THE EFFECT OF REAL ESTATE FINANCING ON FINANCIAL PERFORMANCE OF INSURANCE COMPANIES IN KENYA

BY

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DECLARATION AND APPROVAL

Student's declaration

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

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I thank God for giving me divine grace and making all things possible. Special thanks go to
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DEDICATION

I dedicate this work to almighty God, my beloved spiritual parent's presbyter kimathi and Pastor Mary Kimathi, my beloved husband Mr. Collins Agumba and our children Nelly, Ailsa and Joy.

ABSTRACT

Insurance companies have been playing a significant role in the commercial and multifamily market for many decades. Through decades of experience including many market cycles, insurers have developed loan structures that have become the standard for many competitors entering the long-term lending market. The insurance industry contributes to the economy by providing financial security, mobilizing savings and promoting direct and indirect investments. The gross domestic product (constant prices) expanded by 4.9% in 2017 while insurance penetration reduced from 2.71% in 2016 to 2.68% in 2017. Although insurance companies have been investing in residential mortgages, this kind of investment has continued to be smaller and smaller in percentage of their portfolio. This makes the financial performance of the insurance companies to be affected greatly. As a result, the country's financial system becomes at risk.

The study sought to investigate the effect of real estate financing on the financial performance of insurance companies in Kenya. This study was motivated to establish the effect of mortgage financing on profitability of insurance companies in Kenya. The study sought to answer these specific objectives: the effect of mortgage repayment on financial performance of insurance companies, determine the effect of interest rate of mortgage borrowing on financial performance of insurance companies and to determine the relationship between volume of mortgage lending and financial performance of insurance companies. The study was guided by three main theories: tittle and lien theory, interest rate theory and mortgage value model. The population of this study comprised data for six listed insurance companies for the period 2011 to 2018 yielding 48 data points. The study used Secondary data which was reviewed from CBK and NSE reports. Data was obtained from audited reports which are deemed reliable and valid. Regression analysis and correlation was used for analysis on the collected data. The findings of the study were that mortgage borrowing rate negatively affects financial performance of insurance companies listed at NSE (β = - .5144 (p = .0124); mortgage repayment significantly negatively affects financial performance of insurance companies listed at NSE (β = -.0057 (p = .035) and mortgage volume significantly positively affects financial performance of insurance companies listed at NSE (β = 0.2302 (p =. 0215).This study contributes to literature by providing the link between real estate financing and the financial performance of insurance companies in Kenya.

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ABBREVIATIONS AND ACRONYMS

ROE- Return on Equity

ROA- Return on Assets

NIM-Net Interest Margin

(LTV)- Loan-to-Value

GDP – Gross Domestic Product

RIETs - Real Estate Investment Trust

CBK- Central Bank of Kenya

 NSE- Nairobi Securities Exchange

USA- United nations of America

LLC- Levin, Lin, Chu

IPS- Im, Pesaran, Shin

OPERATIONAL DEFINITION OF TERMS

Real estate financing-Is the provision of finance or capital for housing purchase or building

Financial performance-Performance involves determining the results of a firm's policies and operations in financial terms.

Mortgage borrowing-Mortgage borrowing refers to the process of obtaining finance or capital for purchase of houses or building by the investor

Mortgage repayment - is the way of repaying the loan which can be through rescheduled payment, prepaying through resale, foreclosure or delinquency.

Mortgage volume-refers to capacity or size of mortgage lend out

Profitability ratio- is a monetary measurement used by analysts and investors to gauge and evaluate the ability of a company to produce. it shows how well a company uses its assets to produce profit and value to shareholders. In this study profitability ratio was surrogated by return on equity.

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CHAPTER ONE: INTRODUCTION

This chapter examines the background to the study, statement of the problem, objectives of the study, research questions, the significance of the study, the scope of the study of the study and the conceptual framework adopted for the study.

1.1 Background of the study

Mortgage finance plays a very important role in the growth of the economy and in helping people to be homeowners through provision of mortgages. Ouma (2018) in his study found out that the varying home mortgage market and unique funding requirements brought about by widespread home ownership have caused a continuing evolution in the mortgage lending practice.

The need for housing has enhanced the growth of the real estate financing sector. The availability of real estate finance has a satisfactory impact on quality of housing, urbanization, infrastructure, economic growth and development and thus improving living standards. Insurance companies play a critical role in providing financial services to both individual and institutional borrowers. These services drive economic stability and growth (Abdulvehman, 2017).

Real estate funding is a mode of a secured loan where the mortgaged property acts as the collateral for the loan protracted by the lending institution unlike unsecured loans. Real estate finance loans are normally designed as long-term loans; the constant payments are similar to an annuity and are calculated according to the time value of money formula.

According to Eshna (2017) in the article financial performance-understanding its concepts and importance, he defined Financial Performance as the practice of evaluating the results of a firm's policies and operations in monetary terms. According to(Charnoz, 2018) Financial Performance is the end result of the activity. Determining the results of a firm's policies and operations in financial terms is Performance. The techniques applied in measuring performance include; ratio analysis, trend analysis and cross sectional analysis. Ratio analysis gives an objective picture of a company's financial performance because they eliminate the size effect (Ann, 2014).

One of the measures to assess how well a firm uses its resources to generate revenue is financial performance. Examples of financial performance measures include earnings before interest and taxes, net asset value and operating income, (Gonga, 2017).

According to the regulatory report (2017) it was found out that the insurance industry adds to the economy by providing financial security, activating savings and encouraging direct and indirect investments. The gross domestic product (constant prices) expanded in 2017 by 4.9% while insurance infiltration reduced from 2.71% in 2016 and in 2017 to 2.68%.

Care (2016) in their report noted that financial ratios can be used to create a complete valuation of financial performance of the entity, also help assessing the performance of an entity vis-à-vis its peers within the industry.

According to Karanja (2013) in his study found out that usage of profitability ratios does not ensure the capacity to have an effect on changes in price levels. He noted that it's the most suitable way of assessing profitability as one can make use of time series analysis. This is because the real value of profits cannot be affected by the varying inflation rates.

Onchiomba (2018) in his study noted that there are several profitability measures used to evaluate the performance of organizations; such as the current ratio (CR), the Return on Assets (ROA) and the Return on Equity (ROE). He noted that Return on Equity (ROE) is a profitability ratio that states how much profit a company received compared to the total amount of equity of shareholders invested or found on the statement of financial position. ROE Is what the shareholders consider in return for their investment A business with a high return on equity is more capable of generating cash internally. Thus, when the company has a high ROE, it will be better in terms of profit generation.

According to Karanja (2013), Return on assets (ROA) is the ratio of Net Income after Taxes divided by Total Assets. The ROA indicates managerial efficiency, it depicts how effective and efficient the management of companies has been as they seek to convert assets into earnings. A high ratio shows high performance of the companies. Therefore financial performance is the degree to which financial objectives are accomplished and the process of determining the results of the firm in financial terms. It's the qualitative or significant influence on innovation and organizational performance relationship

According to Ngumo (2012) in his study referred to real estate finance as the transferring of title to real estate that is made to secure the performance of some action; such as payment of money by the person making the transfer. Thus the possession of property remains with the borrower, but the lender receives the legal title. According to Fredrick (2015), real estate finance is the capital required for building of houses or the resources vital to acquire or access housing project by household or the credit supplied by housing finance institutions against some collateral.

Ngumo (2012) in his study noted that a mortgage is a transferal of a lawful or equitable interest in a specific fixed property for the payment of debt. Particularly, is it the allocation of title to real estate which is made to safeguard the performance of an action such as payment of money by the person making the transfer.

An efficient housing finance system has a great meaning in meeting the housing needs of individuals and in supporting the development of the construction, finance and other related sectors of an economy (Ojiambo, 2014)

In Section 14 (1) of the Banking Act (cap 488) of the laws of Kenya states that only mortgage finance company shall make loans or advancement for the purpose of land so that the aggregate amount of the loans and advances exceeds 25% of the amount of its total deposits.

However given costs associated with organizing a loan and taking the mortgage as collateral, the lender continuously seeks to determine the ability of the borrower to service the loan. The lending institution will need to consider age, personal circumstances and earning capacity of the prospective borrowers in order to calculate the maximum amount to be lent over an agreed period (Ngumo, 2012)

Insurance companies have been playing a significant role in the commercial and multifamily market for many decades. Through decades of experience including many market cycles, insurers have developed loan structures that have become the standard for many competitors entering the long-term lending market (Davis, 2018). The insurance industry pays to the economy by providing economic security, activating savings and promoting direct and indirect investments. The gross domestic product (constant prices) expanded by 4.9% in 2017 and insurance penetration reduced by 0.03, from 2.71% in 2016 to 2.68% in 2017. (Regulatory Report, 2017)

Real estate financing is mortgage funding. It refers to the provision of funds or capital for purchase of houses or for own building. In this study real estate financing entails mortgage borrowing rate, mortgage repayment rate and mortgage volume.

Mortgage borrowing refers to the process of finding funds or capital for buying a house or building by the investor. Empirical studies revealed a few studies on mortgage borrowing; these studies were majorly based on commercial banks. There is a limited scope as far as the studies are concerned which is its major limitation. There are also conflicting results on mortgage borrowing and financial performance of commercial banks and this suggests more studies to be done which this research seeks to address.

According to Lameck (2016) agreements attract fees and costs that are charged on the mortgage which increase the cost of obtaining finance. Such costs include: legal fees, stamp duty, planning fees, valuation fees, mortgage protection policy all of which add to increase the cost of mortgage and this makes the costs of mortgages very high and out of reach from most individuals as one not only bears the cost of the property but also the additional costs which on average amount to 10% of the property value.

Investing in real estate requires huge amount of capital to be mobilized which the financiers may not raise on their own. This would result to investors borrowing funds from lenders secured in real estate with a mortgage. Wider access to housing finance has a significant impact on construction, economic growth, and urban development (Lameck Mabeya Nyanyuki, 2016).

According to Lameck (2016), his Study revealed that majority of the respondents strongly agreed that mortgage lending has improved profitability margins of most commercial banks.

According to Karanja (2013), Mortgage financing generally centers around two specific goals; the extension of mortgages allows competent individuals and business entities to get properties that can be repaid in conditions that are within the ability of the receiver to pay off in a timely manner. Also, the financing seeks to create income for the lender and. Mortgage loans are secured by the real property, and provide a schedule of payments of interest and repayment of the principal. This study established that there is positive relationship between mortgage financing and profitability of commercial banks in Kenya. Mortgage loans are usually structured as long term loans, the constant payments that are similar to an annuity and calculated according

to the time value of money formula. The most basic arrangements would require a fixed monthly payment over a period of ten to thirty years depending on local conditions. Lenders provide finances against property to earn interest income and borrow those funds themselves like taking deposits or issuing bonds.

The charge at which the lenders borrow money affects the cost of borrowing. Lenders can sell mortgage loans to other parties that are interested in receiving the stream of cash payments from the borrower, often in the form of security by means of securitization.

These studies were majorly based on commercial banks. This study pursues to establish the effect of real estate financing and financial performance of insurance companies.

Mortgage repayment refers to the way of repaying the loan. (Omondi, 2013) In his study found out that there are risks that are involved in repayment of loans such as default risks and market risk. There are a few studies which were conducted according to mortgage repayment; however they only provided conflicting results. These conflicting results lead to a further research which this study seeks to addresses.

According to Enock (2016), Mortgage repayment is the way of repaying the loan which can be through rearranged payment and foreclosure. Mortgage risks refer to possible events if triggered will bring about disastrous occurrences that the lender and the borrower are exposed to. Mortgage risks should be carefully calculated and evaluated to avoid unnecessary losses. To calculate the mortgaging price, calculation of the total cost of the mortgage and addition of the intended profit is done. Mortgage insurance is a credit insurance which aims at protecting the lenders in case the borrower fails to make payments and the property being taken into possession. Most mortgage agreements organize for loans to be fully amortized with adjustable mortgage interest rates; either payment or maturity is fixed for the term of the loan (Enock, 2016)

Enock (2016), In his study on The Effect of Mortgage Financing on Performance of Real Estate Market in Nairobi, Kenya, the objective of the study was to establish the effect of mortgage financing on performance of real estate market in Nairobi, Kenya. He concluded that the amount of mortgage loans, number of mortgage loans balances, GDP growth and inflation rate have a negative effect on the real estate market in Kenya.

According to (Omondi, 2013),Mortgage risks is one of the critical factors that negatively influences mortgage financing as most lenders perceive high probabilities of borrower default. There are two types of lending risks and one of them is known as default risk, which refers to the likelihood that borrowers are likely to default on loan repayment. Another lending risk Is known as market risk and typically refers to the likelihood of the interest rates changing through time to an extend that the lender may earn less if interest rates rise after giving out a loan. The reserve also holds may that the lenders may earn more when the interest rate come down after finishing the contract negotiations and as such the borrower may pay more for an economically less value property. The unpredictability of the change of interest rates presents uncerternity in the market as the borrower and lender are keen to avoid

Omondi (2013), In his study Effect of Interest rates on the funding of mortgage by banks in Kenya found that interest rates and inflation rate positively influences funding of mortgages in banking institutions in Kenya. This conflicting result suggests a further study which this research seeks to address

Mortgage volume refers to capacity or size of mortgage lend out. The observed studies on the correlation between mortgage loans and bank performance was majorly based on commercial banks. There results therefore cannot be generalized and applied to other sectors i.e. non-banking financial institutions like insurance companies which this study seeks to explore. There are also conflicting results in the studies conducted which leads to a further research.

The study by Ouma (2018) did not find evidence of meaningful effect of mortgage loans on the performance of commercial banks. Ouma (2018), Carried out a study on the correlation between Volume of Mortgage Lending and Financial Performance of Commercial Banks listed in Nairobi Securities Exchange. The study sought to determine the correlation between volume of mortgage lending and financial performance of commercial banks listed in Nairobi securities exchange. The results showed that there is a meaningful negative relationship at 95% interval level between the financial performance variables (ROE, ROA and NIM) and the main independent variable (Mortgage volume), that is -0.326, -0.2591 and -0.208 respectively.

Fredrick (2015) in his study did not find proof of a meaningful effect of mortgage loans on the performance of commercial banks. The author had examined the effect of real estate finance on the financial performance of commercial banks. He used a Panel Evidence; the descriptive results revealed that mortgage loans were averagely 10 percent of total loans. Bank specific

mortgages showed positive growth in most of the banks while some showed negative growth. It may not be very clear whether the falling growth in mortgage loan portfolios for some banks was as a result of the growth in overall loans which have affected the proportionate distribution of mortgage loans as compared to the overall total loans. He therefore concluded that real estate finance does not affect the financial performance.

The insurance industry pays to the economy by providing financial security, activating savings and encouraging direct and indirect investments. The gross domestic product (constant prices) grew by 4.9% in 2017 (Regulatory Report, 2017)

The real estate market has proved its significance in the recent past due to the high volume of the transactions and prices, its contribution to the gross domestic product and the overall positive effects to the economy. Despite this significance, most real estate projects still lag behind as they do not produce the expected returns. This is attributed mainly to the high capital outlay required during the initiation, development and maturation of the real estates. Hence the finance sourcing proves to be a milestone to many willing entrepreneurs (Enock, 2016)

Mortgage financing aims at puzzling out this financing problem faced by real market developers that are brought about by various constraints such as economic instability and stringent measures imposed by most financial institutions (Enock, 2016). This is through provision of mortgage loans which are to be paid at a later date.

An efficient mortgage credit management is required in order to minimize the costs involved in loan allocation whereas on the other hand maximizing the returns from such undertakings and thus making the bank more profitable (Karanja, 2013).

1.2 Statement of problem

The insurance industry contributes to the economy by providing financial security, mobilizing savings and promoting direct and indirect investments. The gross domestic product (constant prices) expanded by 4.9% in 2017 while insurance penetration reduced by 0.03, from 2.71% in 2016 and in 2017 to 2.68%. Insurance companies have generally invested in residential mortgages; this mode of investment has continuously become a smaller and smaller percentage of their portfolio. This affects the financial performance of these companies in a substantial manner. As a result, the country's financial system becomes at risk and at exposed. The housing

gap in Kenya is large and is growing annually; increasingly prevalent in urban centers due to differences in income levels in the economy. The housing demand increases by 206,000 units per year with 82,000 units necessary in urban areas. The Ministry of Housing in 2015 estimated that the formal supply of houses to the market extended 50,000 creating a 156,000 shortage which added up to the 2 million units existing deficit.

Increased mortgage size has been attributed to the expensive housing market, predominance of high income mortgage borrowers in Kenya and housing finance market that is yet to move downstream. The effect of real estate financing on the economy as well as on the performance of the financial sector in general has not been given focused on by researchers in Kenya. The few studies that have been done focused on commercial banks. A search for observed literature on the determinants of performance of insurance companies in general and the effect of real estate financing on the performance of insurance companies in Kenya has revealed the existence of very few studies. There is therefore a gap in literature as far as the study on the effect of real estate financing on the financial performance of insurance companies is concerned, a gap which this study sought to address.

1.3 Research objectives

The General Objective of the study was to analyze the effect of real estate financing on financial performance of insurance companies in Kenya.

Specific objectives of this study were to:

1. Establish the effect of mortgage repayment on the financial performance of insurance companies in Kenya.
2. Determine the effect of interest rate of mortgage borrowing on financial performance of insurance companies in Kenya.
3. Establish the relationship between volume of mortgage lending and financial performance of insurance companies in Kenya.

1.4 Research hypotheses

H_{01} There is no relationship between mortgage repayment and financial performance of insurance companies.

H_{02}The interest rate lending does not affect the financial performance of insurance companies.

H_{03}There is no correlation between volume of mortgage lending and financial performance of insurance companies.
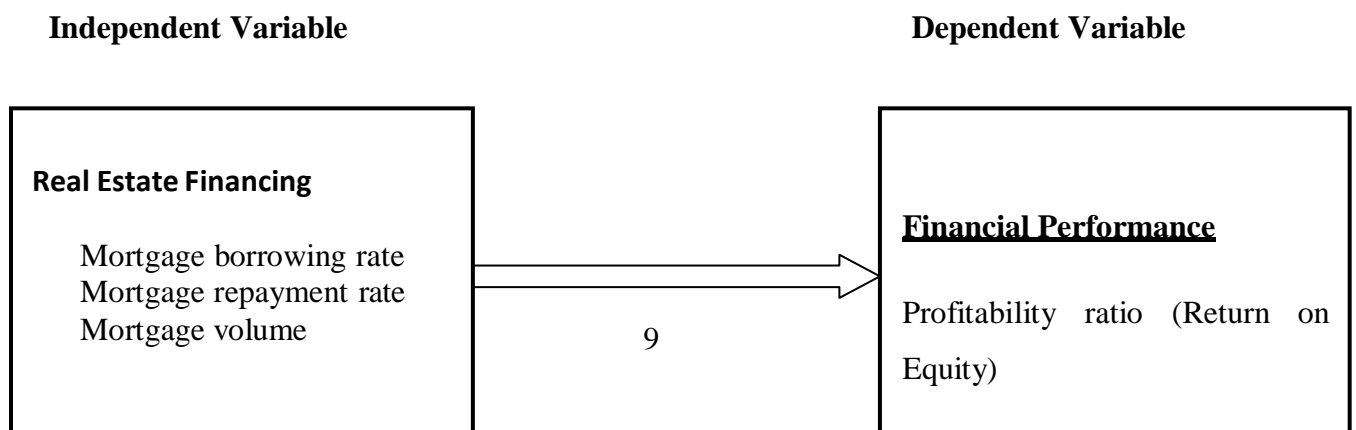
1.5 Scope of the study

This study focused on the real estate financing and its implication on the financial performance of insurance companies. The Data for six listed insurance companies was collected for the period 2011 – 2018 yielding 48 data points. The secondary was sourced from the annual reports that are available from their websites, the NSE and the Central bank of Kenya website, which gave 48 data points from the annual reports of the respective insurance companies listed on the Nairobi securities exchange.

1.6 Justification of the study

This study would be of great benefit to insurance companies in Kenya since it will outline risk factors involved in financing mortgages. The development of the insurance companies depend on several factors of which mortgage financing plays a major role in the sector. The findings of this study will be significant to individual investors interested in seeking mortgage financing since it provides the various channels through which one can access the services. The findings of this study will be significant to academicians in that it will add to the knowledge of the researchers in this field of study. The findings will also be significant to policymakers in that it will serve as a guide to them when making policies regarding real estate financing in the country private equity fund investing

1.7 Conceptual Framework

Independent Variable   **Dependent Variable**

Real Estate Financing

    Mortgage borrowing rate
    Mortgage repayment rate
    Mortgage volume

Financial Performance

Profitability ratio (Return on Equity)

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Figure 1.1: Relationship between real estate financing and financial Performance

Source: Adapted from Mathura, 2012

The conceptual frame work depicts that there is a relationship between the independent variable (Real estate finance) and the dependent variable (Financial performance). The conceptual framework illustrates how real estate finance affect financial performance of insurance companies listed on Nairobi securities exchange. The framework was constructed using two variables namely: real estate finance (independent variable), which includes: mortgage borrowing, mortgage repayment, mortgage volume. It's perceived that these variables affect financial performance (dependent variable).

CHAPTER TWO:
LITERATURE REVIEW

This chapter presents the literature review. First, a theoretical review is provided focusing on theories that explain issues to do with the determinants of the financial performance of insurance companies. Secondly, an empirical review of the studies that have been done on the effects of real estate finance on the financial performance is carried out.

2.1 Theoretical Literature

This study embraced three main theories namely; title and Lien Theory, Interest rate Theory and Mortgage Value Model.

2.1.1 Title and Lien Theory

According to this theory which was proposed by Davis, (1956), the lender gets lien whereas the borrower receives both legal and equitable title of the mortgage property. Enock (2016) in his study found out that there is a rearrangement of mortgages and deeds in that a non-possessory lien is levied on the title to the mortgaged property whereas the owner still possess both legal and equitable title. He stated that this protected the lender so that in case the borrower defaults in payment, the lender will be able to repossess the property. Also the lender's lien is withdrawn upon completion of the payment of the mortgage. This is not in accordance to the current situation in which the buyer has the title to the property other than the lender.

Karanja (2013) in his study noted that in the title theory, the property-law doctrine states that a mortgage transfers title to a property to the mortgagee, who holds it until the mortgage has been paid off, at which time title passes to the mortgagor.(Karanja, 2013)Proposes that in title theory, the banks retain the title since the mortgagor is said to hold a title interest, this mortgager has the right of 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, the mortgage is treated as having transferred title to the mortgagee, subject to the mortgagee's duty to recovery if payment is made. The title is said to remain with the mortgagee until the mortgage has been satisfied and foreclosed.

Fridah (2014) Stated that under lien theory, the borrower acquires the title upon signing of the documents but there are encumbrances which the lender holds in case of default by the borrower.

In case of default, lenders face difficulties to repossess mortgage property since the borrower holds the title and possess the mortgage property and land.

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.

In these theories, there is evidence that the property that is mortgaged result into additional loan by the bank to the mortgagor. This also results into increase in loan volume and with this increase the interest arising from the loan increases the profitability hence good performance for the banks. (Ouma, 2018).

This theory is very applicable to this study because some mortgage investors have accepted it in practice including insurance companies. From the theory, a mortgage can be given lien in the property which can only foreclose upon to completion of the obligation of the mortgage. In this case the obligation is mortgage repayment.

2.1.2 Interest Rate Theory

According to Muthaura (2012), Interest rates are the annual charges for borrowing funds; usually they are in percent of the amount borrowed. Changes in the rates of interest affect the overall cost of borrowing and thus expenditures undertaken with the borrowed funds. High rates of interest will reduce expenditures and lower interest rates are likely to increase expenditures. The cost of borrowing these funds depends on the charges in form of interest rates. High rates of interest can add to the overall cost of these expenditures. Low rates of interest can lower the overall cost of these expenditures. This means that changes in interest rates can induce changes in consumption and investment spending, and thus aggregate demand.

The theory is applicable to the study because interest's rates determine mortgage borrowing. When interest rates are high, the mortgager will be willing to lend more because it reduces his expenditures, but when interest rates are low, the borrowers demand will be high but the mortgagor will incur losses because of the increased expenditures taking consideration of inflation and other risks that affects mortgage borrowing.

2.1.3 Mortgage Value Model

In the Mortgage Value Model the main objective of banks is the maximization of expected profits under the limitations of liquidity, soundness, standing and lawfulness. The implementation and use of an integrated system of risk-return management focused on adding and creating the value of shareholder is essential. As a result a process of integrated risk and return management has objectives such as: Management of a portfolio from an overall integrated view; optimization of risk/ reward relations of the bank portfolio; identification of risk/ reward efficient portfolio strategies; setting of risk/ reward efficient management targets; implementation in ongoing business; consistent and efficient risk/ reward management of business lines; and accurate determination of value versus loan amount and pricing in accordance (Ouma, 2018).

The Mortgage Value Model, the banks forecasts the economic value of new retail mortgage business and helps the business in making strategic and tactical decisions based on future profitability. The model will allow mortgage loans to: Drive the value from new business lending by understanding expected economic profit returns at a strategic cohort level, for example with specific customer types, products, distribution channels, loan-to-value (LTV) buckets and regional segments; design new or adjust existing product propositions to enhance profitability and support banks growth; design lending strategies by assessing future value by risk level, e.g. using scorecard accept/ decline cut-offs to mitigate loss making segments of new business; the price for risks becomes market competitive while ensuring that the business is adding value; and provide a platform that will enable controlled challenge to seek new business opportunities to increase sales (Karanja, 2013). This model is relevant to this study because, practically, insurance companies will consider factors such as: whether the borrower is a client, whether the client holds any long term scheme and the premiums one contributes per month, the prevailing interest rate, before it can determine the volume of mortgage to lend out.

2.1.4 Real estate financing

Real estate financing is the provision of finance or capital for housing purchase or building. Real estate finance also means the capital required for construction of housing or the resources required to acquire or access housing project by household or the credit supplied by housing finance institutions against some collateral (Ojiambo, 2014).

Through mortgage financing, there is development of mortgage market, acquisition of homesby potential homebuyers and employment creation. It is measured in terms of interest charged and mortgage terms. Mortgage financing enables acquisition of mortgage properties by able potential homeowners through scheduled repayment and to the lender, it is an avenue of revenue generation since there are interest charges.(Enock, 2016)

Mainly we have two types of mortgages that are fixed and adjustable as indicated by (Abdulvehman, 2017). In the context of fixed mortgage interest rate is assumed to remain constant through the period while for the case of adjustable mortgage, interest rate is normally lower than that of the fixed mortgages. Fixed mortgages are assumed to be of advantage since repayments rate monthly remain the same for the loan life(Abdulvehman, 2017)

Internationally, there are various institutions that are involved in the lending of money for real estate projects and these include: insurance companies, commercial banks, mortgage finance firms, saving and loans co-operatives, government parastatals, pension funds, trusts and other real investment institutions (Ojiambo, 2014).

2.1.4.0 Elements of real estate finance

2.1.4.1 Mortgage Borrowing

Mortgage borrowing is the process of obtaining funds or capital for buying houses or building a house by the investor. Empirical studies revealed a few studies on mortgage borrowing; these studies were majorly based on commercial banks. There is a limited scope as far as the studies are concerned which is its major limitation. There are also conflicting results on mortgage borrowing and financial performance of commercial banks which suggests a additional studies to be done which this research seeks to address.

According to Lameck (2016) agreements attract fees and costs that are charged on the mortgage which increase the cost of obtaining finance. Such costs include: legal fees, stamp duty, planning fees, valuation fees, mortgage protection policy all of which add to increase the cost of mortgage and this makes the costs of mortgages very high and out of reach from most individuals as one not only bears the cost of the property but also the additional costs which on average amount to 10% of the property value.

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The charge at which the lenders borrow money affects the cost of borrowing. Lenders can sell mortgage loans to other parties that are interested in receiving the stream of cash payments from the borrower, often in the form of security by means of securitization.

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2.1.4.2 Mortgage Repayment

Mortgage repayment refers to the way of repaying the loan. (Omondi, 2013) In his study found out that there are risks that are involved in repayment of loans such as default risks and market risk. There are a few studies which were conducted according to mortgage repayment; however they only provided conflicting results. These conflicting results lead to a further research which this study seeks to addresses.

According to Enock (2016), Mortgage repayment is the way of repaying the loan which can be through rearranged payment and foreclosure. Mortgage risks refer to possible events if triggered will bring about disastrous occurrences that the lender and the borrower are exposed to. Mortgage risks should be carefully calculated and evaluated to avoid unnecessary losses. To calculate the mortgaging price, calculation of the total cost of the mortgage and addition of the intended profit is done. Mortgage insurance is a credit insurance which aims at protecting the lenders in case the borrower fails to make payments and the property being taken into possession. Most mortgage agreements organize for loans to be fully amortized with adjustable mortgage interest rates; either payment or maturity is fixed for the term of the loan (Enock, 2016)

Enock (2016), In his study on The Effect of Mortgage Financing on Performance of Real Estate Market in Nairobi, Kenya, the objective of the study was to establish the effect of mortgage financing on performance of real estate market in Nairobi, Kenya. He concluded that the amount of mortgage loans, number of mortgage loans balances, GDP growth and inflation rate have a negative effect on the real estate market in Kenya.

According to (Omondi, 2013),Mortgage risks is one of the critical factors that negatively influences mortgage financing as most lenders perceive high probabilities of borrower default. There are two types of lending risks and one of them is known as default risk, which refers to the likelihood that borrowers are likely to default on loan repayment. Another lending risk Is known as market risk and typically refers to the likelihood of the interest rates changing through time to an extend that the lender may earn less if interest rates rise after giving out a loan. The reserve also holds may that the lenders may earn more when the interest rate come down after finishing the contract negotiations and as such the borrower may pay more for an economically less value property. The unpredictability of the change of interest rates presents uncerternity in the market as the borrower and lender are keen to avoid

Omondi (2013), In his study Effect of Interest rates on the funding of mortgage by banks in Kenya found that interest rates and inflation rate positively influences funding of mortgages in banking institutions in Kenya. This conflicting result suggests a further study which this research seeks to address.

2.1.4.3 Mortgage Volume

Mortgage volume refers to capacity or size of mortgage lend out. The empirical studies on the relationship between mortgage loans and bank performance was majorly based on commercial banks. There results therefore cannot be generalized and applied to other sectors i.e. Non-banking financial institutions like insurance companies which this study seeks to explore. There are also conflicting results in the studies conducted which leads to a further research.

Ouma (2018), Carried out a study on the Relationship between Volume of Mortgage Lending and Financial Performance of Commercial Banks Quoted in Nairobi Securities Exchange

The study sought to determine the relationship between volume of mortgage lending and financial performance of commercial banks quoted in Nairobi securities exchange. The results showed that there is a significant negative correlation at 95% interval level between the financial performance variables (ROE, ROA and NIM) and the main independent variable (Mortgage volume), that is -0.326, -0.2591 and -0.208 respectively. This helped to show that there are no

(Fredrick, 2015), in his study The Effect of Real Estate Finance on the Financial

Performance of Listed Commercial Banks in Kenya: A Panel Evidence, The descriptive results showed that mortgage loans averaged 10 percent of total loans. Bank specific mortgages showed positive growth in most of the banks while some showed negative growth. It may not be clear whether the falling growth in mortgage loan portfolios for some banks was as a result of the growth in overall loans which have affected the proportionate distribution of mortgage loans as compared to the overall total loans. The study concludes that real estate finance does not influence the financial performance. These conflicting results lead to a further research which this study seeks to addresses.

2.2   Empirical Literature Review

Examination of how bank performance is influenced by mortgage finance has been carried out by very few scholars. Mostly, scholars have devoted their time to examine the determinants of mortgage financing or bank performance. This section evaluates empirical studies that have examined how mortgage loans or real estate finance in general influence financial performance

Karanja (2013), Carried out a study on Mortgage Financing and Profitability of Commercial Banks in Kenya, the study sought to determine the relationship between mortgage financing and profitability of commercial banks in Kenya. It adopted a descriptive research design; the study used primary data and secondary data. The inferential analysis which includes regression and correlation was done to establish the relationship between mortgage financing and profitability of commercial banks in Kenya. The study concluded that commercial banks in Kenya emphases on mortgage financing to improve their profitability. The study established that there is positive relationship between mortgage financing and profitability of commercial banks in Kenya.(Karanja, 2013).This study though it contributed to literature, it was limited in its scope; it only concentrated on the banking sector but did not give attention to the non-banking sector which also provides mortgage finance, the gap which this study seeks to evaluate.

Muthaura (2012), Did a study on The Relationship between Interest Rates and Real Estate Investment in Kenya. The purpose of the study was to portray the relationship between interest rates and real estate investment with a focus of Kenya. The study sought to show case this effect by showing how house prices are affected by the cost of borrowing. The research problem was analyzed through the use of the simple user cost model. The target population of this study was all 35 mortgage lending banks in Kenya as at November 2010, from which a sample of 18 was drawn to analyze the research problem. Data for the purpose of the study was collected using data collection forms to 18 mortgage lending banks that have been running the mortgage product from 2007-2011. Study findings indicated that indeed interest rates affect house prices, most real estate retail borrowers and investors alike are forced to increase the house prices to cater for the cost of borrowing and to also break-even. This study focused on the relationship between interest rates and real estate investment in Kenya but did not analyze the effect of interest rates on mortgage borrowing, the gap which this study seeks to investigate.

Enock (2016), Carried out a study on The Effect of Mortgage Financing on Performance of Real Estate Market in Nairobi, Kenya, the objective of the study was to determine the effect of mortgage financing on performance of real estate market in Nairobi, Kenya. The study adopted a descriptive research design. They analyzed their data using multiple regressions and found that the number of mortgage loans, amount of mortgage loans balances, GDP growth and inflation rate to have a negative effect on the real estate market in Kenya. The study, by use of the research variables concluded that a positive and significant effect between mortgage financing and real estate market performance which is supported by a coefficient of correlation of 0.746 that was obtained. The study recommends that the government through the Central Bank and mortgage lending firms execute policies that ensure that low interest rates is charged on mortgages. The study focused on Nairobi County, and its conclusion cannot be generalized to other counties in Kenya.

Fridah (2014), Carried a study on the Effect of Mortgage Financing on Performance Of Real Estate Market in Kenya. This study sought to establish the effect of mortgage financing on performance of real estate market in Kenya. The study employed stratified sampling techniques to draw a sample size of 392 respondents. Structured questionnaires and interviews were used as instruments of data collection to gather primary data from the respondents. Multiple regression analysis models were used to establish the effect of mortgage financing on performance of real estate market in Kenya. The study revealed that positive relationship exists between mortgage financing and performance of real estate market in Kenya. Homeowners invest in real estate property in anticipation of future increase in prices and rental income. Financial institutions provide adequate information to potential homeowners thus there is flow of information hence reduction in cases of moral hazards and adverse selection. To boost performance of real estate market in Kenya, the government has introduced RIETs, private public partnership, introduction of pension funds to be used as security to access the mortgage market.(Kioko, 2012). While the author attempted to show how mortgage finance influences real estate market in Kenya, the use of interviews is not reliable enough to conclude on whether real estate market is influenced by mortgage finance. This was the major limitation of the study hence the need to further test this relationship using panel data.

Ouma (2018), Carried out a study on the Relationship between Volume of Mortgage Lending and Financial Performance of Commercial Banks Quoted in Nairobi Securities Exchange. The purpose of this study was to determine the relationship between mortgage financing and financial performance of commercial banks quoted in NSE. Mortgage Value Model theory guided the study. Secondary data was reviewed from CBK and NSE reports, between January 2006 and December 2014, giving 99 data points. Data obtained from audited reports were deemed reliable and valid. This study adopted correlation design. the inferential analysis indicated a significant negative correlation at 95% interval level between the financial performance variables (ROE, ROA and NIM) and the main independent variable (Mortgage volume), that is -0.326, -0.2591 and -0.208 respectively. This helped to show that there are no any serial correlations. This implied that there was a weak negative relationship between ROE, ROA and NIM and Mortgage volume. (Ouma, 2018). The study was limited to mortgage volume but it did not analyze how repayment of mortgage finance can affect the financial performance of insurance companies the gap which this study seeks to investigate.

Mrotek (2008), Carried out a research on Data Organization and Analysis in Mortgage Insurance: The Implications of Dynamic Risk Characteristics. He concluded that Mortgage guaranty insurance loss reserves are provisions for losses due to insured loans provision for losses due to loans insured but not delinquent. The major limitation of this study was its focus on USA (Ohio) which makes the results of the study difficult to generalize for other insurance companies outside USA and especially in Sub-Saharan Africa. This study also did not specifically address how mortgage loans influence performance of insurance companies. There is therefore a gap in literature as far as the study on the effect of real estate financing on the financial performance of insurance companies is concerned, a gap which this study sought to address.

2.2.1 Mortgage Borrowing and Financial performance

According to Lameck (2016), Mortgage contracts attract fees and costs that are levied on the mortgage that increase the cost of obtaining it. Such costs include: valuation fees, mortgage protection policy, stamp duty, arrangement fees, legal fees, all of which increase the cost of mortgage and this pushes the costs of mortgages out of reach from most individuals as one not only has to bear in mind the cost of the property but also consider the additional costs which on average amount to 10% of the property value.

Investing in real estate requires huge amounts of capital to be mobilized which the investors may not be able to raise on their own. This would result to investors borrowing funds from lenders secured in real estate with a mortgage. Wider access to housing finance has a significant impact on construction, economic growth, and urban development (Lameck Mabeya Nyanyuki, 2016). Lameck (2016), Study revealed that majority of the respondents strongly agreed that mortgage lending has improved profitability margins of most commercial banks.

According to Karanja (2013), Mortgage financing normally centers around two specific goals. First, 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. Secondly, the financing seeks to create revenue for the lender and. Mortgage loans are secured by the real property, and provide a schedule of payments of interest and repayment of the principal. The study established that there is positive relationship between mortgage financing and profitability of commercial banks in Kenya. These studies were majorly based on commercial banks.

This study sought to establish the effect of real estate financing and financial performance of insurance companies.

2.2.2   Mortgage Repayment and Financial Performance

According to Enock (2016), Mortgage repayment is the mode of repaying the loan which can be through rescheduled payment, delinquency, prepaying through resale or fore closure .Mortgage risks on the other hand refers to possible unfortunate occurrences that the lender and the borrower are exposed to. Mortgage risks should be carefully calculated and evaluated to avoid unnecessary losses. Mortgaging price is obtained by calculating the total cost of the mortgage and addition of the intended profit. Mortgage insurance is a credit insurance which aims at protecting the lenders just in case the borrower defaults in payments and the property being taken

into possession. 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 (Enock, 2016)

Enock (2016), In his study on The Effect of Mortgage Financing on Performance of Real Estate Market in Nairobi, Kenya, the objective of the study was to determine the effect of mortgage financing on performance of real estate market in Nairobi, Kenya. He concluded that the number of mortgage loans, amount of mortgage loans balances, GDP growth and inflation rate have a negative effect on the real estate market in Kenya.

According to Omondi (2013), Mortgage risks is one of the critical factors that negatively influences mortgage financing as most as s that most lenders perceive high probabilities of borrower default. There are two types of lending risks and one of them is known as default risk, which refers to the likelihood that borrowers are likely to default on loan repayment. Another lending risk Is known as market risk and typically refers to the likelihood of the interest rates changing through time to an extend that the lender may earn less if interest rates rise after giving out a loan. The reserve also holds may that the lenders may earn more when the interest rate come down after finishing the contract negotiations and as such the borrower may pay more for an economically less value property. The unpredictability of the change of interest rates presents uncertainty in the market as the borrower and lender are keen to avoid losing on their investments (Omondi, 2013).

2.1.5 Mortgage Volume and Financial performance

Mortgage volume refers to capacity or size of mortgage lend out. The observed studies on the correlation between mortgage loans and bank performance was majorly based on commercial banks. There results therefore cannot be generalized and applied to other sectors i.e. non-banking financial institutions like insurance companies which this study seeks to explore. There are also conflicting results in the studies conducted which leads to a further research.

The study by Ouma (2018) did not find evidence of meaningful effect of mortgage loans on the performance of commercial banks. Ouma (2018), Carried out a study on the correlation between Volume of Mortgage Lending and Financial Performance of Commercial Banks listed in Nairobi Securities Exchange. The study sought to determine the correlation between volume of mortgage lending and financial performance of commercial banks listed in Nairobi securities exchange. The results showed that there is a meaningful negative relationship at 95% interval level between the financial performance variables (ROE, ROA and NIM) and the main independent variable (Mortgage volume), that is -0.326, -0.2591 and -0.208 respectively. This helped to show that there are no any serial correlations. This meant that there was a weak negative relationship between ROE, ROA and NIM and Mortgage volume.

Fredrick (2015), in his study The Effect of Real Estate Finance on the Financial

Performance of Listed Commercial Banks in Kenya: A Panel Evidence, The descriptive results revealed that mortgage loans averaged 10 percent of total loans. According to him, specific mortgages in most banks revealed positive growth while some showed negative growth. It may not be clear whether the decreasing growth in mortgage loan portfolios for some banks was as a result of the growth in overall loans which have affected the proportionate distribution of mortgage loans as compared to the overall total loans. The study concludes that real estate finance does not influence the financial performance. This conflicting results leads to a further research which this study sought to fill.

CHAPTER THREE
RESEARCH METHODOLOGY

This chapter discusses the research design and methodology of the study; it provides a full description of the research design, the research variables as well as a broad description of the population and its selection.

3.1 Research Design

The study adopted correlation research design. Kothari (2004), states that correlation analysis studies the joint variation of two or more variables for determining the amount of correlation between two or more variables. In general, a correlational study is a quantitative method of research in which the similarities between two or more quantitative variables from the same group of subjects are determined. Data for six listed insurance companies was collected for the period 2011 – 2018 from the annual reports of the respective companies. Panel regression analysis was used for analysis on the collected data.

3.2 Target Population

The population of this study was all the six listed insurance companies in Kenya for the period 2011-2018 which yielded 48 data points. As on 31/1/2019, there were 6 listed insurance companies in Kenya.

3.3 Data Collection

For the purposes of this study, only secondary data was used. The secondary data was sourced from the annual reports that are available from their websites, the NSE and the Central bank of Kenya website.

3.3.1 Reliability Test for Data Set

Use of secondary data derived from audited and published financial statements prepared through use of generally accepted accounting principles (GAAPs) is considered to be reliable since their preparation is guided by accounting principles, conventions and standards that are adopted globally. Before empirical estimations were conducted, the data series was subjected to unit root tests to establish their stationarity conditions, that is, their orders of integration. Where a series was found to be non-stationary at levels, it is differenced until it became stationary. According to Baltagi (2001), the stationarity or otherwise of a series can strongly influence its behavior and properties. In panel data, there are two common methodologies for testing for unit roots namely the Levin, Lin, Chu (LLC) and Im, Pesaran, Shin (IPS). While LLC assumes that there is a common unit root process across all cross-sections, IPS assumes that there are individual unit root processes (Baltagi, 2001). Nonetheless, both methodologies test the null hypothesis of a unit root (non-stationarity) against an alternative hypothesis of no unit root or stationarity. In this study, both methodologies are used for robustness purposes. Table 3.1: provides a summary of the panel unit root test results. The results indicate that all variables are integrated of order zero, that is, are stationary at levels. Given that all variables were integrated of order zero, there was therefore no need to test for cointegration in the series.

Table 3.1: Summary of Panel Unit Root Test Results on Study Variables

Variable	Levin, Lin, Chu (LLC)	Im, Pesaran, Shin (IPS)	Conclusion
Mortgage borrowing rate	-36.009 (0.000)***	-10.068 (0.000)***	I(0)
Mortgage repayment rate	-24.566 (0.000)***	-4.861 (0.000)***	I(0)
Mortgage volume	-153.376 (0.000)***	-27.165 (0.000)***	I(0)
Return on Equity (ROE)	-9.391 (0.000)***	-2.221 (0.000) ***	I(0)

Source: Field Data, 2019

3.4 Data Analysis

The study used panel regression and correlation analysis to establish the effect of the variables on financial performance of insurance companies. Linear regression was carried out to test the influence of the variables on the financial performance of the listed insurance companies. The model was tested for statistical significance at a level of significance of 5%.

3.4.1 Model Specification

The study used the following model:

$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X2_{it} + \beta_3 X_{3it} + \varepsilon_{it}$

i = Insurance firms (1-6)

t = Time (2011-2018)

Y_{it} = is financial performance of insurance companies at time period

α = is the regression constant

β_1, β_2 & β_3 = coefficients of the variables in the regression model.

ε_{it} = the error term

X_1 = mortgage repayment

X_2 = mortgage borrowing

X_3 = mortgage volume

CHAPTER FOUR

RESULTS AND DISCUSSIONS

The chapter presents the results and discussions for each objective. The first section presents descriptive statistics on the study variables. Subsequently, panel multiple regression analysis are presented with respect to each objective.

4.1 Descriptive Statistics of Mortgage borrowing rate, mortgage repayment rate, mortgage volume and Return on Equity

Table 4.1 displays the descriptive statistics for study variables across all the insurance firms sampled. Mean ROE is 0.165 with the highest and lowest ROE of 0.693 and -0.238 respectively, ROE is the ratio of net earnings after tax divided by equity in book value and it measures the earnings generated by shareholders' equity for a period of time, usually one accounting year. This implies that on average, shareholders of listed insurance firms at the NSE earn a return on their investment of 16.5 % and the highest return and lowest returns (loses) on equity are 69.3 % and -23.8 % respectively during the period 2011 to 2018. Consequently, this means that listed insurance companies generate Kshs16.5 profit on every Kshs 100 invested by their shareholders during the same period.

Table 4.1: Descriptive Statistics on the Study variables

Statistics	Mortgage repayment rate	Mortgage borrowing	Mortgage volume	ROE
Mean	65.286	0.258	1.319	0.165
Median	69.405	0.223	0.861	0.143
Maximum	96.310	0.794	7.791	0.693
Minimum	11.040	0.000	0.061	-0.238
Std. Dev.	17.292	0.172	1.346	0.12
Skewness	-0.892	0.881	2.028	1.045
Kurtosis	3.705	3.311	3.462	5.803
Jarque-Bera	39.227	34.144	387.741	130.368
Probability	0.000	0.000	0.000	0.000

Sum	16713.300	66.053	337.696	42.163
Sum Sq. Dev.	76249.160	7.556	462.163	3.649
Observations (n)	48	48	48	48

Source: Field Data, 2019

4.2 Effect of mortgage borrowing on financial performance

In order to assess the effect of mortgage borrowing rate on financial performance, panel regression analysis was used to estimate the study model.

Table 4.2: Panel Least Squares Multiple Regression Estimation Results on the Study Variables

	Financial Performance (Return on Equity) Model				
Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*	
C	5.1563	*0.5189*	9.9377	0.0000	
Mortgage borrowing	-0.5144	*0.2038*	-2.5242	0.0124**	
Mortgage repayment	-0.0057	*0.0027*	-2.1191	0.0353**	
Mortgage volume	0.2302	*0.0993*	2.3179	0.0215**	
Adjusted R^2	0.8594				
Durbin Watson Stat	2.000				

Source: Field Data, 2019, n = 48 **P<0.05, (**, represent significance at 5 %)

Dependent variable: Financial Performance, Independent variables: Mortgage borrowing, mortgage repayment and Mortgage volume

Results displayed in Table 4.2 indicate that mortgage borrowing rate negatively affects financial performance of insurance companies listed at NSE (β = - .5144 (p = .0124). These results concur with the previous studies (Fridah, 2014 and Kioko, 2012) who in their individual studies found that mortgage interest borrowing rate negatively affects financial performance. However, the findings contradict those of Karanja, 2013 who report both positive relationship between mortgage interest rates and performance firms.

4.3 Effect of Mortgage Repayment on Financial Performance

To determine the effect of mortgage repayment on financial performance, panel regression analysis was used to estimate the parameters of the model. The results are summarized in Table 4.2 indicating that mortgage repayment significantly negatively affects financial performance of insurance companies listed at NSE (β = -.0057 (p = .035). These results are in tandem with the previous studies (Omondi, 2013) who found that mortgage repayment rate negatively affects financial performance. However, the findings are at variance with those of Enock, 2016 who found positive relationship between mortgage repayment and performance.

4.4 Effect of mortgage Volume on financial performance

In order to assess the effect of mortgage volume on financial performance, panel regression analysis was used to estimate the parameters of the model. The results were that mortgage volume significantly positively affects financial performance of insurance companies listed at NSE (β = 0.2302 (p =. 0215). These results concur with the previous studies (Lameck, 2016) who found that mortgage volume positively affects financial performance.

Therefore the fitted model is as follows:

Financial Performance (ROE) =5.1563-0.5144 MORTBORR-0.0055 MORTREP+0.0023 MORTVOL

$$\text{(4.1)}$$

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents a summary, conclusions and recommendations of the study. It also presents the limitations of the study. Finally, it suggests areas for further studies.

5.1 Summary of findings

Multivariate analysis using panel multiple regression shows that mortgage borrowing has a significant negative effect on financial performance of insurance firms as measured in terms of ROE, mortgage repayment rate has a significant negative effect on financial performance and mortgage volume has a positive significant effect on financial performance of insurance companies listed at NSE.

5.2 Conclusions

The study concludes that mortgage borrowing negatively affects financial performance of insurance companies listed at NSE; mortgage repayment negatively affects financial performance of listed insurance companies and mortgage volume positively affects financial performance of insurance companies in Kenya.

5.3 Recommendations

The following recommendations can be made for this research. Based on the first conclusion, it is recommended that managers of listed insurance companies reconsider negotiating mortgage interest rates.

On the second conclusion, it is recommended that insurance policy makers and managers to relook at the mortgage repayment rate with a view to reducing it to avoid adverse effects it has on financial performance and lastly, based on the third conclusion, the study recommends that insurance companies to apply for higher levels of mortgage loans as this enhances financial performance.

5.4 Limitations of the Study

While this research makes significant contributions to the body of knowledge mortgage financing and financial performance, it is necessary to evaluate the results in the context of the study's methodological limitations. A number of limitations are identified in the conduct of this research.

First, only listed insurance companies are included in the study. Restricting the study to publicly traded insurance corporations excludes a significant and most efficient institutional arrangement for undertaking productive activities thereby compromising its global generalizability. Since the study covered only listed firms, it left out non-listed firms and these firms represent a proportion of insurance companies in Kenya so the results of the study cannot be generalized for all insurance companies in the Kenyan economy. Therefore, the researcher advises the readers to restrict generalization of the results within listed firms in frontier and emerging securities market. Any generalization beyond these markets should be done with utmost caution.

Second, the study relies on secondary data. The data was assumed to be reliable and thus only subjected to unit root test to confirm its stationarity conditions and reliability. Furthermore, the data is subject to different accounting policies and since the insurance firms had not adopted uniform accounting policies, random accounting year ends, the data may exhibit such weaknesses. Therefore, like many empirical studies that rely on disclosed proxy data, proxy disclosures may not represent all aspects of financial performance.

5.5 Suggestions for Further Research

The following suggestions are made for further studies. First, studies should be designed with a view to replicating the results of this research within the wider setting of Kenya. How predictor variables are likely to play out with the dependent variable in both bivariate and multivariate analysis may be more informative to both industry players and policy makers in designing the real estate financing mix.

Second, future researchers should consider other contexts and combine both secondary and primary data to check the interrelationships between the study variables. Lastly, future scholars could expand the number of insurance firms studied to include the non-listed insurance firms and also pay special attention to small and medium scale companies not listed at the Nairobi Securities Exchange since they are major agents of employment and economic growth in Kenya.

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APPENDICES

APPENDIX 1: DATA COLLECTION FORM

VARIABLES				
COMPANY NAME	YEAR	MORTGAGE REPAYMENT	MORTGAGE BORROWING	MORTGAGE VOLUME
	2011			
	2012			
	2013			
	2014			
	2015			
	2016			
	2017			
	2018			

Table 1:Data collection forms for different insurance companies listed on Nairobi securities exchange