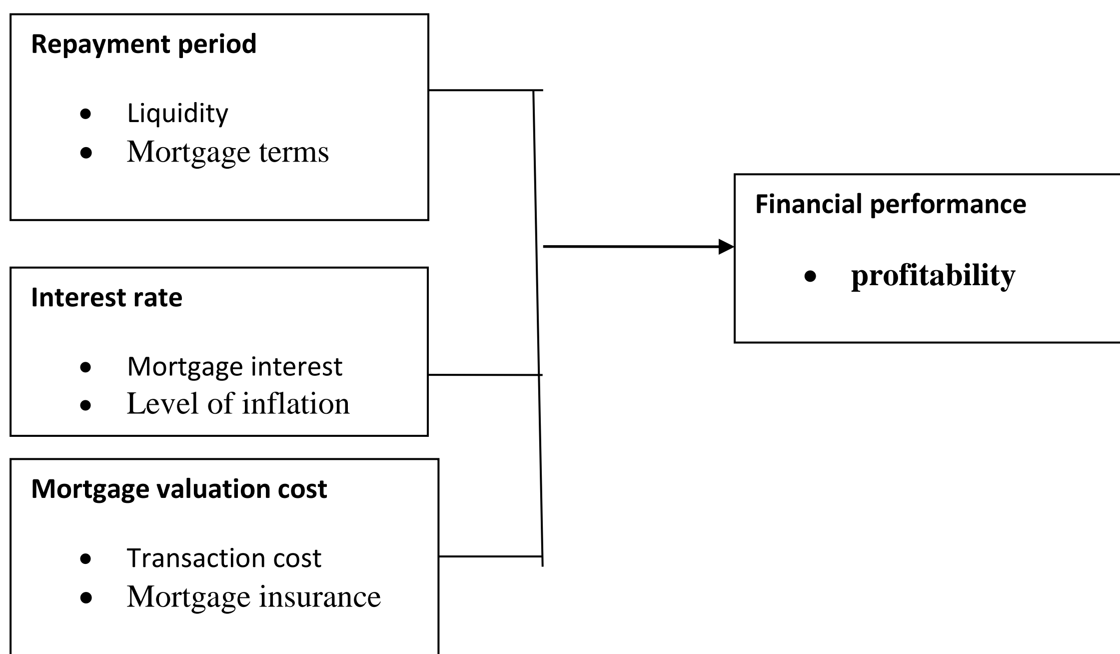
Innovation Theory of Mortgage Financing:

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 vs. undesirable, direct vs. indirect, and anticipated vs. 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 (Rogers, 2000). 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.

Conceptual Framework:

INDEPENDET VARIABLES **DEPENDENT VARIABLE**



ISSN 2349-7807

International Journal of Recent Research in Commerce Economics and Management (IJRRCEM)
Vol. 4, Issue 2, pp: (191-207), Month: April - June 2017, Available at: www.paperpublications.org

Review of Variables:

The financial performance of banks is expressed in terms of profitability and the profitability has no meaning except in the sense of an increase of net asset. Profitability is a company's ability to earn a reasonable profit on the owner's investment (Warren E. Buffett, 2005). Most organizations exist is to earn profit and profitability ratios show a company's overall efficiency and performance. We can divide profitability ratios into parts: Profit margin and returns. Ratios that show margins represent the firm's ability to translate sakes dollars into profits at various stages of measurement. Ratios that show returns represent the firm's ability to measure the overall efficiency of the firm in generating returns for its shareholders (Bessis, 2005). The most popular profitability measurements are: Profit margin on sale, Return investment ratios, and return on equity.

In accordance with the study by Waymond (2007), Profitability ratios are often used in a high stream as the indicators of credit analysis in banks, since profitability is associated with the results of management performance. ROA and ROE are the most commonly used ratios, and the quality level of ROE is between 15% and 30%, for ROA is at least 1%. Measuring profitability is the most important measure of the success of the business (Mishkin, 2002). A business that is not profitable cannot survive. Conversely, a business that is highly profitable has the ability to reward its owners with a large return on their investment. Increasing profitability is one of the most important tasks of the business managers; these ones look for the way to improve profitability.

Transaction Cost:

Both households and firms pay transaction costs each and every time they decide to buy or sell financial assets. These costs consist of service charges, commissions, bid/ask spreads and the time required to effect a transaction. (Hess, 1995) points out that if transaction costs were to matter "households would be biased towards the size of asset portfolio it already acquire rather than towards that which it would have otherwise owned minus the transaction cost" and that such households would trade less often on their assets. He adds that when actual and optimal portfolio amounts differ, households can; earn lower projected rates of return, bear uncompensated diversifiable risk and have non-optimal amounts of liquidity (that is; higher than is optimal preference to hold money).

Data in Kenya is sketchy to say the least but in USA economies, there was an observable correlation between increased transaction costs and lower asset volumes in trade by households between 1970 and 1986 so that transaction cost increases significantly reduced the buying and selling of financial commodities by households (Hess, 1995). Transaction costs such as transport costs to financial markets, transaction charges such as deposit charges, withdrawal and ATM charges, credit cards Interest rates, loans interest rates, account operating costs such as the costs for various services such as mobile banking costs, account inquiries services costs, internet banking charges as well as operating balance charges incurred on opening a bank account impact on demand for financial services for instance; due to the small volume nature of deposits in Kenya and in Sub Saharan Africa in general, such costs can frequently erode the convenience of banking services. For instance (Whtley, 2011) spoke of a £630 million behavior induced cost to low income consumers of financial services. In Kenya alternative institutions such as SACCO's, MFI's and Mobile money offer substitute financial services similar to commercial banks for individuals, households and micro enterprises transaction cost differences are of fundamental influence on whether commercial banking services are competitive enough to effectively demand. This is actually evident by the sharp acceleration in mobile money services subscription relative to bank service uptake in Kenya (CBK, 2012).

Mortgage interest rate:

These to a great extent will determine affordability alongside the maturity. In Kenya, Interest rates range between 9% - 26% depending on the purpose of the mortgage. Usually owner occupier mortgages take the lower rate and it increases as one tends towards commercial mortgages. These rates are generally high and are attributable to the lack of long term local funding. In Egypt, another African country, mortgage lending rate equals to 14% with a margin of 4% over the prime lending rate (Hassanein & Barkouky, 2008). This leaves mortgage companies with only 1.5% which will be further decreased when attempting to securitize the mortgage loan and provide other guarantees.

ISSN 2349-7807

International Journal of Recent Research in Commerce Economics and Management (IJRRCEM)
Vol. 4, Issue 2, pp: (191-207), Month: April - June 2017, Available at: www.paperpublications.org

Mortgage insurance:

Mortgage insurance is a specialist form of credit insurance which provides protection to the lender. In the event of a borrower defaulting on their loan and the property being taken into possession and sold but not at a price sufficient to cover the outstanding debt and costs then the insurance policy pays out to the lender.One form is for the "top slice" of the loan to be insured, that is, for example, any amount in excess of say 70 percent of the valuation. An alternative is for a proportion of the whole loss to be met by the insurance company.

Mortgage insurance schemes can take various forms but a common feature of most schemes now, particularly after substantial losses were incurred on mortgage insurance business in the 1990s, is an element of co-insurance whereby the lender assumes some of the risk. Most mortgage insurance, even in industrialized countries with sophisticated financial systems, is provided by specialist government agencies. These were often established in difficult and different circumstances when an element of government "pump priming" was needed to help a mortgage market develop. It proves very difficult in practice for such institutions to divest themselves of their business even when they are able to do so. In a few countries, notably the United Kingdom, mortgage insurance is provided by the major insurance companies. In the past this insurance has often been tied in with other forms of insurance, for example insurance of the houses being mortgaged. In America, in particular, there are a number of specialist private insurance companies, which are now seeking to operate internationally.

Mortgage repayment:

According to MC Donald & Thornton, (2008) Mortgage repayment is the same as amortization which derives from the Middle English for "Kill". It refers not to the borrower's murder, but to "killing off" the mortgage by paying it down over time. Repayment schedule is simply how the loan is to be repaid over a given period of time .The loan is repaid in fixed periodic payments usually monthly. The repayment period usually varies from country to country. For example in the USA; it could be between 15-30 years, (Scanlon & Whitehead, 2004) UK can be between 15-20 years. The mode of paying back the mortgage can be scheduled mortgage payment, prepaying through refinancing or resale, delinquency, and foreclosure (Liu et al, 1997). In Kenya one of the most important factors considered in appraising viability of a mortgage application is the capability of the borrower to repay their mortgage.

Liquidity:

Liquidity of the commercial bank is also considered to have an influence on the financial performance of the bank. Researchers note that insufficient liquidity of commercial banks is considered to be one of the major reasons why they fail. It is however important to note that when a commercial bank holds a lot of liquid assets, then it incurs an opportunity cost of getting higher returns from investing with those assets. It is noted from the various studies that there is a positive relationship between liquidity and the performance of commercial banks although it is also noted that during times of instability in the business environment, commercial banks will tend to increase their cash reserves (holdings) as a way of mitigating themselves against risks. It is therefore clear that there is a negative correlation between the level of liquidity and the financial performance of commercial banks.

Level of inflation:

The inflation rate in a country is also another macro-economic factor that has been associated with the performance of commercial banks and a number of researchers have focused on establishing this relationship. It is noted that generally, high inflation rates lead to high interest rates on loans and thus lead to higher income to commercial banks. Perry (1992), however, asserts that "the effect of inflation on banking performance depends on whether inflation is anticipated or unanticipated". In an event where an increase in the inflation rates is fully anticipated and an adjustment is made to the interest rates accordingly, then this leads to a positive influence on the financial performance of commercial banks. On the other hand, when an increase in the inflation rates is not anticipated, it results in a situation where the local borrowers are faced with cash flow difficulties and this can result in the termination of bank loan agreements in a premature fashion thus causing loan losses for the issuing commercial bank. The general observation is that when commercial banks take a lot of time to adjust their interest rates after changes in the inflation rates, it leads to a situation where the bank's operating costs may rise faster than the revenues of the bank. Hoggarth et al. (1998) even conclude that "high and variable inflation may cause difficulties in planning and in negotiation of loans".

ISSN 2349-7807

International Journal of Recent Research in Commerce Economics and Management (IJRRCEM)
Vol. 4, Issue 2, pp: (191-207), Month: April - June 2017, Available at: www.paperpublications.org

Critique of Existing Literature Relevant to the Study:

This section presents a review on the empirical literature related to the determinants of bank financial performance. Haas, Ferreira and Taci (2009) explored how bank characteristics and the institutions environment influence the composition of banks' loan portfolios in transition countries. They use an updated and unique data set based on the EBRD Banking Environment and Performance Survey (BEPS), which was conducted for 220 banks in 20 transition countries. The study also used primary data which was collected through the use of questionnaires. The study used a correlation design and regression analysis was carried out on the variables to test the relationship. The results show that bank ownership, bank size, and legal creditor protection are important determinants of the composition of banks' loan portfolios. Particularlys, the results show that foreign banks play an active role in mortgage lending. Furthermore, banks that perceive pledge and mortgage laws to be of high quality choose to focus more on mortgage lending. Ayele (2012) investigated the determinants of private commercial banks profitability in Ethiopia by using panel data of seven private commercial banks from year2002 to 2011. The study used quantitative research approach and secondary financial data are analyzed by using multiple linear regressions models for the three bank profitability measures; Return on Asset (ROA), Return on Equity (ROE), and Net Interest Margin (NIM). Fixed effect regression model was applied to investigate the impact of capital adequacy, asset quality, managerial efficiency, liquidly, bank size, and real GDP growth rate on major bank profitability measures i.e., (ROA), (ROE), and (NIM)separately. Beside this the study used primary data analysis to solicit mangers perception towards the determinants of private commercial banks profitability. The empirical results shows that bank specific factors; capital adequacy, managerial efficiency, bank size and macro-economic factors; level of GDP, and regulation have a strong influence on the profitability of private commercial banks in Ethiopia. Thus, management bodies of private commercial bank should strive to strengthen the identified significant factors and government bodies should also see the adverse effect of tight polices imposed on the existing private banks as well as for the new entrant.

Research Gaps:

The theory reviews evaluate the various theories that the study is based on. These theories are important in explaining what influences the financial performance of commercial banks. It is however important to note that the theories have focused on the portfolio management of mortgage about the financial performance of commercial banks. The review has also presented various studies previously done on the determinants of the financial performance of commercial banks. From the review, it is clear that very few recent studies have specifically focused on how mortgage financing affects the financial performance of commercial banks in Kenya. These are the gaps that this study seeks to fill.

3. RESEARCH METHODOLOGY

Research Design:

Research design refers to the way the study is designed, that is the method used to carry out the research (Mugenda and Mugenda, 2003). The research design is the plan and structure of investigation so conceived so as to obtain answers of the research questions. The plan is the overall program of the research and includes an outline of what the investigator will do from writing the hypothesis and their operational implications for the final analysis of data. The essential of research design as an activity and time based plan, always based on the research questions, guides the selection of sources and types of information, a frame work for specifying the relationship among variables and outlines the procedure for every research activity (Muthee, 2010).

The research design as the outline plan that is used to generate answers to the research problems, it is basically the structure and plan of investigation (Mugenda and Mugenda, 2003). The researcher will use a descriptive research design. Descriptive research seeks to establish factors associated with certain occurrences, outcomes, conditions or types of behavior. This is deemed appropriate because the study will involve in depth a study of mortgage financing and its effect on the financial performance of commercial banks in Kitale which will help the researcher in describing the state of the real current situation of banks. A descriptive study will be undertaken in order to ascertain and be able to describe the characteristics of the variables of interest in the study.

ISSN 2349-7807

International Journal of Recent Research in Commerce Economics and Management (IJRRCEM)
Vol. 4, Issue 2, pp: (191-207), Month: April - June 2017, Available at: www.paperpublications.org

Target Population:

The population of interest in the study was all Commercial Banks in Kitale town registered by the CBK which is the Central Bank of Kenya. The target population of the study considered 16 Commercial Banks as they fulfill all characteristics and legally accepted by the Central Bank of Kenya. A census was applied as the method of systematically acquiring and recording information from the population.

Target population:

Groups	Target population
Credit managers	16
Loan officer	32
Mortgage valuers	16
Totals	**64**

Sample Frame:

A sample frame is a list of all items where a representative sample was drawn for the purpose of research. In the study the sampling frame were all the credit managers, loan officers and mortgage values of all commercial banks in Trans Nzoia County.

Sampling and sampling technique:

The researcher used stratified sampling technique to select officers from various banks on credit section included in the sample. Stratified sampling technique is a technique that identifies subgroups in the population and their proportions and select from each sub group to form a sample. It groups a population into separate homogeneous subsets that share similar characteristics so as to ensure equitable representation of the population in the sample.

Pilot test:

A pilot study was used to test the reliability of the data collection tool. 64 survey questionnaires were administered to the staff of commercial banks in Trans Nzoia County. 75 percent of the questionnaires were returned by the respondents from both banks, this showed that the data collection instrument was reliable.

Validity of research instrument:

According to Mugenda and Mugenda (2003) validity refers to the degree to which an instrument measures what is suppose to measure. This illustrates the degree to which results obtained from the analysis of data actually represent the phenomena under consideration. To ensure validity of the research instruments, the instrument was presented to the supervisors who are research experts. This aided in ensuring that the instrument was well developed for data collection and eventual analysis.

Reliability of research instrument:

Reliability is the consistency of data arising from the use of a particular research instrument. According to Mugenda and Mugenda (2003), reliability is the measure of the degree to which a research instrument yields consistent results after invariable trials over a period of time. This view is shared by Gay and Airasian (2000), who describe reliability as the degree to which a test consistently measures what it is measuring. The Cronbach's alpha coefficient 0.70 is considered good as the most commonly used measure of reliability in most research works and the researcher used the same for this study.

Data processing and analysis:

Data of the study was collected by the use of both primary and secondary data. The study used structured questionnaires to draw out a wide range of baseline about mortgage financing pattern in Commercial Banks of Kenya. The considered respondents were Credit Managers, loan officers and mortgage valuer, the questionnaire consisted of open and closed questions using a 5 point– laggard scale ranging from very great extent (VGE), great extent (GE), moderate extent (ME), little extent (LE) and no extent (NE). The questionnaire was divided into (2) parts. Part A was aimed at gathering

background information about the respondent. Part B aimed at getting the responses about mortgage financing on the Commercial Banks performances. Secondary data: involved the previous works from related articles including published Financial Reports from Commercial Banks and data related to those Banks with the CBK annual reports on their performance.

The study used descriptive statistics and inferential statistics to establish the relationship between the variables and financial performance of commercial. Linear regression was used to carry out test that influenced the variables on the financial performance of the listed commercial banks.

Analytical Model:

Analysis and interpretation of data was done bearing in mind the objectives and the research hypothesis of the study. Data collected was analyzed by use of quantitative technique; quantitative data was analyzed using descriptive statistical method, the statistical tools such as frequency distribution tables. Measures of central tendency such as mean, mode and median were used. Regression analysis was used to analyze the data collected and data was presented using tables.

The data collected was analyzed using Pearson method of correlation. Correlation analysis was used to measure the degree of relationship between the variables. The coefficient assumes that there is linear relationship between the two variables and that are indifferently related which means that one of the variables is independent and the other is dependent Kothari (2004). A hypothesis was tested at 0.05 level of significance (95% confidence level) from the multiple regression model which showed the relationship between the independent variable and dependent variable. The data was analyzed using SPSS version 21 and presented in a tabular form.

The significance of the analytical model was tested by the use of ANOVA statistical model which is the Analysis of Variance. A regression analysis was done to find out the relationship between mortgage financing and financial performance of commercial banks.

The analytical model equation is represented in the linear equation below:

$Y= \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + e$

Where;

Y= Financial Performance as measured by Profitability

α = Constant term (Total Assets)

$\beta 1 \ldots \beta 3$ = Beta coefficient

X1 = Repayment period

X2 = Mortgage valuation cost

X3 = interest rate

e = Error term

4. RESEARCH FINDINGS AND DISCUSSIONS

Response Rate:

Sixty four (64) questionnaires were distributed to banks staffs of commercial bank in Trans Nzoia County. However, only forty eight (48) questionnaires were returned. Hence, with the 48 returned questionnaires out of 64 issued, the response rate was of the study was 75 percent as shown in table 4.1 below.

Table 4.1: Response rate

	Questionnaires issued	Questionnaires Returned	Response rate
Staff of commercial banks in Trans Nzoia county	64	48	75 percent
Total	**64**	**48**	

ISSN 2349-7807

International Journal of Recent Research in Commerce Economics and Management (IJRRCEM)
Vol. 4, Issue 2, pp: (191-207), Month: April - June 2017, Available at: www.paperpublications.org

Table 4.2: Category of respondents

category	Frequency	Percentage
credit manager	10	20.8
loan officer	25	52.1
mortgage valuer	13	27.1
Total	**48**	**100.0**

From the table 4.2 above the credit managers were 20.8% who returned the questionnaires, as most respondents received from the loan officer who formed 52.1% of the feedback while 27.1% were the mortgage values.

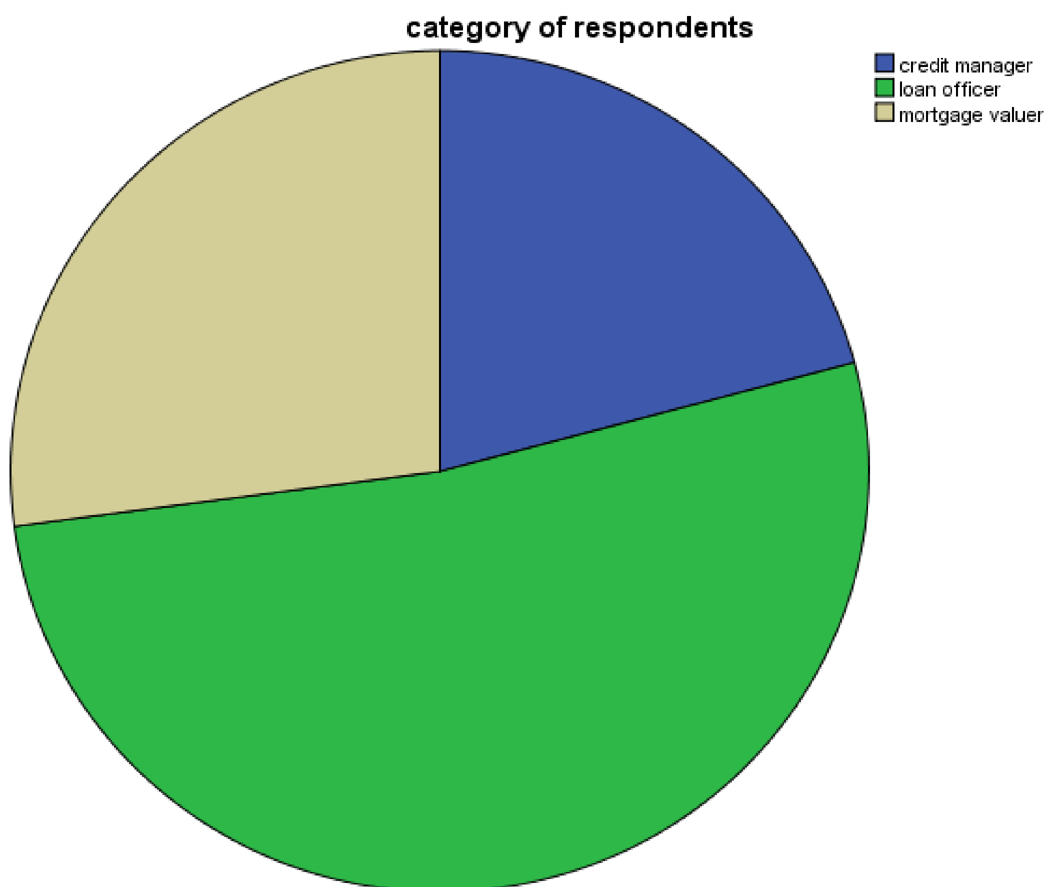


Figure 4.1: Pie chart representing respondent category

The figure 4.1 showed that the greater proportions of respondent were form the loan officer whom formulated a bigger portion compared to other categories.

Table 4.3: Gender of respondents

Gender	Frequency	Percentage
male	28	58.3
female	20	41.7
Total	**48**	**100.0**

Table 4.3 above indicates that 58.3% of the respondents were male against 41.7 who were female the researcher found out that investment sector is largely occupied by the male employees in the banking sector.

ISSN 2349-7807

International Journal of Recent Research in Commerce Economics and Management (IJRRCEM)
Vol. 4, Issue 2, pp: (191-207), Month: April - June 2017, Available at: www.paperpublications.org

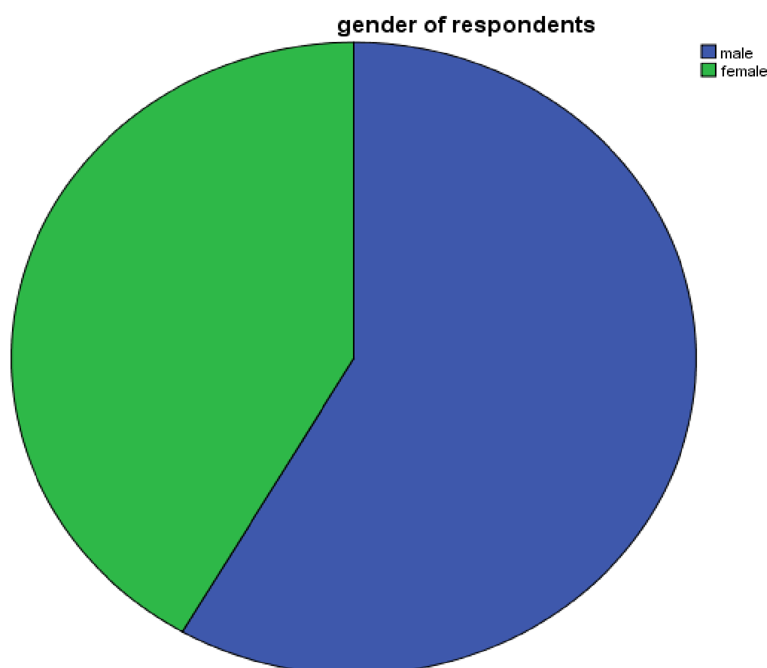


Figure 4.2: Pie chart representing gender of respondents

Table 4.4: showing Respondents' Academic qualifications

	FREQUENCY	PERCENTAGE
Postgraduate Degree	7	14.6
Postgraduate Diploma	8	16.7
Bachelors' Degree	20	41.7
Diploma	9	18.7
Certificate	0	0
Others	0	0
No Response	4	8.3

Academically, 41.7 percent of the respondents were bachelors' degree holders with 14.6 percent having gone beyond a bachelors' degree. Only 18.7 percent respondents had a diploma qualification although they were between the age brackets of 46-50 years implying that they were employed sometime back and were management level that had required experience in the section. None of the personnel had a certificate qualification although 8.3 percent of the respondents didn't respond on their academic qualifications.

Table 4.5: Age of respondents

Age brackets	Frequency	Percentage
21-30	6	12.5
31-40	15	31.3
41-50	17	35.4
above 50	10	20.8
Total	**48**	**100.0**

In addition, the results reported that 35.4 percent of the respondents belonged to age group 41- 50 years this was followed by 31.3 percent of the age group of 31 - 40 years. This shows that majority of the commercial banks staffs are those of middle age with energy and ideas who rises to management level who formed the credit section manager in the research, this can be associated to the fact most of them. There were only 12.5 percent of respondents were below 30 years who formed the loan officers and newly employed staffs and 20.8 percent of age above 50 years were the senior managers of the banks. This is further explained by the pie chart below;

ISSN 2349-7807

International Journal of Recent Research in Commerce Economics and Management (IJRRCEM)
Vol. 4, Issue 2, pp: (191-207), Month: April - June 2017, Available at: www.paperpublications.org

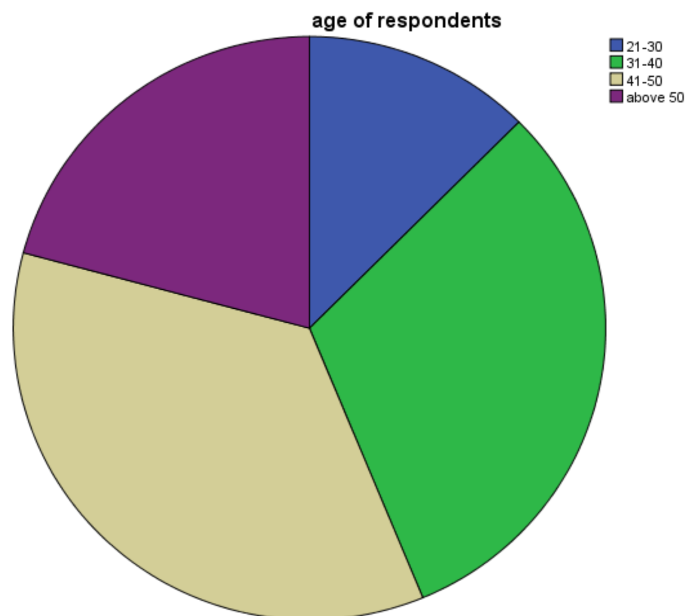


Figure 4.3: Pie chart representing age of respondents

Table 4.6: respondent length of service in institution

Length of service	Frequency	Percent
1-3	18	37.5
4-7	13	27.1
8-11	11	22.9
above 11	6	12.5
Total	**48**	**100.0**

Most of respondent's staffs of 37.5 percent were in the service for between 1– 3 years in the commercial banks that show there were more entrant of staff compares to 27.1 percent of those within 4 -7 years these indicate that other staffs might change jobs or positions within a bank, results show that only 12.5 percent accounts to those above11 years of service and 22.9 percent who are between 8 -11 years whose mostly are management levels.

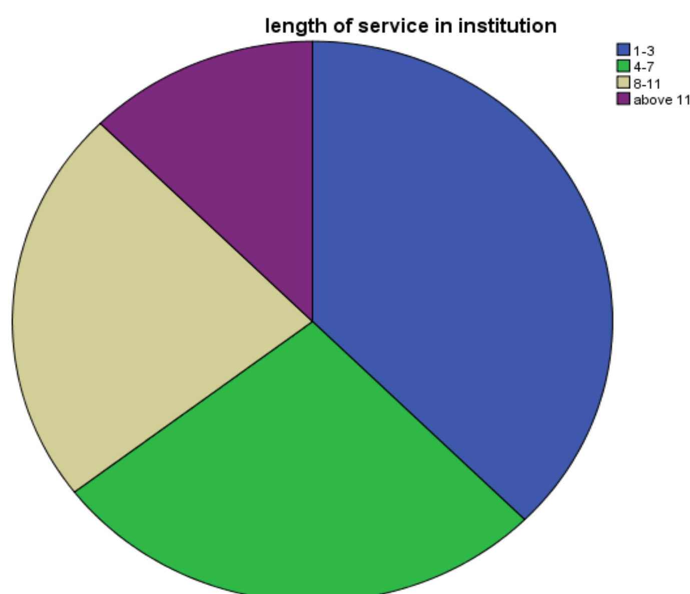


Figure 4.4: Pie chart representing length of service of respondents

ISSN 2349-7807

International Journal of Recent Research in Commerce Economics and Management (IJRRCEM)
Vol. 4, Issue 2, pp: (191-207), Month: April - June 2017, Available at: www.paperpublications.org

Financial Performances of Commercial Bank:

The findings on financial performance of commercial banks were shown in table 4.7 and analysis as shown.

Table 4.7: showing financial performance

	Percentage %	VGE	GE	ME	LE	NE
Mortgage financing contributes to the performance of commercial banks	Percentage %	86	14	0	0	0
Operations cost in mortgage financing also have an impacts on mortgage profitability	Percentage %	83	14	3	0	0
Does valuation cost have an impact on profitability of the commercial bank	Percentage %	69	31	0	0	0
To what extent does diversification of interest rates influence profitability of commercial bank in Kenya	Percentage %	100	0	0	0	0

Table 4.7 above represents the descriptive statistics for the financial performance of the study following the Likert scale where (VGE) represents very great extend, (GE) represent great extend, (ME) represents moderate extend, (LE) represents little extend and (NE) represents no extend. It's clearly indicated very great extend with a score of 100 percent that diversification of interest rates influence profitability of commercial bank, while 69 percent of respondents that very great extend bank offer mortgage loans hold diversified valuation cost therefore spreading risks in a manner that would be impossible if individuals were making mortgage loans directly while 31 percent were of the same opinion with great extend score of 31 percent, thus Operations cost in mortgage financing also have an impacts on mortgage profitability shown that 83 percent score of very great extend agrees on the results 14 percent with great extend and 3 percent moderate agreeing on the results.

Analysis of the specific objective:

The purpose of this study was to determine the effect of mortgage financing on the performance of the commercial banks in Trans Nzoia county with the specific objectives of the study being; effects of repayment period on mortgage financing performance, impacts of interest rates on mortgage financing performance and effects of mortgage valuation on performance of mortgage financing. The researcher adopted a descriptive research design method to analyze the results.

Table 4.8: showing effects of interest rate of mortgage on performance of commercial banks

	Percentage %	VGE	GE	ME	LE	NE
Market unpredictable trends varied of interest rates in the bank	Percentage %	22.1	28.8	27.9	14.5	6.7
Interest rate permits marginally profitable projects, which cannot get financed as stand-alone units, to be financed	Percentage %	3.8	19.6	27.9	27.4	21.3
Banks that offer mortgage loans hold diversified interest rate of mortgage loans and therefore spreading risks in a manner that would be impossible if individuals were making mortgage loans directly	Percentage %	26.7	24.6	21.2	14.6	12.9
To what extent does diversification of interest rates influence profitability of commercial bank in Kenya	Percentage %	15.8	33.5	24.7	19	7

Results from table 4.8 revealed that 22.1 percent of opinion very great extend that market unpredictable trends varied of interest rates in bank affect financial performance, 28.8 percent were of great extend, 27.9 percent of the respondents were moderate extend, 14.5 percent respondent were of little extend and 6.7 percent of the respondents agreed that no extend varied interest rates have an impact on the financial performance of bank. Further results from table 4.8 above were presented where the statement of the Interest rate permits marginally profitable projects, which cannot get financed as stand-alone units, to be financed, 3.8 percent of the respondents very great extend, 19.6 percent great extend, 27.9 percent of the respondents were moderate extend while 27.4 percent little extend and 21.3 percent of no extend at all. From this results majority of the respondents agreed with the statement that banks in Trans Nzoia County that portfolio development and structures helps improve financial performance.

ISSN 2349-7807

International Journal of Recent Research in Commerce Economics and Management (IJRRCEM)
Vol. 4, Issue 2, pp: (191-207), Month: April - June 2017, Available at: www.paperpublications.org

From the respondents 26.7 percent very great extend that mortgage loans hold diversified interest rate and therefore spreading risks in a manner that would be impossible if individuals were making mortgage loans directly 24.6 percent great extend, 21.2 percent were moderate extend, 14.6 percent little extend while 12.9 percent no extend. The result shows that 26.7 percent who are the majority agreed that diversification of interest rate spread chances of risks in the bank.The respondents 15.8 percent very great extend that diversification of interest rates influence profitability of banks in trans nzoia county, 24.7 great extend, 33.5 percent, 19 moderate extend while 7 percent were of no extend. From the statement above the respondent agrees that diversification of interest rate greatly affect financial performance of the commercial bank in Trans nzoia county.

Table 4.9: showing effect of repayment period of mortgage on performance of commercial banks

	Percentage %	VGE	GE	ME	LE	NE
The banks offers the graze period on the mortgage	Percentage %	33.3	20.8	25.1	12.5	8.30
Does repayment period affect the bank profitability	Percentage %	29.2	37.5	25	8.3	0
The repayment period given by the banks favors the mortgagee	Percentage %	2.0	12.5	31.3	35.4	18.8
Does the repayment period negotiable in the contract	Percentage %	8.3	29.2	41.7	20.8	0
Banks interest rate remain constant for the whole period of the mortgage	Percentage %	31.3	22.9	20.8	14.6	10.4
To what extent does repayment period influences profitability of commercial bank in Kenya	Percentage %	37.5	41.7	20.8	0	0

Table 4.9 shows that repayment period factor variables are likely the main factors that determine financial performance since all the variables of repayment period factors except for repayment period given by the banks favors the mortgagee have high frequency figures of scores skewed towards very great extend. The results showed higher percentages of respondents very great extend agrees that the repayment period have an impact in the financial performance of commercial banks in Trans Nzoia County. The availability of favorable repayment period offered by the banks encourages the mortgagee to seek mortgage in the commercial banks as they offer a flexible range of repayment.

However, result in table 4.9 shows that the repayment period which is mostly perceived to be one of the major profitability factors that determines financial performance is not a major determinant of uptake of mortgage as most respondent shown that the period does not favor the mortgagee.

The Regression Model Summary Statistics:

Table 4.10 shows the model summary statistics that was obtained to measure the strength of the regression model results: The R^2 in this model was found to be .625, which means that the three predictors could explain about 79 percent of the variation in mortgage financing performance. Since R^2 values above 40 percent are considered high, this model could therefore explain a lot of the variation in the dependent variable. In other words, we can predict, to a great degree, mortgage financing performance by using the three independent variables. The remaining unexplained variation in service quality could partly be attributed to other factors not specified in the model and partly to the error term in the regression equation. Adjusted R square provides information on how well a model can be generalized in the population. If this model had been derived from the population rather than the sample, then it would have accounted for approximately 59.9 percent of the variance in the dependent variable, which is just about 0.4 percent less than what the model explains.

Table 4.10: Summary Statistics of the Regression model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.790[a]	.625	.599	.41744

a. Predictors: (Constant), interest rate factors, repayment period factors, mortgage valuation cost factors.

b. Dependent Variable: financial performance of commercial banks

ISSN 2349-7807

International Journal of Recent Research in Commerce Economics and Management (IJRRCEM)
Vol. 4, Issue 2, pp: (191-207), Month: April - June 2017, Available at: www.paperpublications.org

ANOVA Results of the Regression Analysis:

The analysis of variance (ANOVA) table 4.11 below, also called the overall regression F test, is used to test several equivalent null hypotheses: that there is no linear relationship in the population between the dependent variable and the independent variables, that all of the population partial regression coefficients are 0, and that the population value for multiple R^2 is 0. This study found a significant regression equation, F (3, 44) = 24.402, $p < 0.001$. Therefore, there was likely to be a linear relationship between financing performance and the predictors in the population, at least one of the population partial regression coefficients of the predictors is not 0, and the population value for multiple R^2 is not 0. Please, note that the statistics from the ANOVA table are the same as the change statistics presented earlier.

Table 4.11: Shows the ANOVA table

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.756	3	4.252	24.402	.000[b]
	Residual	7.667	44	.174		
	Total	20.424	47			
a. Dependent Variable: financial performance of commercial bank						
b. Predictors: (Constant), interest rate, repayment period, mortgage valuation cost						

5. SUMMARY AND RECOMMENDATIONS

The study indicates that among the factors that affect financial performance of commercial banks in Trans Nzoia County, the demographic profile of the staff shows that more males are the staffs than females. These males are mostly older 41-50 years with high levels of experienced in the banking industry thus given the mandate for oversight of crucial decisions about financing mortgage concerning lot of funds involved.The estimation results provided evidence diversified interest rates among the portfolio in banking sectors hedges the banks against business risks in the operation of business as government intervening through the central bank of Kenya policy to cap the interest rates charged by the commercial banks to its client thus improving the chance of its performance and remain in operations.

Mortgage valuation cost factors such as operation cost, taxations cost, valuation cost, risks cost, insurance cost, architectural cost and interest rates on mortgage have significant effect on financial performance of the commercial banks. The study further concludes that repayment period factors significantly affect level financial performance. It was evidence that graze period on mortgage, constant repayment period interest rate and length of the period offered confidence to the mortgagee increasing the financial performance of the commercial banks.

Conclusions:

In summary there is a need for more structure and use of information in the market analysis. By applying a more structural and comprehensive approach in the construction of the market analysis, the hope is to support an opportunity for better informed decisions for investors. Banks should always increase product development in order to meet the needs of clients thus spreading the risks of the bank against systematic risks due to dynamic business environment which can inter performance of the bank's profitability, portfolio diversification cushions banks against losses and increase competition in the market.

Recommendations:

The study further recommends that while higher cost of operations were found to lead to better financial performance, it is important that banks understand which costs matter the most in order not to spend more on costs that will be detrimental to the banks' bottom-line. Banks now days, no longer depends on single business unit for profitability as previously but they offer a wide range of products which help in business growth as insurance unit, loans and deposits taking, investments, mortgage and much more thus a single unit cannot give a concrete results of total performance of the banks however there is need to analyze individual business unit before conclusion of bank performance.

Areas of Further Research:

Suggestions for further studies to be done in this area should be focused on other banks in Kenya as well as other financial institutions such as microfinance, housing finance, Sacco's and even trustee funds that also give loans for purposes of mortgages. Further researcher should be carried out to ascertain other variables associated with performance of commercial banks but were not included in this research as deduced from R=0.625 or (R^2=.625) implying that the independent variables affected the dependent variable on to 63% while the remaining 37% was due to other variables not in the study.

ACKNOWLEDGEMENT

First and foremost I wish to offer my utmost thanks to the Almighty for giving me the strength, health, sound mind and all that He provided to me. I would like to express my appreciation to my supervisors Prof. Namusonge for the positive criticisms. I owe special thanks to him for insightful guidance and support which resulted in successful completion of the project. Special thanks go to my entire family for the support they gave me throughout the study period.

REFERENCES

[1] Aalbers, M.B. (2008). The financialization of home and the mortgage market crisis. *Competition & Change*. 12 (1): 148-66.

[2] Allen, F. C. (2013). *Resolving the African Development Financial Gap - A Cross Country Study of Kenya* (1st Ed, Vol. 1). Nairobi: World Bank Press.

[3] Ando, A. M. (1963). The Life Cycle Hypothesis of Income and Savings. *American Economic Review, 5(1)*, 55-84.

[4] Amare, B. T. (2012). Determinants of commercial banks profitability: An empirical evidence from the commercial banks of Ethiopia, *MBA Thesis,* Addis Ababa, University.

[5] Athanasoglou, P.& Brissimis, N.S., (2004). The effect of mergers and acquisitions on bank efficiency in Greece. *Bank of Greece Economic Bulletin.* 22(1): 7-34.

[6] Ayele, H.N (2012) Determinants of Bank Profitability: An Empirical Study on Ethiopian Private Commercial Banks, *Unpublished MBA Project,* Addis Ababa University.

[7] Avery,R.B.,Brevoort,K.P.and Canner,G.B.(2006),Higher priced Home lending and the2005HMDA Data ,Federal Reserve Bulletin.

[8] Bienert, B (2006) The mortgage lending value: prospects for development within Europe, *Journal of Property Investment & Finance*. 25(6):1-8.

[9] Buckley, R., and Kalarickal, J. (2004), Shelter Strategies for the Urban Poor: Idiosyncratic and Successful but Hardly Mysterious. World Bank Policy Research *Working Paper* 3427, Washington, DC

[10] CBK, 2011 Mortgage Finance in Kenya: *A Baseline Survey*

[11] CBK, (2010), World Bank, Mortgage Finance in Kenya: *Survey Analysis*

[12] Central Bank of Kenya (2012) *Developments in the Kenyan Banking Sector*; for the Quarter Ended 30th June 2012, Nairobi, Kenya

[13] Dirnhofer, V (2012) The Impact of Mortgage Backed Securities on Bank Performance during the FinancialCrisis, *Unpublished MSc Finance Project,* Tilburg University

[14] Dolde, M.J. (2006), Sources of Funds for Mortgage Finance, *Journal of Housing Research,* 1(1): 139-61.

[15] Doling, J. Vandenberg, P. and Tolentino, J. (2013) Housing *and Housing Finance—A Review of the Links to Economic Development and Poverty Reduction*. ADB Economics Working Paper Series.

[16] Erbas, V. W. (2005), Information Finance Markets. Conclusions. *New Agriculture is Transforming*. Demand for Rural Financial Services

ISSN 2349-7807

International Journal of Recent Research in Commerce Economics and Management (IJRRCEM)
Vol. 4, Issue 2, pp: (191-207), Month: April - June 2017, Available at: www.paperpublications.org

[17] Gay, P. Airaisian, G. (2005), Educational Research. Competence in analysis research, pearsons publicationlimited, 10(4):452-455

[18] Haas, R., Ferreira,D andTaci, A (2009) What determines the composition of banks' loan portfolios? Evidence from transition countries, *Journal of Banking & Finance,* 34 (1): 388–398

[19] Hassanein & Barkouky, (2008), *The Egyptian mortgage practice*, International Journal of Managing Projects in Business, Vol 1, No 2, Emerald group publishing limited.

[20] Handley-Schachler M, Juleff L and Paton C (2007). Corporate governance in the financial services sector. *Corporate Governance*, 7 (1): 623-634.

[21] Hess, C. A. (1995). Portfolio Thoery, Transaction Costs and the Demand for Time Deposits.*Ohio State University Journal, 27*(2), 1015-1032.

[22] Kibirige .M. (2006), Mortgage Financing, How it works in Uganda, *The journal of capital markets industry, Uganda*. 10 (2): 1-15.

[23] La Ferara E. (2003). Financial Groups and Reciprocity: A Model of Credit Transactions in Ghana. *Africa Economic Review, 1*(1), 30-70.

[24] Macharia, E. W. (2013) The effects of global financial crisis on the financial performance of commercial banks offering mortgage finance in Kenya *International Journal of Social Sciences and Entrepreneurship,* 1(2): 688-701 48

[25] Macit, F. (2011). Bank Specific and Macroeconomic Determinants of Profitability: Evidence from Participation Banks in Turkey. *Economics Bulletin*, 32(1): 1-12.

[26] Makkar A. & Singh S. (2013). Analysis of the Financial Performance of Indian Commercial Banks: A Comparative Study. *Indian Journal of Finance,* 7 (2): 41- 49

[27] MC Donald & Thornton, (2008), *A Primer on the Mortgage Market and Mortgage Finance,* Federal Reserve Bank of St. Louis Review.

[28] Mugenda O.M. and Mugenda A.G (2003), Research methods quantitative and qualitative approaches Nairobi

[29] Ndungu, N. (2010), A survey of Mortgage Financing by Commercial banks in Kenya

[30] Ndururu, L (2013), Assessment of effects of mortgage on financial performance of commercial banks

[31] Repp, P. C. (2004). Technology Precipitates Reflective Teaching: The Evolution of a Red Square. Change, Vol.28 (2), 49, pp.56-57.

[32] Rogers, E. M. (2000). *Diffusion of Innovations.* (4th ed.). New York: Free Press. in Kenya, *Unpublished MBA Project*, Kenyatta University.

[33] Whtley A, R. F. (2011). Credit and Low Income Consumers-A Demand Side Perspective on Issues on Consumer Protection. *Friends Provident Foundation Survey Journal, 2*(3), 129-203.