FINANCIAL FACTORS INFLUENCING PRICING OF RESIDENTIAL HOUSES IN NAKURU EAST SUB-COUNTY, KENYA

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A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF BUSINESS AND ECONOMICS IN PARTIAL FULFILMENT FOR THE REQUIREMENT FOR THE AWARD OF MASTER OF SCIENCE IN FINANCE DEGREE (FINANCE AND INVESTMENT ANALYSIS OPTION) OF KABARAK UNIVERSITY

NOVEMBER, 2017

ACKNOWLEDGEMENT

I am extremely grateful to my Lord, my God and my Saviour, Jesus Christ for His unceasing love, grace, peace, providence and protection for my life. The successful completion of this project came about as a result of a massive contribution made by several people; without which the project would not have been materialized. I therefore, deem it necessary to express my profound gratitude to my dynamic and hardworking supervisor Dr. Patrick Kibati and Dr.Joel Koima who did not only encourage me to write on the topic but also, supervised and guided me through at no cost.

ABSTRACT

The real estate market plays a very important role in any economy. It is known to have a dramatic multiplier effect and it is a key economic indicator. The real estate market has experienced significant growth in the last decade with many countries experiencing house price fluctuations. The Kenyan real estate market has been experiencing a boom in the past ten years and the latest findings have shown that the trend will continue into the foreseeable future. The study therefore sought to investigate the financial factors influencing pricing of residential houses in Nakuru east sub County, Kenya. More specifically the study was examining the influence of cost of land, interest rates and mortgage risk on pricing of residential houses. Theories that were used in the study included Hedonic Model of Pricing, Classic Theory of Interest Rate, the Title Theory, Simulation Theory and Structural- Form Theory. The study employed explanatory research design. The target population of the study was 60 managers of the 60 real estate companies and agents in Nakuru. The researcher adopted a census where all the managers in the real estate agencies and companies were taken as the study's respondents. Data collection was done through use of questionnaires constructed on five point likert scale. The collected data was analyzed using statistical package for social sciences (SPSS). The questionnaire was tested for validity and reliability where Cronbach's coefficient Alpha was computed for the instrument. Data was analyzed using descriptive statistics which included frequency, percentages, mean and standard deviation and inferential statistics which included regression and correlation analysis and was presented in tables and figures. ANOVA was used to test the influence of the independent variables on the dependent variable and the study hypothesis at $p<.05$ level of significance. The study examined that mortgage risk had a positive significant relationship with pricing of residential houses in Nakuru East Sub-County. On the other hand cost of land and interest rates did not have a significant relationship with pricing of residential houses in Nakuru East Sub-County. Regression analysis showed that mortgage rates, cost of land, and interest rates significantly influenced pricing of residential houses in Nakuru East Sub-County. The study concluded that cost of land had no significant relationship with pricing of residential house neither did it influence the pricing of residential houses in the area. Additionally, it was concluded that interest rates on loans also does not influence the pricing of houses in the area. The study recommended that government should bring down the rental prices by coming up with policy measures to ensure that the cost of land is brought down to encourage more people to buy land. Further, the banks should take advantage of the increasing demand for home ownership by bringing down the interest rates on loans thus attracting more people to take up loans thus creating more profits for the bank.

Keywords: *Government Policy, Interest Rates, Mortgage Risk and Cost of Land.*

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ABBREVIATIONS AND ACRONYMS

ANOVA: Analysis of Variance

GOK:　　Government of Kenya

GST:　　 Goods and Services Tax

IDPS:　　 Internally Displaced Persons

MUL:　　Metropolitan Urban Limit

SPSS:　　 Statistical Package for Social Science

UK:　　United Kingdom

UN:　　United Nations

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Real estate industry is the leading indicator of development in any economy and is used to measure the economic growth and health of a country. It entails creation of permanent immovable assets, involves capital and labour intensive activities thus used as a vehicle for economic development since there is job creation. Demand for real estate is triggered by economic and population growth thus real estate participants construct houses to meet the demand and on return get cash flow from these investments. As the cycle continues, there is oversupply thus creation of trade off between supply and demand (Carey, 2001). Studies have shown that half of the world's population live in urban centres and one third of them in slums. This figure is expected to increase by one billion in a decade and slums will grow at an accelerated pace unless 35million housing units are made available annually (UN-Habitat, 2002). Virtually all this growth takes place in developing countries.

A report by Goldman Sachs (2007) analyzed factors that led to the global housing boom. The report cited several facts to support the importance of fundamentals. First, the report found a strong positive correlation between income growth and house price appreciation across countries. Second, house price appreciation was also strongly correlated with population growth. Finally, countries with the biggest reduction in real interest rates also had the highest rates of house price appreciation.

Globally real estate prices have been on an upward trend; like in the UK prices have been rising, but buying property remains 13 per cent more cost-effective than renting (Zoopla, 2012;KFPGRI, 2012). In the UK, the market for property derivatives did not begin until 2004. However, since the market's inception, the growth has been significant. Through the third quarter of 2007, trades with an outstanding notional value of 7.9 billion pounds have been executed. Renting in the UK was previously £993 per year on average more expensive than servicing a mortgage, but this gap has now come down by 3.2 per cent to £961 today. As a result, the proportion of towns and cities across the UK where it is cheaper to buy than rent has fallen from 90per cent to 86per cent over the past few years (Zoopla, 2012).

According to World Bank report (2010) Kenya is one of the most rapidly urbanizing nations among the developing countries. It is estimates that about 200,000 Kenyans move to cities every year and that formerly rural areas are increasingly becoming urban. Despite this, the national and local governments have failed to provide basic urban services like infrastructure and affordable housing, thus allowing the private sector to take over (Kenya's vision 2030). Unfortunately, the profit-motivated sector largely provides housing for the upper-middle and upper-income households, thus leading to proliferation of slums and other informal settlements that cater for poor dwellers (UN-Habitat report, 2011).

Nakuru is Kenya's third largest residential town after Nairobi and Mombasa and was rated the fastest developing town in sub-Saharan Africa in 2011 by the UN habitat. Prices for commercial space have more than doubled in the last four years with office space costing up to Sh90 per square foot from about Sh30 in 2008. The high demand has been triggered by large corporate institutions such as banks, supermarkets, universities and colleges in town which normally require huge space.

According to first county integrated plan (2013-2017) the total population of Nakuru County stood at 1,867,461 in year 2014, comprising of 937,131 males and 930,330 Females as per the projections of Kenya National Population and Housing Census of 2009. The population is projected to increase to 1,925,296, comprising of 966,154 males and 959,142 Female in 2015 and to 2,046,395 comprising of 1,026,924 males and 1,019,471 females at the end of the plan period. This remarkable growth in the population implies that the county will have to invest in more social and physical infrastructure to match the needs of the growing population. Among physical infrastructure constraining the county is residential houses. The county has a housing demand of 10,000 units per year but only 2,000 units are available annually. The governor of Nakuru County noted that some few years ago (5 years), the price of a three bed roomed house was Kshs3000 while currently the prices have more than tripled (Daily Nation, DN2 Magazine, 2014). This study will be seeking to examine the economic factors influencing the pricing of residential houses in Nakuru East Sub-County.

Murungi (2014) indicates that prices of real estate can be affected by factors such as

property location, neighbourhood, the level of accessibility and distance or proximity to facilities. Real estate prices can also be determined by the level of technology available, level of demand and supply, the existing economy of a country, employment level and accessibility of finance by both investors and buyers (Chiller, 2005).

Miller (2010) argues that increased property prices reduce the marketability of real estate because few peoples will be willing and able to acquire property. A change in real estate price is also said to have a direct effect on wealth of households because it contributes to increased or reduction in returns on property investment to the investors. Increased prices of residential buildings have contributed to development of new slums and expansion of the existing slums (Mutisya et.al, 2011). Chiller (2005) holds the view that an increase in existing prices of real estate leads to increase in money spent on rents and purchases hence reducing savings by households.

The increasing population and rural to urban migration in Kenya can be termed as the major cause of rise in prices of the residential houses in most urban areas. The Kenyan population is anticipated to increase to about 73 million people by the year 2030 and more than 60% of these peoples are expected to be living in urban areas hence creating a huge demand for residential housing units (GOK, 2007). The quantity of residential 3 houses needed has risen from 150,000 units every year to 200,000 units per year, with only 35,000 units produced, of which only 20 per cent is targeted at the low-income group (GOK, 2007). Kenya's construction sector recorded a growth of 8.3 percent in 2008 compared to 6.9 percent in 2007 (GOK, 2009). This increasing investment in the residential houses is expected to solve the escalating prices of the residential houses as it will increase the supply in the economy hence reducing the prices.

Over the last few years, a large number of Kenyans have been in a rush to own property which has contributed highly to a major boom in the residential property market (Korir, 2009). Majtenyi (2010) argues that increase in demand for residential property in Kenya has resulted to doubling and even to an extent of tripling of residential property prices in the past few years. Zhu (2004) showed the strong and long-lasting link between inflation and housing price. During inflation, most things in the economy will increase their price.

However, the cost of the raw material for building a house will increase.

Interest rates acquired through bank lending may affect the housing price through various liquidity effects. The housing price is just like the price of any asset. It can be determined by the discounted expected future stream of cash flows. If the financial banks increase the availability of credit, it means that the bank will provide lower lending rates and encourage current and future economic activity. Basically, the better availability of credit will cause the demand for housing to increase when the households are borrowing (Barakova et.al, 2003). The growth in demand will then be reflected in higher housing prices.

1.1.1 Real Estates market in Nakuru.

Roack consult limited (2013) research for an individual to own a house whether rental or outright ownership he or she should have a stable source of income. The assumption is for one to have a stable income is for one to be a salaried individual. It also noted a finding from the Economic Survey 2012; Nairobi had 538,600 persons in formal wage employment by 2011 up from 479,300 reported in 2007. The wage employment expansion was 12.5% in a period of four years and at an average of 3.4% annually. It is projected that wage employment in Nairobi will grow by 5% in 2013/2014, bringing the total number of wage employment to 565,500 persons. Assuming that most of those in the wage employment were couples, the demand for housing in Nairobi is 282,750 units. Such statistics are quite staggering as from the official government records released in 2007 it is estimated that 35,000 units are completed annually. Clearly there is a huge gap of over 200,000units which hence creates an investment opportunity for property developers.

According to Quantity Surveyor's report (2013) Suraya properties has tried to develop different properties which target different people in the market and tried incorporating the need to avail affordable housing. They have built different properties in different locations across Nairobi and its environs targeting different class of people such as gated communities like Rosslyn heights built along red hill road targeting the high end clients while the Lynx projects along Mbagathi road and Mombasa road targeting the middle income earners. According to the Co-founder of Suraya property developers Susan Muraya the houses built vary as they target young upward people from first time home buyers who

are looking for homes in already developed areas although they main focus is on salaried individuals. They also have allowed the ability for one to trade the homes that they initially owned as they advance in life.

Hassanali (2013) stated that low-cost housing projects remain to be an eternal gap in the market as the potential demand is huge. However, due to the absence of good infrastructure in many parts, the costs and therefore sale prices of these projects are such that the homes are not really affordable for the target market hence the focus on luxury upmarket projects which are rising fast in quality as the market is getting more discerning. This is a good trend and bodes well for the future. Kenya is the most developed country in the east Africa region and the middle class is growing fast, creating opportunities for housing. Business tourism has increased significantly in Kenya, creating the need for more accommodation facilities. There is a need for investment in affordable hotel accommodation facilities that are up to par with international standards (Ojijo, 2013).

1.2 Statement of the problem

In recent years, the population and the rate of rural to urban migration have been on an upward trend and this has highly increased the population of Nakuru town. It should be noted that all these people need shelter as one of the basic commodities, thus causing the housing sector to boom and contribute to growth of the economy (Nuri & Frank, 2002). Real estate market is one that is characterized by almost predictable cycles of booms and busts (Smith, 2010). The former are the periods when the prices in market soar and almost inevitably, they are followed by other periods when the prices plummet.

There are actually people who make a living out of these cycles. These are people whose study of the real estate property markets has brought them to a point where they can reliably tell when they are seeing a bust (when prices are very low), purchase property at that point and then sell it during the subsequent and virtually inevitable boom, making a big profit (Smith, 2010). The construction sector in Kenya recorded a growth of 8.3 per cent in 2008 compared to 6.9 per cent in 2007 (Republic of Kenya, 2009). The robust growth was supported largely by increased capital investment in roads and housing. Increase in construction activities was reflected in cement consumption which grew by 7.0

per cent from 2,061.4 thousand tones in 2007 to 2,205.8 thousand tones in 2008 (Republic of Kenya, 2009).

Otieno (2012) explains that despite the high competition in the market, the large economy supports real estate investment. When the yields of residential properties are low, their prices are high. This means that the cost of buying a house is high compared to the cost of renting a house which force many potential buyers to prefer to be renters instead of being buyers thus reducing sale prices of residential property. The state of increased population from rural to urban migration and also the settlement of Internally Displaced Persons (IDPs) in Nakuru town can lead to the changes in pricing of residential houses in the town. Few studies have been done addressing factors influencing the pricing of residential houses in Kenya and more so in Nakuru county. Therefore, this study sought to seek financial factors influencing the pricing of residential houses in Nakuru town Kenya.

1.3 Objectives of the Study
The study was guided by both the general and specific objectives.

1.3.1 General Objectives
The study sought to examine the financial factors influencing pricing of residential houses in Nakuru town East Sub-County, Kenya.

1.3.2 Specific Objectives
The study was guided by the following objectives.
1. To establish the influence of cost of land on pricing of residential houses in Nakuru Town East Sub-County Kenya.
2. To determine the effect of interest rates on loans on pricing of residential houses in Nakuru Town East Sub-County Kenya.
3. To establish the influence of mortgage risk on pricing of residential houses in Nakuru Town East Sub-county, Kenya.

1.4 Research Hypotheses
H_{01}: Cost of land had no significant influence on pricing of residential houses in Nakuru Town Kenya.

H$_{02}$: Interest rate on loans had no significant influence on pricing of residential houses in Nakuru Town Kenya.

H$_{03}$: Mortgage risks had no significant influence on pricing of residential houses in Nakuru Town East Sub-county, Kenya.

1.5 Significance of the Study

The demand for housing has been on the upward trajectory in the recent past as the population continues to grow in the country. The country's population is projected to reach 75 million people by 2030. This means that more housing will be needed to meet the needs of the increased population. The government of Kenya has had to bring in the private sector to cater for the rising demand in housing. The involvement of the private sector in the process has led to souring of prices in properties to unprecedented levels injuring the affordability of most of the populace. This study therefore will be helpful to the government policy makers in making rational decisions in regard to prices of residential properties based on the research findings.

Further, the government would be able to understand the forces behind the increase in prices of the properties. On the other hand, residential property owners will find the study helpful as it will inform them of the strategies to employ to have competitive prices and ensure constant customer base. The potential and current tenants will also be informed of the dynamics resulting to the increase in prices of the properties thus be able to make informed decisions in regard to where to rent. The study will further contribute to the existing body of literature on financial factors influencing the pricing of residential houses. Suggestion for further studies will form a fertile source of research areas for future scholars interested in this line of research.

1.6 Scope of the Study

The study was limited to financial factors influencing the pricing of residential houses in Nakuru town, Kenya. The choice of Nakuru as the study area was as a result of continued increase in the population leading to increased demand in housing in town. The increase in population in the town has been occasioned by continued economic development as well as the settling of IDPs from 2007 post election violence in Nakuru town. On the other hand,

Nakuru town is one of the biggest town in Kenya thus has seen the rural urban migration souring over the years. These factors have made the property areas to be a thriving business attracting many potential dealers. This has led to increased prices in residential prices to the detriment of the tenants. The study was estimated to cost the researcher up to KSh. 100,000 which the researcher raised. The researcher planned to do the research between June and December, 2017.

1.7 Limitations and Delimitations of the Study
1.7.1 Limitations
The study was limited to residential properties in Nakuru town Kenya. Further it was limited to the real estate agents in Nakuru town.

1.7.2 Delimitations
The researcher assured the respondents that they would be treated confidentially and that the information they provided was purely be used for academic purpose only. On the other hand the researcher was expected to meet all the research expenses.

1.8 Operational Definition of Terms
Real Estate: refers to land, as well as the air above it and the ground underneath it including any kind of structures that are erected on it (Murungi, 2014).

Mortgage: Mortgage is a form of a secured loan by real property through use of a mortgage note. Purchasing a real estate instrument through borrowed financing (Wood, 2004).

Interest Rate: It is the percent charged, or paid, for the use of money. It is charged when the money is being borrowed, and paid when it is being loaned (Amadeo, 2012)

Inflation: It is a rise in the general level of prices of goods and services in an economy over a   period of time (Dobson, 2002).

Population: Population is the total number of persons inhabiting a country,city or any district or area (Borowiecki, 2009)

Housing: Housing is a physical tangible space with built forms, artifacts, walls, roofs, doors, fences and gates. Housing is understood in the broader context of the shelter fabric together with the living environment, integration of a dwelling unit or a house with other units in the neighborhood through infrastructure and community facilities, streets and roads (UN-Habitat 2002).

Government Policy: Government policy is described as a course of action, creating a starting point for change. They can include; influence how much tax the community pays, immigration status and laws, pensions, parking fines (Schwartz, 2010)

Residential Houses: is: a building that is used or suitable for use as a dwelling, or is in the process of being constructed or adapted for use as a dwelling; land that forms part of a garden or grounds of a building suitable for use as a dwelling. This includes any buildings or structures (Liow, Ibrahim & Huang, 2005).

House Pricing: House pricing is the value to be paid for the transaction of buying a residential property which more to buyer's perspective (Lee 2009).

Cost of Land: The cost of land includes all expenses associated with the acquisition of the property, as well as those needed to ready it for use ((Colander & David, 2008)).

Mortgage Risks: Probability of loss arising from a mortgagor's failure to repay interest and principal according to the terms of a mortgage loan (Levy & Sturzenegger, 2005).

LITERATURE REVIEW

CHAPTER TWO

2.1 Introduction

This chapter provides a discussion of literature relevant to the study. Thus, it discusses the theoretical review, empirical studies based on the study variables followed by the conceptual framework. The chapter further provides the summary of literature and the research gaps.

2.2 Theoretical Review

The study was founded on hedonic model of pricing, classical theory of interest rates, the title theory, simulation theory and structural form theory. These are discussed hereafter.

2.2.1 Hedonic Model of Pricing

This theory was formulated by Lancaster's (1966) in his seminal paper which was the first attempt to create a theoretical foundation for hedonic modeling. The theory argued that it is not necessarily a good itself that creates utility, but instead the individual "characteristics" of a good that create utility. Specifically, an item's utility is simply the aggregated utility of the individual utility of each of its characteristics. Furthermore, it argued that items can be arranged into groups based on the characteristics they contain. Consumers make their purchasing decisions within a group based on the number of characteristics a good possesses per unit cost.

Although Lancaster was the first to discuss hedonic utility, he said nothing about pricing or pricing models. Rosen (1974) was the first to present a theory of hedonic pricing. Rosen argues that an item can be valued as the sum of its utility generating characteristics; that is, an item's total price should be the sum of the individual prices of its characteristics. This implies that an item's price can be regressed on the characteristics to determine the way in which each characteristic uniquely contributes to the price. Although Rosen did not formally present a functional form for the hedonic pricing function, his model clearly implied a nonlinear pricing structure.

The application of the hedonic price model to the housing market rests on several key

assumptions. First, homogeneity of the housing product is assumed. Another assumption is that the market operates under perfect competition, and there are numerous buyers and sellers with free entry and exit. The model also assumes that buyers and sellers have perfect information concerning housing product and price. Finally, the hedonic price model only works under the assumption of market equilibrium, and that there are no interrelationships between the implicit prices of attributes (Rosen, 1974).

A major issue frequently associated with the hedonic price model is the misspecification of variables where an irrelevant independent variable is included (over-specification), or where a relevant independent variable (attribute of a product) is omitted (under specification). This can lead to biased and inconsistent coefficients (Rosen, 1974). The main advantage of this model is that one only needs to have certain information, such as the property price, the composition of housing attributes, and a proper specification of the functional relationships. The marginal attribute prices are obtained by estimating the parameters of the hedonic price function. It is a straightforward approach because only the coefficients of the estimated hedonic regression are needed to indicate the preference structure. No information whatsoever about individual characteristics or personal particulars of either the house buyers or the supplier is required (Rosen, 1974). The theory will be significant in this study in establishing the role of financial factors in determining the pricing of residential houses.

2.2.2 Classical theory of interest rate

Classical theory was proposed by Irvin Fisher in 1930. It was elaborated further by (Bullard James, 1991; Keynes John M, 1936, Mishkin Fredrick, 1978 and Neely Christopher, 2001). The theory concerns the determinants of the pure or risk-free interest rate. It argues that the rate of interest is determined by two forces; the supply of savings, derived mainly from household. Most savings in industrialized economies is carried out by individuals and families. For these household, savings is simply abstinence from consumption spending. Current savings are equal to the difference between current income and current consumption expenditures for a household to determine how much to save they must consider, the size of the current and long-term income, the desired savings target, and the

desired proportion of income to be set aside in the form of savings (propensity to save). Higher-income families and individuals tend to save more and consume less relative to their total income than families with lower incomes (Bullard, 1991).

Interest rate affects an individual's choice between current consumption and saving for the future consumption. Classical theory considers the payment of interest a reward for waiting-the postponement of current consumption in of greater future consumption. Higher interest increases the attractiveness of saving relative to consumption spending, encouraging more individuals to substitute current saving (and future consumption) for some quality of current consumption. This is called substitution effect calls for a positive relationship between interest rates and the volume of savings (Marquis, 2002). This theory will help the study establish the influence of interest rates on loans in determining the pricing of residential houses

2.2.3 The Title Theory

This theory was proposed by Denise and Wheaton (1992). The theory stipulates that the lender retains the legal repossession until the mortgage is fully paid up. The lender holds the legal title while the borrower holds equitable title only. The legal title is vested in the lender until the mortgage loan is repaid. The borrower is recognized as the owner of the property and the lender has the right to rents and possession. In case of default, the lender is entitled to repossession of the property. The theory noted that upon signing of mortgage documents, the lender acquires full ownership of the mortgage property while the borrower acquires only control until the mortgage is fully paid off. This is used as a measure since the property is held by the lender as collateral. During the mortgage period, the borrower doesn't have title to the property. Upon satisfaction of loan obligations, the lender delivers the deed to the borrower.

Some mortgage firms apply the title theory in terms of mortgage loans and this protects the lender since he has the right to repossess of the mortgage property. Medley (2011) noted that mortgage loans are considered as conveyance of the title to the mortgagee. Through this, mortgagor acquires full title of the property upon full payment of the mortgage loan. Since the title vests on the mortgagee, he has the right to repossess the

mortgaged property anytime but this can only happen if the mortgagor defaults on the repayment terms. In case the borrower sells the property during the mortgage period, then the title transfers to the new buyer upon receipt of payment by the mortgage institution. However the mortgagor is faced by mortgage risk through the repossession of the property as a result of default. This study seeks to examine the role mortgage risks plays in the pricing of residential houses in Nakuru town.

2.2.4 Simulation theory

The theory was developed by Laibson in 1998. It examines the extent to which markets enable the provision of housing finance across a wide range of countries. Housing is a major purchase requiring long-term financing, and the factors that are associated with well functioning housing finance systems are those that enable the provision of long-term finance. The theory further states that countries with stronger legal rights for borrowers and lenders (through collateral and bankruptcy laws), deeper credit information systems, and a more stable macroeconomic environment have deeper housing finance systems. These same factors also help explain the variation in housing finance across emerging market economies such as Kenya.

Across developed countries, which tend to have low macroeconomic volatility and relatively extensive credit information systems, variation in the strength of legal rights helps explain the extent of housing finance. To a certain extent, a statistical comparison of the loan-to-value and loan-to-income ratios can provide a good indication of the risks that owner occupiers run in financing their own home. At the same time, this kind of comparison ignores the causes of the risks, namely the volatility or uncertainty of future interest rates, house prices and changes in income (Adler & Lehmann, 2012). It also disregards the main mortgage characteristics, the cost of taking out a mortgage, and the direct and indirect subsidies, including interest deductibility, factors that have a big influence on the real costs and risks for homeowners. The theory helps the study establish the link between the cost of land and the pricing of residential houses.

2.2.5 Structural-Form theory

This theory was formulated by Pottow in the year 2007. It documents the evolution of mortgage finance in SSA (Sub- Saharan Africa) to determine what steps need to be taken to extend it to the middle-class, to enable them to address their housing needs to the extent of their affordability. The theory revealed that there have been a number of problems when it came to the delivery of formal housing finance amongst most, if not all the countries. These problems are a record of macroeconomic instability, an adverse institutional, legal and regulatory environment which has resulted in inefficient, collateralization of housing assets, a poor record of public sector housing banks, building societies and other specialist housing lenders in that most have been destroyed due to poor management and a lack of funds and limited availability of long-term funding sources to carry out intermediation that would spread the cost of a house over a relatively long period of time(Levy & Sturzenegger, 2005).

Arising out of this dismal history is a move to revive and introduce mortgage lending into a number of countries. Moreover, as part of the move to straighten out financial markets, a number of consultants have been sent into SSA countries to begin documenting the specific problems of each country as well as to make recommendations on how to address them. Development agents, in particular, are also putting forth recommendations on what is required to ensure financial market development and capital market investment necessary to entice the private sector into the delivery of housing finance. As such the theory will help the study in addressing the role government plays in mobilizing financing of residential houses development and the role this has on the pricing of residential houses.

2.3 Empirical Review

2.3.1 Cost of Land and Pricing of Residential Houses

Murungi (2014) undertook a study on the factors causing price changes of residential houses in Nairobi over the period 2008-2012. He identified the ever increasing price of land and construction cost to have also contributed highly in price changes of residential houses in the study area. Significant discussion has recently occurred within the media

and policy settings on the impact of an urban limit on house prices. Studies such as the Grimes and Liang (2007a; 2009) and Zheng (2013) have identified a differential in land prices on either side of Auckland's metropolitan urban limit (MUL). They suggest from these differentials that an urban limit is a planning tool which creates a binding constraint on land supply, consequently pushing up land prices.

Debate extrapolates from the findings of the Grimes and Liang (2009) paper to propose that this then flows through to increases in dwelling prices. Morris and Jonathan (2006) did a study on the price and quantity of residential land in the United States. They found that the growth rate of the price of housing is a weighted average of the growth rate of the price of structures and the price of land. Other factor that affects prices of residential properties is convenience and accessibility of the property. The level of convenience and accessibility of a place or particular land is determined by how far the property is located from the place of work, shopping centres or any other place that one needs to visit regularly (Lahoz, 2007). The main determinant of how convenient and accessible a place is traffic, road network and road conditions (Mankiw et al., 1998). Most people prefer to reside in highly convenient and accessible areas, the demand of the residential houses in these areas increases. The increased level of demand of residential houses then contributes to increase in prices of residential houses. Poorly accessible and inconvenient areas attract few peoples and therefore, low demand on residential property thus low prices. Poudyal et al. (2009) also opined that residential housing prices determination depends largely first on access to those locations which support related uses, such as proximity to work place, shopping centres, distance to schools, nearness to recreational facilities, accessibility to public transport, open space, proximity to place of entertainment, place of worship, among others.

Rozlin et.al (2016) did a study on the effects of GST (goods and services tax) on construction capital costs and housing property prices in Malaysia .They concluded, building materials and land acquisition costs are the major construction cost components to receive the most significant impact due to GST implementation. On the other hand, cost increment due to GST and exempted taxes have caused various issues in the developers'

business capital flow. In order to maintain profit and cover the risk of losses developers have resorted to raising the housing prices where the end buyers will ultimately bear the price increment.

Murungi (2014) on his study on the factors causing price changes of residential houses in Nairobi over the period 2008-2012. His respondents agreed that the cost of constructing a house had a direct effect on prices of residential houses. Differences in construction cost incurred during property development arose due to use of building materials of different qualities. The better the quality of construction material used by property developer the higher the price a property developer will be willing to accept in order to sell the property. Other respondents stated that the higher the construction cost incurred the higher the quality of the building which means the buyer will be willing to offer more money in order to acquire the property.

Poudyal et.al., (2009) the quality of constructional materials and the level of structural improvement made to housing may also be a significant factor in determining house value. Major consideration in this regards are the physical features such as the type, style and quality of various dwelling components. Structural improvements such as the fence wall, gate, landscape, swimming pool, gardens and other improvements made within the confinement of the house also falls on this group.

Volatile and rising costs of materials have contributed to the non-governmental constraints on housing development and improvement. These costs are a substantial part of the increased housing costs in the recent past decade. Builders are forced to pass those increases along to the home buyer or renter. In the last several years, construction costs for materials and land have significantly increased, as the demand for housing increases. These increased costs can no longer be passed on to the taxpayer by the local jurisdiction and must be borne by the developer, who then must pass them along by increasing the cost of housing or rents (Case & Shiller, 2003).

2.3.2 Interest Rates on Loans and Pricing of Residential Houses

Bank lending may affect the housing price through various liquidity effects. The housing price is just like the price of any asset. It can be determined by the discounted expected

future stream of cash flows. If the financial banks increase the availability of credit, it means that the bank will provide lower lending rates and encourage current and future economic activity. Basically, the better availability of credit will cause the demand for housing to increase when the households are borrowing (Barakova et.al, 2003). The growth in demand will then be reflected in higher housing prices. The relationship between housing prices and household borrowing is two-sided. That is, housing prices may significantly influence household borrowing through various wealth effects. When the housing finance interest rate is low, citizens will be enabled to make some investments, such as buying more houses. The credit cycles have matched the housing price cycles in a number of countries (International Monetary Fund, 2000; Bank for International Settlements, 2001).

Rita (2013) did a study on determinants of residential real estate prices in Kenya. She found that interest rates have a major impact on the real estate markets. Changes in interest rates can greatly influence a person's ability to purchase a residential property. That is because as the interest rates fall, the cost to obtain a mortgage to buy a home decreases, which creates a higher demand for real estate, which pushes prices up. Conversely, as interest rates rise, the cost to obtain a mortgage increases, thus lowering demand and prices of real estate. When interest rates are low, buyers can afford more homes for their money because less of the mortgage payment goes toward interest charges to the lender. This scenario could draw more buyers into the market, which could lead to multiple bids on houses and an uptick in overall prices. Because the influence of interest rates on an individual's ability to purchase residential properties is so profound, many people incorrectly assume that the only deciding factor in real estate valuation is the mortgage rate.

However, mortgage rates are only one interest-related factor influencing property values. Because interest rates also affect capital flows, the supply and demand for capital and investors' required rates of return on investment, interest rates will drive property prices in a variety of ways (Liow, Ibrahim & Huang, 2005). Econometric study of Yong (2000), Berry noted that, in the Australian economy interest rates fell rapidly from the late 1980s through

the general economic recession. There was a moderate rise during 95-96, and after that fell again and remained low thereafter which continued till the end of 2003. The lower interest rates over the years contributed a lot to increased housing price in Australia. Berry and Dalton (2004) also noted that nominal mortgage interest rates had both short and longer-term effects on real house price inflation.

Trends in interest rates affect housing affordability and thus demand for new and resale homes. An increase in interest rates increases the cost of borrowing. This results in high mortgage repayments thus reducing the affordability and also the demand for property. A study done by Kgert and Mihaljek (2007) found that real interest rate was an important determinant of house price in Central and Eastern Europe. According to Fisher (1930) there is a positive relationship between future price increases and nominal interest. He argues that when prices are rising, the rate of interest also tends to be high and vice versa. Furthermore, he points out that over long periods, interest rates follow the price movement and not the other way round. This is supported by Larock (2012) who observed that increases in mortgage rates did not trigger a decrease in houses prices but more often than not the reverse was true.

However, Wenzel (2012) seems to contradict this view by stating that there is no direct correlation between interest rate and housing prices. He argues that what is important is the rate of interest relative to price inflation meaning the rate of interest should be looked at in real terms. Another contradictory view is held by Abel, Bernanke, and Croushore (2008) who argue that the price of a nonmonetary asset and its nominal and real interest rate are negatively related.

2.3.3 Mortgage Risk and Pricing of Residential Houses

Financing of real estate has unique characteristics of monthly repayment, long maturity and constant increase in prices of properties. Due to these characteristics, the prices of houses keep on increasing which eventually leads to decreased affordability by potential home owners. Murungi (2014) on his study on the factors causing price changes of

residential houses in Nairobi over the period 2008-2012 found that ease of access to and availability of mortgages has contributed to increased prices of residential houses in Nairobi County over the last four years. Murungi observed that 97% of the respondents stated that the interest rate charged on mortgages had effect on property price. They responded that higher interest rate contributes to higher charges on mortgage acquired. This increases the amount of money spent by property developers who use mortgages to finance property which leads to increased prices of property.

Bad lending practice is one of the causes of real estate bubble. This happens when loans or mortgages are given to real estate consumers who should not or do not meet the minimum set qualifications (Hardaway, 2011). Due to the fact that the peoples awarded these loans did not have down payments, reserved funds and good income, thus making the loans carry low interest rates. This increases the level of demand for real estate property which leads to high prices of the available properties.

Muli (2011) studied the relationship between property prices and mortgage lending in Kenya. The research was inspired by the fact that swings in the property prices have been extremely large in the recent years. This research employed a quarterly database from 2006 to 2010. A dynamic economic model was employed to assess the relationship between housing prices and credit using multiple regressions. The study concluded that changes in housing prices are positively and significantly related to the long term evolution of mortgage credit. This result suggests that the evolution of housing prices is not triggered by bank real estate lending and that banks just accommodate real estate financing to the evolution of house prices. Muli (2011) showed that the changes in housing price are positively and significantly related to the long-term evolution of mortgage credit. Most house purchases are financed by credit thus affecting prices through liquidity effects. Ndinda (2014) did a study to assess 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. Home owners invest in real estate property in anticipation of future increase in prices and rental income.

2.3.4 Government Policy and Pricing of Residential Houses

According to Chu (2001), although the external factors are important in influencing the housing market, government intervention also plays a crucial role in affecting the property cycles and property prices. Moreover, she also finds that the government's involvement in the housing market has become more active and intervened in wider aspects since 1990 which leads to several fluctuation on private residential property prices.

Wong (2001) analyzes the impacts of government intervention on the housing market in the period 1990-2000. He indicated that different modes of intervention related to the property market which is introduced by the government do have impacts on the private housing market. He used a regression model in her study to show the effectiveness of different government policies in affecting the private property prices. The government is a huge force that affects supply of residential houses in Kenya. It enforces taxes on real estate based on the incomes which sometimes irritate the interested and the existing investors (Colander & David, 2008). The government, being a regulatory body, has laws that real estate businesses must adhere to such as planning regulations, permits for land use, titles deeds for land ownership and rules that businesses adhere to such as registration of the business. Goodwin et al. (2009) concludes that favourable government policies will increase supply of housing.

In California, local governments have substantial control over the quantity and type of housing that can be built. Through the local zoning code, cities decide how much housing can theoretically be built, whether it can be built by right or requires significant public review, whether the developer needs to perform a costly environmental review, fees that a developer must pay, parking and retail required on site, and the design of the building, among other regulations. A 2002 study by economists from Harvard and the University of Pennsylvania found strict zoning controls to be the most likely cause of high housing costs in California (Graham, 2016)

Felix (2014) did a study to investigate factors that influence housing finance in developing countries. He found that government factors that have a great impact on access to housing finances as indicated by the respondents were the monetary policy and

registration of property rights. Most financial institutions alluded that the effects of monetary policy on interest rates influence the number of loans households can afford.

2.3.5 Pricing of Residential Houses

Property prices depend on market characteristics such as vacancy level, land availability, construction supply elasticity to respond to high or low speed to changes on the demand, as well as potential for economic growth, industrial and services activities located inside urban areas, etc. (Taltavull, 2003). Brueggeman and Fisher (2008) argue that an important concept in real estate analysis is the fact that the house prices are highly dependent on the region or geographic area in which they are located. They further state that demand for properties in local markets is highly influenced by the nature of the industries, businesses, and so on, that are attracted to a region.

Ahuja (2009) identified three factors that influence the general price levels namely the volume of trade or transactions, the quantity of money and the velocity of circulation of money. According to the Fisher's transaction approach, the price levels raise proportionately with a given increase in the quantity of money other things remaining constant. However, the Keynesian theory places emphasis on the aggregate demand or expenditure relative to aggregate supply rather than just the quantity of money (Ahuja, 2009).

Jobber and Lancaster (2006) provided five constraints to a seller's capacity to set prices namely the objectives of the seller such as return, the level of demand, marketing objectives such as market penetration, cost considerations and competitor considerations. Factors affecting property price include population growth, employment, household income, interest rates and cost of renting a house (Brueggeman & Fisher, 2008) while Odame, Key and Stevenson (2010) found out that real estate characteristics such as location, landscaping quality, gross internal areas and plot size predominated in the explanation of transactions price. Other factors would include infrastructure development, the perceived security of the area and availability of amenities.

Murangi (2013) indicates that prices of real estate can be affected by factors such as

property location, neighbourhood, the level of accessibility and distance or proximity to facilities. Real estate prices can also be determined by the level of technology available, level of demand and supply, the existing economy of a country, employment level and accessibility of finance by both investors and buyers (Chiller, 2005). Miller (2010) argues that increased property prices reduce the marketability of real estate because few peoples will be willing and able to acquire property. A change in real estate price is also said to have a direct effect on wealth of households because it contributes to increased or reduction in returns on property investment to the investors. Increased prices of residential buildings have contributed to development of new slums and expansion of the existing slums (Mutisya et.al, 2011). Chiller (2005) holds the view that an increase in existing prices of real estate leads to increase in money spent on rents and purchases hence reducing savings by households.

Kariuki (2012) explains that since the year 2002 Kenyan real estate sector has been experiencing a boom, hence confusing many buyers in the region. While other property markets in the world sank, the Kenyan situation remained strong. The latest findings by the research groups such as Knight Frank and Citi Private Wealth seem to anticipate better times ahead. Kenya's high economic growth and a dynamic business regime are some of the reasons being given for this drive (Julie, 2012). As the other top world cities are experiencing low prices on residential property, Kenya seems to be faced by very high prices on residential property thus attracting a lot of international investors (Kariuki, 2012).

2.4 Summary and Research Gaps

Studies have been conducted globally on house prices. Egert and Mihaljek (2007) studied the determinants of house prices dynamics. Selim (2008) studied the determinants of house prices in Turkey for both urban and rural areas. Mak et.al., (2012) studied the specific estimates of the determinants of real estate investments in China. Lieser and Groh (2011) studied the determinants of commercial real estate investments. Posedel and Vizek (2009) studied house price developments in six European countries. Alves et.al., (2011) conducted a research to test other dimensions of asset pricing other than the hedonic modeling.

Larock (2012) observed that increases in mortgage rates did not trigger a decrease in houses prices but more often than not the reverse was true showing that mortgage rate and price had a positive relationship. Wong, Hui, and Seabrook (2003) revealed that housing prices displayed a moderately high correlation with interest rates in deflationary periods. However, Wenzel (2012) contradicts this view by stating that there is no direct correlation between interest rate and housing prices. He argues that what is important is the rate of interest relative to price inflation meaning the rate of interest should be looked at in real terms.

Studies relating to this topic are limited in Kenya but immense in the developed economies, especially in the immediate period following financial crisis. The scarcity of these studies in Kenya simply mean that all interested parties in Kenya's property market cannot predict property prices trend. Quigley (1999) poses the question as to whether fundamentals explain property price. The outpouring of research on the topic underscores the lack of consensus about the correct approach for forecasting real estate price changes. Indeed studies vary in both their geographic scope and attention to the complexity of the property markets studies due to multifaceted market fundamental factors (Zainuddin, 2010) and the general lack of standardized methods to measure. This study therefore sought to fill this gap by analyzing the financial factors influencing the pricing of residential houses in Nakuru town Kenya.

2.5 Conceptual Framework

A conceptual framework is a model that employs the use of drawings/diagrams to explain the interrelationships between variables (Orodho, 2009). The study's conceptual framework consisted of the independent variables and the dependent variable. The independent variables comprised of government policy, cost of land, interest rates and mortgage risks while the dependent variable was pricing of residential houses. The study conceptualized that the independent variables significantly influences pricing of residential houses in Nakuru east sub-county, Kenya. The conceptual framework was illustrated in figure 2.1

Independent Variables   Dependent Variable
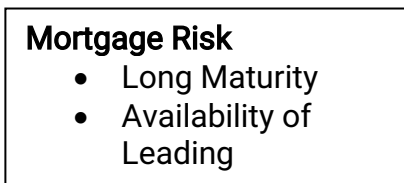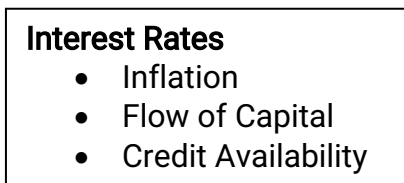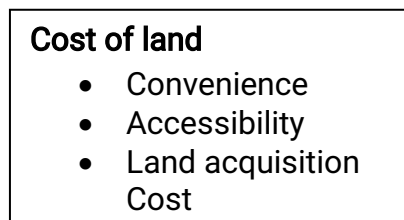
```
┌─────────────────────────────┐
│ Cost of land                │
│   • Convenience             │
│   • Accessibility           │
│   • Land acquisition        │
│     Cost                    │
└─────────────────────────────┘

┌─────────────────────────────┐               ┌──────────────────────────────┐
│ Interest Rates              │               │ Pricing of Residential       │
│   • Inflation               │               │ Houses                       │
│   • Flow of Capital         │               │   • Demand Level             │
│   • Credit Availability     │               │   • Migration                │
└─────────────────────────────┘               │   • Household                │
                                              │     Income                   │
┌─────────────────────────────┐               │   • Neighbourhoo             │
│ Mortgage Risk               │               └──────────────────────────────┘
│   • Long Maturity           │
│   • Availability of         │
│     Leading                 │
└─────────────────────────────┘

              ┌──────────────────────────────┐
              │ Government Policy            │
              │   • Taxes                    │
              │   • Laws                     │
              │   • Supply of                │
              │     Residential House        │
              └──────────────────────────────┘
```
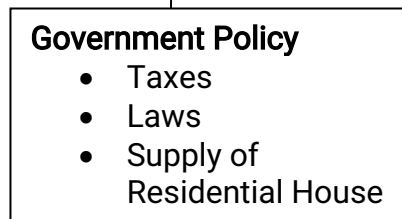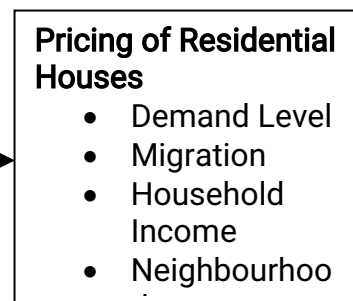
Intervening Variable

Figure 2. 1: Conceptual Framework

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

The chapter provides a detailed research methodology of the study. Discussion under this chapter includes; research design, location of the study, population, sampling procedure, sample size and data analysis.

3.2 Research Design

The study employed explanatory research design. According to Burns and Grove (2003), the purpose of research design is to achieve greater control of the study and to improve the validity of the study by examining the research problem. This study sought to obtain descriptive and self-reported information from real estate dealers. The design allowed the researcher to expose the respondents to a set of questions to allow comparison. In this study, financial factors were the independent variables while pricing of the residential houses was the dependent variable.

3.3 Target Population of the Study

This study focused on all the real estate agent and companies in Nakuru. These formed the target population of the study. There are a total of 60 real estate companies and agents in Nakuru. As such, the total target population of the study was 60 real estate companies and agents in Nakuru.

3.4 Census Survey

The total number of participants in this study was 60 in total. Given the small number, the researcher adopted a census where all the managers in the in real estate agencies and companies were taken as the study's respondents. Managers were purposively chosen since they had information about residential houses.

3.5 Research Instrument

The study made use of a structured questionnaire that was distributed to the managers in the real estate companies and agencies. According to Kothari (2006), a questionnaire is the best tool for the researcher who wishes to acquire the original data for describing a

population. Questionnaires enable a researcher to reach a large sample within a short time. The questionnaire was composed of short structured closed ended statements constructed on 5 point Likert scale.

3.6 Pilot Testing

Pre-testing is extremely important to validate the questionnaire and enable the researcher to verify the professionals' ability to answer the questions. Therefore the instrument was taken for piloting in Nakuru town west constituency. Ten commercial agencies and company managers were used as respondents for the pilot study. The findings were analyzed by means of comparisons in order to identify similarities, differences, and patterns in the data. According to Cooper and Schindler (2003), the size of the pilot groups may take any range, depending on the method to be tested, but the respondents do not have to be statistically selected. The insights gained from the preliminary findings were used to refine the questionnaire in preparation for the field study. The objective of piloting was to eliminate any ambiguous items, establish if there were problems in administering the instrument, test data collection instructions, establish the feasibility of the study, anticipate and amend any logical and procedural difficulties regarding the study, and allow preliminary (dummy) data analysis.

3.7 Validity and Reliability

Reliability and validity was established for standardization of the structured questionnaires that was used in the study. Piloting of the instruments was done to assist the researcher in testing both the validity and reliability of the instruments.

3.7.1 Validity of the instrument

Content validity of the research instrument was established in order to make sure that it reflects the content of the concepts (performance appraisal and organizational commitment) in question. First, the researcher was to go through the instrument and compare it with the set objectives and ensure that they contain all the information that was required to answer the set questions and address the objectives. Gray (2004) argues that validity will be established through expert judgment; the researcher consulted the research supervisors and other lecturers from the Department to scrutinize the relevance

of the questionnaire items against the set objectives of the study.

3.7.2 Reliability of the Instrument

Reliability is said to be the extent to which a measurement gives results that are consistent. When reliability is upheld, then the research instrument should collect similar data when administered to different sampled populations exhibiting related characteristics. Cronbach's coefficient Alpha was computed for the instrument. A reliability coefficient of not less than 0.7 was deemed to reflect the internal reliability of the instruments. This is in line with Nunnaly (1978) assertion that a Cronbach coefficient Alpha of 0.7 and above is appropriate. The findings from the pilot analysis gave the following results shown in table 3.1

Table 3. 1: Reliability Analysis

Description	No of Items	Cronbach Alpha Coefficient
Cost of Land	7	.712
Interest Rates	7	.848
Mortgage Risk	7	.730
Pricing of Residential Houses	7	.725

3.8 Data Collection Procedure

The researcher proceeded to collect data from the selected respondents after receiving permission from the relevant authorities. The researcher visited the area of study before actual data collection for familiarisation and acquaintance. During this visit, the researcher informed the administrators about the purpose of the study and booked appointments for data collection. After familiarisation, data was collected using the mentioned instrument. The completed instruments was verified and collected on the same day of distribution.

3.9 Data Analysis

Data collected was processed and analyzed based on the objectives and research hypotheses using Statistical Package for Social Sciences (SPSS). This was done using both descriptive and inferential statistics. Descriptive statistics (percentages, frequencies,

and means) presented in tables was used to organize and summarize data and to describe the characteristics of the sample while Pearson correlation coefficient was used to check the relationship between variables. ANOVA was used to test the influence of the independent variables on the dependent variable and the study hypothesis at $p < .05$ level of significance. The following regression model was used.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where,

Y = Pricing of Residential Houses

X_1 = Government Policy

X_2 = Cost of Land

X_3 = Interest rates

X_4 = Mortgage Risk

β_0 = Model Constant

β_1, β_2 and β_3 = Model Coefficients

ϵ = Error Term.

CHAPTER FOUR
FINDINGS AND ANALYSIS

4.1 Introduction

This chapter presents a discussion of the research findings on financial factors influencing the pricing of residential houses in Nakuru East Sub-county, Kenya. The findings were in form of both descriptive and inferential statistics. The presentations of the findings were in tandem with the research objectives and study variables. The researcher essentially delved into the findings and discussions relative to the background information first, and then followed by descriptive and inferential statistics.

4.2 Response Rate

The researcher distributed 60 questionnaires to be filled by the respondents of which 54 of them were completely filled and returned. This represented a response rate of 90% which was characterized as very good. Essentially the response rate that every researcher would pursue would be 100%. In reality however this is not possible due to sampling measurement and coverage errors. A response rate below 51% is considered inadequate in social sciences (Pinsonneault & Kraemer, 1993). Babbie (1990) suggested that a response rate of 60% is good; 70% is very good.

4.3 Background information

The researcher sought respondents' demographic characteristics regarding level of education and experience in the real estate business. The findings in regard to the level of education were as shown in Table 4.1

Table 4. 1: Level of education

	Frequency	Percent	Valid Percent	Cumulative Percent
secondary	7	13.0	13.0	13.0
Diploma	20	37.0	37.0	50.0
Degree	26	48.1	48.1	98.1
Masters	1	1.9	1.9	100.0
Total	54	100.0	100.0	

The findings indicated that 48.1% of the respondents had either a bachelor degree while

37% of them had a diploma. 13% of the respondents had secondary school education whereas only 1.9% had a master's degree. Therefore, many of the dealers in real estate management had acquired some level of education helpful in management of real estate business. In examining the experiences of the respondents in the real estate business, the following results were obtained.

Table 4. 2: Respondents Experience in Real Estate Management

	Frequency	Percent	Valid Percent	Cumulative Percent
less that 1 yr	4	7.4	7.4	7.4
1-5 yrs	47	87.0	87.0	94.4
6-10yrs	3	5.6	5.6	100.0
Total	54	100.0	100.0	

The findings indicated that the majority of the respondents had between one to five years of experience in management of real estate business. It was further established that 5.6% of the respondents had between 6 to 10 years of experience while 7.4% had less than one year of management experience in real estate.

The research sought to examine whether there was a relationship between experience and level of education. Chi-square analysis was performed and the results shown as in the table 4.3.

Table 4. 3: education * experience Crosstabulation

		How many years have been in real estate management			Total
		less that 1 yr	1-5 yrs	6-10yrs	
Level of education	secondary	2	5	0	7
	Diploma	0	19	1	20
	Degree	2	22	2	26
	Masters	0	1	0	1
Total		4	47	3	54

$x2= 6.839$, $p=.261$

From the table it was established that regardless of the level of education majority of the

respondents had between 1 and 5 years of experience. The chi-square statistic of 6.839 was found to insignificant at p<.05 level of significant. This means that is no significant difference in respondents' experience based on their education.

4.4 Descriptive Statistics

Descriptive statistics were sought to examine respondents' views in regard to the various study variables. The frequencies and chi-square (x2) values were computed to make observations based on the responses from the real estate managers.

4.4.1 Cost of Land

Respondents' views regarding the cost of land were sought. The findings from the analysis were as shown in table 4.3

Table 4. 4: Descriptive Statistics on Cost of Land

	SA (%)	A (%)	U (%)	D (%)	SD (%)	x2	P-value
The cost of land in this area has taken an upward trend	61.1 (33)	37 (20)	0	1.9 (1)	0	28.778[a]	.000
The increasing cost of land has led to increase in price changes and construction cost	42.6 (23)	50 (27)	7.4 (4)	0	0	16.778[a]	.000
The cost of land in the area makes it difficult for people with an income of less than Khs. 120,000 to own houses in Nakuru	39.9 (21)	55.6 (30)	5.6 (3)	0	0	21.000[a]	.000
It is difficult for middle and low income earners to own houses in Nakuru East Sub-County due to high prices in this area	20.4 (11)	72.2 (39)	3.7 (2)	3.7 (2)	0	68.222[b]	.000
Increasing income levels contribute to high cost of land leading to increase in house prices in the areas	25.9 (14)	66.7 (36)	5.6 (3)	1.9 (1)	0	57.259[b]	.000
Households with increasing income uncertainty prefer renting than home ownership due to high cost of land	40.7 (22)	57.4 (31)	1.9 (1)	0	0	26.333[a]	.000

33

Valid N (listwise)	54

The table 4.3 demonstrated that a majority of the respondents were in agreement with all the assertions relating to the cost of land. 98.1% of the respondents strongly and/or agreed that the cost of land in the area had taken an upward trend resulting to an increase in price changes and construction costs. Further 95.5% of the respondents strongly and/or agreed that the cost of land in the area makes it difficult for people with an income less than Kshs. 120,000 to own houses in Nakuru East Sub-County. They also observed that it is difficult for middle income earners to own houses in Nakuru town east sub-county due to high prices in this area. Respondents further agreed (M=4.17, SD=.607) that increasing income levels contribute to high cost of land leading to increase in house prices in the area and further observed that households with increasing income uncertainty prefer renting than home ownership due to high cost of land. All the chi-square ($x2$) values were significant at p<.05 meaning that the respondents had significantly diverse views in regard to all the aspects.

4.4.2 Interest Rates

The study sought to establish respondents' views regarding loan interest loans in property buying and constructions. The findings from the analysis were as presented in table 4.4 below.

Table 4. 5: Descriptive Statistics on Interest Rates

	SA (%)	A (%)	U (%)	D (%)	SD (%)	x2	p-value
High mortgage rates discourages home ownership	51.9 (28)	44.4 (24)	3.7 (2)	0	0	21.778[a]	.000
Most people fear tied in a mortgage due to income uncertainty	37.0 (20)	61.1 (33)	1.9 (1)	0	0	28.778[a]	.000
The reduction of the borrowing cost in banks after interest rates caps has seen an increase in the number of people taking up mortgages	14.8 (8)	42.6 (23)	40.7 (22)	1.9 (1)	0	25.852[b]	.000
The prolonged maturity period for mortgages makes home ownership costly fair	22.2. (12)	64.8 (35)	7.4 (4)	3.7 (2)	1.9 (1)	74.704[c]	.000
Interest rates volatility leads to high demand for housing in the long run	37.0 (20)	53.7 (29)	7.4 (4)	0	1.9 (1)	39.185[b]	.000

	SA (%)	A (%)	U (%)	D (%)	SD (%)	x2	p-value
With low interest rates buyer are able to own homes	35.2 (19)	4.4 (24)	20.4 (11)	0	0	4.778[a]	.098
Valid N (listwise)		54					

Respondents were in agreement with all the aspects of interest rates on property loans. 96.3% of the respondents strongly and/or agreed that high mortgage rates discourage home ownership and 98.1% of the respondents strongly and/or agreed that people fear being tied up in a mortgage due to income uncertainty. On the other hand 57.4% of the respondents strongly and/or agreed that the reduction of the borrowing cost in banks after interest rates cap has seen an increase in the number of people taking up mortgages. Further,87% of the respondents strongly and/or agreed that the prolonged maturity period for mortgages makes home ownership a costly affair while 90.7% of the respondents strongly and/or agreed that interest rates volatility leads to high demand for housing in the long run. Finally, 39.6% of the respondents strongly and/or agreed that with low interest rates, buyers are able to own homes.

4.4.3 Mortgage Risk

In regard to the mortgage risk, the findings from the analysis were as presented in table 4.5 below.

Table 4. 6: Descriptive Statistics on Mortgage Risk

	SA (%)	A (%)	U (%)	D (%)	SD (%)	x2	p-value
To avoid mortgage risk most of the people in this area rely on their savings to buy housing properties	31.5 (17)	63.0 (34)	3.7 (2)	1.9 (1)	0	53.407[a]	.000
Government employed people in this area easily acquire properties through mortgage financing arrangements with the employer	27.8 (15)	63.0 (34)	3.7 (2)	5.6 (3)	0	49.259[a]	.000
Mortgage rates are high discouraging people from buying properties in this area	38.9 (21)	55.6 (30)	5.6 (3)	0	0	21.000[b]	.000
The long maturity periods for mortgage financing makes buying land a costly affair	16.7 (9)	64.8 (35)	14.8 (8)	1.9 (1)	1.9 (1)	73.037[c]	.000
The qualifications for mortgage are high for people to afford	31.5 (17)	63.0 (34)	5.6 (5.6)	0	0	26.778[b]	.000

	SA (%)	A (%)	U (%)	D (%)	SD (%)	x2	p-value
The banks have attractive financing packages for home owners in this locality making it easy to access construction capital	42.6 (23)	53.7 (29)	0	3.7 (2)	0	22.333[b]	.000
Valid N (listwise)			54				

The table indicated that 94.5 % of the respondents strongly and/or that in order to avoid mortgage risk most of the people in the area rely on their savings to buy housing properties. Further 90.8% of the respondents strongly and/or agreed that the government employed people in the area easily acquire properties through mortgage financing arrangements with the employer. On the other hand 94.5% of the respondents strongly and/or agreed that mortgage rates are high discouraging people from buying properties in this area. Additionally, 81.5% of the respondents noted that the long maturity periods for mortgage financing makes buying land a costly affair and that the qualifications for mortgage are high for people to afford. In contrast, 96.3% of the respondents strongly and/or agreed that the banks have attractive financing packages for home owners in this locality making it easy to access construction capital. All the chi-square (x2) values were significant at p<.05 meaning that the respondents had significantly diverse views in regard to all the aspects.

4.4.4 Government Policy

The study further sought to establish respondents' views relating to government policy on home ownership. The findings presented as shown in table 4.6

Table 4. 7:Descriptive Statistics on Government Policy

	SA (%)	A (%)	U (%)	D (%)	SD (%)	x2	p-value
There are government regulations governing the ownership of land	42.6 (23)	44.4 (24)	9.3 (5)	3.7 (2)	0	30.000[a]	.000
Registration of land transfer details in government registration offices is a tedious and complicated process	11.1. (6)	50.0 (27)	25.9 (14)	13.0 (7)	0	20.815[a]	.000
Acquiring land title deeds according to government policy is a costly process	40.7 (22)	53.7 (29)	3.7 (2)	1.9 (1)	0	44.519[a]	.000
The government has to approve the building plans which is a lengthy as well as costly process	37.0 (20)	55.6 (30)	7.4 (4)	0	0	19.111[a]	.603

	SA	A	U	D	SD	x2	p-value
The government controls the type of houses to be constructed in different locations in the Sub-County	18.5 (10)	59.3 (32)	20.4 (11)	0	1.9 (1)	38.296^a	.000
The government have imposed rental income tax that weighs heavily on the landlords	25.9 (14)	51.9 (28)	20.4 (11)	1.9 (1)	0	27.630^a	.000
Valid N (listwise)	54						

The table demonstrated that 87% of the respondent strongly and/or agreed that there are government regulations governing the ownership of land. 61.1% of the respondents observed that the registration of land transfer details in government registration offices is a tedious and complicated process. Additionally, 94.4% of the respondents strongly and/or agreed that acquiring land title deeds according to government policy is a costly process and 92.6% responded that the government has to approve the building plans which is a lengthy as well as a costly process. On the other hand 77.8% of the respondents strongly and/or they agreed that the government controls the type of houses to be constructed in different locations in the sub-county. Finally 77.8% of the respondents strongly and/or agreed that the government have imposed rental income tax that weighs heavily on the landlords.

4.4.5 Pricing of Residential Houses

The findings in relation to the respondents views regarding the pricing of residential houses were as presented in table 4.7 below

Table 4. 8: Descriptive Statistics on Pricing of Residential Houses

	SA	A	U	D	SD	x2	p-value
Rising demand in housing has led to sky rocketing of house prices	55.6 (30)	42.6 (23)	0	1.9 (1)	0	25.444^a	.000
Increase in money spent on rent has led to decrease in people savings making it difficult for them to own homes	55.6 (30)	38.9 (21)	1.9 (1)	3.7 (2)	0	45.704^b	.000
The imbalance between the supply and demand has caused an increase in the prices of houses	51.9 (28)	44.4 (24)	3.7 (2)	0	0	21.778^a	.000
To regulate the problem of over valuation, the government avails information on the pricing of residential houses	50.0 (27)	42.6 (23)	3.7 (2)	3.7 (2)	0	39.778^b	.000

Increased income levels in this locality has led to increased house prices	33.3 (18)	63,0 (34)	0	1.9 (1)	1.9 (1)	55.778[b]	.000
The high cost of capital has led to an increase in the housing prices	50.0 (27)	44.4 (24)	1.9 (1)	3.7 (2)	0	43.037[b]	000
Valid N (listwise)		54					

The table indicated that 98.2% of the respondents strongly and/or agreed that the rising demand in housing has led to sky rocketing of house prices. Further 94.5% of the respondent strongly and/or agreed that increase in money spent on rent has led to a decrease in peoples savings making it difficult for them to own. On the other hand, 96.3% of the respondents strongly and/or agreed that the imbalance between the supply and demand has caused an increase in the prices of houses. Additionally, 96.3% of the respondents strongly and/or agreed that to regulate the problem of over valuation, the government avails information on the pricing of residential houses. Further 96.3% of the respondents strongly and/or agreed that increased income levels in the locality has led to increased house prices. In addition 94.4% of the respondents strongly and/or agreed that the high cost of capital has led to an increase in the house pricing.

4.5 Correlation analysis

The study sought to establish whether there existed any significant relationships between the independent and the dependent variables. The responses were first computed into composite scores of their means per every variable. Pearson product moment correlation coefficient was used to examine the relationships. The findings were presented and discussed as in the subsequent subsections.

4.5.1 Cost of Land and Pricing of Residential Houses

The two variables, cost of land and pricing of residential houses, were correlated and the findings presented as shown in table 4.8

Table 4. 9: Relationship between Cost of Land and Pricing of Residential Houses

		Cost of land	Pricing
Cost of land	Pearson Correlation	1	.173
	Sig. (2-tailed)		.212
	N	54	54
Pricing	Pearson Correlation	.173	1
	Sig. (2-tailed)	.212	

	N		54	54

Cost of land was shown to have a weak positive (r=.173) relationship with the pricing of residential houses in Nakuru East Sub-county. However the p-value of 0.212 was greater than the level of significance which was p<.05 level of significance. Therefore the relationship between the cost of land and the pricing of residential houses was considered not to be significant. Therefore the researcher observed that cost of land has an insignificant role in determining the prices of residential houses in Nakuru East Sub-county.

4.5.2 Interest Rates and Pricing of Residential Houses

To establish the relationship between interest rates on loans and the pricing of residential houses, the two variables were correlated against each other. The findings from the analysis were as presented in Table 4.9

Table 4. 10: Relationship between Interest rates and Pricing of residential Houses

		Interest Rates	Pricing
Interest Rates	Pearson Correlation	1	.068
	Sig. (2-tailed)		.626
	N	54	54
Pricing	Pearson Correlation	.068	1
	Sig. (2-tailed)	.626	
	N	54	54

It was established that interest rates on loans had a very weak positive (r=.068) relationship with the pricing of residential houses. The relationship was found to be insignificant at p<.05. As such, though interest may have a role in the pricing of residential houses, the role is negligible and insignificant.

4.5.3 Mortgage Risk and Pricing of Residential Houses

Correlation analysis was further undertaken to examine the relationship between the mortgage rates and the pricing of residential houses. The findings from the analysis were as shown in table 4.10

Table 4. 11:Relationship between Mortgage Risk and Pricing of Residential Houses

		Mortgage Risk	Pricing
Mortgage Risk	Pearson Correlation	1	.427[**]

			Pricing
	Sig. (2-tailed)		.001
	N	54	54
	Pearson Correlation	.427**	1
Pricing	Sig. (2-tailed)	.001	
	N	54	54

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

The analysis established an average positive significant (r=.427, p=.001) relationship between mortgage risk and the pricing of residential houses in Nakuru East Sub-county, Kenya. The researcher therefore observed that mortgage risk have an important role in determining the pricing of residential houses in this area. Therefore, a reduction in mortgage rates leads to consequent reduction in house prices in the area. Therefore to control the pricing of residential houses, better mortgage rates need to be enhanced.

4.5.4 Government Policy and Pricing of Residential Houses

The relationship between government policy and the pricing of residential houses in Nakuru East Sub-county was also established and the findings presented as in table 4.11 below.

Table 4. 12: Relationship between Government Policy and Pricing of Residential Houses

		Government Policy	Pricing
	Pearson Correlation	1	.346*
Government Policy	Sig. (2-tailed)		.010
	N	54	54
	Pearson Correlation	.346*	1
Pricing	Sig. (2-tailed)	.010	
	N	54	54

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

The table indicated the existence of a weak positive significant (r=.346, p=.010) relationship between government policy and the pricing of residential houses. The relationship was significant at p<.05. Therefore it was observed that government policy has a crucial role in determining the prices of residential houses in Nakuru East Sub-county. As such, the researcher observed that government policy is important in controlling residential house prices in this area.

4.6 Regression Analysis

The study undertook to perform regression analysis to aid in hypothesis testing and fitting the regression model. The findings from the analysis were as shown hereafter.

Table 4. 13: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.446[a]	.199	.151	.31543

a. Predictors: (Constant), Mortgage Risk, Cost of land, Interest Rates

The model summary for the regression gave an R-squared value of .199 which meant that the independent variables (mortgage rates, cost of land, and interest rates) taken together accounts for up to 19.9% of the variation in house pricing in Nakuru East Sub-county. The remaining 80.1% of the variation in the pricing of residential houses is accounted for by factors not considered in this model. The analysis of variance gave the following results in Table 4.13

Table 4. 14: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	1.234	3	.411	4.132	.011[b]
1	Residual	4.975	50	.099		
	Total	6.208	53			

a. Dependent Variable: Pricing
b. Predictors: (Constant), Mortgage Risk, Cost of land, Interest Rates

An F-value ($F_{(3, 50)}$ =4.132, p=.011) was established which was significant at p<.05 level of significance. This indicates that the independent variables taken together have a significant influence on the pricing of residential houses in Nakuru East Sub-county in Kenya. Therefore the researcher concluded that for pricing of residential houses could significantly be explained by the mortgage rates, the cost of land and the interest rates. The model coefficients table gave the following results shown in table 4.14

Table 4.15: Regression Table

Coefficients[a]						
Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Collinearity Statistics

		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.067	.947		2.183	.034		
	Cost of land	.156	.156	.131	.998	.323	.928	1.078
	Interest Rates	-.015	.173	-.012	-.088	.930	.927	1.079
	Mortgage Rates	.414	.128	.414	3.240	.002	.981	1.019

a. Dependent Variable: Pricing

The table indicates that the parameter estimate (β) for the cost of land was .156 with a t-value of 2.183. However, the t-value was insignificant at $p<.05$ level of significance. As such, cost of land has no significant influence on the pricing of residential houses in Nakuru East Sub-County in Kenya. Therefore the null Hypothesis H_{01} that Cost of land has no significant influence on pricing of residential houses in Nakuru Town Kenya failed to be rejected. The parameter estimate (β) for the Interest rates on loans was -0.015 with a t-value of -0.088. The t-value was found to be insignificant at $p<.05$ level of significance. This means that interest rates on loans have no significant influence on the pricing of residential houses. As such, the null hypothesis H_{02}, that Interest rate on loans has no significant influence on pricing of residential houses in Nakuru Town Kenya failed to be rejected. On the other hand, the parameter estimate (β) for mortgage rates was .414 with a t-value of 3.240. The t-value was found to be significant at $p<.05$ level of significance. Therefore it was concluded that mortgage risks influenced the pricing of residential houses in Nakuru East Sub-county Kenya. Thus the null hypothesis H_{03}, that Mortgage risks have no significant influence on pricing of residential houses in Nakuru Town East Sub-county, Kenya was consequently rejected. The study fitted the following regression model from the model coefficients table.

$Y = 2.067 + .156X_1 - 0.015X_2 + .414X_3 + \epsilon$

Where,

Y = Pricing of Residential Houses

X_1 = Cost of Land

X_2 = Interest rates

X_3 = Mortgage Risk

From the model, it was evident that the autonomous pricing of residential houses in Nakuru East Sub-county was a constant of 2.067. Therefore with all the other factors held constant, the pricing of residential houses remains at a constant factor of 2.067. On the other hand, a unit increase in the cost of land led to a subsequent increase in the prices of residential houses by a factor of 0.156. Further, with all factors held constant, a unit increase in interest rates led to a subsequent increase in the prices of residential houses by a factor of -0.015. A unit increase in the mortgage rates with other factors held constants was shown to result to an increase in the prices of residential houses by a factor of .414. Therefore, the independent variables had a significant influence on the pricing of residential houses in this area.

Since all the VIF values are less than 10, this indicates that there is no multicollinearity in this data.

CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

After the data was collected and analyzed in form of both descriptive and inferential statistics, the researcher compiled a summary of major research findings. She then drew conclusions from the summary of the study findings. Finally the researcher put across pertinent recommendations in line with the effect of independent variables on the dependent variable and suggested areas for further research.

5.2 Summary of Findings

The study respondents had acquired substantial academic qualifications to perform their duties though the majority of them had little experience in working for Real estate. The descriptive and inferential statistics provided information in regards to every study variable.

5.2.1 Cost of Land and Pricing of Residential Houses

Findings showed that respondents were in agreement with all the assertions relating to the cost of land. They strongly agreed that the cost of land in the area had taken an upward trend resulting to an increase in price changes and construction costs. They further observed that the cost of land in the area makes it difficult for people with an income less than Kshs. 120,000 to own houses in Nakuru. They also observed that it is difficult for middle income earners to own houses in Nakuru town east sub-county due to high prices in this area. Respondents further agreed that increasing income levels contribute to high cost of land leading to increase in house prices in the area and further observed that households with increasing income uncertainty prefer renting than home ownership due to high cost of land.

It was further observed that cost of land have a weak positive relationship with the pricing of residential houses in Nakuru East Sub-county though the relationship was insignificant at $p < .05$. Regression analysis indicated that cost of land had no significant influence on the pricing of residential houses. Therefore it was observed that cost of land has an insignificant role in determining the prices of residential houses in Nakuru East Sub-county.

5.2.2 Interest Rates and Pricing of Residential Houses

From descriptive analysis, it was established that respondents were in agreement with all the aspects of interest rates on property loans. They agreed that high mortgage rates discourage home ownership and that most people fear being tied up in a mortgage due to income uncertainty. On the other hand they agreed that the reduction of the borrowing cost in banks after interest rates cap has seen an increase in the number of people taking up mortgages. Further, respondents agreed that the prolonged maturity period for mortgages makes home ownership a costly affair while agreeing that interest rates volatility leads to high demand for housing in the long run. Finally, respondents agreed that with low interest rates, buyers are able to own homes.

On the other hand, findings established that interest rates on loans had a very weak positive relationship with the pricing of residential houses. The relationship was found to be insignificant at $p<.05$. As such, though interest may have a role in the pricing of residential houses, the role is negligible and insignificant. Regression analysis indicated that interest rates on loans have no significant influence on the pricing of residential houses.

5.2.3 Mortgage Risk and Pricing of Residential Houses

Descriptive analysis indicated that respondents agreed that in order to avoid mortgage risk most of the people in the area rely on their savings to buy housing properties. They further agreed that the government employed people in the area easily acquire properties through mortgage financing arrangements with the employer. On the other hand respondents agreed that mortgage rates are high discouraging people from buying properties in this area. Additionally, respondents noted that the long maturity periods for mortgage financing makes buying land a costly affair and that the qualifications for mortgage are high for people to afford. In contrast respondents agreed that the banks have attractive financing packages for home owners in this locality making it easy to access construction capital.

Further correlation analysis revealed that an average positive significant relationship existed between mortgage risk and the pricing of residential houses in Nakuru East Sub-county, Kenya. The researcher therefore observed that mortgage risk have an important role in determining the pricing of residential houses in this area. Regression analysis showed that mortgage risk significantly influences the pricing of residential houses in Nakuru East Sub-county.

5.2.4 Government Policy and Pricing of Residential Houses

Findings indicated that respondents agreed that there are government regulations governing the ownership of land. They observed that the registration of land transfer details in government registration offices is a tedious and complicated process. Additionally respondents agreed that acquiring land title deeds according to government policy is a costly process and that the government has to approve the building plans which is a lengthy as well as a costly process. On the other hand they agreed that the government controls the type of houses to be constructed in different locations in the sub-county. Finally respondents agreed that the government have imposed rental income tax that weighs heavily on the landlords. Correlation analysis further showed that government policy has a significant relationship with the pricing of residential houses in Nakuru East Sub-county, Kenya.

5.2.5 Pricing of Residential Houses

It was established that the respondents agreed that the rising demand in housing has led to sky rocketing of house prices and that increase in money spent on rent has led to a decrease in people's savings making it difficult for them to own homes. On the other hand they agreed that the imbalance between the supply and demand has caused an increase in the prices of houses. They observed that to regulate the problem of over valuation, the government avails information on the pricing of residential houses. They agreed that increased income levels in the locality have led to increased house prices and that the high cost of capital has led to an increase in the house pricing.

5.3 Conclusions of the Study

Based on the study's summary the researcher concluded that the cost of land does not

significantly influence the pricing of residential houses in Nakuru East Sub County. The findings demonstrated that the cost of land had no significant relationship with; neither did it influence the pricing of residential houses in the area. As such, the researcher observed that the cost of land does not influence the pricing of houses in the area. Additionally, it was concluded that interest rates on loans also does not influence the pricing of houses in the area. It was indicative that interest rates on loans had no significant relationship with, neither did it influence the pricing of residential houses.

However, the study concluded that mortgage risk significantly influenced the pricing of residential houses in this area. There was an average positive significant relationship between mortgage risk and the pricing of residential houses. Further, mortgage risk was shown to significantly influence the pricing of residential houses. As such, the researcher concluded that mortgage risk has a significant role in determining the pricing of residential houses in Nakuru East Sub-county. It was finally concluded that government policy played a significant role in determining the pricing of residential houses. A positive significant relationship was established between government policy and the pricing of houses.

5.4 Recommendations of the Study

Based on the study findings, it is evident that the independent variables taken together significantly influenced the pricing of residential houses. Therefore the study recommends for the government to be able to bring down the rental prices they should come up with policy measures ensure that the cost of land is brought down to encourage more people to buy land. Further, the banks should take advantage of the increasing demand for home ownership by bringing down the interest rates on loans thus attracting more people to take up loans thus creating more profits for the bank. Further better mortgage arrangements should be provided that enables potential homeowners to afford the facilities with lower mortgage risk implication. This will enhance the ability of people to own homes and thus bring down rental prices. Through government policy, the government can build lower cost houses and thus influence the private sector in bringing down the prices of rental houses.

5.4.1 Suggestions for Further Studies

This study focused on financial factors influencing the pricing of residential houses in

Nakuru East Sub-county Kenya. Thus, the findings of the study can be generalized to reflect the situation in the whole country. Therefore the study recommends that similar studies should be conducted in other parts of the country to authenticate these findings and enable their generalization. Further the study only focused on financial factors influencing the pricing of residential houses. Therefore the study recommends that future studies should explore other factors that influence the pricing of residential houses.

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Appendix 1: Introduction Letter

Dear Respondent,

RE: RESEARCH QUESTIONNAIRE

I am a Masters student at Kabarak University conducting a research entitled **"Financial Factors Influencing the Pricing of Residential Houses in Nakuru East Sub-county Kenya."** This research forms part of the requirement for my Masters qualification. I would appreciate if you would kindly take a little of your time to complete a questionnaire that I will provide. Any information provided from you is purely for academic purposes and all responses will be treated with utmost confidentiality. Your cooperation is most valued and appreciated.

I take this opportunity to thank you in advance for your quick return of your completed questionnaire.

Yours faithfully

Winnie Chemirmir

This questionnaire is aimed at collecting data to facilitate the study titled: **Financial Factors Influencing the Pricing of Residential Houses in Nakuru East Sub-county, Kenya**. The questionnaire forms an integral part of the study and the respondents are kindly requested to complete and give any additional information they feel is necessary for the study. The researcher will uphold utmost integrity and ethics by ensuring that the data collected will be used absolutely for academic purpose and will be treated with strict confidentiality.

Use the scale from 1 to 5 where **1-strongly disagree, 2-disagree, 3-undecided, 4-agree and 5-strongly agree** for your response.

Demographic Information of the Respondents

In the following section indicate using a tick (√) your choice in the various categories

1. **Level of education**

Secondary school ☐   Diploma ☐   Degree ☐

Masters ☐   Doctorate ☐

2. **How many years have you been in real estate management?**

☐

In the following section, use the following scale to show your level of agreement with the statements therein as regards various aspects in financial factors and pricing of residential houses

1-Strongly Disagree (SD) 2-Disagree (D) 3-Undecided (U) 4-Agree (A) 5-Strongly Agree (SA)

I.   **Cost of Land**

Statement	SA	A	U	D	SD
	5	4	3	2	1
1. The cost of land in this area has taken an upward trend					

Statement					
2. The increasing cost of land has led to increase in price changes and construction cost					
3. The cost of land in the area makes it difficult for people with an income of less than Kshs. 120,000 to own houses in Nakuru East					
4. It is difficult for middle and low income earners to own houses in Nakuru East Sub-county due to high cost of land					
5. Increasing income levels contribute to high cost of land leading to increase in house prices in this area					
6. Households with increasing income uncertainty prefer renting than home ownership due to high cost of land					

II. Interest Rates

Statement	SA	A	U	D	SD
	5	4	3	2	1
1. High mortgage rates discourages home ownership					
2. Most people fear being tied in a mortgage due to income uncertainty					
3. The reducing of the borrowing cost in banks after interest caps has seen an increase in the number of people taking up mortgages					
4. The prolonged maturity period for mortgages makes home ownership a costly affair					
5. Interest rates volatility leads to high demand for housing					

in the long run					
6. With low interest rates buyers are able to own homes					

III. Mortgage risk

Statement	S A	A	U	D	SD
	5	4	3	2	1
1. Most of the people in this area rely on their savings to buy housing properties					
2. Government employed people in this area easily acquire properties through financing arrangements with the employer					
3. Mortgage rates are high discouraging people from buying properties in this area					
4. The long maturity periods for mortgage financing makes buying land a costly affair					
5. The qualifications for mortgage are high for people to afford					
6. The banks have attractive financing packages for home owners in this locality making it easy to access construction capital					

IV. Government Policy

Statement	SA	A	U	D	SD
	5	4	3	2	1

1. There are government regulations governing the ownership of land					
2. Registration of land transfer details in government registration offices is a tedious and complicated process					
3. Acquiring land title deeds according to government policy is a costly process					
4. The government has to approve the building plans which is a lengthy as well as costly process					
5. The government controls the type of houses to be constructed in different locations in the sub-county					
6. The government have imposed rental income tax that weighs heavily on the landlords					

V Pricing of Residential Houses

Statement	SA	A	U	D	S D
	5	4	3	2	1
1. Rising demand in housing has led to skyrocketing of house prices					
2. Increase in money spent on rent has led to a decrease in people savings making it difficult for them to own homes					
3. The imbalance between the supply and demand has caused an increase in the prices of houses					
4. To regulate the problem of over valuation, the					

government avails information on the pricing of residential houses					
5. Increased income levels in this locality has led to increased house prices					
6. The high cost of capital has led to an increase in the housing prices					

Thank you for your Cooperation

Appendix 3: List of Real Estate Agencies and Companies

1. Angaza real estate limited
2. Apex Enterprises
3. Baraka general commercial agency
4. Bedrock Holdings LTD
5. Capital carehome & amp; property consultants
6. E.A.homes commercial agencies
7. Edvest investment limited
8. Gahaka commercial agents
9. Gakuyo Real Estate
10. Genlose Commercial Agencies
11. Geo-lucky investment agencies limited
12. Goshen Properties Consultants
13. Grace Light Commercial Agency
14. Greenages Commercial Agents
15. Gurukrupa Investments Limited
16. If not why not investment
17. Ikatwa estate developers L T D
18. Intercity secure homes LTD
19. Interlink beta commercial agency
20. Investax Capital
21. Josmos Commercial Agency
22. Kalimbula Investments Limited
23. Kamalunga Commercial Agencies
24. Kenja properties
25. Lake Land Agency
26. LARKSPUR HOMES & PROPERTY CONSULTANTS
27. LONEEN INVESTMENTS & JONKA VENTURES
28. Magic Movers Investments
29. Makao Mashinani Limited

30. Mao Investments Limited

31. Maxspin Investments

32. Menengai Pioneer Properties Limited

33. Mimwa Commercia; Agencies

34. Muigai Commercial Agencies LTD

35. Muiru property investment limited
36. Nakuru Housing Promotion

37. Netlink Investment Limited

38. Ngotho Commercial Agency Limited

39. Nuru Properties

40. PLANET HOMES & PROPERTY

41. Prema Developers Limited

42. Property Care Commercial Agency

43. Purac Commercial Agency

44. Ranges Estates

45. Rivatex East African Limited

46. Robinson Investment Limited

47. Saika Agency

48. Silver Links Real Estate

49. Sky Light Commercial Agency

50. Sortmasters Investments LTD

51. Sparkle Investments

52. Stamwa Commercial Agency

53. Superview Enterprice

54. Tawfiq Commercial Agency

55. Tegemeo Properties

56. Ufanisi Ventures

57. Urithi Housing Co-Operative Limited

58. Walk in commercial agencies.
59. Wells Spring Marketing and Estate Management
60. ZN Commercial Agencies

(Source: Nakuru County Licensing Department Records (2017)