EFFECT OF GOVERNMENT FUNDING TO GROWTH OF HOUSING IN KENYA

BY

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D61 / 81709 / 2015

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT FOR THE

AWARD OF MASTER OF BUSINESS ADMINISTRATION AT THE

UNIVERSITY OF NAIROBI

OCTOBER 2018

DECLARATION

I, the undersigned, declare that this research project is my original work that has never been presented for examination in any other university.

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This research project has been submitted for examination with my approval as the **University Supervisor**

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ACKNOWLEDGEMENTS

To start with I thank God for his mercies which enabled me to complete this project. I'm also grateful to various individuals who made the conclusion of this project a reality. Special accolade to my supervisor Dr. Herick Ondigo and Moderator Dr Cyrus Iraya for their dedication, comments and guidance they provided all through the project.

Much thanks to staff and Management in the Ministry of Housing, the Treasury, Kenya Bureau of Statistics and National Housing Corporation for availing data for this research without which this research would not have been complete.

I wish to also recognize the contribution of my work colleagues and fellow students who read and contributed to this study. Lastly, I would like to specially thank my son Zed who is preparing to sit for his KCPE examinations. Zed has been a huge inspiration to me. The effort he puts towards preparation for his exams inspires me to push forward in achievement of this endeavour.

God bless you all.

Martin Bulinda Shiveere

DEDICATION

To my dear wife Esther, My lovely children Elsa, Zed and Ella and My mum for their constant words of encouragement.

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LIST OF ABBREVIATIONS

ABTMs - Appropriate Building Technologies and Materials

ANOCA - Analysis of Variance

CSHSF - Civil Servants Housing Scheme Fund

HFCK - Housing Finance Company of Kenya

GDP - Gross Domestic Product

KENSUP - Kenya slum Upgrading Programme

KISIP - Kenya Informal Settlements Improvement Programs

KPDA -Kenya Private Developers Association

NEMA - National Environmental Management Authority

NHC - National Housing Corporation

NGOs - Non-Governmental Organizations

KNBS - Kenya National Bureau of Statistics

RoK -Republic of Kenya

UoN -University of Nairobi

ABSTRACT

This study investigates the effect of government funding to growth of housing in Kenya. It considers Growth in Housing as the dependent variable and Ministry of Housing Budget, aggregate county government budgets, National Housing budget and Aggregate Kenya government budgets on Housing are considered as independent variables. Literature review was done in the areas of Government funding in Housing, Budgeting and growth in Housing to understand previous empirical studies in the area under the study. A descriptive research design will be applied to a population of 50 Government institutions; Ministry of Housing Budget, 47 aggregate county government budgets, National Housing budget and National treasury to provide accurate representation of situations and make inferences about the target population. The Study analyzed secondary data extracted from Government annual Budget estimates and reports from Kenya Bureau of statistics and National treasury annual budget estimates and financial statements of National Housing Corporation was used. Since the annual figures for independent variables were too large as compared with figures of dependent variable logarithm was used to control the size of the figures. ANOVA, MANCOVA and Bivariate correlation was used to find degree and direction of relationships among the variables. The findings established that Government funding of Housing through ministry of Housing has significant effect on growth of housing whereas NHC budget, County Government Budgets on Housing have no significant effect on growth of housing. The study further indicates that aggregate budget for ministry of housing; County governments and National housing combined has significant effect on growth of housing. The findings of this research would help the Government of Kenya and Agencies mandated to house Kenyans to evaluate the effects of its funding on growth of Housing and recommend more government funding on housing for its effect to be felt in growth of Housing.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Habitat Agenda defines adequate shelter to include: easy physical access, adequate security, security of tenure meaning readily available title deeds, sound and stable structures, adequate lighting and space among other basics. When defining adequacy in housing we mean core factors including legal security of tenure, readily available infrastructure, affordability, habitability, accessibility, house location and cultural satisfactoriness all contributing towards growth and development of housing. (Department of Housing 2006:7)

Many governments in Sub- Sahara have had challenges in meeting the above targets which has resulted in many people settling in slums. In Kenya, large slums have come up in urban areas like Nairobi's Kibera and Mathare areas, Kondele in Kisumu and Langas in Eldoret just to mention a few. These slums are indicative of the fact that provision of decent and low cost housing in the country is still a challenge. (Kubuta, 2013)

The urban population in Kenya grows at a rate of seven percent yearly (KNBS, 2011). At such a high rate, supply of adequate and inexpensive housing for Kenyans particularly the poorer socio-economic strata lags behind. This means home ownership remains elusive for a majority of urban settlers. The fact that nearly 60 percent of houses under habitation in urban areas are considered 'inadequate' is illustrative of inadequate and indecent urban housing (Owuor, 2012).

The housing demand for Kenya currently stands at 150,000 units per annum for urban housing (RoK, 2004) but out of this only an estimated 35,000 are produced by both government and private developers. Most housing units supplied by the government and private sector is aimed at the middle class and the high strata of the socio-economic groups. This and factors such as graft marred distribution and allocation of government funded housing projects and the high cost of the privately developed housing units has also retarded the delivery of housing units to low income earners.

Africa has the potential to meet the housing need for the poor people living in urban areas despite their poor economic states. Kenya in particular is capable of obtaining the financial and tech partnerships required to upgrade the slums in Nairobi (Otiso, 2000). Access to decent and affordable housing is recognized globally as a human right. In line with this practice, Kenya acknowledged the right by entrenching in its 2010 constitution.

According to the National Housing Policy 2013, the government through the Ministry of Land, Housing and Urban Development embarked on funding and developing various programs with a view of delivering affordable and adequate housing for the Nation. These programs include:

The Kenya Slum Upgrading Program whose aim was to enhance the lives of the poor living in slums. With the help of this program, the housing and infrastructure projects have been implemented in Mombasa, Kisumu, Nyeri and in Nairobi's Kibera area. A slum Upgrading fund was introduced to source for more funds for the program which would then help in growth of housing in Kenya.

We have National Housing Corporation (NHC) which is the Government's main agency responsible for the implementation of government's housing programs.NHC came into existence in 1967 following the enactment of the Housing Act Cap 117 Laws of Kenya. NHC has assisted Local residents and County Governments to build decent and affordable houses through its various schemes such as Tenant Purchase schemes, Rental housing and house construction loans. On the issue of construction loans, NHC is now advancing up to KShs.10, 000,000 to persons who may wish to develop or to improve their housing. These initiatives and funding introduced by the Government through NHC has helped in reducing the housing shortage in the country while at the same time assisting in the growth of housing in the Kenya.

However, after almost fifty years of NHCs existence, housing challenges still persist. This can be seen as an indication that the Government has not been able to meet its original goal of alleviating housing shortage in the country by facilitating the construction of at least 150,000 houses per year. This study set out to find out why the impact of the Governments funding has not been as successful as expected in alleviating housing problems. It also aims at making recommendations on new strategies the Government may employ to help in the growth of housing in Kenya.

The Economic survey 2013 indicates for example that NHC managed to complete a paltry 45 bungalows in Nyeri, 344 flats in Nairobi, and 48 flats in Mombasa in the financial year 2011 / 2012. In addition, NHC disbursed construction loans amounting to Kshs 209.6 million. All these are short of meeting the Governments target of assisting in the construction of 150,000 houses annually.

1.1.1 Government Funding

Government funding is Government sponsored economic aid aimed at subsidizing housing costs. It is designed towards subsidizing housing costs for low incomes persons. Subsidies could be in form of directly subsidizing housing, non profitable and social housing and some form of co-operative and private sector housing. Subsidized housing is often called "affordable housing." (Burke, 2003)

Fallis (1994) noted that housing problems may have resulted from the under development of the mortgage market. Other factors attributed to housing problems include the difference between individuals who can afford to buy houses and the prices for habitable and decent houses. Government interventions in conjunction with market forces determine the size of the housing tenures in the long run (Warnock 2008).

The government has also been funding home ownership through tenant purchase whereby civil servants pays a 10% deposit and the 90% balance of the house purchase price is paid as a loan for up to fifteen years. This has been facilitated by the government for its employees through direct housing development and provision of mortgages at affordable cost. A total of Kshs. 888,377,138 in form of loans has also been disbursed to Civil Servants. (Kabuta, 2013)

President Mwai Kibaki in April 2007 started a US$12 billion Slum Upgrading Strategy in Kenya with an aim of uplifting the living standards of 5.4 million Kenyans in subsequent years. The then Housing Minister Soita Shitanda in December 2007 announced plans the Governments had to provide for 250 acres for development of low cost houses in Mlolongo area in the environs of Nairobi (GOK, 2007).

In this study Government funding is measured using Budget allocations to Ministry of Housing, County Governments Housing Budgets, National Housing Corporation’s annual

Capital Expenditure Budget and taxation is measured using governments annual aggregate tax collections and annual tax collections from the real estate sector.

1.1.2 Growth of Housing

Growth of housing can be defined as the number of new houses added to the existing stock of houses. Supply of new houses hence the growth of housing could be as a result of increased housing demand which could have come about because of people's enhanced ability to spend more on housing. Increased supply could also be as a result of reduced planning restrictions when one wants to build or as result of increased profitability from building new houses. (Tejvan Pettinger, December 19, 2015)

In 2010, the annual demand for housing stood at 206,000. This comprised 124,000 units and 82,000 required in rural and urban areas respectively (Kenya Census Data, 2009). The housing deficit currently stands at 156,000 units without considering the homeless people and those living in temporary shelters.

Zhu (2006) points out that housing provision service is dependent on a housing finance system that is well functioning but access to mortgage financing remains a challenge. The ratio of outstanding mortgage in relation to GDP remains low throughout Africa. It currently stands at 10 percent in comparison to 50 percent in Europe and 70 percent in USA (Beck et al., 2011). This is further corroborated by (Owino, 2011) who identifies housing finance loan penetration as low.

According to the National Housing Policy, 2013, the Government through the Ministry of Housing came up with various strategies and incentives in its effort to help in the growth of housing in the country. The main strategies for housing Kenya's urban poor, include Kenya Slum Upgrading Programme. The aim of this programme is to make better the lives of slums dwellers. A fund for low cost housing and slum upgrading was established to ensure more funding for the programme.

Growth of housing has resulted from the government's move to facilitate an enabling environment for policy formulation that is favorable to organize the private sector contribution in low-income housing (GOK, 1999). Current measures comprise having construction materials used in building a minimum of twenty low-income housing units zero-rated (GOK, 2007).

1.1.3. Effect of Government Funding on Growth of Housing

The Government can create an ideal environment for a strong housing structure which is distinctive to each market. Most national strategies that produce housing rotates around a mixture of realistic origins. In addition, Pugh (1999) emphasizes the importance of taking into consideration the economic, political and social factors for affordable housing construction success (Jenkins & Smith, 2001).

Through the Civil Servants Housing Scheme Fund (CSHSF), the Government as an employer funded and facilitated housing. As at 30^{th} May 2013, this scheme had benefited 3,430 civil servants. Out of this, 2,419 bought houses, 600 secured loans and 411 acquired rental housing. The Government further facilitated the provision of loans to civil servants for housing at 5% interest rate (National Housing Policy, 2013).

According to the National Housing Policy, 2013, the Government is revamping its main housing agency NHC which currently advances construction loans of upto Kenta shillings 10,000,000 to persons wishing to develop or improve their housing.

1.1.4. Housing in Kenya

The Kenyan government has addressed housing challenges through a variety of initiatives. The key one has been the formulation of Sessional Paper No.5 on Housing Policy of 1966/67. This paper presented the government's objective of providing decent housing through both the private and public sector. In order to address housing demand and to stimulate economic growth, an expanded program for house building was given high priority; the Central government's financial contribution towards housing was increased.

To meet the needs of the largest possible number of people, the housing program was to be as economical as possible, i.e. emphasis was put on low-cost housing and to the largest possible extent assisted by self-help efforts. Similarly, the scarce government funds available for housing were employed in a manner to stimulate private and foreign capital effectively.

Article 43 1(b) of the Kenyan constitution acknowledges the fact that all Kenyan citizens have a right to adequate housing and reasonable sanitation standards. However, article (21. 2) claims that this right should be realized progressively. The constitution places the responsibility of providing housing to the national as well as county government. The national government is tasked with providing housing policies whereas the county governments are tasked with planning and developing.

The Housing Act Cap 117 is a parliamentary act on housing which was enacted in 1967. Its main role is to implement housing policies and programs of the government. The act establishes and constitutes the National Housing Corporation (NHC) – a body that manages the government's housing fund, gives loans and grants to middle and low income earners in the country as well as monitors the repayment of the loans. Whereas the NHC was expected to offer a long lasting solution to the housing problems in Kenya, government's funding on housing has been on the decline over the years (Otiso, 2003). The decline has resulted to the housing trend in the country. Consequently, there has been a rising housing demand that has never been met.

In order to solve the rising housing demand, the NHC has shifted its focus to building medium sized flats for the low income earners throughout the country. Currently, it is in the process of building such houses along the major highways in the country. The corporation is also partnering with land owners and international financiers to provide houses to the bottom-end market (Daily Nation, 2013).

Apart from providing houses to Kenyan citizens, the Housing Act also establishes a housing scheme for the civil servants. The scheme enables the civil servants to either purchase or build residential houses (RoK, 1967). Through the Civil Servants Housing Scheme programme, the following projects have been completed and sold out: 50 units along Jogoo Road, 26 along Gichugu Road, Kileleshwa and 50 in Kilimani. 315 housing units at Shauri Moyo have been completed and will be retained for rental. A total of Kshs. 888,377,138 in form of loans has also been disbursed to Civil Servants. All this developments have targeted the three tier market consisting low, middle and high income categories as per the locations above.

1.2 Research Problem

There is an expected relationship between the independent variables which are taxes collected and the budgets of both NHC and the Ministry of housing on one hand and the dependent variable which is housing growth on the other hand. It is for example expected that the higher the budget set aside for staff's low interest mortgage loans the higher the demand for houses by civil servants as a result of their increased purchasing power.

Housing developers will as a result be encouraged to develop more houses as a result of improved purchasing power hence demand leading to growth of housing in Kenya.
It is also expected that with increased tax rates, there will be increased revenue collections by Kenya Revenue Authority. The increased collection of revenues will result in construction of more houses hence there being a growth of housing in Kenya. There exists a negative link between taxes and housing growth. It’s expected that a reduction in tax rates would lead to a rise in housing growth levels resulting from enhanced disposable income.

The government of Kenya’s role in housing is critical as evidenced by the constitution under article 43 (1) (b) of the Bills of Rights (RoK, 2010). The provision of reasonably priced housing is one of the goals for the achievement of vision 2030 (Omtatah, 2014). Affordable housing was also an important deliverable in the millennium development goals. However the growth in supply of houses has been poor. Access to housing units decreases with the increase in population, rising cost of living, escalating house prices and scarcity of land. Kenya's real estate has been booming with the rising house prices attracting more investors to the sector to tap the expected huge profits from the investment. However, according to Kiberenge (2012), Kenyan real estate industry would be on the verge of crisis following reports that many developers are unable to sell off houses due to unaffordable prices putting off prospective buyers.

According to a National Housing Corporation (NHC) report, Kenya Vision 2030 estimates that the country’s demand for new housing units is 200,000 against 35,000 units produced. That leaves a shortfall of 165,000 housing units. This creates a deficit that has been a policy problem year in year out. This has largely contributed to the escalating costs of residential property over the last 12 years especially on the rentals and on the market value. According to Olima (2014) the slow growth in real estate supply has been associated with high construction cost which includes cost of building materials, cost of land and higher interest expenses hence higher cost of financing and as a result lower supply of affordable real estate housing. This also conforms to the supply theory which states that costs are negatively related to supply.
The housing finance institutions that currently exist have loan procedures that are complex and which enforce difficult demands on the poor who cannot understand some of the issues (Waweru, 2001). According to Njoku (2000), the perfect Housing Finance

Institutions should meet the criteria of accessibility to a wide range of clients. The fact that nearly 60 percent of houses under habitation in urban areas are considered 'inadequate' is illustrative of inadequate and indecent urban housing.

Conclusions from various theoretical frameworks have concluded that growth of housing is affected by increase or decrease in government funding and spending. From theoretical and empirical studies, there have been diverse outcomes on the association between Government funding and housing growth. This research therefore tries to ascertain the effect of Government funding on housing growth in Kenyan and answer the question; what is the effect of government funding on housing growth in Kenya?

1.3 Research Objectives

The studies general objective was to examine the effect of government's funding on housing growth in Kenya.

1.3. 1 Specific Objectives

Specific objectives of the study were:

i . To determine effect of Ministry of Housing Budget on growth of housing in Kenya.

ii. To establish the effect of County Governments Housing Budgets on housing growth in Kenya

iii. To establish the effect of National Housing Corporation Housing Budget on growth of housing in Kenya.

iv. To establish the Aggregate Government of Kenya Housing budget on growth of Housing in Kenya.

1.4 Value of the study

The research evaluates the effects of government funding on growth of housing in Kenya. Its findings will help the government to know the effectiveness of its policies on housing thereby improve those policies or change them.

This study will provide an insight to the housing developers on what government policies are on low cost housing and the various incentives available for them to take advantage of so as to increase low cost housing delivery to cater for low income earners.

The study will be important for development of a housing finance product tailored to compliment government funding for growth of housing.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

Chapter two reviews housing concepts and research previously done that focused on government intervention in the housing sector. It compares and contrasts the different authors' view on the responsibility of government in facilitating the growth of housing. The chapter highlights the research gaps that the researcher hopes to address.

2.2 Theoretical Review

A theoretical review addresses key issues in a study together with the guiding methods of analysis to simplify a study (Koskela, 2000). The proposed study is founded on the theory of economics and finance and their application on government funding, legislation, institutional framework and growth of housing.

2.2.1 Wagner's Law

Wagner's Law is named after the German political economist Adolph Wagner (1835-1917) He came up with the "law of increasing state activity" after empirical scrutiny on Western Europe at the end of the 19th century. He said that government growth is related to economic development and increased industrialization. The theory holds that for any country, as income growth expands public expenditure rises constantly. Wagner affirmed that in the process of industrialization, the share of public expenditures in entirety increases as the real income per capita of a nation goes up. Wagner law cited that "The advent of modern industrial society will consequently lead to increased political demands for social progress and allowances for social consideration by industry." With enlarged allowances brought about as a result of employment created as a result of industrialization, the Government will be able to get ready market for the houses it has facilitated the construction. Demand for housing will increase due to improved purchasing power of a country's citizens resulting from increased wages brought about by industrialization. With ready market, Government will be encouraged to fund construction of more houses leading to the growth of housing in Kenya.

Wagner (1893) came up with focal bases for the increase in state expenditure that includes the government's needs to provide welfare services like housing. The

Government can increase the funding for construction of more houses hence assist in the growth of housing in Kenya.

2.2.2 Peacock and Wiseman Theory

In 1961, Peacock and Wiseman shed light on the nature of increased public funding based on their lessons in England. Peacock and Wiseman chose the political propositions and presumed that governments are fond of spending; citizens do not like their taxes increased while the public normally demands for improved social services including housing. Various ideas exist about acceptable taxation limits and public spending. This however can be altered by major turbulence such as wars.

Wiseman and Peacock say that disturbances during for example times of war may have a displacement effect hence diversion of public expenditure and revenue to new heights. During times of war, Governments will not meet their revenue targets and taxation may be revised upwards so as to increase revenue. Citizens will at the initial stages register displeasure with this tax increase but will eventually accept the revised taxation previously thought to be intolerable. It's during this crisis period that the Government with its increased revenue which has come about as a result of increased taxes can fund construction of more houses for its Citizens leading to growth of housing in the country.

2.2.3 Keynesians Theory

Keynes (1936) advocates for government's intervention in an economy to correct market anomalies. Keynes supposed that depression needs government involvement as a short term remedy and criticizes classical economists for emphasizing on long run solutions. Hanson (1986), the potential yield of the investment output in the future goes down with the level of investment overtime. Keynes considered the government role to be important since it is able to prevent depression by rising total demand thereby boosting the economy.

This theory brings steadiness in the short run though it needs to be done with caution since large amount of public funding may result to inflation while too little may cause unemployment. With enhanced purchasing power resulting from increased public servants wages hence purchasing power, an enabling environment will be created for citizens to purchase, rent or build decent houses and live in a conducive atmosphere. Increased government intervention will stimulate growth of housing thereby reducing shortage of housing.

2.3 Determinants of Housing Growth

2.3.1 Budgetary Allocations

Housing growth is believed to be affected by budgetary allocations on Housings. According to Gilbert (2004) Chile spends six percent of its whole government expenditure on housing while the international average for Kenya and other developing countries is approximately two percent . According to Kibati (2015), NHC could increase supply of low cost houses by setting aside a given proportion of its annual budget for the supply of low cost houses.

2.3.2 Taxation

Heavy taxation is perceived to negatively affect growth of housing and on another side it's perceived that it's through taxation that government obtains money for housing growth. The strategies adopted by government on tax policies implementation are likely to have a major impact on the level of housing and economic growth. According to Lea & Gordon (2005), there exists a negative link between taxes and economic growth rate. Arnold (2008) argues that property taxes affect an economies level of growth especially recurring taxes on immovable property which positively influences the economic growth. According to Brasovenu and Brasovenu (2008), an increase in taxation rates results in a decline in development and returns to investments which are the main contributors of economic growth.

2.3.3 Technology

Ruitha (2011) notes slow delivery technologies for housing as a factor affecting real growth of Housing. The social acceptability of alternative materials centre's on their suitability for house walling, openings and overall boundary security. Security and a refined finishes has significance in urban housing since they embody several established social values such as modernity, social status, need for security against intruders Ripin and Roger (2012).The average Kenyan remains extremely conservative when selecting materials from which to build a home, in addition to this there is no evidence of mainstream architects using or promoting any form of alternative or 'green' walling materials, Ripin (2012).

2.3.4 Legislative Framework

A number of legislations relate to housing in Kenya. The first one is the Building Societies Act. This act allows for the establishment and registration of building societies in the country. It outlines the process that should be followed and the methods for financing by building societies. The second legislation is the Housing Act. This act establishes the formation of the NHC – a public body/agency for providing loans to the public for building residential houses. The third legislation is the Sectional Properties Act. This act provides the process to be followed in the division of buildings into units that are owned by individuals. It also provides a process for using and managing common properties. The Rent Restriction Act together with the Tenants and Landlords Act regulates the relationship between tenants and landlords.

2.4 Empirical Review

Empirical review describes the relationship between government funding and how this influences the growth of the housing sector. This in Kenya can be demonstrated by the government's role in facilitating civil servants to buy or build houses through the housing scheme. The Act provides for a civil servants housing scheme fund that provides housing loan facilitates to public servants. It also facilitates for the construction of housing units for renting and selling to civil servants (RoK, 1967).

2.4.1 International Studies

Henrekson (1993) carried out time-series analysis for Sweden using data for the period of 1950 - 1996 but did not find any relationship in the long-run between Governments funding of projects and GDP. Henrekson tested Wagner's law using two-stage co integration (Engle and Grange, 1987) and didn't find its support in the case of Sweden. Henrekson argued that before testing for causality between Governments funding of projects and economic growth, one must ensure that these data's variables are static otherwise it will lead to false results.

Halicioglu (2005), in a study of the demand for housing in Turkey; found out that demographic and economic factors determine housing demand. The findings of the study indicated that the most important factor in estimating the level of housing requirement was real income which was positively related to demand for housing, followed by house prices that showed a negative relationship and level of urbanization. The projected private housing demand function showed a steady connection linking dependent and independent variables and a steady housing demand function.

Taufiq (2010) studied effects of interest rate instability on new housing demand in USA. The study used monthly data from 1975-2006 and adopted the ARDL lag bounds testing approach to co-integrate and the Hendry “general-to-specific” causality test found out a long run equilibrium connection between demand for housing and its determinants which include interest rate unpredictability. The causality tests showed that housing requirement determinants in the long run cause demand for total housing.

2.4.2 Local Studies

Nabutola (2004) established that approximately a third of the Kenyan citizens don’t have access to modern, decent and reasonably priced housing. The study established that the major constraints to reasonably priced housing were land and building materials, finance and regulatory framework. The study found that majority of the land in the country is owned by the government and a few people who hold it for speculative purposes.

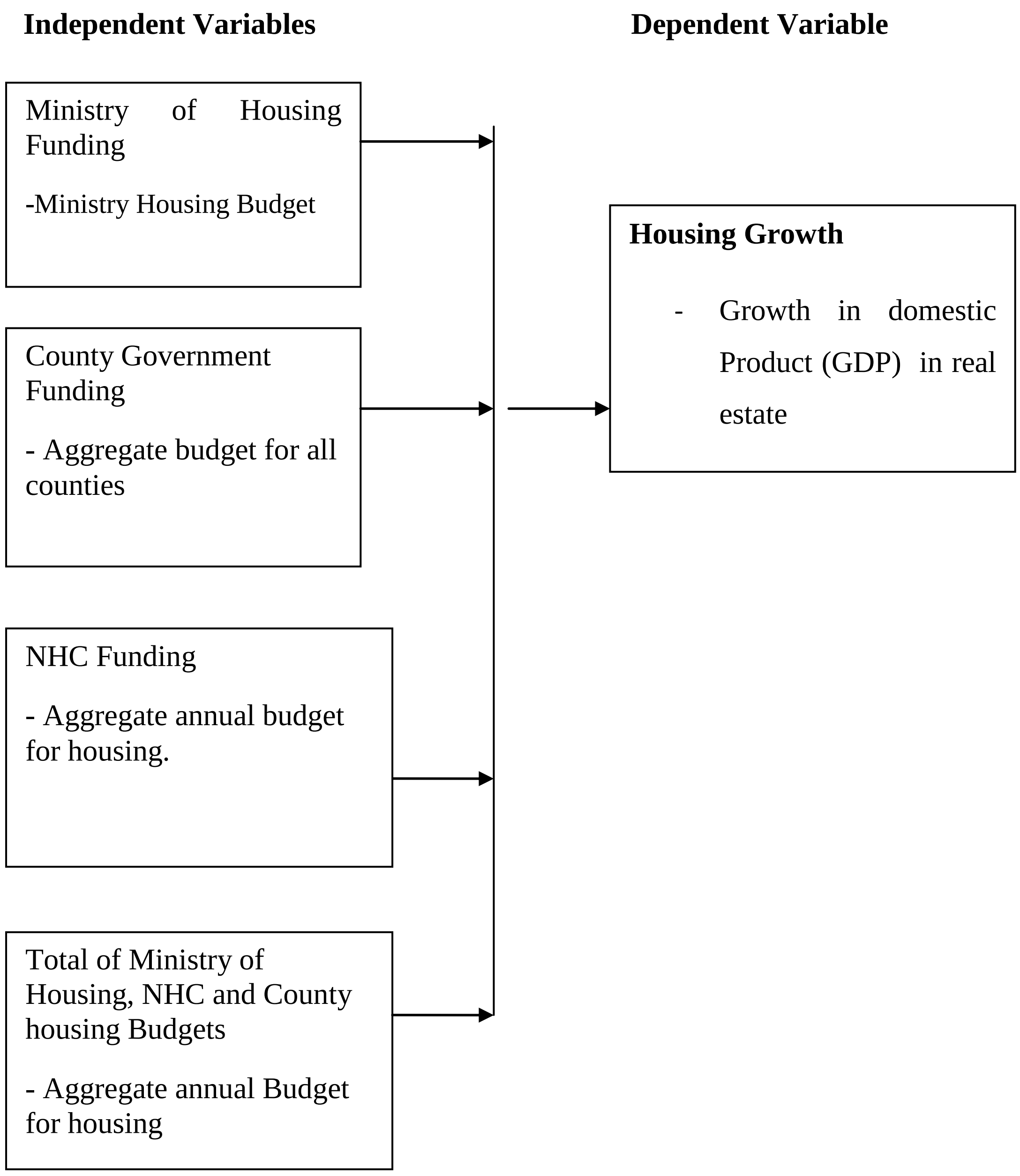
Arvanitis (2013) established that although the private sector is geared towards providing houses for the nation, the houses provided are over-priced due to the high demand and that the real estate market is not fully developed. The study established that the prolonged duration of constructing houses is affected by inflation, high leverage levels and the ever changing interest rate.

Waithaka (2013) established that the Kenyan mortgage market lags behind because of the high interest rates that Kenyan banks charge customers. Kigige and Messah (2011) established that the level of income, location and demand for housing units affected the property prices of the homes in Meru. Ngugi and Njori (2013) established that tax incentives, the system of land registration, loan maturity period and the cost of capital were the major determinants of access to mortgage financing. The housing deficit in the country is to a great extent increased by the rural-urban migration.

2.5 Conceptual Framework

This is a model representation of the study that depicts diagrammatically the interconnection between the different variables of a study (Orodho, 2008). The study’s framework is based on the connection between government funding and increase of housing. Government can contribute to the growth of housing in the country and home ownership in various ways such as funding of slums through the slum upgrading program, increasing individual income hence purchasing power of its citizens. Others include the government funding infrastructure development like water supply, electricity connection and access roads which will encourage housing development. Reduced interest rates for housing finance for example the 5% interest rate charged to civil servants on housing loans also makes access to house finance easy and affordable (Nabutola, 2004; Arvanitis,2013).

Figure 2.1 Conceptual Model



Source*: *Author, 2018

2.6 Summary of Literature Review

This chapter presented literature studied by different scholars. Keynes (1936) advocates for government's intervention in an economy to correct market anomalies. Keynes supposed that depression needs government involvement as a short term remedy. Keynes considered the government role to be important since it is able to prevent depression by increasing total demand through increased funding thereby turning on the economy. This tool brings steadiness in the short run though this needs to be done carefully since large amount of public funding may lead to inflation while too little may result in unemployment. With enhanced purchasing power as a result of the government funding through increased wages and low interest loans hence increased purchasing power, an enabling environment will be created for citizens to purchase, rent or build decent houses which will lead to the growth of the housing sector.

The literature review showed that no study in Kenya has ever looked at the effect of Government funding on the growth of housing in Kenya. The proposed study hopes to bridge the gap by evaluating the effects of government funding on the growth of housing in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

Chapter three outlines the research design that was utilized in the proposed study, the method of collecting data and the techniques that were utilized to analyze the data. It also outlines the model that was utilized in the research.

3.2. Research Design

The study adopted a descriptive research design. Cooper and Schindler (2003). A descriptive study is interested in results of the what, where and how of a phenomenon. The reason for choosing descriptive research design was because it allowed for easy conclusions.

Descriptive statistics enables gathering of quantitative data which can be examined quantitatively using descriptive and inferential statistics (Mugenda and Mugenda, 2003). Data collected using descriptive approach is accurate and provides an unambiguous picture of the issues under study (Ngechu, 2004). This design was chosen because the researcher sought to make a profile about the growth of housing and Government funding in Kenya connection.

3.3. Population of the study

Population in statistics is the precise population from which information is most wanted. Ngechu (2004) defined a population as a definite group of things or households that are being investigated and therefore, no sampling was done.

The population of a study is the entire set of things, events or people that a researcher wishes to consider in a study (Sekeran, 2003). The population for the proposed study was Ministry of housing, the forty-seven county governments in Kenya and NHC.

3.4 Data Collection

The secondary data used in the research was collected from Ministry of housing, 47 county Government's budgets and NHC, County government budgets, National Housing Corporation Budget, Ministry of Housing budget, Treasury reports and reports from Kenya National Bureau of Statistics. Secondary data was settled for since some of these sources had information that was very crucial to this study and sources of data are reliable being Government of Kenya sources. The data used was for the period between 2007 to

2017 and since data collected for independent variables namely ministry of housing budget, County budget and National housing budget had large amounts ranging from millions to billions logarithm of the figures was used to control size of figures of the variables. Figures used for dependent variable which is growth in housing are in ranges on one to nine.

3.5. Data Analysis

Data was presented in numerical values, graphs , pie charts and tables. Variables were calculated and subjected to SPSS to obtain the relationship and analyzed further to obtain the objective of the study. Descriptive statistics were utilized to further analyze the data that includes mean, median and standard deviations. Data from different sources including the National and county Government budgets and NHC's Budget. Information on the dependent variable (Growth in real estate's) was collected from the Kenya National Bureau of Statistics.

3.5.1 Diagnostic Test

Analysis of variance (ANOVA) has been used to test and estimate the proposition about the variance and means at 95% confidence interval and margin of error of 0.05. F – Test was also used to calculate the co-efficient of different variables. t – test was used to establish the correlation between variables used in determining the effect of Government funding and growth of housing in Kenya.

3.5.2 Analytical model

The model aims at establishing the relationship between Government funding and growth of housing using data collected from ministry of housing, Kenya Revenue Authority, NHC and Government funding in civil servants housing. See model:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + €$$

Dependent Variable:

Y = Housing growth calculated using GDP in Real Estate, similar to that used by Kenya National Bureau of Statistics (2012) and Nzalu (2013)

Independent Variables:

X_1= Government spending in ministry of housing measured using logarithm of annual budgetary allocation.

X_2= logarithm of County Government Housing budgets.

X_3= logarithm of National Housing corporation annual capital expenditure in Housing development measured using annual budgetary allocation

Beta coefficients

β_1 = coefficient Government expenditure in housing in ministry of lands & housing.

β_2 = coefficient Government expenditure in County Government Housing budgets.

B_3=coefficient for National Housing corporation annual capital expenditure in Housing development

€ - Standard Error

3.5.3 Test of Significance

Analysis of variance (ANOVA) was used to test and estimate the proposition about the variance and means at 95% confidence interval and margin of error of 0.05. F – test was used to approximate the co-efficient of various variables, t – test to establish Government funding and growth of housing in Kenya correlation.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DICUSSION

4.1 Introduction

This chapter presents data examination and outcomes made from the research on the effect of government funding to growth of housing in Kenya.

4.2 Findings

The results of the findings are in tables 4.1 to 4.5. The conclusion of the study show; descriptive statistics, Univariate analysis of dependent variables and control variables, results before control variables are included in study, results when effects of control variables are included and interpretations of the conclusions.

4.2.1 Descriptive statistics

Descriptive statistics has been used to quantitatively explain vital features of the variables using: frequency, mean, maximum, minimum and standard deviation as revealed in table 4.1.

Table 4.1: Descriptive Statistics of all the Variables

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Growth_in_Housing	11	4.00	8.80	5.4909	1.42860	2.041
ministry_Budget	11	22.84	25.16	24.0136	.78940	.623
County_Budget	5	21.19	23.93	22.6640	1.11771	1.249
Nhc_Budget	11	19.64	21.55	20.6955	.53452	.286
Aggregate_budget	11	68.59	97.13	81.7227	12.75222	162.619
Valid N (listwise)	5					

Source: Research Findings

The table 4.1 shows the summary of minimum, maximum, mean and standard deviation of the dependent and independent variables.

4.2.2 Diagnostic Tests

Two tail test of significance was carried out for all variables studied at 5 % test of significance and 95% confidence level. From the examination, any p-value that is more than 0.05 indicated major connection linking variables tested otherwise the connection is considered inconsequential. The dispersion of all interpretation is divided into the variance explained by the regression and residual variance unsolved. R^2 is taken as the proportion of variance explained in relation to the total variance. The standardized coefficient and the F-statistic showed the strength of the connection between the variables and the appropriateness of the set of data to the regression model and test the direction of a relationship. Pearson Correlation Coefficient is used to gauge linear connection strength among two variables. When the correlation coefficient is either +1 or -1 the variables are perfectly linearly related, either positively or negatively. When two variables have no connection at all, their correlation is 0.

4.3 Inferential Statistics

This indicates results of regression analysis obtained. It shows results on the effect of government funding to growth of housing in Kenya and correlations between variables in the study namely housing in growth, ministry of housing budget, county governments housing budget, National housing corporation budget, aggregate tax collections and tax collections from real estate sector.

4.3.1 Growth in Housing and Ministry of housing Budget

Regression analysis was used to check the effect of Ministry of housing Budget and growth in housing and the outcomes are shown below;

Table 4.2: Effect of ministry of Housing Budget on Growth in Housing.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.934	1	7.934	5.724	.040[b]
	Residual	12.475	9	1.386		
	Total	20.409	10			

a. Dependent Variable: Growth_in_Housing

b. Predictors: (Constant), ministry_Budget

Source: Research Findings

Table shows F of 5.724 at significance level of 0.040 at 95% confidence level.

4.3.2 Growth in Housing and County Budget

Regression analysis was conducted to test the effect of aggregate county housing budget for 47 counties on growth of housing and outcome is shown in table 4.3

Table 4.3: Effect of County Budget to Growth in Housing.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.404	1	6.404	3.197	.172[b]
	Residual	6.008	3	2.003		
	Total	12.412	4			

a. Dependent Variable: Growth_in_Housing

b. Predictors: (Constant), County_Budget

Source: Research Findings

The table shows F or of 3.197 at significant level of 0.172 at 95% confidence level.

4.3.3 Growth in Housing and NHC Budget

Regression study was done to analyze the effect of Government funding of housing through the National Housing Corporation on Growth in Housing and outcome is shown in table 4.4 below.

Table 4.4: Effect of NHC Budget to Growth in Housing.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.448	1	2.448	1.226	.297[b]
	Residual	17.961	9	1.996		
	Total	20.409	10			

a. Dependent Variable: Growth_in_Housing

b. Predictors: (Constant), Nhc_Budget

Source: Research Findings

The results shows F of 1.226 at significant level 0.297 at 95% confidence level.

4.3.4 Growth in Housing and aggregate Housing Budget

Regression study was done to check the effect of aggregate Government Housing comprising ministry of housing, 47 County Government aggregate housing budget and National Housing Corporation Housing Budget and outcome in table 4.5

Table 4.5: Effect of Aggregate Housing Budget on Growth in Housing

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	7.617	1	7.617	5.359	.046[b]
	Residual	12.792	9	1.421		
	Total	20.409	10			

a. Dependent Variable: Growth_in_Housing

b. Predictors: (Constant), Aggregate housing budget

Source: Research Findings

The table shows F of 5.359 at significant level 0.046 at 95% confidence level.

4.4 Correlations among the variables

The Pearson Correlation Coefficient is used to review the strength of the linear connection between two variables and direction of the relationships. The results obtained in this study are as shown in table 4.6

Table 4.6: Correlations among the Variables

Correlations

		Growth_in_ Housing	Ministry_ Budget	County_ Budget	Nhc_ Budget	Aggregate_ budget
Growth_in_ Housing	Pearson Correlation	1	.623*	.718	-.346	.611*
	Sig. (2-tailed)		.040	.172	.297	.046
	N	11	11	5	11	11
ministry_Budget	Pearson Correlation	.623*	1	.758	.307	.759**
	Sig. (2-tailed)	.040		.138	.359	.007
	N	11	11	5	11	11
County_Budget	Pearson Correlation	.718	.758	1	-.077	.925*
	Sig. (2-tailed)	.172	.138		.902	.025
	N	5	5	5	5	5
Nhc_Budget	Pearson Correlation	-.346	.307	-.077	1	-.013
	Sig. (2-tailed)	.297	.359	.902		.970
	N	11	11	5	11	11
Aggregate budget	t Pearson Correlation	.611*	.759**	.925*	-.013	1
	Sig. (2-tailed)	.046	.007	.025	.970	
	N	11	11	5	11	11

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

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

Source: Research Findings

Table 4.6 above shows the Pearson correlations among the variables. The results show that there is major effect of Ministry of Housing budget and aggregate housing budget on housing growth with significant tests of 0.040 and 0.046 respectively at 95% confidence levels. The outcome further show there is positive major relationship between ministry budget and aggregate country of Kenya Budget. The results however indicate that there are no significant relationships among other independent variables such County budget, National Housing Corporation Budget and dependent variable growth in housing.

4.5 Interpretation of the Findings

Outcome shows that there is major positive effect of Ministry of Housing budget on housing growth denoted by F value of 0623 at less than 0.05 significant levels. That there is also positive effect of aggregate housing budget on housing growth denoted by f value of 0.611 at significant test of less than 0.05 at 95% confidence level. The results further shows that County budget, National Housing Corporation Budget, have no significant effects on Growth of Housing having shown significant tests which are above 0.05 at 95% confidence levels. The study further shows that are positive relationships amongst some independent variables mainly ministry of housing budget and aggregate housing budget in Kenya denoted by F value of 0.759 at significant test of 0.007 that is below that of 0.05 at 95% confidence level.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The research set out to uncover the effect of government funding on Growth in Housing. This chapter brings out discussions of the key findings and way forward from the findings.

5.2 Summary

The study is on the effect of government funding on growth in Housing. The key concepts in the study are government funding in terms of Ministry of Housing Budget, National housing Corporation budget, county Budget, aggregate National housing related budget and growth of housing. This study was conducted by use of a descriptive design. Population of study comprised of the 49 Government entities comprising of Ministry of Housing, National Housing Corporation and Kenya's47 County Governments. The secondary data in this analysis covered a period of 11 years beginning 2007 to 2017.

ANOVA regression model was used to scrutinize the figures. The conclusion recognized that the ministry of housing budget has positive significant effect on growth of housing in Kenya. The study further indicates that aggregate budget comprising of ministry of housing, county government budget and National housing budget has positive significant effect on growth in Housing. The study however indicates that NHC budget; County Budgets on Housing individually have no significant effects on growth of Housing in Kenya.

The study in essence informs that budget allocations for National Housing Corporation and Budget allocations on housing in County governments is too little to significantly affect growth in Housing.

5.3 Conclusion

This study examines the result of government funding on growth of housing in Kenya. The regression outcome indicate that ministry of housing funding positively significantly affects growth in Housing. That in overall government funding has positive significant effect on growth of Housing. The study however indicates that National Housing Corporation and County Governments Funding on Housing individually have no significant effects on growth in housing in Kenya. The findings suggest that unless housing development budget allocations are increased by National Housing Corporation and County Governments in Kenya their impact in growth of housing will remain to be of no significant effect. This findings support that of Kibati (2015) that recommends more housing funds to National Housing Corporation in order to impact on low cost housing in Kenya.

5.4 Recommendations for policy

On the basis of the foregoing scrutiny in the study, it is proper to make the following recommendations; Government of Kenya need to increase funding channeled through National Housing Corporation and County Governments for the entities to have significant effect on growth of housing since the current budgetary allocations are not significant enough to affect growth in Housing in Kenya.

5.5 Limitations of the Study

The range of the rsearch was restricted to the secondary data found from Government Budgetary allocations and Kenya Bureau of Statistics. Secondly, limited time was obvious since the data sources were availed on working days and the researcher is equally an employee. The data for the phase under study were a challenge especially those from 47 Counties in Kenya since these Counties came into operation in year 2013 whereas us this study is for period 2007 to 2017.

5.6 Suggestions for Further Studies

Subsequent research scope could be enlarged to include establishing the effect of private sector financing in growth of housing in Kenya. Studies should also be done on effect of tax and tax incentives to growth of housing and economic growth. Further studies should be done as well on the role of private sector financing on growth of housing in Kenya.

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