

**EFFECT OF HOME OWNERSHIP MODELS ON RATE OF OWNING HOMES
AMONG LOW INCOME HOUSEHOLDS IN NAIROBI COUNTY, KENYA**

BY

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DECLARATION

I declare that this dissertation is my original work and has not been previously published or submitted elsewhere for award of a degree. I also declare that this contains no material written or published by other people except where due reference is made and author duly acknowledged.

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ABSTRACT

Many low income earners in urban areas are unable to own houses due to economic hardships. However, there are some strategies that have been put in place to attempt to solve this menace. These strategies include using models which may also be obstacles not only to homeownership especially among low income earners but also to policy makers, financial institutions and other stakeholders interested in ensuring that more Kenyans and especially those living in Nairobi County access decent and affordable homes. This study is aimed at assessing three home ownership models, their impact on home ownership and to establish which of the three is the best for home-ownership among low income households in Nairobi County. Specifically, the study strove to establish the impact of long term mortgage model, short term loan model and housing co-operative model on acquiring a home in Nairobi County. The study used descriptive research design. The target population was economically active households who live at Ruai settlement area in Nairobi County. Simple random method was used to sample members of the households. Both open-ended and closed questions were used to construct the questionnaire which was one of the two instruments used in collecting data. The study also used a data capture form to collect secondary data that was used for regression analysis. The findings of the research were qualitatively and quantitatively analyzed evolving numerous findings. The collected data was analyzed using SPSS and various analyses such as exploratory factor analysis, Pearson's correlation coefficient and multi regression analysis were carried out. Key research findings are presented using frequencies and percentages and have been summarized in tables and figures. The study established that long term mortgage model is not viable and short term loan model is not the best for low income earners to acquire homes but established that housing cooperative model is the most ideal and viable model in the provision of decent and affordable shelter among low income households. The researcher recommends that intensive sensitization should be done among low income households so that they can embrace the housing co-operative model and better policies be put in place by the government and other partners to create enabling environment for low income earners to acquire homes.

Key Words: Home, Homeownership, housing co-operative, mortgage, short term

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DEDICATION

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ACRONYMS AND ABBREVIATIONS

APHRC - African Population and Health Research Centre

BOB- Bergen og omland Boligbyggerag (Bergen and Neighbourhood Co-Operative Housing Association)

CBK-Central Bank of Kenya

EA - Enumeration Area

GoK - Government of Kenya

HH - Household

HME - Household micro-enterprises

ICA-International Cooperative Alliance

K-DHS - Kenya Demographics and Health Survey

KENSUP-Kenya National Slum Upgrading Programme

KNBS - Kenya National Bureau of Statistics

Ksh - Kenyan Shilling

KUSCO-Kenya Union of Savings and Credit Organizations

MDG - Millennium Development Goal

NCSS - Nairobi Cross-Sectional Slum Survey

NACHU-National Cooperative Housing Union

NGO - Non-governmental organization

NHC-National Housing Cooperation

OBOS- Oslo Bolig Og Sparebank (Oslo housing & saving society)

SPSS-Statistical Package for Social Science

TERMS AND DEFINITIONS

Cooperative: A cooperative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise (ICA, 1995).

Economically active people-These are individuals who are busy engaged in income generating activities either formally employed or self-employed (Researcher, 2014).

Home mortgage: Loans secured by a buyer's house and paid in installments based on the period of time as determined by the financial institution and the buyer. The mortgage secures the buyer's promise to repay the home mortgage (CBK, 2010).

Low income households (earners) - They are individuals spending less than KSH 40,000 per month (CBK, 2010).

A short-term loan- In this study it refers to inadequate loans a borrower takes several times in order to complete a project. This is due to low income levels and a loan repayment takes less than five years (CBK, 2010).

CHAPTER ONE

INTRODUCTION

1.1 Background Information

It cannot be disputed to assert that the world has been rapidly urbanizing at unprecedented rate and in 2010, for the first time in the world history the urban population outnumbered the rural population. Experts have projected that by the turn of this century, 7 out of every 10 people globally will be living in urban areas (UN-HABITAT, 2012). Speedy rural urban expansion being witnessed in most of the third world are creating escalating and spreading cities and towns that have no or little facilities and infrastructure. These challenges are more visible and profound in the developing countries especially in the sub-Saharan Africa because the rural-urban migration is not commensurate to economic growth. This has led to the failure by the concerned authorities both at country and regional levels to offer facilities and infrastructure required by the urban population proliferation (UN-HABITAT, 2011).

One of the greatest challenges antagonizing urban expansion in the developing countries and especially Sub-Saharan Africa is none other than derisory housing; especially among low-income to the point it is now pronounced as a disaster (Thornton, 2009). Experts have contended that the housing catastrophe is a consequence of many years of disregard of this segment as an important area for progress and poor policy formulation and implementation mechanism in addressing the challenges of the home ownership. Statistics from UN-HABITAT, (2012) reveal pale picture of housing where over 850 million people globally lives in slums in world urban areas. Kenya, like many other developing countries, is experiencing rapid urbanization and the proportion of the total population living in urban areas has increased from about 8% in 1960 to 24% in 2011 (KNBS, 2014) and is projected to grow to 50% of the population by 2030 (Vision

2030). The population will continue to increase in urban areas because cities are the highest pinnacle of human creation (UN Habitat 2012). The increase in urban population in developing countries has resulted in huge number of urban dwellers living in slums and increase in the informal settlements. The two areas are characterized by limited infrastructure such as roads, sewage trunks, and electricity and planned housing schemes. The consequences of liberalization, immigration and globalization are re-shaping the shelter supply and demand crescendos leading to high increase in property values and rent thereby forcing middle-income and low income households in developing countries to peri-urban areas and other poor vicinities (Brown, 2003).

The consequences of urbanization on housing in third world nations are not accorded required attention especially in the urban housing literature (Saga, Mitullah & Karirah, 2002) yet they pose catastrophic repercussions to mankind especially among the low income households. Housing statistics on Kenya are shocking and paint a pale picture to the house ownership currently. For instance, there are approximately 10 million households in Kenya and of which 9.2 million spends less than KSH 40, 000 per month (Standard Bank, 2014) and the low level of income inhibits those households in urban areas in accessing house ownership. The annual house supply demand in urban areas has been estimated at 206,000 housing units against formal houses supply market of about 50,000 units causing a deficit of 156,000 units. This has generated a deficit of more than 2 million housing units by 2012 (Ministry of Housing and Lands 2013). Consequently, the un-housed households have no choice but end up either joining informal settlement or creating their own informal settlement. In Nairobi County, over one million people live in slums and only 3% among them live in a shelter with permanent walls, water and electricity (World Bank 2011).

1.1.1 Ruai Settlement in Nairobi County

Ruai settlement is situated along Kangundo Road in Embakasi Division, about 20 miles from Nairobi's CBD. It has a population of 17,320 people with about 2, 255 households (KNBS, 2009). The area is characterized with a rising of a modest populace and it is a prime place for both commercial and residential housing. The area is quiet, serene environment, moderately populated and conducive for investment.

However, the area has some challenges that hampered proper settlement and development. The area lacks basic infrastructure and has poor access roads, no sewer trunk line, no piped water, and limited supply of electricity. This means that a person planning for a home in the area have to construct a septic tank, soak a pit, dig a bore-hole (or be buying water) and faces the challenge of accessing his house due to poor access roads. Most inhabitants of this place are of low and middle income groups who are dwelling in their homes or renting (Hassconsult, 2011).

1.1.2 Home Ownership

An owner-occupier is a person who lives in and owns the same home. It is a type of housing tenure. The home of the owner-occupier may be a bungalow, apartment, a villa or a condominium. Homeownership is therefore a state of living in a structure owned by the resident. The many constituencies benefiting from homeownership include the homeowners, neighborhoods, government, construction industries, financial services, and real estate developers. Communities benefit from homeowners' presence because homeownership is associated with higher property values, better property maintenance, and greater civic participation. For families, the potential benefits of homeownership include asset building and

increased community attachment and involvement. The government benefits through tax while financials and real estate developers make income from interest earned from loans and profit made respectively (Meen and Andrew, 2005).

1.1.3 Home Ownership Models

There are various home ownership financing models and vary from one country to another due to their unique features, culture and other dynamics but there are three basic models that may serve as points of reference for the rest. These include deed-restricted homes, community land trusts, and limited equity cooperatives. The “deed-restricted home” encompasses a range of types and tenures of housing, including detached houses, row houses and condominiums. The owners of the houses in this type of house ownership model normally buy houses through taking a mortgage (Imparato & Ruster, 2003).

The community land trust (CLT) is a dual ownership model: one party holds the deed to a parcel of land while the other party (the house owner) holds the deed to a residential house located upon that land. The owners of the land is normally a nonprofit community-based organization or a cooperative society committed to acquiring a parcel of land in a targeted geographic area with the intention of retaining ownership of the parcel forever (BOB, 2014;OBOS, 2014).

The third model is what is called ‘shared equity homeownership’ and as the term refers, it is a program that creates long-term, affordable homeownership opportunities by imposing restrictions on the resale of subsidized housing units (Syagga, Mitullah & Karirah, 2002). Typically, in this case a nonprofit, a housing cooperative or a government entity provides a subsidy to lower the purchase price of a housing unit, making it affordable to a low-income

buyer. This subsidy can be explicit, in the form of direct financial assistance, or implicit, in the form of developer incentives for inclusionary housing. In return for the subsidy, the buyer agrees to share any home price appreciation at the time of resale with the entity providing the subsidy, which helps preserve affordability for subsequent homebuyers. This model is mainly found in developed countries but rarely in African countries.

In Kenya, condominium is commonly known as Sectional Property under the Sectional Properties Act, 1987 where a buyer has a full title to the individual apartment or house and undivided interest in the shared parts of the property. This is a good model of home ownership in that one can get a loan based on these documents to invest in income other generating activities that can help him or her service the loan (Kobia, 2011).

There are a number of factors that are stifling the local mortgage market and creating an obstacle to widespread home ownership. These factors include; lack of long term finances for local mortgage providers, high pricing of land, low incomes of Kenyan workers, the high cost of house construction inputs, many developers raise their profit margin because of the high demands of houses and the high cost of infrastructure, the latter being the responsibility of the government but which is always looped in the cost of the new houses (CBK, 2013).

1.1.3 Low Income Households

There are challenges in defining low income groups. For example, the Kenya National Bureau of Statistics (2010) categorize low income cadre to compose of households earning less than Ksh. 23,672 per month. For the purpose of the current research, a low income household is one that spends less than Ksh. 40,000 per month (Standard Bank, 2014).

Many Kenyans in urban area and especially Nairobi County are living in rented houses. According to Ministry of Housing and Lands only 16% of Nairobi households and the rest 84% are renting (KNBS, 2012). Those living in their own homes access homes using several types of housing ownership models. These includes acquiring a mortgage from a financial institutions, constructing a house incrementally due to affordability problems by borrowing an initial small loan to buy a plot and then later borrow additional small loans periodically to build and complete the house. Majority of people in this case usually borrow loans from saving and Credit Societies (SACCOs) and other financial institutions. The third prominent model of accessing home ownership is through Housing Cooperative Societies. In some developed economies housing cooperatives ownership model enjoys government subsidy (UNHABITAT, 2011) but does not happen in Kenya.

Despite man's unprecedented progress in industry, education and the sciences, the simple refuge affording privacy and protection against the weather elements, decent shelter provision is still beyond the reach of most members of the human race worldwide and a bigger challenge in the urban population compared to rural population (Kobia, 2011). This is attributed to fast growing urban population due to rural-urban immigration that has doubled in the last century. In Africa, the situation is worse due to poor governance, poor performing economies and lack of adequate policies and regulations (UNHABITAT, 2011).

1.2 Statement of the Problem

Many Kenyans and especially those from the lower income cadre face a lot of challenges in accessing decent and affordable homes in urban areas. This can partly be attributed to lack of or unfavorable home ownership models. Urbanization has spread fast across the whole globe and in Kenya surpassing the available house units and hence causing huge and acute shortage (Hoek-

Smit, 2011). Consequently, house ownership has become inaccessible to the majority of low income households in many countries. Empirical evidence has shown that poor countries with low level of urbanization have the highest urban growth rate to of lack access to basic infrastructures (UNDP, 2001). The African continent is experiencing fast population growth yet the basic infrastructure such as housing is not commensurate to this skyrocketing population growth (AfDB, 2011).

A number of housing models have sought to make home ownership accessible and affordable. On a global perspective, several studies suggest that the cooperative model as the most favourable housing model (Jenny Jones Green Party Report, 2010; Jimoh, 2012). There is scanty literature on the effects of the three housing models in Nairobi County, Kenya. For example, in a survey run by the Central Bank of Kenya, access to long-term finance, low level of incomes/informity, credit risk and high interest rates are the major obstacles to the growth of mortgage portfolio (Central Bank of Kenya, 2010).

Similarly, Frank Knight Kenya (2013) did a study in which it concluded that many borrowers who obtain a loan at their affordability find it difficult to manage the increased monthly cost as the interest is ever increasing. CBK Report (2010) indicates that the mortgage market is the third most developed form of financing home ownership in Sub-Saharan Africa with mortgage assets equivalent to 2.5% of Kenya's GDP and has tripled in the past five years. The report further notes that the mortgage model favors only 8% of Kenya's households who are mainly the middle and high-end income earners because they can afford to pay the huge monthly payment to mortgage providers. Chepsiror (2013) argues that the dominant practical home

ownership in Kenya is through mortgage, private-public partnership (PPP), provision of site and service and funding through international bodies.

This scenario may not just be a Kenyan but seemingly across the African continent. Beck et al. (2011) estimates that the cut-off point for mortgage affordability includes only the richest 2.9% of Africans. Could this problem be attributable to the housing models of owning homes which includes the mortgage model (deed-restricted model), the short term loans model, and the housing cooperative model (community land trust model)? Thus the current study aims to assess the effects of home ownership models on owning homes among low income households in Nairobi County, Kenya.

1.3 Research Objectives

These are the aims and goals the study endeavors to achieve. The overall objective of the study was to assess home ownership models among low income households in Nairobi County.

1.3.2 Specific objectives

- i. To establish the extent to which mortgage model of house ownership determines rate of acquiring homes among low income earners in Nairobi County, Kenya.
- ii. To establish the extent to which short-term loan model of house ownership determines rate of acquiring homes among low income earners in Nairobi County, Kenya.
- iii. To assess the extent to which housing cooperative model of house ownership determines rate of acquiring homes among low income earners in Nairobi County, Kenya.

1.4 Research Questions

- i). To what extent does mortgage model of home ownership determine the rate of acquiring homes among low income earners in Nairobi County, Kenya?
- ii) To what extent does short-term loan model of home ownership determine the rate of acquiring homes among low income earners in Nairobi County, Kenya?
- iii) To what extent does housing cooperative model of home ownership determine the rate of acquiring homes among low income earners in Nairobi County, Kenya?

1.5 The Scope and Limitations of the Study

The study was carried out at the sampled housing cooperatives in Nairobi County. The sample size selected had unique features or characteristics that might not give a true representation of target population in the county. Suspicion and fear of victimization among members might cause them not give true picture of the performance of housing cooperatives and hence it might compromise the findings of the study.

Besides, the busy schedule of housing cooperative members made them delay to respond to the questionnaires and hence it took longer to have them respond to questionnaires. Worse, some respondents declined to fill the questionnaires or filled them for the sake of pleasing the researcher or /and failed to return the questionnaires. To overcome the challenges above, confidentiality was assured to all participants by ensuring all responses are unanimous and the responses are meant exclusively for academic purposes and that they would not be used to victimize anyone for the responses given. All transcripts and notes were stored in a lockable cabinet at the researcher's home to ensure confidentiality.

The researcher informed the respondents the significance of this study so as to solicit their response. Time limitation was overcome by working within the stipulated work plan and finances controlled as per the budgetary allocation of all activities.

1.6 Justification of the study

The study examined the housing models that are practiced in Nairobi County to establish their viability. House ownership has been and continued to be a milestone for many residents of the city and especially the low income households. This study sought to address these challenges and offer alternative home ownership models.

1.7 Significance of the Study

The study would be instrumental to contribution to knowledge base in this area especially. To the researcher, this study will fill knowledge gap and skills in this area. This study will fill research gap in this area by shading more light on what exactly entails home ownership models.

Finally, the study will generate theoretical debates and form a base for further research on the concept of house ownership models which could be beneficial to the prospective homeowners specially the middle and low income households. Understanding of better home ownership models is central to solving owning a home in many urban areas.

The research findings aims at helping the government design better house ownership policies and enable financial institutions, NGOs, housing cooperatives, low income earners, the building industry among others towards better housing ownership strategy implementation. Elaborate and viable policies on better home ownership model especially housing co-operatives can play a leading role in addressing house ownership challenges in Kenya.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of the related literature on the subject under study. Materials have been drawn from several sources which are closely related to the objectives of the study. Studies by various past writers, authors and researchers have been reviewed to assist the researcher meet the objectives of the study. This is in line with giving the study problem in question a theoretical perspective and conceptualization that would aid in carrying out the study. In this section, a review of the home ownership models has been examined. The analysis draws out the key impediments explaining housing dynamics and provides a back-drop against which stakeholders in the sector can use to strategize and initiate better home ownership models.

2.2 Theoretical Perspective

Although there are various theories on house ownership models, this study is based on the theory of social capital that explains adequately the reason people find it hard to own a home with most common models. The significance of social capital among means of survival in society was initiated from the effort of Pierre Bourdieu (1986). He is greatly criticizes untiring contempt for social explorations and edifices in economic theory and recommends the insertion of social capital. Social capital designates the linkage of connections constructed on responsibilities or established rights leading to in unanimity among people. His argument is that social capital is networks among the influential and affluent along with their subsequent privileges - propagate class creation, discrimination and social dominance.

Coleman explains three scopes of social capital: obligation and expectations, information sharing conduits and social norms, that when pooled expedite combined accomplishment, confidence and continuity. The milestone 'Voices of the Poor' survey sponsored and organized by the World Bank, referring to the study of Meen and Andrew (2005) ratifies the robust connection between upper wages and high social capital which encourages concrete membership. However, Social capital on its own has no capacity of eliminating poverty even though it is a core factor in poverty although it is a key factor in poverty lessening.

Generally, social capital can achieve greater organization for combined action, value-added negotiating muscle and buoyancy (Cameroon and Muellbauer, 2001). This means if members join resources they can access anything including home ownership. This theory adequately resonates well with this study as it justifies the inability for many people to own houses as one aspect of social capital theory is exclusion of low income segment of the society. The ruling elite and upper class will always remain at the top at the expense of the low income households by putting systems that protect their survival hence having ability to own homes.

The theory is also applicable to the low income earners in that if they pool their resources together through housing cooperatives. This can be done by forming their own group and through the economy of scale they could acquire homes and therefore justifies this study's aim of hypothesizing that housing cooperatives could be ideal model of home ownership among low income households in urban areas in Kenya. Therefore, this theory concurs well with the core aim of a cooperative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise (ICA, 2006). Cooperatives are based on the values of self-

help, self-responsibility, democracy, equality, equity and solidarity. In the tradition of their founders, co-operative members believe in the ethical values of honesty, openness, social responsibility and caring for others and they are well articulated in the social capital theory.

2.3 Home Ownership Financing in Africa

As it is in most countries in the world, mortgage is the most common model and mechanism of acquiring property especially owning of a home among others. Indeed this very instrumental and key for the property market functionality and flourishing economy by attracting investors and spurring economic growth. However, mortgage mechanism of acquiring a home is a reserve of individuals who are affluent or draw high incomes as it does not enable most of the people in society who are low income earners to secure a home. This so because they are poor, do not have legal land ownership rights, are informally or temporarily employed, or cannot fulfill financial institutions lending requirement to secure a loan. As a matter of fact, mortgage loans in most countries comprise 20% of the GDP of these countries.

However, the rise of the middle class offers multiple chances of make long term mortgage model very viable and rewarding especially where mortgage industry is growing at 30% in countries such as Kenya, Senegal and Rwanda among others. There are other impediments affecting the mortgage industry as escalating interest rates and inflation which Africa governments are not addressing as the ought to through initiatives like subsidizing to reduce interest rates. Besides, African nations need to learn benchmarks from countries like Malaysia and Egypt among others to promote this sector since it plays a key role in home acquisition.

UN Habitat reveals that a total of 46 cities situated in Africa are increasing by over one million people for the next 15 years and which will be forced to Africa's cities will have to provide somewhere to stay an extra 40,000 people, revealing a skyrocketing urbanization and serious grievous challenges like lack of basic infrastructure.

Unfortunately operational mortgage markets are found in very few African countries due to various hiccups. First, poor institutional framework to promote the same, macroeconomic insecurity, unfavourable legislation among others stifles the proper functionality of mortgage markets through loopholes allowing high defaulting rates. In such cases, financial institutions have weak collateral legislation management. In comparison to other countries especially developed nations in Europe, Asia and North America, African mortgage industry is very insignificant: the mortgage loans to GDP in US stands at 70% and around 50% in Europe, South Africa at 26.4%, Namibia at 19.6% and Mauritius at 12.2% and are the only countries in Sub-Saharan Africa with ratio above 5%. Equally, North Africa's mortgage sector flourishes very well especially in Morocco at 16.9% and Tunisia at 12% (World Bank, 2010).

In addition to the above challenges of slow penetration in Africa, high poverty levels among many households in Africa makes mortgage model almost a model that is not viable for home ownership. It is an undisputable conclusion to assert that mortgage model is not viable in many African countries given the dynamics at play in these countries explained above.

As concerns short term loan model, substantial literature has given attention to its functionality in African countries and it appears to be the most dominant model of home ownership. Indeed, incremental model of home ownership (short term loan model as used in this study) is mechanism of acquiring homes in most African countries accounting for 70% of all

houses investments on the continent. As mentioned earlier, most houses built in many African countries were done so via short loan model or incremental mechanism and hence it is a viable model although it has its own share of challenges.

The strategy of constructing a house incrementally enables a household shape up house bit by bit according to payment schedules. However, it has its own disadvantage in the sense that it becomes very costly to achieve this especially as the person putting up the house has to put up infrastructure like electricity, sewage system, water among others. Apparently most people cannot afford this as it becomes logistically difficult to access all the required facilities and put up the house at the same time. This is common in most of the areas in urban areas in Africa where the concerned authorities never put up infrastructure before people who want to develop their properties like constructing a house. Besides, the occupants of the house under construction are dangerously exposed to harsh weather conditions for years while they construct their house bit by bit. As if that is not enough, incremental construction becomes more costly in the long run since temporary structures are replaced or done away than when one purchased long lasting and better quality construction materials.

Yet many questions remain unanswered about the right balance between innovation and regulation, the extent of risks to the financial system, and the appropriate role of the state to promote affordable housing by providing better environment through better policies on short term lending and availing infrastructure like sewer lines, access roads, electricity and water among others. If these intervention measures are put in place then short term model will benefit a higher per cent of households who want to own homes. In the absence of this, short term loan model is a pipe dream to those who want to own homes (Develtere & Wanyama, 2009).

2.3.1 Housing Co-operative Model in Africa

Co-operatives in general were introduced in developing countries in the colonial time and for the first time in 1908 by white settlers and were agriculture co-operatives. After independence, the new governments encouraged the establishment of agriculture co-operatives. The Report on Shelter Co-operatives (UNCHS/ICA, 2001) points that registered co-operatives in five countries (Uganda, Kenya, Zimbabwe, Tanzania and South Africa) has delivered less than 500,000 units in the last 20 years. Although the informal sector like housing co-operatives has contributed to house supply in Africa, a lot is yet to be achieved given the current challenges.

There are many reasons that made co-operatives well received in Africa which witnessed the success of the same co-operatives to date. In the first place, co-operatives blended smoothly with African tenets like socialism and humanism among others given that such a time most African nations were fighting for their respective independence from colonial dominion. Accordingly, co-operatives were another platform to agitate for their rights and air their grievances. Besides, co-operatives were perceived as a neutral ground between capitalism and socialism. The next advantage is that co-operatives acted as opportune platform bringing all local people especially in the rural areas together to participate in development agenda of the country. Third, new governments in Africa used the co-operatives to control cash crops marketing since they were source of income at the time (Wanyama, 2010).

However, there were disadvantages or negative aspects of co-operatives that posed threat to objectives and gains made so far. For instance, lack of self-grown co-operatives was a challenge that faced the earlier co-operatives. Lack of self-grown co-operatives was evident among many co-operatives that threatened to reverse. Secondly, lack of proper understanding amongst its members due to low education levels and mixed interests. There were also poor

governance structures which gave room for manipulation and compromise. One of the challenges was low education levels among Kenyan African at the time. At such time very few African had high educations and hence did not have good managerial and organizational competence (Sommerfelt, 2002).

Although, the first co-operatives to be established were agriculture based, many other co-operatives came up in various sectors to address challenges indigenous Kenyans faced. Among these co-operatives were housing co-operatives that sprung up to address housing shortage in urban areas. However, housing co-operatives have not penetrated extensively to most parts of African countries due to various hindrances. Top on list is poverty of knowledge by many households on the potential of the housing co-operatives. Accordingly, countries where they have spread well like Kenya, has been due to extensive sensitization of the masses by various stakeholders especially NACHU which has been on the forefront in civic education on the same (Sommerfelt, 2002).

Housing co-operatives have however achieved milestones in providing shelter to many middle and low income households in Africa as is indicated in Table 2.1 below although a lot needs to be done to reach more people. Besides, governance issues, poor performing economies, weak land and property legislation and inadequate and unelaborate government policies are some of the challenges that stifle the performance and growth of housing co-operatives. There is therefore need to address these challenges to create an enabling environment for the co-operatives to flourish and benefit many low income households in urban areas.

TABLE 1

Housing Co-Operatives and Their Contribution to Shelter

	Number of Cooperatives	Number of Members	No. of Units Built
South Africa	9	900	800 (703 organised by Cape Housing Association)
Kenya	1250	500, 000	250,000
Zimbabwe	350	5,000	4500
Uganda	13	Not Known	2000
Tanzania	136	6,638	906 minimum

Adapted from (UNCHS/ICA 2001, NACHU 2014)

Dung-Gwon and Mallo (2014) note that in Nigeria long-term credit facility for home ownership to low income earners is from two sources namely the National Housing Trust Fund and the private financial institutions. However, they note that very few low income households have been able to benefit from the mortgage loans. This is because majority of contributors lack capacity to afford large amount that can acquire houses for them as a result of being low income.

Land tenure and registration regulations are paramount when it comes to drawing private developers in the market. Similarly the provision of off-site infrastructure and land servicing are also a challenge. This is evident in Kenya where individuals employ short term loan model home ownership to put up “lone houses” in places where there are no infrastructure. The lack of master planning undermines the sustainability of housing developments, paving way for informal settlements which in turn put pressure on existing infrastructure such as sewage etc. (Hassconsult, 2012).

In Africa, these areas are of concern due to regulatory complexities. According to AfDB (2012) in Zambia, which is predominately a rental market, developers are faced with a low sale-

to-rental ratio on the properties they build. Due to the high interest rates, low mortgage up-take and high perceived risks, households would rather rent than buy. For developers, this means that they cannot sell off properties to raise capital and build new developments. They are thus trying to implement “lease-to-own” schemes whereby households would top-up rent with an amount that would overtime build up to become the deposit base for a mortgage. Such a savings scheme would offer the possibility to increase housing ownership and provide sales opportunities for developers (AfDB, 2012).

2.4 Home Ownership Financing in Kenya

The cost of mortgage loans is a tall order to most middle-class Kenyans if compared with peer countries in Africa as indicated by a new report by the Centre for Affordable Housing Finance in Africa (CAHF). The Africa Housing Finance Yearbook 2012 by CAHF, a non-governmental organisation, argues that owning a house is still a pipe dream for a majority of middle class Kenyans as 11% of Kenyans have the ability to finance a mortgage. It can therefore be concluded that majority of the middle and low income households cannot afford a minimum mortgage required to purchase an entry-level house.

Escalating building expenses for a modesty house and housing deficit are reasons why buying a house is a challenge even to the well able is too expensive. According to The Kenya National Bureau of Statistics, middle income households comprise individuals spending Sh23,672 and Sh119,999 per month, low income households spending below Sh23,671 per month while upper income spending more than Sh120,000 per month and were only 3.7% of the total Kenya households (KNBS, 2012) make up this upper middle. For instance, it cost Ksh 1.9 million for a new one-bed room house in 2012 requiring a buyer to remit 15% interest rate for over 15 years translates into Sh26, 600. This is makes it impossible for most people to access

mortgage and explains why Kenya has about 15, 049 mortgage loans accounts which is very insignificant in comparison to the population and size of the country's economy implying mortgage industry is underutilized (CBK, 2010).

According to The World Bank (2010), mortgage market in Kenya has the capability of achieving a Sh800 billion, ten times the present mortgage. In 2011, Kenya's mortgage value was estimated at Sh 91.2 billion in 2011 representing 2.5% of the country's GDP, far below other economies in Africa like South Africa with 26.4 per cent ratio (CBK, 2010).

2.4.1 Housing Co-operative Model in Kenya

The issue of housing has been a thorn in the flesh dating back to independence period. This led to the Government having various interventions which included formulation of organizations for co-operative based housing developments, except from Zimbabwe where the housing co-operative sector have some government support. The first co-operative was established at Lumbwa in Kericho in 1908 in Kenya although at time this time it was exclusively for the white settlers. It was until 1945 when Africans were allowed (Kobia, 2011). From 1964, the government allowed formation of different types of co-operatives. Since then, co-operative movement has spread to all parts of Kenya and grown tremendously. From 1964, the government allowed formation of different types of co-operatives which includes the SACCOs, consumers and housing co-operatives. Since then, co-operative movement has spread to all parts of Kenya and grown tremendously (Kobia, 2011). However, with the shifting political situation, it has more or less diminished.

Housing co-operatives is a model whereby a group of people register their group as housing cooperative as stipulated in the law of a country (ICA, 1995). In Kenya, housing cooperatives are registered under Cooperative Act, Cap 490 of laws of Kenya which currently

follows under the ministry of industrialization and Enterprise. Housing co-operatives provide their members with affordable and descent shelter through mobilization of investment funds by the members in their co-operatives. Through housing co-operative, the members enjoy the economy of scale which they would access if the houses were built individually.

In Sweden the housing cooperative members raise and borrow loans to put their housing estate. Once the houses are complete the houses of different sizes are allocated to individual members according to his or her financial commitment in the project. The houses remain the property of the society and members pay minimum house rent. In Norway , a housing cooperative identify a piece of land , design a housing project, identify a financial institution and ask its members to raise a deposit which is normally 20% of the total cost. The housing cooperative borrows a loan from a financial institution to construct the houses and sells them to its members (BOB, 2013).

In Kenya, as has been explained in a case study, most housing cooperatives save and borrow loans from National Cooperative Housing Union (NACHU, 2014). Once an individual pays off loan, which normally takes five to seven years, the member is issued with a title deed. The society retains the title of the area of common utilities such as social hall and borehole. Members of a housing cooperative raise a 10% deposit and the Union gives a loan of the balance. The housing cooperative identities a piece of land and members agree on the house design. The houses are constructed and their sizes are determined by the member's affordability in repaying the loan. In many cases a starter unit of one bed- room house is initially constructed for each member and a space for additional rooms is left. The member normally adds the extra rooms later in an incremental process while living in his or her house.

Kenya has a thriving cooperative movement. It is rated as number seven in the world and number one in Africa as a country with the highest number of cooperators estimated at more than 12 million (ICA 2014). In 2014, the cooperative movement mobilized savings in excess of KSH 423b and built an asset base of more than KSH 500b (Min of Industrialization and Cooperative 2015). The cooperative movement has played a great role in poverty reduction, providing farm inputs, employment generation, housing provision and social integration. Many Kenyans today leave in their homes through saving and borrowing loans from their cooperative societies. Other Kenyans have resulted in owning their homes by forming housing cooperatives and taking the advantage of economy of scale. There were 650 housing cooperatives across the country which was affiliated to NACHU in 2013 (NACHU, 2014).

Housing co-operatives, excepting a few housing co-operatives, were started by the Asian community and sponsored by the Central Organization of Trade Unions (COTU) through the creation of the National Co-operative Housing Union (NACHU). NACHU is owned by 650 affiliated primary co-operatives, and the AGM, which is composed of the delegates from the primary co-ops, is the supreme authority (NACHU, 2014).

NACHU has, formed shelter co-operatives within informal settlements which have obtained secure tenure, rehabilitated dwellings and generated income. NACHU through its member societies have built more than 50,000 units across the country (NACHU, 2014).

Sessional Paper No. 5 on Housing Policy of 1966/67, the National strategy for Shelter of 2000, the Sessional Paper no. 3 of 2004, Draft Housing Bill 2009, Draft Slum Upgrading and Prevention policy and other measures in successive National Development plans. The National Housing Policy recognizes Universal Declaration of Human Rights of 1948. The declaration

recognizes people's entitlement to decent shelter as a vital aspect of the entitlement to acceptable typical of living the International Covenant on Economic, Social and Cultural Rights of 1966, the Istanbul Declaration and Habitat Agenda of 1996 and the Declaration on Cities and Other Human Settlements in the New Millennium of 2001. Here, these provisions perceive broadly aspect of housing and the surrounding environment (World Bank, 2010). The Kenya Constitution in Article No. 43 (2010) equally enshrines right to decent housing as a fundamental human right.

Nairobi, being the largest city in East Africa with a population of 3.4 million people is faced with a huge shortage of housing and utilities. This situation is attributed to: first, land has become so expensive. A case in point is the National Housing Corporation of Kenya (2005) reporting that before the commencement of the building of Mombasa Road construction in Nairobi, the land around went at KSH 2.8 million per acre (or KSH 3.8 million in today's prices). Surprising enough, the price skyrocketed to KSH 10 million same size (Hassconsult, 2012).

2.4.2 Housing Co-operative Success Story in Kenya

Three years ago, a group of 161 hawkers living in Mariguni Slum near Mater Hospital, Nairobi County formed a housing cooperative. They started saving Ksh 1500 per week totaling to KSH 6,000 per month. The baseline survey found that the average rent they were paying to their landlords was Ksh 5,000 per month. The housing cooperative joined the National Cooperative Housing Union (NACHU) the national apex organization for housing cooperative societies in Kenya. The society found a piece of land in Ruai area. The Union together with the members designed an estate of three bedroomed housing units and inclusive of basic

infrastructures such as road, a borehole to provide water and installation of electricity and a nursery school hall cum church on Sunday.

The base line found that their income levels were low. The members are economically active and earn their living through selling of food products, vegetables, Mpesa Kiosk, mitumba clothes, drivers, etc. It was found that by initially constructing a starter-unit for each member consisting a kitchen, wash rooms, one bedroom and table-room , members will be able to pay a loan at the rate of Ksh 10,600 per month for a period of five years. The total loan was Ksh 526,000 per member and paid at the rate of 14% on reducing balance (NACHU, 2014). The total cost of the project went down because of economy of scale: most of the materials for construction were bought on whole sale and the cost of infrastructure was divided among all members. Each member will add the other bed-rooms later incrementally. Through the housing cooperative model members are enjoying living in a gated community estate and have formed several committees to be addressing several issues on their behalf. The committee includes environmental and waste management; security and welfare committees. This case shows that even people in the slums can access decent and affordable home owners.

2.5 Low income Households and Choice of Homeownership Model

In most of the urban cities of the world, most people live in deplorable conditions and in particular in the informal settlements and slums. This is so because they cannot afford to pay for good rental housing nor can they afford to acquire a decent and affordable house (Hoek-Smit, 2011). The world's slums are growing day by day with increase in global urban populations. Indeed, this is one of the greatest challenges we face in the new millennium (Cameroon and Muellbauer, 2001).

Weak urban economies are the reason for the continued poverty and proliferation of slums. The development of economies of urban areas is a basic mandate of UN-HABITAT which is to improve social and environmental towns and cities with a core objective of providing shelter for all. Urban economies are essential for poverty reduction and the provision of adequate housing, infrastructure, education, health, safety and basic services (UN-Habitat, 2010).

In view of these challenges, many low income households who are committed on owning a house engage in “incremental housing”, whereby they keep on saving and slowly build their own house over time either room by room, or element by element (short term loan model). Such loans are oftentimes smaller in size (thus easier to repay) as they often used to contribute to incremental housing schemes.

Land regulation and property titles are at the cornerstone of housing. In Kenya, land and property regulations have been inherited from colonial times and involve a rather complex tenure mechanism framed in many difference laws. By-and-large, land tenure was administered through a system of customary laws and can vary depending on ethnic groups, predominant land use or cultural practices (World Bank 2011).

2.6 Home ownership in Kenya

Up-market estates in Nairobi are occupied by less than 3% of the total population in the County and are a reserve of the few well-able. The homes in these high end states are very expensive for any one without gainful income. According to recent research by the African Development Bank, the continent’s middle class has reached 34.3% of the population in 2010, up from 26.2% in 1980 (Fad, 2011). In Kenya, it encompasses 44.9% of the population (CBK, 2010). This phenomenon has been accompanied by rapid urbanization and strong growth in

consumption expenditure and demand for certain types of goods and services. Housing demand has not, and will not, remain idle to these changes.

Urbanization is spreading fast the surpassing the available house units and hence driving housing to be acute shortage globally (Hoek-Smit, 2011). Consequently, house ownership has become inaccessible to majority low income households in many countries. Empirical evidence has shown that the African continent is experiencing fast population growth yet the infrastructure like housing is not commensurate to this skyrocketing population growth (AfDB, 2011). The situation is not different in Kenya as it is experiencing urban-rural migration due to digital revolution; cities have power to innovate and generate wealth, enhance quality of life and accommodate more people within a small foot print at lower per capita resource than any other settlement (UN-Habitat 2011).

As the low income households grow, so do cities which today host one out of four Africans. UN-Habitat estimates that African cities become home to over 40,000 people every day (UN-Habitat, 2011). Most of the world's largest cities with population growth rates above 5% are in Africa. Such trends foresee immense strains on affordable urban housing, and exert a strong push on demand for it.

2.7 Home Ownership Models in Kenya

Evidence of high profile home ownership failures, the viability and relevance of the existing home ownership models has been put to question thereby necessitating a call for an intensified focus on the existing homeownership models, and how they ensure viable models are used to address home ownership challenges in Kenya (Wanyama, 2010). Some of the existing homeownership models in Kenya do not favour the low income households.

Access to housing is a major issue. It can be acquired by various individuals through the following ways; direct cash purchase where the individual pays for the entire amount required to own the house at once. Tenant Purchase where a household lives in the house that he or she is paying for money as mortgage as opposed to rents. When he/she completes the agreed money, he/she gets a clearance certificate and the ownership is transferred from the seller/developer. Mortgaging through the government approved ways like for Civil Servant Housing Scheme where an individual pays 10% of the total sum and the rest is deducted from his salary via a check-off system (Nabutola, 2004).

2.7.1 Long Term Mortgage Model

According to CBK report, the mortgage market has increased threefold in five years from Ksh 19 billion in 2006 to Ksh 61 billion . However, the mortgage market is very small by international standard with only 13,803 number of loans outstanding by mid-2010 (CBK, 2010). In terms of terms of mortgage debts to GDP ratio, Kenya is low and is under 2.5% (WB, 2011). The average mortgage loan size was approximately KSH 6 million in 2010 (CBK, 2010) at an average interest rates of 15% and the highest interest rate reported was 18.5%. There are a number of factors that a stifling the local mortgage market and creating of widespread house ownership. These factors includes lack of long term finances for local mortgage providers, the high cost of housing materials, high price of land in urban areas, low incomes of majority of Kenyans, speculations and lack of government incentives in infrastructure development (WB , 2013; CBK , 2013). Consequently majority of developers construct homes meant for high-end potential customers at a high premium and who constitute only 8% of Kenya's households. This also explains why there is minimum construction going on for houses meant for middle and low income earners. According to the Standard Bank (2014) report about 9.2 million Kenyan

households out of the total estimated 10 million households spend less than KSH 40, 000 per month. This is further confirmed by KNBS (2012) report that states that 46% of Kenyans live below the international poverty line and spends less than USD 1.25 per day.

Homeownership has always been challenging for lower-income families in urban areas but despite many challenges low-income families can be successful homeowners with the right products and supports. (WB, 2004).

The mortgage model consists of a process whereby a developer constructs houses and sells them to any interested parties. Individuals interested in buying the houses normally borrow loans from financial institutions. Unfortunately, most urban dwellers cannot afford this type of acquiring a home as majorities are low income and hence this model is not viable enough.

2.7.2 Short-term Loan Model

This refers to a model used by low and middle -income earners in Kenya. In this case, a resident due to financial challenges and affordability borrows a small loan from a financial institution to initially buy a plot in an area where infrastructure such as piped water, electricity and a sewer line maybe absent in the neighborhood. The borrower may take three to four years to repay the loan while still continuing renting a house. Thereafter he borrows a second loan to start constructing a starter unit of the dream house. It is common in Kenya to find a home that when fully completed the owner had borrowed three to four small loans in a span of more than a decade (Wanyama, 2010).

In many countries in the world a national government or a city council takes a responsibility of ensuring that the basic infrastructure are laid upfront before any residential houses are constructed (Sommerfelt, 2002). This ensures that a controlled development takes

place in accordance with a government master plan. The provision of basic infrastructure by the state reduces the cost of owning a home. In the case of Ruai settlement area there is no public infrastructure of the basic utilities and it is the responsibility of a resident to dig a borehole in his plot to access water or be buying water from a water point owned by an entrepreneur. Similarly, the owner of a residential house will have to dig a latrine due to lack of a public sewer line and also meet the cost of bringing electricity in his home. In Ruai area the residents put up homes first and the infrastructure follows.

This model has many challenges which hamper home ownership. In the first place, most of the people who apply this model to acquire a home have to target areas that are affordable. Unfortunately, most of these areas are without major infrastructure like sewage lines, electricity, water, roads among others. Consequently, the homeowners are faced with challenges of meeting the infrastructure which in most cases is a tall order. The process of purchasing of the land and building the structure on individual basis takes a long time and hence this short loans model is not best solution to home ownership due to the complexities involved (Kobia, 2011).

Developed countries have very elaborate policies of putting up infrastructure in all urban areas and so people buying land to develop find it easy unlike Kenya where people build house before infrastructure is put in place (Labourn, 2012). This has made this model of house ownership not the best solution for the low income households.

2.7.3 Housing Co-operative Model

The house cooperative model, on the other hand is a means of accessing a decent and affordable homeownership by a group of people who come together to maximize service delivery (house ownership) to themselves through the economy of scale. In this case the members of housing cooperative save funds together and borrow from a financial institution the

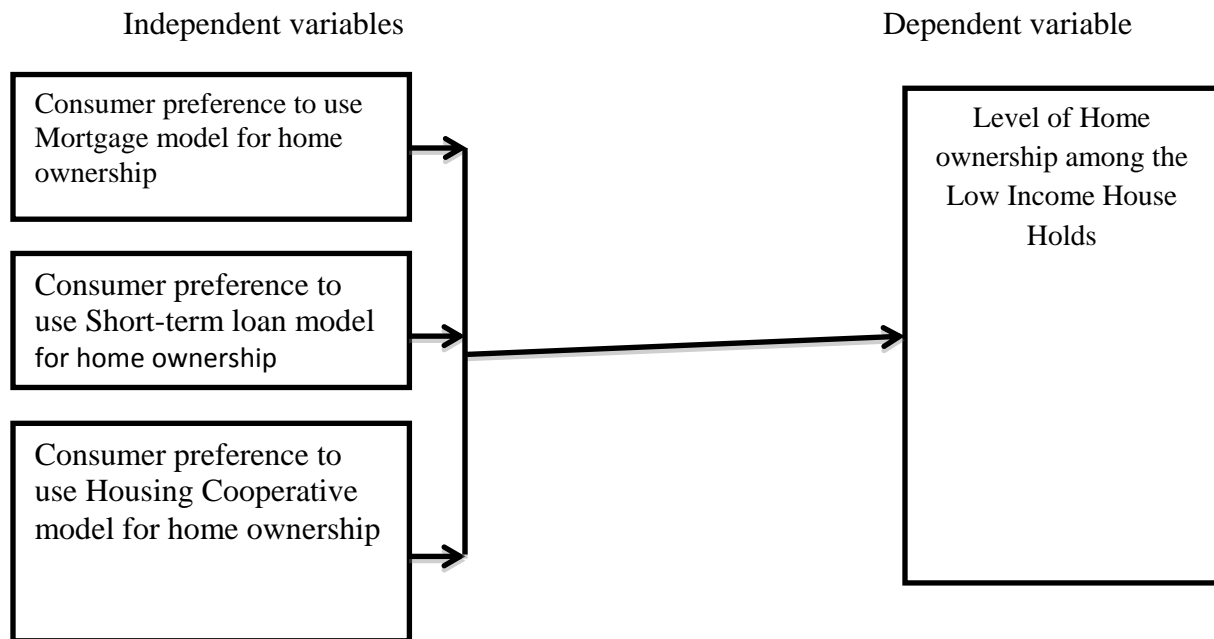
balance in order to buy land and construct their homes. In this case, they borrow one loan to buy the land, put up infrastructure and starter units.

This is indeed a favourable model of owning a house because the economy of scale is at play thus enabling low income households to pool their meager resources into massive fund through monthly contributions to housing co-operative that eventually buys land and constructs homes for them within a period of less than 5 years. Households, in this case are able to save on rent and use the same cash to service their loans. Besides, the model enables them to expand their houses gradually when funds are available. Investment in other business ventures is an added advantage which empowers them to venture into greater opportunities.

Unfortunately, this model is new in Kenya and very little has been done to popularize this model among low income households. The challenge this model has is that the members cannot afford their dream home at ago through the first loan because of affordability problem due to their low incomes (Develtere & Wanyama, 2009).

2.8 Conceptual Framework

FIGURE 1
Conceptual Model



CHAPTER THREE

RESEARCH METHODOLOGY AND DESIGN

3.1 Introduction

This chapter describes the procedures and strategies that was adopted by the researcher in order to reach the sampled population, collect and analyze data so as to answer the research questions. It consists of the research design, target population, sample and sampling procedures, data collection instrument and analysis procedures.

3.2 Research Design

The research design which was used is descriptive survey. Descriptive survey design is a scientific method which involves observing and describing the behavior of a subject without influencing it in any way. It is preferred for the research because the researcher wanted to assess models of home ownership among low income households in Nairobi County. This research design was therefore be relevant for the study as it also enabled the researcher to take control over the research process. Besides, this design suited since itinvolved gathering data through asking questions so that the data could be used to explain the relationship between the variables and permitted the researcher to obtain useful data in a relatively short period of time hence it is reliable design.

A research design is a method the researcher wants to use in executing his or him research. That is the road map of research investigation, procedure the investigator wants to use to solve the identified problem (Cooper & Schindler, 2003). The researcher used descriptive design as recommended by Cohen, Manion and Morrison (2007) who note that it is a design which addresses the stages of watching, asking and reviewing or experiencing, enquiring and

examining a phenomenon. The current research aimed at examining models influencing acquiring a home among low income earners in Nairobi County. It described the ways these categories of household determine their ownership of houses.

3.3 Target Population

Target population is a group which the researcher is interested in gaining information upon which generalization and conclusions can be drawn subsequently (Britt, 2006). The study targeted the economically active households who live in Ruai settlement, a peri-urban area of Nairobi County. In this study the target population consisted of households who have or intent to acquired housing in Nairobi County through mortgage, short-term loan model or housing co-operative model.

Ruai was selected for the study because it is an area where the three models of home ownership are practiced. The other reason is that it is a new settlement area and has room for expansion. Thirdly it is an area where middle and low-income earners are migrating and his it has a blend of rental and individually owned houses. This is unlike other areas where construction of houses is restricted and others there is no space for development. It is an area where residents own houses through mortgage facility, short term loan or housing cooperative and therefore. This settlement is able to help establish the most preferred housing model among the three housing models.

3.4 Sample and Sampling Procedures

The current study employed simple random sampling technique. A sample is the subset of the population the researcher wants to study. Sampling procedure is the method the researcher uses to select the sample (McMillan & Schumachim, 2001). Cohen, Minion and Morrison

(2007), state that an ideal sample should be large enough so that the validity and reliability of the data is achieved. That is if the same study is conducted with different sample size same data would be collected. For Cohen et al (2007), there is no exact size of the sample but these depends on the purpose of the study and the nature of the population under scrutiny. In general, though, the larger the sample the more reliable it is. To sample the population for this study, the following conventional sampling criteria table was used (check Appendix F: Sampling Criteria Table 3.1). Accordingly, the researcher adopted the 10% of the population (17, 320) thus sampling a total of 100 households. This size is representative enough of the target population and hence gives credence to the findings of the study.

3.5 Data Collection Instruments and Data Collecting Procedures

The study used a questionnaire as the main instrument for data collection. Both closed-ended and open-ended questions were developed with the closed ended ones generated using 1 to 5 point likert scale (Strongly Disagree 2 – Disagree 3 – Not Sure 4 - Agree 5 - Strongly Agree). The aim of the questions was to gauge the opinion of the respondents on the aspect of the most preferred housing model used among low income households. A questionnaire is a carefully designed instrument for collecting data directly from people (Cooper & Schindler, 2003). Questionnaires are economical, ensure anonymity, permit use of standardized questions, have uniform procedures, provide time for the respondents to think and are easy to score.

The questionnaires was organized in three parts; Part one sought to solicit demographic data of the respondents, part 2 sought to examine the respondents opinion on mortgage housing model and part 3 dwelt on short loans model. The fourth examined the respondents' views on

cooperative housing model. The researcher dropped and collected the questionnaires on an agreed upon date and time not exceeding three days.

3.6 Validity and Reliability of the Instruments

3.6.1 Validity

Validity is the extent to which inferences made on the basis of numerical scores are appropriate, meaningful and useful. Validity of the study is assessed depending on the purpose, population and environmental characteristic in which measurement takes place (Britt, 2006). Kothari (2004), states that validity is the most critical criterion and indicates the degree to which an instrument measures what it is supposed to measure. Cohen et al. (2007) states that to demonstrate content validity the research instrument must show that it fairly and comprehensively covers the domain or items that it purports to cover.

To test the validity of the research instrument a pilot study was carried out to identify the research instrument that is ambiguous. This involved distributing a few samples of the research instrument to the respondents, hence the response and understanding of the questions analyzed. Ambiguity and irrelevant information noted in the questionnaire were modified for validity purpose. The respondents were also requested to respond on the clarity of the questions presented to them. As defined by Kothari (2004) reliability is the extent to which a research instrument yields measures that are consistent each time it is administered to the same individuals or yields consistent results.

Internal consistency reliability was done after all items had been constructed. A pilot study was carried out among 10 housing cooperative from three randomly selected housing

cooperatives in the neighboring location to identify some of the short comings likely to be experienced during the actual study and hence enhance reliability (Kombo & Tromp, 2006). Split half method was used where the questionnaire items were divided in two: odd and even items and a reliability coefficient calculated. This method is preferred because it required only one testing session and it helps the researcher to eliminate chance error which can be occasioned by other methods like the test re-test method. Cronbach Alpha formula in the SPSS computer programme was used to calculate the correlation coefficient. In this study if the alpha coefficient of correlation obtained is 0.6 above then the questionnaire is accepted as reliable to be used in the study. The alpha coefficient of correlation obtained was 0.5 and hence the questionnaire was accepted as reliable and used in this study (Boudens and Abbott, 2005).

3.6.2 Reliability Analysis

To measure reliability, the 5 individuals owning homes in estate Kamuru were requested to tick if the item in the questionnaire addressed the impact of home ownership models among low income households in Nairobi Kenya. The responses were ascertained by using the Cronbach's alpha reliability coefficient (α) of the data gathered from the pilot study. Field (2014) contended that Cronbach's alpha value that is at least 0.70 is for a reliable research instrument. In this study a threshold of 0.70 was used to establish the reliability of the data collection instrument. This was computed with the assistance of Statistical Package for Social Sciences (SPSS). A coefficient of above 0.70 was obtained and this indicated questionnaires were reliable instruments in gathering data on the impact of corporate governance practices on performance of insurance companies in Nairobi Kenya.

TABLE 2
Reliability Results

Constructs	No. of Items	Cronbach's Alpha Values
3.Long-term mortgage model	5	0.923
2 Short term loan model	5	0.971
3 Housing Co-operative Model	5	0.956
4. Home ownership	5	0.960
Average	10	0.945

3.7 Data Analysis

Permission to carry collect data from the respondents was sought from the relevant authorities. Letters requesting respondents to participate in the research were given to the respondents early enough. The respondents were requested to pick the questionnaires, duly fill them and return to the designated person or place. The letter assured the respondents that the information they gave was treated with strict confidentiality and that the information was solely for academic purposes.

Detailed descriptive statistics such as frequencies and graphs and inferential statistic such as exploratory factor analysis, Pearson's correlation coefficient and multi regression analysis and the key research findings are presented. Equally, the researcher used exploratory factor analysis to reduce the number of factors in relation to home ownership. In particular principal component analysis reduction method was applied and varimax was the rotation method applied on the components. Both Kaiser-Mayor-Oklin measures of sampling adequacy (KMO) and Bartlett's test of sphericity were applied to test whether there was a significant relationship among the

study variables. Besides, the researcher conducted a multiple regression analysis so as to assess the role of ownership models and home ownership. The regression equation is as below:

i) $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + e$

ii) Where Y = Home ownership

iii) X_1 = Mortgage model

iv) X_2 = Short term loan model

v) X_3 = House cooperative model

vi) e=error term

3.8 Research Ethics

Permission to carry collect data from the respondents was sought from the relevant authorities. Letters requesting respondents to participate in the research was given to the respondents early enough. The respondents were requested to pick the questionnaires, duly fill them and return to the designated person or place. The letter assured the respondents that the information they give would be treated with strict confidentiality and that the information was solely for academic purposes.

CHAPTER FOUR

DATA ANALYSIS PRESENTATION AND INTERPRETATION

4.1 Introduction

The general objective of this study was to assess home ownership among low income earners in Nairobi. The current chapter describes the analysis methods that were employed in order to answer the research questions. Detailed descriptive statistics such as frequencies and graphs and inferential statistic such as exploratory factor analysis, Pearson's correlation coefficient and multi regression analysis and the key research findings are presented.

4.2 Back ground Information Analysis

The respondents back ground information collected included age, gender, highest level of education and duration of owning a home. Graphical presentation was used to summarize the study findings as shown in the Table 3 below. Accordingly, majority of the respondents were aged between 36-45 years as accounted for by 52% followed by 18.7% who aged between 26-35 years. Further, the study findings showed that 8% of the respondents aged either between 18-25, years or 46 – 55 years were represented by 17.3% and only 4% aged above 55 years. Analysis for gender indicated that majority of the respondents were male accounting for 60% while female were 40%. The group's composition adheres to the constitutional provision which stipulates that no gender should exceed a third in a group composition. Organizations or associations which are gender sensitive tend to make balanced decisions.

In addition, the study sought to find out the highest level of education attained by the respondents. Results of the study indicated that 67% had attained secondary education and above as their highest level while 33% had attained primary level of education and below. Education

plays a very crucial role in the social and economic development of a country and therefore high education achievement is the cursor to the same. In this case, majority of the respondents have secondary education and above as highest education level and could read and write hence respond to questionnaire adequately.

TABLE 3

Demographic Analysis

Respondent Characteristics	Characteristics Details	%
Age	1. 18-25	8
	2. 26-35	18.7
	3. 36-45	52
	4. 46-55	17.3
	5. Above 55	4
Gender	1. Male	60
	2. Female	40
Education level	1. Primary and below	33
	2. Secondary and above	67

4.3 Home Ownership Models

The analysis below indicates the responses on the three home ownership models available in Nairobi County in relation to low income households.

4.3.1 Extent to which Mortgage Model determines Home Ownership

The first objective of the study sought to establish the extent to which mortgage model determine the rate of acquiring homes among low income earners. The responses were generated on a five point Likert scale; 1= Strongly Disagree, 2= Disagree, 3= Not Sure, 4= Agree and 5= Strongly Agree. The respondents were required to state their level of agreement. The study findings are as shown in Table 4 below.

TABLE 4

Mortgage Model and Home Ownership

Mortgage model and home ownership		SD	D	N	A	SA
To acquire a home I consider a Mortgage	F	35	36	1	3	0
	%	46.7	48	1.3	4	0
Mortgages are easily available	F	32	37	4	2	0
	%	42.7	49.3	5.3	2.7	0
I have been approached to get a mortgage for acquiring a home	F	8	44	0	23	0
	%	10.7	58.7	0	30.7	0
Most of my colleagues have taken mortgages to acquire homes	F	58	17	0	0	0
	%	77.3	22.7	0	0	0
I'm not conversant on how to get a mortgages for acquiring a home	F	0	0	70	5	0
	%	0	0	93.3	6.7	0

**SD=strongly disagree D=Disagree N=Not sure A=Agree SA=Strongly Agree f=Frequency.*

Descriptive statistics frequencies and percentages were used to summarize the study findings as shown in Table 4. Majority 46.7% strongly disagreed that on home acquisition they will consider using mortgage. In addition, 49% of the respondents strongly disagreed that mortgages are easily accessible while 93% agreed that they are not conversant on how they can acquire homes through mortgage financing. It was important to note that majority 58.7% disagreed that they had been approached so as to acquire homes through mortgage financing. Finally, 77% strongly disagreed that majority of their friends have acquired homes through mortgage financing. The implications of this finding are that long term mortgage is not viable and cannot contribute to home ownership among low income earners in Nairobi.

4.3.2 Extent to which short-term loan model determines rate of Home Ownership

The second objective of the study was to establish the extent to which short term model determines home ownership among low income earners in Nairobi. Table 5 below reflects the study finding under objective two.

TABLE 5

Short term Loan and Home Ownership

Short term loan and home ownership		SD	D	N	A	SA
I will prefer short term loan to acquire a home	f	21	40	1	13	0
	%	28	53.3	1.3	17.3	0
Short term loans are convenient for acquiring homes	f	20	50	0	5	0
	%	26.7	66.7	0	6.7	0
Short term loans are expensive to service	f	0	0	19	24	32
	%	0	0	25.3	32	42.7
The interest charged prevents people from getting short term loans for acquiring a home	f	0	0	0	73	1
	%	0	0	0	98.6	1.4
I know how to access short term loans to acquire a home	f	33	36	0	6	0
	%	44	48	0	8	0
It takes a long period to own a home through short term loans	f	0	5	0	60	10
	%	0	6.7	0	80	13.3
I can get a short term loan to acquiring a home	f	0	65	6	4	0
	%	0	86.7	8	5.3	0

*SD=strongly disagree D=Disagree N=Not sure A=Agree SA=Strongly Agree f=Frequency.

Results in Table 5 shows that majority (53%) of the respondents disagreed that they would prefer short term loan in home acquisition, while 66.7% disagreed that short term loans are convenient for acquiring homes. Further, the results showed that 42% strongly agreed that short term loans are expensive to service and 98% agreed that interest charged prevents people from getting short term loans for acquiring a home. An overwhelming 80% agreed that it takes a

long period to own a home through short term loans and 86% disagreed that they are capable of getting a short term loan to acquiring a home. Finally 36 respondents represented by 48% disagreed that they know how to acquire homes through short term financing. The interpretation is that although short term loan is viable to low income households, only a small per cent would afford it and therefore a need to employ another and better home ownership model.

4.3.3 Impact of Hosing Cooperative Model on Home Ownership

The third objective of the study sought to assess the extent to which housing cooperative model determines rate of acquiring homes among low income households in Nairobi County, Kenya.

TABLE 6

Impact of Housing Cooperative Model on Home Ownership

Housing cooperative Model and Home Ownership		SD	D	N	A	SA
I will prefer a housing corporative in owning a home	f	0	2	8	49	16
	%	0	2.7	10.7	65.3	21.3
Contributions to housing corporative is affordable and manageable	f	5	6	0	48	16
	%	6.7	8	0	64	21.3
I am a member of a housing corporative	f	0	2	0	38	35
	%	0	2.7	0	50.7	46.7
Housing cooperative offer friendly and affordable loan repayment	f	0	11	1	38	25
	%	0	14.7	1.3	50.7	33.3
Housing cooperative members can own a house before paying full mortgage	f	0	0	18	40	17
	%	0	0	24	53.3	22.7
I know the procedures of acquiring a home through a housing co-operative	F	0	0	22	53	0
	%	0	0	29.3	70.7	0
The overall cost of owning a home through a housing is cheaper because of the economy of scale	F	0	0	9	38	28
	%	0	0	12	50.7	37.3
Acquiring a home through housing co-operative takes a shorter time	F	0	50	0	25	0
	%	0	66.7	0	33.3	0

**SD=strongly disagree D=Disagree N=Not sure A=Agree SA=Strongly Agree f=Frequency.*

Results in Table 6 shows that 65% of the respondents agreed that they prefer cooperative model for housing for home ownership, while 64% agreed that contributions to housing cooperative are affordable and manageable. Further, the study showed that 50% of the respondents strongly agreed that they were members of housing cooperative while 50% agreed on agreed that housing cooperative offers friendly and affordable loan repayment rates. An overwhelming number of respondents 53% strongly agreed that the through housing cooperative members can acquire homes even before they have fully serviced their mortgages. On whether respondents know the procedures of acquiring a home through a housing co-operative, 70% gave an affirmative response while 50% agreed that the overall cost of owning a home through a housing is cheaper because of the economy of scale and 66% disagreed that Acquiring a home through housing co-operative takes a shorter time and this response could be attributed to low education levels of respondents as it contradicts affirmative responses they have given to other items on housing co-operative as a viable model of home ownership.

The interpretation is that housing cooperative is the most viable model of accessing a home among low income earners. However, few respondents expressed their fears that they are finding it difficult to service the loans given to them by cooperatives due to diminishing income. This needs to be addressed by the cooperatives.

4.3.4 Home Ownership

Through the various home ownership models the researcher sought to find out on their respective influence on home ownership.

TABLE 7**Home Ownership**

Home Ownership		SD	D	N	A	SA
I have owned my house within a shorter time	F	0	10	6	47	12
	%	0	13.3	8	62.7	16
Housing co-operative is a cheaper financing model	F	0	0	2	37	36
	%	0	0	2.7	49.3	48
Owning a home has given me security of tenure	F	0	0	2	25	48
	%	0	0	2.7	33.3	64
Having home has given collateral to borrow future loans	F	0	0	0	24	32
	%	0	0	0	51	68

**SD=strongly disagree D=Disagree N=Not sure A=Agree SA=Strongly Agree f=Frequency.*

Results in Table 7 shows that majority 62% of the respondents agreed that they have owned within a shorter time. In addition, 37% of the respondents agreed that housing cooperative had been the cheapest financing plan, 64% strongly agreed that owning a home has given them security of tenure. Further, 68% strongly agreed that having home has given respondents collateral to borrow future loans. The findings reveal the effectiveness of housing cooperatives to acquire homes for low income households and that this enables them to invest else to raise more income.

4.4 Exploratory Factor Analysis (EFA)

The study further applied exploratory factor analysis so as to reduce the number of factors in relation to home ownership, principal component analysis was the reduction method applied and varimax was the rotation method applied on the components. Only three factors were extracted as shown in the section below. In addition, both Kaiser-Mayor-Oklin measures of sampling adequacy (KMO) and Bartlett's test of sphericity were applied to test whether there

was a significant relationship among the study variables as shown below in Table 4.6. The Kaiser-Meyer-Olkin measures of sampling adequacy shows the value of test statistic as 0.759 and p value < 0.5. Bartlett's test of sphericity is used to test whether the data is statistically significant or not. The approximate chi-square of 873.975 with 153 degrees of freedom showed there exist' a high relationship among variables.

TABLE 8

Kaiser-Meyer-Olkin Measure of Sampling Adequacy

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.759
Bartlett's Test of Sphericity	Approx. Chi-Square	873.975
	Df	153
	Sig.	.0000

The initial solution was determined using (Principal component analysis) PCA method. The un-rotated solution revealed that three components out of the 15 explained 75.9% of the variation in home ownership leaving the rest to be explained by other factors.

4.4.1 Factors Extraction from Models for Home Ownership

The PCA was used to extract the factors while varimax rotation method was used to rotate the factors. Data analysis using the correlation matrix revealed that the data was free from singularity problem thus the variables were related to each other and factor analysis was an appropriate analysis method. In addition, the resulting communalities showed that the data fitted well with each other. The entire factor loading with communalities of less than 0.3 was marked for dropping and the resultant component matrix is as shown in Table 9.

TABLE 9
Communalities

Commonalities	Initial	Extraction
On acquiring a home i will Consider a Mortgage	1	0.25
Mortgages Are Easily Available	1	0.306
Most of people in my area have taken mortgages to acquire homes	1	0.552
I will prefer short term loan to acquire a home	1	0.778
I know how to access short term loans to acquire a home	1	0.45
I know how to acquire short term loans to acquire a home	1	0.616
It takes a long period to own a home through short term loans	1	0.614
I am capable of getting a short term loan to acquiring a home	1	0.735
Contributions to housing corporative is affordable and manageable	1	0.496
I am a member of a housing corporative	1	0.733
Housing cooperative offer friendly and affordable loan repayment	1	0.461
I know the procedures of acquiring a home through a housing co-operative	1	0.845
Housing co-operative members can own a house before paying full loan	1	0.589
Overall cost of owning a home through a housing co-operative is cheaper because of the economy of scale	1	0.621
Acquiring a home through housing co-operative takes a shorter time	1	0.823
I have owned my house within a shorter time	1	0.643
Short term loans are expensive to service	1	0.758
I have been approached to get a mortgage for acquiring a home	1	0.813

Extraction Method: Principal Component Analysis.

4.4.2 Factor Rotation and Interpretation from the Home Ownership Model Choice

The main objective was aimed at assessing homeownership among low income earners in Nairobi. A total of four factors loaded into the first component as shown in Table 10 below;

TABLE 10

Total Variance Explained

Component	Initial Eigen values	% of Variance	Cumulative %	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total			Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.54	30.78	30.78	5.54	30.78	30.8	3.96	22.01	22.01
2	3.55	19.72	50.5	3.55	19.72	50.5	3.79	21.04	43.05
3	1.993	11.07	61.57	1.993	11.07	61.6	3.33	18.52	61.57
4	1.634	9.077	70.65	0	0	0	0	0	0
5	0.956	5.312	75.96	0	0	0	0	0	0
6	0.802	4.453	80.42	0	0	0	0	0	0
7	0.654	3.632	84.05	0	0	0	0	0	0
8	0.489	2.717	86.76	0	0	0	0	0	0
9	0.435	2.415	89.18	0	0	0	0	0	0
10	0.403	2.241	91.42	0	0	0	0	0	0
11	0.359	1.993	93.41	0	0	0	0	0	0
12	0.294	1.635	95.05	0	0	0	0	0	0
13	0.218	1.21	96.26	0	0	0	0	0	0
14	0.189	1.048	97.31	0	0	0	0	0	0
15	0.176	0.98	98.29	0	0	0	0	0	0
16	0.117	0.652	98.94	0	0	0	0	0	0
17	0.105	0.582	99.52	0	0	0	0	0	0
18	0.086	0.479	100	0	0	0	0	0	0

Extraction Method: Principal Component Analysis.

The highly loaded factor, on acquiring a home “I will consider a mortgage with a factor loading of -0.844, most of my colleagues have taken mortgages to acquire homes” = 0.737, followed by “I have been approached to acquire homes through short term loans” = -0.682 and short term loans are expensive to service = 0.503. The second component was loaded four factors which included, “I will prefer a housing cooperative in owning a home” = -0.854, “I know how to acquire short term loan to acquire a home” = 0.835, “I will prefer a short term loan to acquire a

home” =0.474 and “Mortgages are easily available” =0.464. The third component was loaded with six factors which included “Short term loans are convenient for acquiring homes” = -0.658, “I have been approached to get a mortgage for acquiring loan” =0.62, “Housing cooperative members can own a home before full mortgage” = -0.576, “I am member of a housing cooperative”= 0.517, “Contribution to a housing cooperative are affordable and manageable” =-0.456 and “Housing cooperative offers friendly and affordable loan repayment” = 0.387.

4.5 Correlation Analysis

Further the study applied correlation analysis to determine the strength of the relationship between home ownership and the three models under investigation. The study findings are shown in Table 11 below;

TABLE 11

Correlation Analysis

		Home Ownership	Mortgage	Short term loan	Cooperative
Home Ownership	Rho	1			
	Sig. (2-tailed)				
	N	55			
Mortgage	Rho	.463**	1		
	Sig. (2-tailed)	.000			
	N	55	55		
Short term loan	Rho	0.136**	0.022	1	
	Sig. (2-tailed)	0.04	0.876		
	N	55	55	55	
Cooperative	Rho	0.043**	.331*	-0.17	1
	Sig. (2-tailed)	0.003	0.013	0.215	
	N	55	55	55	55

The study findings showed that there is a negative relationship between home ownership and the long term mortgage model (rho = -0.367). This implies that an increase in mortgage financing will decrease home ownership chances among low income earner in Nairobi. In

addition, the study findings showed that there is a significant weak positive relationship between home ownership and use short term loan model ($\rho = 0.445$). This implies that an increase in short term loan services will increase the chances of home ownership among low income earners in Nairobi. Finally, there was a significant positive relationship between cooperative home model and home ownership among low income earners in Nairobi ($\rho = 0.491$) implying an increase in housing co-operative will increase chances of owning a home among middle and low income households in Nairobi County.

4.6 Regression Analysis

Multi regression analysis was carried out to show the nature of the relationship between the dependent variable and independent variables. The model goodness of fit was tested using the F statistics ($F=6.145$ and $P\text{-value} < 0.05$) this implies at least one of the beta coefficient is not equal to zero therefore there is a significant relationship between the home ownership and the three housing models.

TABLE 12**Regression Coefficients**

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	7.201	3.502		2.056	0.045
Mortgage	1.076	0.26	0.528	4.138	0.000
Short term loan	0.345	0.106	0.09	3.254	0.000
Cooperative	0.278	0.102	0.202	2.725	0.000
R	0.515				
R Squared	0.265				
Adj R Squared	0.222				
F	6.145				0.000

Multi regression analysis was carried out to show the nature of the relationship between the dependent variable and independent variables. The model goodness of fit was tested using the F statistics (F=31.892 and Pvalue <0.05) this implies at least one of the beta coefficient is not equal to zero therefore there is a significant relationship between the home ownership and the three housing models. Results of the study showed that the model explanatory power (coefficient of determination) was 57.4% which means that 57.4% of home ownership can be explained by long term mortgage model, short term loan model and housing cooperative model when combined. The remaining percentage can be explained by other factors not included in the model.

The study findings indicate that there is a negative significant relationship between long term mortgage model and home ownership ($\beta = -0.468$, $t = -4.741$, and P value <0.05). This

implies that a unit increase in long term mortgage model is associated with - 0.468 decreases in home ownership.

In addition, the study findings depicted that there is a positive significant relationship between short term loan and home ownership ($\beta=0.445$, $t=5.745$ and $P \text{ value}<0.05$). This implies that a unit increase in short term loan is associated with 0.445 increases in home ownership.

Finally, results in Table 12 showed that there is a positive significant relationship between cooperative home model and home ownership ($\beta=0.491$, $t=6.340$ and $P \text{ value}<0.05$). This implies that a unit increase in cooperative housing model is associated with 0.278 increases in home ownership.

CHAPTER FIVE

SUMMARY CONCLUSION AND RECOMMENDATION

5.1 Introduction

The current chapter presents the summary of the data findings on the current status of home ownership among the low income earners in Nairobi. The chapter is structured into the summary of the findings, conclusion, recommendation and suggestion for further studies.

5.2: Summary of the Research Findings

The overall objective of the study was to assess home ownership models among low income earners in Nairobi County. The research had three specific objectives; to determine the effect of long term mortgage model for acquiring homes among low income earners in Nairobi County, Kenya, to establish how short-term model impacts loan acquiring homes among low income earners in Nairobi County, Kenya and to assess the extent to which housing cooperative model impact acquiring homes among low income earners in Nairobi County, Kenya. A sample of 100 respondents was selected from the target population with similar characteristics; out of the 100 issued questionnaires 75 were filled and returned. A combination of descriptive statistics and inferential statistics were used to analyze the quantitative data.

5.2.1 Long term Mortgage Model

The study identified that there is a negative significant relationship between home ownership and the mortgage housing model. All aspects of this thematic area received non-affirmative responses implying the model is not viable among the respondents. It was established that long term mortgage model cannot suit the low income households because of the lending terms and conditions that are not favourable to the low income earners.

The study established that respondents will not consider using mortgage to acquire a home and that mortgages are not easily accessible while other respondents indicated that they are not conversant on how they can acquire homes through mortgage financing. It was also established that some respondents had been approached so as to acquire homes through mortgage financing.

5.2.2 Short Term Model

In addition, there is a slight significant relationship between short term housing model and home ownership. Certain aspects of this thematic area of the study were affirmatively responded to and hence implying this model of home ownership is viable for home ownership. The study established that some respondents prefer short term loan in home acquisition but found out that short term loans are not convenient for acquiring homes because the loans given are small. Further, it was established that short term loans are expensive to service because of high interest charged.

However, there were factors that pose challenges to this model of home ownership. First, the length of time taken to own a home is longer. Secondly, the overall cost is high. Besides, if the owner decides to sell the house later, the returns are not very high or in the event one wants to rent, the rates are low due to security since most of the houses under this model stand alone.

Although there was some significant relationship between home ownership short term loan models, it cannot be relied on since the respondents seemed not to understand what short term loans model entailed as their levels of education were low as revealed by the demographic analysis in chapter four of this study.

5.2.3 Housing Co-operative Model

The study established a strong positive significant relationship between cooperative housing model and home ownership. The study established that saving in housing cooperatives is affordable and manageable, that they were members of housing cooperative, that housing cooperative offers friendly and affordable loan repayment rates. Also it was established that the through housing cooperative members can acquire homes even before they have fully serviced their mortgages. It was also established that the overall cost of owning a home through housing is cheaper because of the economy of scale but also established that acquiring a home through housing co-operative takes a shorter time.

Over 90% of the components of this aspect of housing co-operative model in comparison emerged as the most viable and affordable home ownership model among the low income earners in Nairobi. Due to the economy of scale, this model came out as the most favourable among low income households. As a matter of fact one can own a house within a short time and before he or she completes paying the loan.

5.3 Conclusion

The overall finding of the study is that housing cooperative is the most viable and affordable model of owning a home in Nairobi among low income households.

5.3.1 Long term Mortgage Model

From the study findings it can be deduced that mortgage financing have approached the low income earners in Nairobi so as to facilitate home mortgage financing but it is unaffordable since most of the respondents are low income earners. The long term mortgage model has not been fully embraced among the low income earners in Nairobi since majority of the respondents

cannot afford mortgage. Since majority of the respondents are not aware of the mortgage financing model there, is need for sensitizing the prospective home owner seekers to enable them make informed decision on better home ownership model among the low income earners although the fact is that they cannot afford the mortgage since repaying requires monthly repayment amount between Ksh. 23,000 and Ksh. 80,000 and above.

Therefore, the greatest strategy for loan offers will be to repackage their products and services in tandem with the economic strength of the low income households. Practically, although aspects of this model received affirmative, this model is not viable for acquiring a home for low income households since majority are low income earners. The respondents who gave positive affirmation might have never understood what it meant is due to their low level of education qualification.

5.3.2 Short term Loan Model

From the study findings it was concluded that short term loan model although viable, majority reported that short term financing is expensive. They also they indicated that the conditions of accessing short term loans are stringent and favour those with higher incomes. That is why they borrow little money and end up building their homes incrementally. It can therefore be concluded that short term loan model though viable, is not the best option for acquiring a home in Nairobi among low income households. This is because the realization of owning a complete home and basic infrastructures takes many years.

Studies on this model of home ownership are scanty especially in Kenya. The available studies related to this have been done by scholars far and wide. For instance (UNCHS/ICA,

2001) talks of incremental form of home ownership which is an equivalent of what is referred to as short-term loan model in Kenya, The study put premium on incremental model of home ownership as a viable and alternative home ownership model for low income households.

5.3.3 Housing Co-operative Model

From the study findings since majority of the low income earners have joined housing cooperative the model should be embraced so as to encourage home ownership. The loan repayment schedules are customized to meet the respective customer needs. Through the culture of cooperative movements low income earners can manage to save and hence be in a position to acquire finances which can be guaranteed by their share ownership in the respective cooperative movements.

This study's key conclusion is that co-operative housing can play a major role on the housing scene in the urban areas especially in Nairobi and particularly for low to medium income groups if given the enabling environment. Besides, the Kenyan model of co-operative housing is especially suited for developing a more dense and urban environment and has great potentials for being a contribution to a sustainable city development because of its built form concept and its property management concept. It is also an important learning arena for democracy building.

Although housing co-operative is widely practiced in many countries, there is limited emphasis on its suitability among low income earners (BOB, 2014).

5.4: Recommendation

The study established that of the three home ownership models, the housing co-operative model is the only one that has a positive influence on home ownership and the researcher

recommends that intensive sensitization should be done among the group members so that they can embrace the housing model as a benchmark for home ownership in urban areas.

There is need for awareness and sensitization sessions on the benefits of home ownership and the channels and opportunities available among the group members so that the home ownership through housing cooperatives can be enhanced.

The relevant regulatory authority should develop legal framework which will encourage the members to save and consequently be in a position to own their dream homes. Equally, there is need for innovative mortgage development which will cater specifically for the low income earners since it has the most significant influence on home ownership.

Housing cooperatives need to customize loan repayment according to individual member's income and ability as some members expressed fear of inability to repay due to diminishing income levels.

5.5: Suggestions for Future Study

Since the current study was carried out in Nairobi County similar studies should be carried out in other counties to establish whether there is are similarities or difference. The role of knowledge should be investigated in relation to home ownership since in the current study majority of the respondents had deficient awareness of the various products availability. There is also need for investigation on the challenges faced by the current housing cooperative home ownership provision strategies applied since the study was broad.

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APPENDICES

APPENDIX I.

Letter to Respondents

KCA University

P.O. Box 9223455,

Nairobi

October 2014

Dear Sir/Madam,

RE: Research Work on Topic:

**EFFECTS OF THE HOME OWNERSHIP MODELS ON OWNING HOMES AMONG
LOW INCOME HOUSE HOLDS IN NAIROBI COUNTY, KENYA**

I'm a post-graduate student at the above University carrying out a research on the above topic and I have sampled your cooperative as a case study for this exercise.

My objective in undertaking this study is to help increase the body of knowledge about this topic to promote better performance in housing cooperative and also use it to attain my Master's Degree.

I am asking for your cooperation to allow me collect information I require. This will go a long way in making a real contribution to the success and accuracy of this study as well as make solid contribution to improving the welfare of the retired workers.

Please note that the information sought is purely for academic purposes and will be treated with strict confidentiality.

Yours faithfully,

Francis K. Kamau

APPENDIX II

Questionnaire

Kindly fill this questionnaire with a high sense of frankness and honesty on the various aspects indicated in order to inform better policy formulation and appropriate homeownership models that will enable low income earners access home ownership in urban areas. Please do not indicate your name since all responses are supposed to be anonymous and also note that the responses will not be used to victimize anyone. Your participation should be voluntary and all responses will strictly be treated with high level of confidentiality. The exercise is exclusively for academic purposes. Kindly provide the required information by ticking in the space provided against items indicated according to your opinion on each issue.

Section A: Demographic Information

Respondent Characteristics	Characteristics Details	Frequency	%
Age	1.18-25		
	2.26-35		
	3.36-45		
	4.46-55		
	5.Above 55		
Gender	1.Male		
	2.Female		
Education level	1.Primary and below		
	2.Secondary		
	3.Diploma		
	4.Bachelor's Degree		
	5.Masters		
Years of service	1.0-5		
	2.5-10		
	3.10-15		
	4.15-20		
	5.Above 20		

Section B: Effect of Mortgage Model on Home ownership

To what extent do you agree or disagree to the following statement?

- 1- Strongly Disagree 2 – Disagree 3 – Not Sure 4 - Agree 5 - Strongly Agree

On acquiring a home I will consider a mortgage	1	2	3	4
Mortgages are easily available				
Mortgages are too expensive to service				
I'm not conversant on how to get a mortgages for acquiring a home				
I have been approached to get a mortgage for acquiring a home				
Most of my colleagues have taken mortgages to acquire homes				

Kindly indicate any other aspects of mortgage housing that influence home ownership among low income earners in Nairobi County?

Which house ownership model can be put in place to enhance home ownership among low income households in Nairobi County?

Part C: Impact of Short term loans Model on Home ownership

To what extent do you agree or disagree to the following statement?

- 1- Strongly Disagree 2 – Disagree 3 – Not Sure 4 - Agree 5 - Strongly Agree

Indicator	1	2	3	4	5
I will prefer short term loan to acquire a home					
Short term loans are convenient for acquiring homes					
Short term loans are experience to service					
I have been approached to acquire homes through short term loans					
I know how to acquire short term loans to acquire a home					
The interest charged prevents people from getting short term loans for acquiring a home					
It takes a long period to own a home through short term loans					
I am capable of getting a short term loan to acquiring a home					

Kindly indicate any other aspects not mentioned in the table above you think have hindered home ownership among low income earners in Nairobi County

Which measures can be put in place to increase chances of house ownership in Nairobi County?

Part D: Impact of Housing Cooperative Model on Home ownership

To what extent do you agree or disagree to the following statement?

- 1- Strongly Disagree 2 – Disagree 3 – Not Sure 4 - Agree 5 - Strongly Agree

Indicator	1	2	3	4	5
I will prefer a housing corporative in owning a home					
Contributions to housing corporative is affordable and manageable					
I am a member of a housing corporative					
Housing cooperative offer friendly and affordable loan repayment					
Housing cooperative members can own a house before paying full mortgage					
I know the procedures of acquiring a home through a housing corporative					
Acquiring a home through housing corporative takes a short time					

Kindly indicate any other benefits of housing cooperative not mentioned in the table above that can enhance home ownership among low income households

Part E: Homeownership

To what extent do you agree or disagree to the following statement?

- 1- Strongly Disagree 2 – Disagree 3 – Not Sure 4 - Agree 5 - Strongly Agree

Indicator	1	2	3	4	5
I have owned my house within a shorter time					
Housing cooperative has been cheaper financing model					
It has empowered me to invest in other areas					
I am able to save a lot on renting					

What other benefits does a person owning a home gets?

Thank you for your cooperation.

APPENDIX III

Sampling Criteria Table

Size of Population	Sample Size (n) for Precision (e) of:			
	±3%	±5%	±7%	±10%
500	a	222	145	83
600	a	240	152	86
700	a	255	158	88
800	a	267	163	89
900	a	277	166	90
1,000	a	286	169	91
2,000	714	333	185	95
3,000	811	353	191	97
4,000	870	364	194	98
5,000	909	370	196	98
6,000	938	375	197	98
7,000	959	378	198	99
8,000	976	381	199	99
9,000	989	383	200	99
10,000	1,000	385	200	99
15,000	1,034	390	201	99
20,000	1,053	392	204	100
25,000	1,064	394	204	100
50,000	1,087	397	204	100
100,000	1,099	398	204	100
>100,000	1,111	400	204	100
a = Assumption of normal population is poor (McMillan and Schumachim, 2001). The entire population should be sampled.				