



AFFORDABLE RENTAL HOUSING DELIVERY IN KENYA

BY

VICTOR OTIENO OLONDE

SUPERVISOR:

PROFESSOR MANYA MAINZA MOOYA

CO-SUPERVISOR:

PROFESSOR KANSHUKAN RAJARATNAM

A Thesis Submitted for the Degree of

DOCTOR OF PHILOSOPHY

in the Department of

Construction Economics and Management

Faculty of Engineering and the Built Environment

UNIVERSITY OF CAPE TOWN

MARCH, 2021

The copyright of this thesis vests in the author. No quotation from it or information derived from it is to be published without full acknowledgement of the source. The thesis is to be used for private study or non-commercial research purposes only.

Published by the University of Cape Town (UCT) in terms of the non-exclusive license granted to UCT by the author.

Declaration

I declare that the contents of this thesis are entirely my own work, except for the specific and acknowledged references to the published work of others made in the text.

To the best of my knowledge and belief, it contains neither material previously published by another person nor material to which a substantial extent has been accepted for the award of any other degree of the university.

Candidate: **Victor Otieno Olonde**

Signed by candidate

Signed on Friday this 1st day of October 2021

Acknowledgment

First and foremost, I am grateful to the Almighty God for having made everything possible by giving me strength and courage to do this work. I express sincere appreciation to my research supervisor, Professor Manya Mainza Mooya not only for his inspirational and dedicated support throughout this study, but also his prompt and meticulous feedback coupled with positive critique were very instrumental in honing my research skills and understanding of this study. I also extend my gratitude to the co-supervisor Professor Kanshukan Rajaratnam for being my first entry contact to UCT, and for his valuable input that has helped shape this thesis to its present form.

I am deeply indebted to all the teaching and non-academic staff at the department of Construction Economics and Management (CEM) for constant support and encouragement throughout the study period. To the former Head of Department Professor Kethy, your initial detailed comments were quite insightful; and thank you Mareldia for your wholehearted support during the study period, timely correspondences and efficient registration facilitation every year.

I also appreciate my 'classmate' Dr. Elizabeth Musvoto for perpetual encouragement and support throughout my study. Other PhD colleagues in the CEM postgraduate lab comprising Dr Alireza Mohyaghedi, Mrs Rachel Merembe, Mrs Christiana Ekpo, Mr Sunday Oladokun and Dr Jonathan Adama, thank you for the friendly and constructive engagements that brought both academic and homely aura at UCT.

My gratitude also goes to the senior officials in the Valuation Department, Ministry of Lands and Physical Planning, Kenya, especially the current Director of Valuation, Jacinta Mutua, former Directors of Valuation Mrs Sarah Wanyande and Mrs Teresia Kimondiu together with Deputy Directors of Valuation Mr. Herbert Were and Monica Obong'o; and my colleagues from Mombasa Lands Office for their invaluable support and encouragement during my study. To the Dansal and Associates fraternity Vlr.Cyprian Omoro and Vlr.Wycliffe Ong'onge, your financial and moral contribution towards my studies is highly appreciated. Last but not least, I acknowledge my family, the Olondes and the Imara Royal Family for being there to support and cheer me to the finish line.

Dedications

To my wife, Linah Dzame for unwavering moral support, prayers and sacrifice during my study period, and took great care of the family.

My children Jabari Collin Olonde, Mali Megan Olonde and Nyarloch Mosiko Olonde

and my Late parents, Collins Olonde and Margaret Atieno for incessant support and inspiration to pursue the highest level of education.

Abstract

Rental housing sector remains a significant housing option and an essential component of a vibrant housing market and construction industry as a whole. However, rental housing markets in most developing countries have been characterized by market failure because of the inability to provide adequate rental units commensurate with the urban population's demand. One of the major reasons for the inefficiency is attributed to the little attention by the private developers/landlords towards the rental housing development, yet they are perceived to be the major players on the supply side. The main objective of this research is to critically examine the rental housing market in Kenya and determine why despite the high demand for affordable rental housing, there has not been adequate corresponding supply of good quality housing units, a phenomenon which denotes market failure. This research aims at exploring the institutional environment to find out what has hindered delivery of adequate affordable rental housing despite high demand. This study has been guided by critical realism philosophical perspective and combines the conceptualisation in the Institutional Analysis and Development (IAD) framework and the theoretical richness in the New Institutional Economics (NIE) to develop the conceptual framework for analysing market failure in the rental housing market. The study utilizes mixed methods research design where both qualitative and quantitative research approaches have been employed, comprising a combination of cross-section survey of lower-middle income tenants and interviews of existing landlords, developers, key informants from the relevant public and private sector stakeholders. The main findings of this study underscore the significance of institutional environment in influencing the outcomes of the housing market, and note that as currently constituted, the institutional framework is not practically well-matched to support delivery of affordable rental housing units and as such discourages developers from the rental sector. The frameworks ranging from policy, regulatory and financial systems coupled with inferior performance of rental sector compared to development for sale systematically, but inadvertently lead to market failure in the rental housing market. This study recommends formulation of a distinct Rental Housing Policy and consequently Rental Housing Act complete with implementation framework to deal with issues intrinsic to the rental sector. It has made various and diverse contributions to the existing body of knowledge which comprise theoretical, contextual, empirical and policy perspective.

Table of Contents

Declaration	ii
Acknowledgment.....	iii
Dedications.....	iv
Abstract	v
Table of Contents.....	vi
List of Tables.....	xi
List of Abbreviation.....	xiii
Publications arising from this thesis	xv
CHAPTER ONE	1
1.1 Introduction and Background of the Study.	1
1.2 The Concept of Affordable Rental Housing.....	4
1.3. Preliminary Literature Review and Gaps.....	7
1.4 The Problem Statement.....	11
1.5 Research Objectives and Hypotheses	13
1.6. Theoretical Framework: An Overview	14
1.7. Research Methodology: A Synopsis	16
1.8. Scope of the Research.	17
1.9. Justification and Significance.	18
1.10 Structure of the thesis.....	19
CHAPTER TWO.....	21
2.0 Rental Housing Market Failure: Theoretical and Conceptual Framework.....	21
2.1 Introduction	21
2.2 The Concept of the New Institutional Economics.....	21
2.2.1 Institutions.....	23
2.2.2 Transaction Costs.....	25
2.2.3 Property Rights	26
2.3 The Housing Market and NIE: A Theoretical Mapping.....	27
2.3.1 Institutions and the Housing Market.....	27
2.3.2 Transaction Cost and the Housing Market.....	30
2.3.3 Property rights and the Housing Market.....	31
2.4 Market Failure in the Rental Housing Sector.	32
2.4.1 The Concept of Market Failure	32
2.4.2 Rental Housing, Market Failure and NIE: A Conceptual Analysis.	34
2.5 Institutional Analysis and Development (IAD) Framework.....	38
2.6 Affordable Rental Housing Market Failure: A Conceptual framework.....	42
CHAPTER THREE:.....	49

3.0 Affordable Rental Housing: Theory and Evidence	49
3.1 Introduction	49
3.2 The Significance of Rental Housing Market	49
3.3 The Rental Housing Market: Demand and Supply Factors.	52
3.3.1 Demand-side factors.....	53
3.3.2 Supply- side factors influencing rental housing market.	56
3.4 Private Rental Housing Market: Lessons from the Developed Countries.	67
3.5 Conclusions.....	72
CHAPTER FOUR:.....	75
4.0 Contextual Framework.....	75
4.1 Introduction	75
4.2 Background of Kenya.....	75
4.2.1 Kenyan Demographic factors and Urbanization.....	77
4.2.2 Kenyan Economic background.....	77
4.2.3 Employment Highlights	78
4.3 Background of Mombasa City	79
4.3.1 Location and Physical Background of Mombasa	80
4.3.2 Socio- Economic Context of Mombasa.....	84
4.4 Affordable Housing Context in Mombasa City.	88
4.4.1 Lower-Middle Income Residential Areas under the Study.....	88
4.4.2 Nature of Affordable Rental Housing in Mombasa.....	95
4.5 Housing Delivery and the Institutional Environment in Kenya	98
4.5.1 Development Control and Building Approval Process in Mombasa	105
4.5.2 Financial Services Sector in Kenya.....	109
4.5.3 The Kenyan Mortgage Market and the Prevailing Lending Conditions.	110
CHAPTER FIVE:	113
5.0 Research Methodology	113
5.1 Introduction	113
5.2 Ontological and epistemological foundations in research methodology.....	113
5.2.1 Ontology and Research.....	114
5.2.2 Epistemology and Research Activity	116
5.2.3 Critical Realism Perspective	120
5.3 Critical Realism and Housing Research.....	122
5.4 Methodological Challenges in Rental Housing Research.....	126
5.5 Research Design	127
5.5.1 Study Population and Sampling	131
5.5.2 Research Instruments and Execution	134

5.5.3 Data Analysis and Management.....	136
5.5.4 Reliability and viability of the research instruments	137
5.5.5. Ethical considerations.....	138
CHAPTER SIX:	139
6.0 Data Presentation, Analysis and Discussions.....	139
6.1. Introduction	139
6.2 Respondents' Profile and Distribution	141
6.3 Tenants Profile and Socio-Economic Characteristics	144
6.4 The nature and status of rental housing market in Mombasa.....	149
6.5 Responses from the Private Property Developers, Landlords and other stakeholders.....	159
6.6 Community Attributes.....	160
6.7 Material Conditions	163
6.8 Rules in Use.....	173
6.9 Performance of Rental Housing Market: An Evaluation Criterion.....	209
6.9.1. Return on Investment	210
6.9.2 Liquidity	221
6.9.3 Risks.....	223
6.10 Evaluation of study Hypotheses	227
6.11 Affordable Rental Housing Market Failure: Discussions and Policy Implications	230
CHAPTER SEVEN:.....	238
7.0 Conclusions and Recommendations.....	238
7.1 Summary of the Thesis.....	238
7.2 Main Findings, Conclusions and Recommendations	240
7.3 Contribution to Knowledge.....	244
7.3.1 Contribution to Theory Development.....	244
7.3.2 Contribution to Methodology.....	245
7.3.3 Contribution to Policy Development	245
7.3.4 Contribution to the Empirical Literature	246
7.4 Limitations of Study and Areas for Further Research	246
REFERENCES.....	248
APPENDICES	266
Appendix 1:0 Questionnaires, Interviews and Checklists	266
Appendix 1.1: Questionnaire (Targeting Tenants Households).....	266
Appendix 1.2: Questionnaire (Targeting Existing Landlords).....	269
Appendix 1.3 Interview Schedule to the Respondents	273

Appendix 1.4: Observation Checklist.....	276
Appendix 2.0 Market Data for Performance of Housing Typologies.....	277
Appendix 2.1: Data for Multi-dwelling housing units comprising one-bedroom.....	277
Appendix 2.2: Data for Multi-dwelling housing units comprising two-bedroom	278
Appendix 2.3: Data for Multi-dwelling housing units comprising three-bedroom.....	279
Appendix 2.4: Data for Single-dwelling housing units comprising one-bedroom	280
Appendix 2.5: Data for Single-dwelling housing units comprising two-bedroom.....	281
Appendix 2.6: Data for Single-dwelling housing units comprising three-bedroom	282
Appendix 3:0 Research Approvals and Permits.....	283
Appendix 3.1 Ethics Approval from the Faculty.....	283
Appendix 3.2 National Commission for Science and Technology	284
Appendix 4:0 Consent to Participate in Research.....	285

List of Figures

Figure 1.1. Target population.....	18
Figure 2.1. The Institutional Hierarchy of Property Markets.....	28
Figure 2.2. Institutional Analysis and Development (IAD) Framework.....	40
Figure 2.3. Philosophical, theoretical, and conceptual framework nexus.....	43
Figure 2.4. Adapted IAD Conceptual Framework for Analysing the Housing Market	46
Figure 4.1 Trend of GDP, Lending Rates and Inflation over a ten-year period in Kenya.....	78
Figure 4.2. Location of Kenya and Mombasa.....	81
Figure 4.3. Common features of Mombasa City	82
Figure 4.4. A Map of Mombasa Sub-Counties	84
Figure 4.5. Employment Structure in Mombasa.....	85
Figure 4.6. Mombasa Population Distribution by Age Distribution.....	88
Figure 4.7 Mainland North	90
Figure 4. 8: Mombasa West.....	91
Figure 4. 9: Sections of Bamburi Estate	92
Figure 4. 10: Sections of Kiembeni Estate	92
Figure 4. 11: Sections of Bombolulu.....	93
Figure 4. 12: Sections of Miritini World Bank Estate	94
Figure 4. 13: Sections of Mikindani Estate	95
Figure 4. 14: Sections of Migadini	95
Figure 4. 15: Percentage Distribution of Housing Supply and Demand	96
Figure 4. 16: Housing Typologies and Patterns of Affordable Housing Development ...	97
Figure 5. 1: Research Methodology Domain.....	114
Figure 6.1. Tenants' Response Rate.....	143
Figure 6.2. Tenants' Distribution by Age	146
Figure 6. 3: Adequacy of Current Rental Units.....	151
Figure 6.4. Tenant's experiences on rent - a driver of demand.....	154
Figure 6. 5: Demand Assessment by the Landlords.	171
Figure 6. 6: Landlords' experiences with Land-use Laws	196
Figure 6. 7: Contracts and conflict resolution	197
Figure 6. 8: Source of Finance for the Existing Landlords	207
Figure 6. 9: The relationship between housing finance systems and the rental housing market.....	208

Figure 6. 10. Profitability, Risk and Liquidity of Rental Housing.....	226
Figure 6. 11: Experiences on the Performance of Rental Housing as an Investment..	227

List of Tables

Table 3. 1: Components of Rental Investment Cash flows	66
Table 4.1: GDP, Lending Rates and Inflation over a ten-year period in Kenya.....	78
Table 4. 2: Administrative units in Mombasa.....	83
Table 4.3: Population Trend in Mombasa in Mombasa.....	86
Table 4. 4: Estimated Households in Mombasa.....	87
Table 4. 5: Percentage Households per Study Area.....	87
Table 4. 6: Categories of Residential Classes within Mombasa City.....	89
Table 4. 7: Lower-Middle Income Residential Areas under the Study.....	90
Table 4. 1: Percentage Distribution of Housing Supply and Demand.....	96
Table 4. 9: Affordable Housing Typology and Average Sizes in Mombasa.....	98
Table 4. 10: Rental values in the study areas (in Ksh).	98
Table 4. 11: Housing Delivery Framework and Actors in Kenya	102
Table 4. 12: Development Approval Process	107
.....	107
Table 4. 13: Mortgage Accounts in Kenya between 2006 – 2018	110
Table 4. 14: Prevailing Mortgage Lending Conditions in Kenya	111
Table 5. 1: Research assumptions and various research paradigms.....	122
Table 5. 2: Interrelationships between housing research, the critical realism domains and the conceptual framework.....	125
Table 5. 3: Alignment of methodology to research objectives	129
Table 5.4 Target Population and sample size.....	134
Table 5. 5: Data sources, types, tools of collection.....	136
Table 5. 6: Interview Respondents	137
Table 6.1: Respondents' Profile.....	142
Table 6. 2: Tenants' Sample Distribution and Response Rate	142
Table 6.3: Landlords' Sample Distribution.....	143
Table 6. 4: Distribution of Household Heads by Gender.....	145
Table 6. 5: Tenants' Education Profile.....	145
Table 6.6: Household Heads by Age	146
Table 6. 7: Household size	147
Table 6. 8: Household incomes	148

Table 6. 9: Distribution of Tenants' House Occupation by Size.....	150
Table 6. 10: Duration of Tenancy	152
Table 6. 11: Rental expenditure by the tenants	153
Table 6. 12: Tenant's experiences on rent – affordability indicator.	154
Table 6.13: Tabulation of household size and size of house	156
Table: 6.14: Relationship between income level and household rent per month.....	156
Table 6.15: Ordered Logistic Regression on Influence of Household Size and Income on Size of the House.....	157
Table 6.16: Dominance Analysis of Household Size and Income Level in Predicting Housing Size	158
Table 6. 17: Landlord's Experiences on Demand for Rental Housing Units.....	171
Table 6.18 Development approval process projected and actual time and costs.	185
Table 6.19: Regulatory Framework	198
Table 6.20: Summary Table for Performance of Multi-dwelling Units	213
Table 6.21 Logistic regression for rent NPV.....	215
Table 6.22 Logistic Regression for Sale NPV	216
Table 6.23: Average Unit Change Output	216
Table 6.24: Summary Table for Performance of Single-dwelling Units.....	217
Table 6.25 Logistic Regression for Rate NPV yield	219
Table 6.26: Logistic Regression for sale NPV.....	220
Table 6.27: Average Unit Change Output	220
Table 6. 28: Order of Significance of Performance Indicators	226

List of Abbreviation

ANOVA - Analysis of Variance
ASAL - Arid and Semi-Arid Lands
CAHF- Center of Affordable Housing Finance
CBK- Central Bank of Kenya
CGM - County Government of Mombasa
DCLG - Department for Communities and Local Government
EU - European Union
GDP - Gross Domestic Product
GLA - Greater London Authority
GNP - Gross National Income
GoK - Government of Kenya
HDS - Harvard Design School
IAD - Institutional Analysis and Development
IRR - Internal Rate of Return
IRS - Internal Revenue Service
ISUDP - Integrated Strategic Urban Development Plans
JCHS – Joint Center for Housing Studies
KASP - Kenya Affordable Shelter Project
KNBS - Kenya National Bureau of Statistics
KRA - Kenya Revenue Authority
KRA - Kenya Revenue Authority
LIHTC - Low-Income Housing Tax Credit
LTV - Loan to Value
MFIs - Microfinance Institutions
NACHU - National Cooperative Housing Union
NCA - National Construction Authority
NCA - National Construction Authority
NEMA - National Environment Management Authority
NGOs - Non-Governmental Organizations
NHC - National Housing Corporation
NIE - New Institutional Economics
NKIF - National Kenya Investment Fund
NPV - Net Present Value

PPP - Public-Private Partnership

RoK - Republic of Kenya

SGR - Standard Gauge Railway

UDZ - Urban Development Zone

UK - United Kingdom

UNCHS - United Nations Center for Human Settlements.

US - United States

WRMA - Water Resource Management Authority

Publications arising from this thesis

Olonde V. O; Mooya M.M; and Rajaratnam, K (2018) Rental Housing Market Failure: A New Institutional Economics Perspective: *A Conference Paper Presented at the 10th Construction Industry Development Board (CIDB) Postgraduate Conference in Port Elizabeth, South Africa. 25-27 February 2018.ISBN.*

CHAPTER ONE

1.1 Introduction and Background of the Study.

The significance of housing to human life cannot be over-emphasised, and provision of affordable housing to the urban population represents one of the main challenges that has confronted most governments for a long time (United Nations[UN], 2014 ; Mayo et al., 1986). This has been occasioned by the rapid urbanization the world has experienced during the period (Moko & Olima, 2014).

Empirical evidence shows a varying timing and pace of urbanization in both advanced and third world countries (Köhn & Pischke, 2011). According to World Bank indicators, by 2018, the urban dwellers comprised about 55% of the total world's population, with 40% in Sub-Sahara Africa. Further projections indicate that more than two thirds of the world's population will be residing in urban areas by 2050, with the growth mainly concentrated in African and Asian cities (Roberts & Kanaley, 2006; United Nations, 2014). For instance, Africa has an estimated annual urban population growth rate of 3.5% (World Bank Group [WBG], 2017). In Kenya, the World Bank data shows that the urban population comprised 26% in 2016, with an average annual growth rate for the last 10 years of about 4%. The populations of Nairobi, the capital city of Kenya and Mombasa, the second largest city are approximately 33% and 10% of the urban population respectively (Kenya National Bureau of Statistics [KNBS], 2018a).

The rapid urbanisation has stretched the need for housing and consequently, urban housing problem has become a global phenomenon (Moko & Olima, 2014). Housing deficiency is however more prominent in the developing nations and has escalated to unprecedented levels. This has created a large fraction of slum dwellers living in urban areas without authorisation and property rights (Mashoko, 2012). The World Bank statistics show that less than 10% of the population in many of Africa's cities and towns live in formal housing (WBG, 2017). The main cause for housing problem is that it is an intrinsically costly commodity whose investment entails a substantial capital outlay. This feature of housing has implications on both supply and demand perspectives. From demand side, only a few households can afford to own a house due to the high capital requirement associated with housing acquisition (King, 2001). Similarly, supplying housing requires large financial outlay and the ability to navigate the complex institutional terrain associated with housing development.

Therefore, affordable housing delivery has become a key concern in the housing domain (Centre For Africa Housing Finance[CAHF], 2011; Buckley & Kalarickal, 2005; Shlomo, 2000). Indeed, affordable housing delivery has remained a conventional and significant problem in many countries. However, greater focus has been on the developing countries, and specifically at the lower-income segment of the urban populace since this is the most affected (Schwartz, 2010; Buckley & Kalarickal, 2005; Mayo, Malpezzi & Gross, 1986).

The resolve to unravel the affordable housing problem can be demonstrated by the significant attention housing discourses have attracted in both global and local arena. This can be evidenced by the previous United Nations forums at Habitat I conference in Vancouver in 1976, Habitat II in Istanbul in 1996, and still, housing featured prominently as a key issue in the Sustainable Development Agenda that was ratified at Habitat III in 2016 in Quito, Ecuador. The main objective of these fora has been to create significant policy interventions aimed at enhancing affordable housing delivery (United Nations, 2014; UN-HABITAT, 2003). Despite all these initiatives, affordable housing problem in the developing nations still remains unabated.

In the Kenyan context, the housing sector has undergone significant transformation in the years preceding independence and immediately after. Evidently, the first Housing Policy for Kenya as articulated in 1965/66 in Sessional Paper No.5 had a lasting objective of guaranteeing every household access to decent home. This was to be achieved through active involvement of the government in direct provision of housing through its parastatals or quasi-government institutions, local authorities, civil service housing, and the National Housing Corporation (NHC), which was, and still remains the state housing agency. In fact, for more than two decades, the NHC was the market leader in the housing industry, responsible for the development of government run and managed public housing. The NHC and local authorities developed and managed public housing, while the central government offered supplementary housing to public sector employees (Mutero, 2007).

The Structural Adjustment Programs (SAPs) in the 1980s triggered the current urban housing crisis when the government withdrew from direct housing provision and instead, focused on an enabling role through formulating policies and offering incentives to the private sector (Government of Kenya[GoK], 2010a ; Okonkwo, 1998). This implied that the private-sector was to be involved in direct provision of housing, but, since it is profit-driven, it became averse to housing ventures with lower returns as compared to the ones

in the middle- and high-income segments that gave higher returns. This resulted in a chronic undersupply of affordable housing in the lower-end market segment and rental units. Since then, provision of adequate and quality affordable housing to the urban populace has remained one of the major challenges facing the Kenyan government.

There were also initiatives mainly spearheaded by the World Bank and other international development agencies such as United States Agency for International Development (USAID) but nothing much was achieved in terms of affordable housing. For instance, the 'site and services' scheme which entailed delivery of affordable housing to the poor through provision of serviced plots for incremental housing development. The beneficiaries of the plots were expected to invest progressively at a pace that was conducive to their individual circumstances. The schemes were designed for the low-income families who had some savings and desirous of formal housing in urban areas. The services mainly comprised sanitary and community amenities. However due to failure to yield the desired results, the initiative was abandoned (Owens, Gulyani & Rizvi, 2018; Buckley & Kalarickal, 2006)

Even though the subsequent housing policy in Kenya as detailed in Sessional Paper No. 3 of 2004, together with Article 43 (1) (b) of the Kenyan Constitution promulgated in 2010, underscore the provision of adequate and good quality housing in a sustainable environment as key, nothing significant has been achieved. Nevertheless, affordable housing delivery has continued to remain a key target for the Kenyan government as demonstrated by the implementation of the Third Medium Plan towards realization of Vision 2030 which has been conceptualised by President Uhuru Kenyatta as 'the Big Four Agenda' in which affordable housing has been identified as one of the key pillars (GoK, 2004; GoK, 2018).

There have been various strategies by the government aimed at alleviating affordable housing problems. However, just as evidenced from many other studies, idolisation of home-ownership has emerged as the dominant ideology surrounding the quest for housing solution (Buckley & Kalarickal, 2005; Keivani & Werna, 2001; Malpezzi, 1994; WBG, 1993). The failure of the home-ownership strategy to offer housing solutions has however resulted in a common belief that governments should reconsider the longstanding objective of home-ownership and seek new strategies for expanding the supply of quality affordable housing (Gilbert, 2016; Peppercorn & Taffin, 2013; Walley, 2011; UN-HABITAT, 2003; United Nations Centre for Human Settlement[UNCHS],

1993). However, alternative modes of housing provision especially private rental and social housing have conspicuously been ignored by the successive policies despite the integral role they play in the overall housing market.

This research therefore, aims at exploring the institutional environment, to find out what has hindered the delivery of adequate affordable rental housing despite high demand and, how rental sector can be promoted as a viable housing option among the urban dwellers. This is in a bid to find scalable solutions to the prevailing housing crisis, since home-ownership for everyone is neither possible both in monetary and economic terms, nor preferable for all households. The study thus rides on the maxim that '*not everyone can be a home-owner*', and takes cognisance of the existing housing challenges, the current housing policy objectives, and the rapid rate of urbanisation.

1.2 The Concept of Affordable Rental Housing

Delivery of affordable rental housing has become a significant concern within the housing sector in majority of countries (Fallis, 2003). However, a precise definition of affordable housing concept has not been achieved. As pointed out by Edson (2010), it is ironical that a clear-cut definition of affordable housing has remained "ambiguous" despite substantial discourse on the subject. The lack of convergence on the definition is due to the fact that affordable housing is a contested concept where various groups strive to provide their own meanings and solutions to the issue. For instance, some of the existing literature reveals that unlike the developed countries, most governments in the developing world have failed to define affordable housing in the context of policy (Glaeser & Gyorko, 2008; Stone, 2006, GoK, 2004).

Nevertheless, even in the developed countries where affordable housing is defined in policy context, it is worth noting that key elements differ from country to country. For instance, in the United States of America (USA), a unit is considered affordable if the maximum allowable cost or rent does not exceed 30% of the income for the households earning less than 50% or 60% of the median income in the respective states (Desai, Dharmapala & Singhal, 2008). In New Zealand, the housing policy defines affordability as a notion that provides reasonable rent or cost of housing in relation to the income. This comprises the rent or cost of housing which leaves the household with enough income to cater for other basic needs. Similarly, in Australia, housing affordability entails the ability of the households to pay rent or buy a house in an area of their choice at a reasonable price and still remain with adequate income to pay for other necessities (Hawtrey, 2009).

Consequently, the foregoing definitions depict a consensus that housing affordability revolves around the rent or cost of housing and the household's income (Carliner & Marya, 2016; Stone, 2006; Hulchanski, 1995; McCarrill & Griffin, 2012). The relationship of housing cost to income forms the general basis for assessing housing affordability, and therefore, how the income for households is defined, measured, and distributed is key to the analysis of housing affordability, tenancy decisions and the physical features of the housing demanded (Carliner & Marya, *ibid*). The widely used standard measure for housing affordability assessment is based on a simple *rule of the thumb* ratio of 25-30% of income to housing expenditure (Stone, 2006). Consequently, the relationship between the housing rents or prices and the capacity of the households to pay for the housing is central to achieving the required quantity, quality as well as distribution in housing (Whitehead, 2007). In this regard, affordable rental housing can generally be described as comprising housing units whose rent is proportionate to the overall income levels of the households and, do not threaten their other basic needs (Maclennan & Williams, 1990). The notion of affordable housing thus identifies the needs of the low and moderate-income households who cannot comfortably access suitable housing through market mechanisms without support (Milligan & Pinnegar, 2010).

Normally, affordable rental housing discourse is often intertwined with affordability concept (Stone, 2006). This is because housing affordability has become a regular feature for defining the nature of housing problem in various countries and has been commonly used over the past decades (Hulchanski, 1995). Therefore, affordability concept becomes the key to understanding the background of affordable rental housing. Nevertheless, Stone (*ibid*) explains that affordability is not a characteristic of housing as such, but only portrays the relationship between housing and households. In this context, a fundamental three-dimensional question arises as 'to whom is the housing affordable, on what standard of affordability and for how long?' To this extent, it is important to clarify that housing affordability is different from affordable housing. This is because while the latter relates to a standard, the former is usually an indicator (*ibid*).

It is nonetheless pertinent to note that, of great interest to this study is the affordable rental housing sector. Therefore, the affordable rental housing referred to in this research is with regards to both private rented housing which meets affordability attributes to the low-income households and social housing. The distinction between social and affordable private rental housing often becomes blurred since they are both associated

with the low-income households. Yet, a number of authors have demonstrated that the dichotomy between the two is clear. For instance, as explained by Lowe (2007), generally, social housing falls within the wider context of affordable housing, but, the former has traditionally been associated with 'publicly-owned, public or community rental housing' and is usually construed to be government's or non-profit sector organisations' modes of fostering its social security obligation. Haffner(2009) further clarifies that the social rental housing usually targets particular vulnerable households, and allocation is carried out through non-market measures, using some sets of administrative procedures. Hence, social housing is sometimes referred to as subsidized housing in which allocation and management are done through selected organizations which are appointed and approved by the government (Abelson, 2009).

On the other hand, affordable private rental housing can be described as private sector rental housing whose access is subject to demand, which is subsequently determined by the capability to pay. Thus, in terms of affordable private rental housing, the primary determinant of access is the ability to pay the rents which are determined by market forces in a process that is regulated by government laws. However, Haffner (2009) opine that the most important factor in distinguishing between social and affordable private rental housing is the mode of allocation. Therefore, the key questions to address relate to which households can access the units? How the landlords and tenants connect with each other? And, how the rents are set? Analysing these factors draws two main categories comprising market led and non-market allocation. Therefore, allocation of affordable private rental housing is based on market forces, and it serves the entire populace depending on demand and the ability to pay, while in social housing, allocation is mainly need based and targets special interest groups. The common denominator between the private rental and social housing is their inclination towards affordable rental housing as opposed to home-ownership. In spite of this, the context of social housing has recently widened beyond the eligibility criteria identity to include market-oriented affordable rental housing delivered by community organizations or other private institutions (Hughes & Lowe, 2017).

1.3. Preliminary Literature Review and Gaps

There is a considerable amount of literature on affordable housing delivery in the developing countries. The bulk of studies and literature mainly emanate from World Bank Group, UN-Habitat and their associated housing experts. Evidently, most developing countries are still grappling with how to meet affordable housing provision targets in the face of severe shortages.

As explained by a number of studies (UN-HABITAT, 2008; Malpezzi & Sa-Aadu, 1996; Mayo, Malpezzi & Gross, 1986), rapid urbanisation has remained the greatest challenge towards alleviating urban housing problems by most governments in the developing nations. Malpezzi (2001) expounds that the ability to find a suitable strategy has further been inhibited by failure to understand how the urban economy operates, which has consequently resulted to inappropriate and inequitable policies and programs.

An examination of housing systems in the developing countries reveals that initially, the strategies involved government as the primary player in housing provision. As such, they greatly emphasised on strong government control in the housing delivery process from land acquisition and design stage to construction and maintenance of the housing estates (Mayo, Malpezzi & Gross, 1986). This was done through various government institutions and local authorities. The common strategies implemented by the developing countries included public housing schemes, site and service schemes, slum clearance, and slum upgrading (Ayres, 1983). Public housing schemes largely benefited the civil servants during the 1960s period; while site and service schemes was based on the recognition that housing delivery through private sector was unaffordable to most urban dwellers and therefore self-help and self-manage scheme programs could reduce the cost of housing (WBG, 1993).

The subsequent policies were founded on neoliberal principles and envisaged the government involvement in housing delivery as an enabler. Purposely, the fundamental idea of the '*enabling strategy*' was to expand the role of private markets for the entire housing sector development as opposed to reliance on project-oriented strategies '*such as sites and services and settlement upgrading programs*' (Keivani & Werna, 2001). The enabling strategy therefore promotes active involvement of the private sector in housing development, funding and production of building inputs.

On the other hand, government intervention is still essential for creation of enabling environment under which housing markets operates; through formulation of the required

legal, regulatory and economic framework for the formal private sector to operate; and ensuring the ease of access to housing supply components such as land, infrastructure, workforce, building materials and technical assistance (Arku, 2009). Essentially, it is postulated that the enabling policies were mainly aimed at making the markets to function efficiently in developing nations, which was to be achieved through adjustment of supply and demand in a free market, and the development of land and housing market institutions to enable them subjugate outward restraints (Keivani & Werna, 2001).

The notion of the enabling approach has nevertheless attracted considerable debate and disapproval because it mainly emphasises on efficient operation of the formal housing market, with the main aim of promoting home-ownership and security of tenure. The approach evidently excludes alternative modes of housing provision such as rental housing, despite home-ownership remaining unaffordable through both formal and informal delivery strategies.

Evidently, rental housing received little consideration in the successive policies. But with data showing that home-ownership strategies alone have failed to satisfy housing needs for the urban dwellers, policy makers have had to rethink housing delivery approaches. Rental housing has thence received growing attention upon realisation of its potential as a core element in the affordable housing strategy (UN-Habitat, 2011). Nevertheless, the realisation has not yet been accompanied by significant policy realignment and institutional framework to support rental housing delivery.

As noted by Peppercorn and Taffin (2013), in any given country, there exists a category of households who may not afford home-ownership either through outright purchase or mortgage, or simply through preferring renting by choice. The growth of the rental housing market is significantly influenced by a country's regulatory framework and the ability to mobilize capital from investors. Rental markets have the ability to augment the worth of housing resource and help in realizing incomes from housing wealth (*ibid*). Rental housing is also considered cheaper in the sense that it lessens the burden of lump sum payment and long-term financial commitment associated with home-ownership (UN-Habitat, 2001).

Even though rental housing had been explicitly ignored in most housing strategies in developing countries as noted by Gilbert (2009), evidence from the developed countries show that a wide range of policies have been used to deliver affordable rental housing (Lawson, Hamilton & Pawson, 2014). However, as explained by other studies, the

common feature exhibited by affordable rental housing in most developed countries is their inclination towards social housing strategy (Whitehead & Scanlon, 2007; Kemeny, 2005).

Besides the limited rental housing literature from the developing world context, a number of existing studies have identified the failure of governments to embrace rental housing in the housing policy frameworks (Watson & McCarthy, 1998; Cadstedt, 2010). The studies have further underscored that rental housing is in fact the dominant tenure choice for the urban dwellers of cities in many developing countries. However, these studies focus on the urban poor in informal settlements. A clear demonstration of home-ownership preference for instance is in Tanzania, where *'the government has concluded that home-ownership is the norm and it regards private rental tenure as a private matter'* (Cadstedt, 2010:46).

Cadstedt (2010) also notes that household in the low-income settlements are not homogeneous in terms of various socio-economic aspects which need to be taken into considerations so as to satisfactorily match the diverse interests in policy frameworks. However, Watson & McCarthy (1998) and Cadstedt (*ibid*) recommend incorporating of rental sector in the national housing policy but fail to provide a framework for the same.

Sani and Gbadegesin (2015) examined the nature of private rental housing market in Kaduna Metropolis, Nigeria. Even though their study inclines towards the management aspect of rental housing, it underscores the need to appreciate the rental housing systems and dynamics and recommends formulation of operational regulatory and legislative framework for rental housing.

Studies in Kenya reveal similar scenario as in most developing countries, where the universal philosophy of creating enabling environment for home-ownership has remained key (Okonkwo, 1998; Macoloo, 1994). Evidence from these studies indicate that most of the proposed housing solutions are primarily anchored on the conventional financial systems, which somehow do not favour rental housing development.

An examination of the Kenyan housing policy reveals that rental housing is not explicitly stated in the policy objectives, and only ambiguously appears in Clause 25 (c) under urban housing as *'encouraging construction of rental housing'*, without any further reference to proposed framework or policy statement regarding the same (G.o.K, 2004). Mwangi (1997) studies the nature of Kenyan rental housing and notes that the informal rental sector had been growing at a faster rate compared to the formal one. However, the

study only analyses data from secondary sources, and appreciates the complexity of rental housing tenure in Kenya due to involvement of various stakeholders; and therefore, stresses the need for extensive empirical study for meaningful conclusions about the rental housing sector to be arrived at (*ibid*).

A study by Gulyani and Talukdar (2008) examines the informal rental housing market and finds out that even though the housing units delivered through informal sectors are likely to have a myriad of challenges in terms of structural quality, security of tenure and basic amenities, ironically, the tenants are paying high rents for the poor-quality housing, hence failing to get value for their money.

From the foregoing literature overview, four key issues immerge as weaknesses and gaps to be explored through further studies. Firstly, most housing policy frameworks primarily focus on home-ownership. Emphasising on home-ownership is rather prescriptive and limiting in terms of tenure choice. Cognizance of the existing inequality in the housing market calls for a housing policy pursuing a balance of tenure selections through incentives that support market segments to the requirements and capabilities of consumers. Therefore, a well-functioning housing system should integrate both home-ownership and rental housing strategies comprising both private and social rental housing, since not everyone can own a house either by choice or constraint.

Secondly, research specific to rental housing in developing countries is limited (Sani & Gbadegesin, 2015). But, for appropriate comprehension of the actual problem and formulation of viable solutions for the same, there is a necessity for country specific empirical studies on rental housing, taking cognisance of different market segments. This view is supported by Peppercorn and Taffin(2013) observation that understanding of how the actual housing market operates is critical to formulation of adequate and equitable housing strategy that addresses legislative, contractual and fiscal framework of specific countries' markets.

Thirdly, available studies mainly focus on, and generalise low-income households. However, this generalisation fails to recognise and identify the existing latent submarkets within the low-income household cluster and can most likely lead to a false assumption that the low-income households have weak ability to pay rent for housing. While the inability clause is true for the very poor urban dwellers at the bottom spectrum of the population, households at the top layer of low-income or the bottom of the middle-income cluster, occasionally referred to as '*intermediate market or lower-middle income*

households' (see figure 1.1) often find monthly rents to be affordable but are only unable to afford the lumpsum and huge monthly premiums payments associated with mortgages for home purchase. To understand housing needs for the low-income market, it is thus appropriate to differentiate its constituent submarkets and carry out analysis based on the factors intrinsic to them.

Lastly, the existing studies have identified that urban housing problem is mainly due to policy inclination towards home-ownership which consequently leads to undersupply of affordable and good quality rental housing by the developers. Consequently, the studies have recommended inclusion of rental housing option in housing strategies. However, no empirical study has gone beyond to provide reasons for neglecting rental housing sector or proposed a framework through which rental housing delivery can be enhanced. In other words, the existing studies have only answered the question as to *WHAT* is the problem and its observable causes. This study goes beyond to empirically investigate the underlying reasons for the problem, that is, *WHY* the situation exists, and *HOW* various market and institutional factors influence such outcomes, and further explores the probable way forward on *HOW* the affordable and quality rental housing problem can be resolved.

1.4 The Problem Statement.

Kenya has experienced marginal and sporadic investment in the formal housing sector since independence (Okonkwo, 1998; G.o.K, 2004; G.o.K, 2018). As such, affordable housing delivery has continued to be a significant challenge in the country. The Kenyan government estimates urban housing deficit at about 2 million, with annual demand of about 200,000 units. On the other hand, the annual urban housing delivery is estimated at 50,000 units, culminating to a deficit of 150,000 units per year (World Bank, 2017). Further, it is estimated that 83% of the prevailing housing delivery serves the upper-middle and high-income population, 15% lower-middle income and 2% lower income segments (*ibid*). This evidence is suggestive of a mismatch between demand and supply of urban housing with the deficit mainly affecting the lower income segment. Mombasa housing market exhibits similar trends. For instance, a household survey carried out in Mombasa by County Government of Mombasa [CGM], 2015) indicates that while the estimated demand for the lower-income housing is 48% of the total housing demand, 35% for the lower-middle income, and 17% for the upper-middle and high-income. Ironically, a paltry 2% is produced for the lower-income, 15% for the lower-middle income,

while over 80% for the upper middle and high-income. Considering that the urban poor comprising 48% of the total housing demand predominantly reside in the informal settlements, the housing demand for the middle-lower income households still remains at 35% compared to 17% upper-middle and high-income households (who are mainly home-owners). To a greater extent, the lower-middle income households are generally associated with rental housing, albeit with ability to pay as opposed to the urban poor who have affordability challenges. As such, it can be construed that the substantial housing demand by the lower-middle income households naturally implies demand for rental housing. In fact, World Bank statistics show that a substantial proportion of the Kenyan urban populace reside in rental housing. For instance, the data show that about 80% of the urban populations live in rental housing while only 20% are under owner-occupier tenure. This implies that rental housing dominates the urban housing sector, a fact that is corroborated by Walley (2011) who observes that the trend is as a result of unaffordability of home-ownership to the low-income households.

Studies have demonstrated a rental housing market which is less attractive to the developers. One such study is an empirical investigation within Nairobi city conducted by Gulyani and Talukdar (2008) which illustrates a demand side that was paying high rents for poor quality housing on one hand, and private developers/investors who are not keen to develop rental housing on the other hand. These scenarios present a notable contrast in the rental housing demand-supply matrix that is worth investigating. The evidence of reluctance by the developers/investors to deliver sufficient good quality rental housing against the indication of high demand and high rents paid for the housing stock, provides a viable puzzle and clearly generates an interesting platform to launch this research.

Ordinarily, in a functional housing market, the demand for a good, coupled with high prices should attract more supply other factors remaining constant. Similarly, the demand for rental housing within the lower-middle income segment ought to have corresponding supply. However, the property developers have continued to concentrate their activities in the high and upper-middle income markets which is predominantly for home-ownership since these population segments are able to purchase homes either through their incomes or mortgages. On the other hand, affordable rental housing segment is not only deficient of good quality units but is also characterised with high prices in relation to the housing quality, hence many tenants do not get value for money.

Suffice it to say, the preceding evidence reveals three interconnected issues of interest

with regard to the lower-middle-income rental housing market in Kenya, that is, quantity, quality and affordability of the rental housing stock in Kenya. Based on these issues, the key preliminary questions for this study revolve around: the status of the rental housing market in Kenya (**what**); the private developers /investors aversion to undertake rental housing development despite high demand (**why**); the influence of the housing market activities on the outcomes in the rental sector (**how**); and the reluctance by policy makers to embrace rental housing despite the reality that home-ownership cannot accommodate everyone (**why**).

The '*high demand-high rent verses low supply- low quality puzzle*' is the subject of investigation. Therefore, for a comprehensive understanding of the research problem, the fundamental question to be answered is why has there been inadequate supply of good quality affordable rental housing despite the high demand and prices? Precisely, this research is more inclined to the supply-side of the rental housing market and consequently, it seeks to address the following specific questions:

1. To what extent does the institutional framework enable or constrain supply of affordable rental housing in Kenya?
2. How does the financial system relate to the rental housing market?
3. How is the performance of rental housing as an investment as compared to housing development for sale?

1.5 Research Objectives and Hypotheses

The main objective of this research is to critically examine the rental housing market in Kenya and determine why despite the high demand for affordable rental housing, there has not been a corresponding supply of adequate good quality housing units. The specific objectives are as follows:

1. Assess the status of demand for affordable rental housing in Kenya.
2. Evaluate the extent to which government policy provisions enable or constrain rental housing supply in Kenya.
3. Evaluate the extent to which the institutional regulatory and legal framework enable or constrain supply of affordable rental housing in Kenya.
4. To investigate how the housing finance system relates to rental housing market.
5. To assess the performance of rental housing as an investment as compared to housing development for sale.

To realise these objectives, this research has been guided by the following working hypotheses:

1. The **institutional framework** within which the housing market operate is more supportive of home-ownership than rental housing therefore resulting to **low supply of affordable rental housing**.
2. **The Housing finance system** has not been supportive to rental housing market, hence, resulting to **low supply of affordable rental housing**.
3. The **performance of rental housing market** has been lower compared to housing development for sale hence resulting to **low supply of affordable rental housing** by the developers.

1.6. Theoretical Framework: An Overview

The main objective of this research is to critically examine the rental housing market in Kenya and determine why despite the high demand for affordable rental housing, there has not been corresponding adequate supply of good quality housing units. The problem in the rental housing sector has been conceptualised as a market failure perspective.

Markets play a pivotal role in driving economic activities, and in an ideal situation is expected to ensure optimal allocation of resources through price mechanism (Hammond, 1998). However, when the mechanism fails to distribute the resources efficiently or when the market processes hurt social benefits, then the market is deemed to have failed (Bator, 1958).

Much of the market analysis has been based on the neoclassical economic theory (MacKenzie, 2002). Neoclassical economics assumes a market based competitive economic system with the cardinal principles being equilibrium, utility maximisation, and market certainty. Therefore, through the neoclassical lenses, an equilibrium is achieved through optimal outcome (Borooah', 2003). In other words, market efficiency is measured by attainment of equilibrium compliant with Pareto Efficiency. But in reality, a number of factors hinder achievement of the equilibrium (Bator, 1958). Borooah' (*ibid*) identifies a number of reasons for market failures. Some of these factors include externalities, information asymmetry, imperfect market, and 'public good'.

Analysing the housing market through the neoclassical economics perspective has provided considerable empirical revelation about the market anchored on the notion of competitive market and utility maximization, and attainment of equilibrium price or rent

which results from the interaction between the forces of demand and supply (Luithlen, 1993). Adjustment of prices due to the interaction of market forces as conjectured in neoclassical model therefore remains a significant theoretical foundation for making property investment and development decisions (Eggertsson, 2013).

Ideally, through the lenses of neoclassical theory, housing as an economic commodity should respond to the market forces of demand and supply. However, housing, unlike other goods exhibits peculiar attributes namely durability, heterogeneity and spatial fixity (Fallis, 1985). Analysis of housing market within the neoclassical context can therefore be challenging without adjustment (Dubel, Brzeski & Hamilton, 2006). The idiosyncratic nature of the real estate market negates the equilibrium principle, which is deemed necessary for stability, certainty and convergence of market outcomes (Bovaird, 1993). It is therefore posited that neoclassical thinking is not the best tool to understand housing market failure since it ignores the institutional arrangement operating within the market (Smith 1978). Consequently, for a better understanding of housing market, it is prudent to apply a more relevant theory with the ability to sufficiently interact with salient features of the housing market and competently interrogate the elements of the institutional arrangements which lead to market failure in housing sector.

The emergence of New Institutional Economics (NIE) theory provided a framework to cover the weak links identified in the neoclassical economics (Williamson, 2000). The concept of institution is important in understanding how markets work, since markets operate within certain institutional frameworks. Indeed, to understand why markets fail, knowledge of the relevant institutions and how they facilitate economic activity remains significant. However, it is important to note that 'institutions' in the NIE framework have a more complex meaning and are not entirely comparable to 'organisations' (government agencies). Institutions are regarded as humanly devised constraints to structure human interactions (North, 1990). These consist of both formal rules (laws and regulations) and informal institutions (norms culture and codes) (Eggertsson, 2013).

NIE has three main theories that are relevant in analysing market failure, namely; institutions, transaction costs and property rights (Eggertsson, 2013). Institutions have certain 'rules of the game' and it is important for instance to understand how the game is played and the relevance of the institutions in the rental housing market. NIE recognises the power of these institutions and regards them as '*legitimate objects of economic analysis*' (Furubotn and Richter, 1984:2). Transaction costs also have significant impact

on the market, and when very high can lead to market failure. Transaction costs basically comprise expenses incurred directly, along with any incidental market ineffectiveness and the resultant misallocations. NIE recognition of transaction cost is a great departure from the neoclassical approach which assumes equilibrium devoid of the costs. Property rights also have a major influence in the housing market as different types of tenure have different economic implications. Property rights generally comprise the bundle of entitlements of an individual rights, privileges and limitations over use of a particular resource. Therefore, through the three concepts, NIE provides appropriate tool to analyse market failure (a comprehensive discussion on the application of NIE theory to housing market analysis is found on chapter two of this thesis).

By and large, the NIE, recognises the principles of neoclassical economics but emphasises on advancing the scope of the mainstream theory considering the features that were hitherto ignored in the system (Furubotn & Richter, 1984). Therefore, cognizant of the complexities inherent in the housing market and the diverse nature of stakeholders, it is pertinent to understand both written and unwritten norms and laws that influence behaviour of the actors and incorporate such in the analysis model. In this context, the New Institutional Economic theory provides an appropriate framework for the analysis and understanding of rental housing market failure.

1.7. Research Methodology: A Synopsis

This study utilises mixed-methods research design where both qualitative and quantitative research approaches have been employed. It includes a combination of cross-section survey of target tenants; and interviews of landlords, developers and other key informants from the relevant public and private sector stakeholders.

This research has relied on both primary and secondary data. Semi-structured interviews and questionnaires have been used in collecting primary data whereas documentary analysis for obtaining secondary data. Additionally, the study has employed an empirical analysis in comparing the performance of rental and housing development for sale, as well as independent observation of the researcher to capture some intrinsic information within the study areas. This study focuses on and private developers within Mombasa city; tenants and landlords from the sampled settlements/estates; and key informants from among the stakeholders with interest in housing, coming from both public and private sectors. They have been drawn from State Department of Housing; National

Housing Corporation; the Kenya Revenue Authority; the County Government of Mombasa (CGM); financial institutions in Kenya; the UN-Habitat; and private housing experts.

Thematic analysis has been adopted in qualitative data analysis where data management and organisation have been supported by the use of NVIVO 12. Quantitative data analysis involves the use of descriptive and inferential statistics. For this purpose, the statistical Package STATA and R have been used. Inferential statistics including but not limited to independent samples t-test, ordered logistic regressions and analysis of variance (ANOVA) have been calculated with the help of the aforesaid software. The analysed data has been presented in narrative form backed with tables, figures and charts- predominantly divergent stacked bar plots to illustrate the distribution of LIKERT item responses. A detailed discussion on the methodology is found in chapter five of this thesis.

1.8. Scope of the Research.

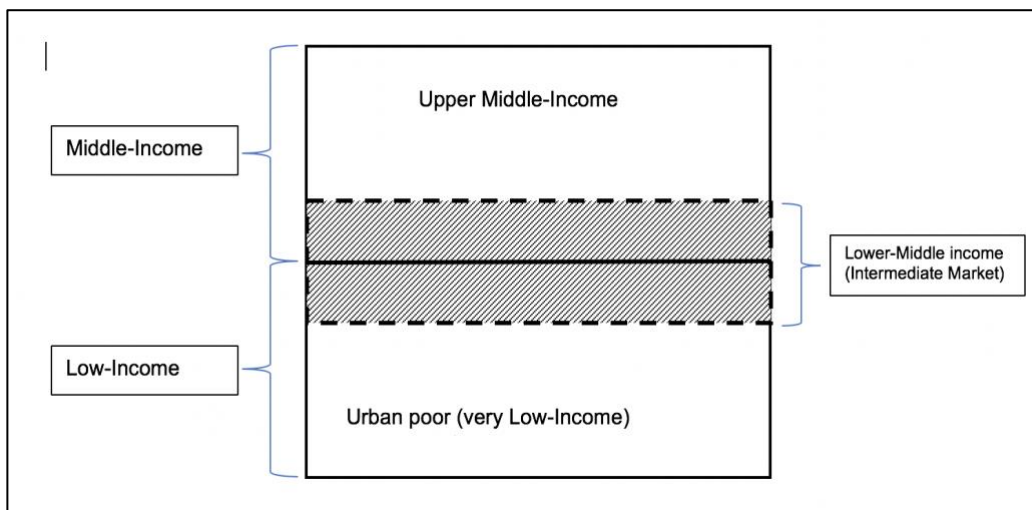
The research area is Mombasa city, which is the second largest in Kenya. Mombasa shares many of the characteristics with other cities in Kenya, and the developing world. As such, there is an expectation that lessons from this research are most likely to be applicable in similar contexts.

This research focuses on the lower-middle income market segment where the housing problem is predominant. Demand for rental housing in Kenya is rapidly expanding with growth of population and particularly the bulge of the lower-middle-income segment of the population. Ordinarily, this population segment is not able to buy houses but find renting more affordable. However, the housing problem affecting this segment of the population has consistently been ignored by previous studies which have tended to lean mainly towards the very low-income households, also referred to as the urban poor at the bottom spectrum of the population, with weak ability to pay rent. The lower-middle income households are considered to be at the top layer of low-income or the bottom of the middle-income clusters commonly known as the 'intermediate market' (see illustration on Figure 1.1). They have the ability to pay rent but cannot afford the high monthly premiums associated with mortgages. The segment is more inclined to formal setup as opposed to informal settlement. Therefore, in terms of formality, the scope of this study is limited to developers and landlord in the formal rental housing market. This implies housing development with valid legal titles, decent structures that conform to the local authorities'

development control requirements and have the ability to be used as collateral for a long-term mortgage financing.

The main interest of this research is the affordable rental housing which comprises private-rental owned and managed by private individuals or entities within definite affordability benchmarks. Therefore, the affordable rental housing referred to in this research is with regards to private rented housing which meets affordability attributes of the low-income households. Simply put, the affordable rental housing indicated in this study connotes the formal private rental housing, which is viewed as the residue after considering owner-occupied units, public rental housing, and the conventional social housing.

Figure 1.1. Target population



1.9. Justification and Significance.

The justification of this research is based on the current global discussion on Sustainable Urban Development and the Kenyan development plan as envisaged in the Vision 2030 where housing is listed as key social pillar (UN, 2016; G.o.K., 2010). Additionally, the Kenyan Government has recently come up with a new plan under the 'Big Four Agenda' to guide the country's development program. The program focuses on the four critical priority areas, and decent affordable housing is one of them. Evidently, attention to rental housing is currently gaining momentum and policy makers are beginning to appreciate the need for the affordable rental housing in developing countries. As earlier alluded, this research is based on the maxim that not everyone can own a house. This being the case,

then rental housing should complement the homeownership. This research therefore is expected to strengthen understanding of the rental housing market operations and explore the strategies for stimulating affordable rental housing market to the Kenyan urban population, and other developing countries with similar context.

This research is significant because its impact is not only anticipated in the real estate practice and academic community, but it also challenges the existing housing delivery strategies and provides new knowledge that is of practical interest to governments, policy-makers and other stakeholders in housing sector. It also offers new opportunities for further studies in affordable housing and cognate subjects. Hence, this research provides an avenue for policy shift in housing delivery system in Kenya, with possibility of replication in other developing countries with similar circumstances.

1.10 Structure of the thesis.

This thesis has been organized into seven chapters. Chapter one provides the introduction and background of this study, and defines the research problem, questions, objectives and hypothesis. It explains the rationale for housing need in light of growing urbanisation and outlines the concept of affordable housing clearly delineates it from other forms of housing.

Chapter two lays the theoretical foundation and formulates the conceptual framework used to analyse market failure in the rental housing sector. It focuses on the New Institutional Economics theory and fuses it with the Institutional Analysis Development concept to formulate the conceptual framework for the study. It also outlines the concept of market failure and how it relates to the affordable rental housing sector.

Chapter three focuses on the review of relevant literature in the research subject so as to understand how it has been theorized and identify the gaps in the study. It mainly explores the demand and supply factors influencing rental housing and also draws a parallel with the international experience on the rental housing market.

Chapter four presents the contextual framework focusing on Kenya generally and subsequently evaluates the socio-economic context of Mombasa city, and the institutional framework relevant to the housing market in Kenya.

Chapter five presents the philosophical perspective and methodological approach adopted in the study. It lays the general philosophical assumptions of and articulates the

research design for the study. The chapter explores critical realism at the meta-theory and illustrates how mixed methods design has been applied to the study.

Chapter six presents the results, analyses and discusses results of both the quantitative and qualitative data gathered from primary and secondary sources. These are presented thematically according the study objectives. It also provides analysis of the study hypotheses and a discussion on the policy implications of the study findings.

Chapter seven presents conclusions and recommendations. It also highlights the area of contribution to the body of knowledge and articulates the limitations of the study and areas for further research.

CHAPTER TWO

2.0 Rental Housing Market Failure: Theoretical and Conceptual Framework.

2.1 Introduction

The research problem has been conceptualized in the perspective of market failure in the rental housing sector. Consequently, the main objective of this chapter is to lay the theoretical foundation that subsequently aids in formulating a conceptual framework for explaining market failure in the rental housing sector. Ordinarily, an efficiently operational market should be able to provide adequate housing for all cadres of households. Simply put, in a well-functioning market, supply should match demand. A contrary outcome therefore reflects market failure. The rental housing market failure is analysed from the perspective of the landlords and developers who are the main agents on the supply side. This study has employed New Institutional Economics (NIE) theory. This chapter examines the major concepts of the NIE theory and how they explain market failure. It takes cognizance of the significance of understanding the relationship between institutions, developers/landlords and market failure. Therefore, for a comprehensive understanding, the chapter explores the potential theoretical relationship between institutions, transaction costs and property rights, and certain outcomes in the rental housing market. It also utilises the Institutional Analysis and Development (IAD) framework, as a guide in the formulation of the conceptual framework for this research.

Hence, the chapter is developed under five broader themes. The first section introduces the NIE theory and its three concepts (institutions, transaction costs and property rights) which are relevant for this research. The second section maps the NIE theory onto the housing market to explain the relation between the theory and the housing market. The third section explains the concept of market failure and provides the conceptual analysis of rental housing market failure through the NIE perspective. The fourth section introduces the Institutional Analysis and Development (IAD) framework, while the last part formulates the conceptual framework for this research.

2.2 The Concept of the New Institutional Economics

The new Institutional Economics is relatively a newer concept as compared to other institutional theories. The concept was first suggested by Williamson (1975). The NIE is a theoretical paradigm that attempts to incorporate a theory of institutions into economic analysis and is based on a few concepts *'that are logically coherent and that provide*

powerful tools for delineating the questions to be explained and for shedding light on a large set of facts and relationships among these facts' (Menard, 2001:85). Although NIE broadens the scope of neoclassical economics, it still possesses the hardcore elements of neoclassical concepts, specifically the rational choice model. Neoclassical concept is deeply embedded in the belief that the power of the market is significant, and that Pareto's efficiency is achievable without the role of institutions.

However, the key assumptions in the neoclassical theories ignore the vital role played by the institutions, transaction costs and property rights in the transaction process (Karruna, 2013). Chang (2011) however argues that NIE does not depart from the neoclassical model and explains that it embodies an extension and combination of a market-oriented approach which fails to appreciate the reality of how institutions work. But as stated by Eggertsson (2013), NIE scholars deviate from the neoclassical ideology because of their acceptance of the need for market intervention and recognition of the socio-political influences in the market operations.

Nevertheless, the NIE approach still attracts disapproval from some authors (Toye, 1995; Khan, 1995). They cite difficulty to operationalize the approach as the main challenge and go on to question the feasibility of quantifying the institutional effects on the market, or even computing transaction costs and the effect of such cost reduction on market operation. Therefore, when viewed in the perspective of broader economic structure, the NIE approach is perceived to lack an operational empirical foundation. Additionally, Toye (*ibid*) observes that while NIE goes beyond the strict Pareto spectrum that characterizes neo-classical economics and takes cognizance of the influence of human behaviour on the market, it cannot be plausible for application at the macro-level, but, may remain significant at the micro-level. Further, by and large, most reviews of economic development emphasis on macro-economic perspective as compared to the micro-economic model (*ibid*). As stated by North, "*NIE builds on, modifies, and extends neo-classical theory to permit it to come to grips and deal with an entire range of issues heretofore beyond its ken. What it retains and builds on is the fundamental assumption of scarcity and hence competition - the basis of the choice theoretic approach that underlies micro-economics*"(North, 1995:17).

Consequently, NIE remains reliable in micro-economic analysis and hence viable for this study since the focus is on the rental housing market, touching on demand and supply factors, household/consumer choices verses suppliers'/producers' considerations, all

which can be viewed through the prism of micro-economics milieu. Harriss, Hunter and Lewis (1995) also reiterates the usefulness of NIE, albeit with a caveat that it must be established within a broader political setting since political influence generally controls the institutions. The most important NIE concepts which are deemed relevant for this study include; institutions, transaction costs and of property rights. This is because they represent salient features of NIE concept which are vital in the analysis of the rental housing market and the effect of the institutions.

2.2.1 Institutions

Institutions form one of the main pillars of NIE concept. Much has been written with regards to the definition of institutions but, generally, institutions are commonly regarded as a collection of rules that aid human interactions. According to North (1990), institutions are 'constraints' created by human and they structure human interactions. Institutions are also viewed as a set of working rules that are used to determine who is entitled to make decisions in some areas, what actions are permitted, what reserved rules will be used, what methods must be followed, what information should or should not be provided and what reward will be endowed to individuals based on their actions (ibid).

For a clear understanding of institutions, North (1971) clarifies the difference between the '*institutional environment and institutional arrangements*'. While the former represents the '*rules of the game*' that influence human behaviour, conversely, the latter are detailed rules usually referred to as the '*governance structures*' formulated by transacting parties to facilitate specific economic interactions (Williamson, 1996). The institutional environment can also be defined as the collection of essential socio-political and lawful rules that create the foundation for economic interactions (Williamson, 1993). This implies that the institutional arrangement is usually a subset of the institutional environment.

Alternatively, North (1990) classifies the distinction into institutions and organizations where the former represents '*institutional environment*' while the latter signifies the '*institutional arrangements*'. The organizations as '*players of the game*', comprise of sets of people held by a mutual determination to attain specific goals. On the other hand, institutions consist of both formal and informal rules. The formal rules include laws, contracts and regulations, while the informal rules consist of norms, conducts, beliefs, customs and values among others (Eggertsson, 2013). The rules are aimed at reducing risks arising from human relations and therefore, they enhance confidence between individuals or groups that interact (North, 1990). This is because institutions and their

organizational arrangements evolve to lessen the transaction costs arising from human interactions (Williamson, 1985; Martin, 1993). The risks occur as a result of both the intricate nature of the problems to be solved and the limited knowledge possessed by individuals. The influence of institutions on human behaviour is reflected on the outcomes on their activities since they are concerned with the manner in which organizations are used to attain power distribution, community rules, and stability. In terms of relationship, between institutions and organizations, North (1994) notes that the two interact to structure motives in human interactions in the society. Therefore, as the *rules of the game*, institutions control the society in all interactions of economic, political and social nature.

Institutions are however dynamic and vary with locality and time (Ball, 1998). As explained by North (1990), organizations are formed to benefit from institutions and therefore, as they develop, they modify the institutions. Nevertheless, it is pertinent to note that while the formal rules can be changed over a short duration, conversely, informal rules change progressively. And because it is the informal rules that validate formal rules, enforcement may take longer, hence the changes may result to undesirable outcomes. This is particularly most likely when one society implements formal rules from another group since both the norms and the execution environment are different. This explains why institutional change usually takes a longer period. Institutions are usually considered to be long-lasting and as agents of stability. The stability is an essential feature for facilitating intricate relations within a society.

Ordinarily, the institutional arrangement influences individuals' preferences and therefore can promote or hinder market transactions. The support can be in form of transmission of relevant data concerning the state of the market, commodities and players, defining property rights and controlling market entry. On the contrary, the regulations can weaken the market by increasing transaction costs hence locking out some segment of the society from the market. But as recognized by Karruna (2013), institutions usually do not satisfy all interests. This is a consequence of institutions being a creation in the society and is therefore a reflection of how the society is structured. Since institutions are developed by human (North, 1990), they remain vulnerable to focus on the minority interests. This explains why the institutions fail to influence the market to efficiently allocate resources and instead concentrates more resources to the powerful political class. Basically, Karruna (*ibid*) implies that institutions at times favours few privileged individuals.

2.2.2 Transaction Costs

The transaction costs concept has been widely studied and discussed since its inception by Coase (1937). The significance of transaction costs emanates from their nature of distorting the market, hence they become a major factor in market failure (Ommeren, 2008). Generally, transaction costs are incurred in an operational economic structure (Arrow, 1969). This implies that transaction costs comprise expenses incurred directly, along with any incidental market ineffectiveness and the resultant misallocations. For better comprehension, Marinescu (2012) expounds that transaction costs include the entire 'costs and efforts' made by the investors and the market players generally, to adhere to the rules that institutions impose on a society. For instance, a functioning formal system enforces various costs and constraints in terms of regulations which the society must comply with. It can therefore be postulated that transaction costs exist as a result of the presence of an inefficient 'institutional arrangement'.

Essentially, explanation by Marinescu (2012) points to the fact that transaction costs can be used as a barometer for institutional efficiency. Consequently, an effective institutional arrangement is reflected by low transaction costs, while on the other hand, an inefficient institutional environment which is characterized by numerous institutional constraints to economic interactions usually yields high transaction costs. With this inference, it can be postulated that institutional efficiency has a negative correlation with transaction costs. Therefore, since inefficiency is defined by high transaction costs attributed to information failure, consequently, minimizing the transaction costs could enhance efficiency.

According to Khan (1995), transaction costs impede 'net social benefits' since they hinder profitable dealings which would have transpired from occurring. He further explains that the failure to fully exploit these profitable transactions results to market failure. Taking from this point, transaction costs can therefore be regarded as a means of explaining the reasons for market failure. Transaction costs concept is therefore assumed to explain the gap between the hypothetical neoclassical approach and the reality. Therefore, to fill the gap effectively, the transaction cost model should aim at discovering realistic institutions with minimized transactions.

Building on the concept of transaction costs, Williamson (1985) formulates a model to describe variations in transaction cost. In his conceptualization, Williamson identifies imperfect information as possible cause of market failure (*ibid*). According to Williamson (1996), the transaction costs originate from 'bounded rationality' (due to information

asymmetry) and opportunistic behaviours. This is because prices fail to reveal all the important facts to the individuals involved in the transactions, hence the parties incur high transaction costs as they search for the relevant information to enable them to negotiate and enforce the contracts. Further, it is imperative to recognize that individuals have limited knowledge due to human constraints and are therefore prone to mistakes (Furubotn & Richter, 2005). They are therefore susceptible to making erroneous decisions resulting to inefficiency. In this respect, it can be postulated that transaction costs can also arise as a result of decision makers' imperfect nature. Interactions between 'human agents' and operational costs in an economy therefore become important in transaction costs debates.

Conceptually, transactions can be analysed into various categories depending on a range of factors. Furubotn and Richter (2005) however clarifies the distinction between production and transaction costs. In simple terms, they note that just as production costs are associated with production activity, likewise, transaction costs are associated with transaction activity. A number of authors have used different parameters for classification. North (1997) for instance, divides the costs into 'enforcement and measurement' while Quigley (2002) outlines the six types of transaction costs for housing acquisitions as; search cost, legal cost, administrative cost, adjustment cost, financial cost and uncertainty cost. Furubotn and Richter (*ibid*) however provide three broad classifications of transaction costs as; relating to market, managerial and political aspects. But, of more relevance to this study is the market transaction costs, which typically comprise the costs related to the use of the market. The market transaction costs can be summarized as '*information and bargaining; bargaining and decision costs; supervision and enforcement costs; and investments in social* (Furubotn & Richter, *ibid*:52).

2.2.3 Property Rights

Property rights are a key element to institutional frameworks, but there is no consensus about what property rights involve and their role. The concept of property rights just like the other concepts of NIE has been inconsistently defined in economic literature. A property is considered to be a stack of accredited relations (rights, obligations, privileges or claims) between individuals in relation to some commodity, services or anything that possesses economic value (Pryor, 1972). Property rights specify relations among people and define their way of behaviour in regard to limited resources. Most importantly, property rights determine the relationship between individuals with respect to the right to

a resource. Basically, property rights are defined as the behavioural relations among people that emerge from the existence of things that concern their use. Structured property rights guarantee that people observe the existing social conventions respecting property and that they are punished for non-compliance (Pejovich, 1990).

In order to facilitate free exchange of goods and services for all transactions and eventualities, a well-established system of property rights must be comprehensive, exclusive, transferable and enforceable. Comprehensiveness implies that the property right is safe from being seized involuntarily or being encroached by other economic actors including the state. Certainly, this is vulnerable to some risk, but the risk must be known beforehand (Van Kooten & Bulte, 2000). Exclusiveness of the property rights means that all the benefits and costs related to the use of property accrue to the owner. This strengthens the relationship between the well-being of the owner and the consequences of his/her actions. Transferability of property rights implies that they must be voluntarily exchangeable between two economic agents. Lastly, enforceability of property rights suggests that property rights only exist because the state allows them to and that in absence of adequate enforcement, private property rights become accessible to all. When property rights are comprehensive, exclusive, transferable and enforceable then they are said to be fully complete. The completeness of property rights tends to lessen uncertainty thereby providing adequate information for guiding behaviour.

2.3 The Housing Market and NIE: A Theoretical Mapping.

This section maps the main tools of NIE theory i.e., institutions, transaction costs and property rights onto the analysis of the housing market operation. It delves into understanding how the institutional environment influences the housing market. This is because the three tools are key features of housing markets (Karruna, 2013).

2.3.1 Institutions and the Housing Market

The housing market, just as the wider property market, has its foundation on institutions. The institutions not only enable the formation of housing markets, but as well facilitates the utilization, transactions and development of housing (Kamarudin, 2006). Application of the institutional viewpoint in the housing market provides an understanding of the intricate manner under which it operates. This is because the institutional model appreciates the complex processes involved in the housing market operations and acknowledges that changes in spatial and economic environment have an influence in the housing market (Han & Wang, 2003).

Ball (1996) argues that institutions provide a system for interaction under which the housing market functions. Understanding the institutional concept of the housing market borrows from Keogh and D'Arcy (1999) analysis of the property market using a three-level institutional hierarchy (Figure 2.1). They demonstrate that the levels interact with each other to determine the outcome of the property market. In their model, the highest level comprises the 'institutional environment' under which the society is structured; then the next level comprises the property market as an institution itself and lastly, the property market organizations.

Figure 2.1. The Institutional Hierarchy of Property Markets.



Source : Keogh & D'Arcy (1999)

From this model, it can be construed that the institutional framework within the property market signifies the organizational arrangements and agents' rules on the market, and the relationship amongst the market players (Han & Wang, 2003). The housing market exhibits similar attributes and therefore the above concept can be extended to its analysis. Evidently, the housing market activity is dependent on the intricate institutional setting within which it operates (Allen, 2008).

The external factors include socio-economic, political and legal systems which influence the housing market. As observed by McCrone and Stephens (2017), political system as well as the economic development policy of a country may not directly influence the housing market, but they shape the broader structure of the market. For instance, government policy may influence housing market by determining what houses are developed, and for whom. Therefore, if a policy favours certain housing tenure i.e.

homeownership over rental housing, then delivery of the latter may be stifled. Additionally, the prevailing economic policy can either expand supply of, or diminish demand for housing and vice-versa. This has been illustrated by Karruna (2013) who argues that both economic and financial policies equally have direct and incidental impact on total demand and supply. For example, fiscal policy relating to housing either encourages or discourages investors. Kamarudin (2006) shares a similar view on the influence of finance policy and argues that strategies which promote money supply in the economy will result in lowering the lending rates, and in turns encourage 'consumption and investments.' With regard to housing market, low lending rates reduce the cost of borrowing to the developers and supposedly ought to encourage them to supply more housing. Fiscal policies proposing high lending rates may also increase households' preference for rental housing as compared to home-ownership. As such, policy orientation either encourages demand and delivery of owner-occupier or rental housing units. Furthermore, the political system may also influence the housing market through formulation of various legislations that regulate the housing sector, while the legal structure outlines the broad legal context of the country and describes the instruments for understanding property rights through different statutes. The level of these rights is then revealed in the housing market structure.

Generally, institutional environment (*'rules of the game'*) comprising of both formal and informal rules together with their execution instruments generate *'constraints and incentives'* that define the opinions and beliefs of the housing market players (Eggertsson, 2013). However, the rules are neither static nor uniform. As postulated by Malpezzi (1999), the changes in the external environment affect the role of institutions that influence housing markets. This explains why the housing market is dynamic. Therefore, as much as the housing market behaviour may be similar, the institutions and constraints that influence it vary in terms of location and sector (Ball, 1998). Furthermore, North (1990) definition of institutions as *'rules of the game in a society'* provides an explanation for the variation of housing markets across time, location and sector. From a rational perspective, societies vary in many ways. The activities of different societies vary with time, and human behaviour is not static, but dynamic, and so is the housing market. As an institution, the housing market usually comprises of institutions of governance and is concerned with *'the play of the game'*. The housing market therefore represents a cluster of 'formal and informal rules and conventions', and whose capacity and design

are determined by the prevailing societal preferences (Keogh & D'Arcy, 1999). The institutional authorities play a key role in determining market outcomes. For example, the manner in which the market is regulated and functions can ultimately determine the quantity and quality of housing supplied to different population segments, i.e., it is the regulatory framework that defines the amount of land allotted for development purposes and how it is developed (Bolt, Özüekren & Phillips, 2010).

As outlined by Han and Wang (2003) the main regulatory tools used in the housing market include; planning regulations, development control and ownership rights. For instance, planning regulations such as zoning rules determine the construction, development and housing stock, and influence how landlords, developers, investors and professionals interpret future development on the housing market (Kamarudin, 2006). Additionally, the housing market as an institution requires an effective legal structure capable of handling the contractual agreements resulting from the transactions (Williamson, 1998). As earlier alluded, the peculiar nature of housing market and the protracted transaction period results to high transaction cost, the institutions therefore seek to custom housing market regulatory structures towards minimizing transaction costs (Van Genugten, 2008).

2.3.2 Transaction Cost and the Housing Market

The housing market attracts huge transaction costs from a myriad of sources and consequently, transaction costs have a crucial role in the market. In fact, the main inadequacy of neoclassical model in analysing housing market arises due to its disregard of the transaction costs emanating from housing dealings (Karruna, 2013). While lower transaction costs enable housing market to be activated and respond to economic incentives, however, high transaction costs are one of the courses of market failure (Zhu, 2003).

Regrettably, transaction costs in the housing market are usually high. These costs result from the very peculiar nature of housing product, which make housing transaction process complex. For example, both housing development and sale or letting activities entail rigorous and protracted processes which are sometimes laden with uncertainty and transaction costs (Allen, 1999; Quigley, 2002). The developers are therefore involved in a series of search and bargain costs with housing market actors for a favourable land deals (for housing development) and marketing to, and vetting buyers or tenants upon completion. The time and cost of getting extra sufficient information on the land deals and potential buyers or renters increase the transaction costs. In some instances, the

developers have to incur extra costs of supervision to ensure compliance and reduce waste and malpractices during the construction period. In cases where the developers are being financed, they have to engage in intricate negotiations with mortgage providers to obtain credit facilities. Further, the property transfer process entails complicated issues on ownership and contracts which require specialized legal counsel and usually generate transaction costs (Quigley, *ibid*). In addition, housing market is highly regulated with various modes of government interventions and complex enforcement tools such as zoning and development control rules. As much as most of these regulatory instruments are geared towards achieving efficient land use, they sometimes create regulatory barriers which make the developers incur high transaction costs to navigate the systems (Cruz, 2008).

Generally, due to its nature, housing market is inevitably encumbered with transaction costs which come in form of search and information costs, bargaining and decision costs and supervision and enforcement costs (Furubotn & Richter, 2005). Therefore, in rational terms, the developers would always contend with the transaction costs, which when are too high in a particular market segment, they become reluctant to supply the segment even when there is high demand hence the market in that sector fails.

2.3.3 Property rights and the Housing Market

Property rights are vital component to be considered for a functional housing market since the sector is differentiated by tenure (ownership and rental). Studies have shown that certainty in property rights is likely to result in reduction of transaction costs and subsequently reduce the cost of housing (Cruz, 2008; Quigley, 2002; Allen, 1999). Unclear property rights are linked to uncertainties that may increase risks. Definite and enforceable property rights ensure that the ownership rights are easily established at a lower cost and this minimizes the obstacles to market entry (Karruna, 2013). The nature of property rights therefore critically influences property developers' decisions on what kind of housing to develop and for whom (Libecap, 1989). For instance, the housing market fundamentally has two categories of rights i.e. rights associated with home-ownership and those of the renters. Thus, developers consider the rights envisaged in each category and select the option that meets their objective, in which case they either build to sell or to rent. Those who develop for sale relinquish the ownership rights and obligations when they transfer the property to the purchaser, unlike those build to rent who maintain and share their rights and obligations with the tenants.

2.4 Market Failure in the Rental Housing Sector.

This section explores the link between new institutional economics theory and the rental housing market failure. It applies the tools of NIE i.e. institutions, transaction costs and property rights to highlight theoretical predictions about rental housing market failure. Therefore, the main focus of discussion in this part is to illustrate how institutions, transaction costs and property rights fit into market failure argument.

The problem of market failure in the affordable rental housing sector is framed in three themes namely: quantity, quality and affordability. It is therefore pertinent to understand the potential theoretical relationship between institutional framework and certain outcomes in the rental housing market i.e. poor quality, inadequate quantity and affordability; and the aspects of the framework that generate these results. However, the first part explains the general concept of a market and reasons for market failure.

2.4.1 The Concept of Market Failure

Fundamentally, the conventional economic model envisages a perfect market that is compliant to Pareto's Efficiency (Borooah', 2003). Bator (1958), and Arrow and Debreu (1954) explain that for a market equilibrium to be Pareto-efficient, production and consumption should be such that no one can be made better off without making someone else worse off, and Michael (2004) further observes that in determining well-being, the individual is assumed to be the best judge of his or her own welfare.

The inability of market mechanisms to attain efficient allocation of resources results in market failure (Bator, 1958). Various authors concur with Bator on the meaning and sources of market failure (Bhalla, 2001; Borooah, 2003; Cunningham, 2011; Mckenzie & Rowley, 2013). In general terms, market failure is viewed as a result of sub-optimal allocation of resources, leading to inefficient and inequitable market outcomes which are socially undesirable (Cunningham, 2011). Therefore, in simple terms, market failure is considered to arise when the price mechanism that regulates supply and demand fails (Pearce, 2007).

As further expounded by Mckenzie, Fiona and Rowley (2013), the price system plays a pivotal role in market efficiency and therefore, market failure results when the system is imperfect such that it inhibits efficient allocation of resources. Ordinarily, the price system is expected to reveal the true costs and worth of a product, while taking into account the naturally existing monopoly, imperfect competition, information asymmetry and

externalities. Conversely, the failure of the price system to reveal the true value of the resources may lead to inefficient allocation of resources, and hence market failure. The failure is a clear demonstration that market systems solely have intrinsic limitations that prevent them from achieving efficiency (Cassidy, 2009).

Whereas the above discourse illustrates the general trend of market failure, the focus of this study is on the rental housing market and the underlying causes of its failure. Therefore, in this regard, it is important to note that as much as housing market varies from the market for ordinary goods in many ways, it however operates under the principles of conventional markets; and therefore the standard analysis used in the market theory remains a valuable reference point for rental housing market analysis (Fallis, 1985).

Conventionally, a market attains equilibrium when supply matches demand *ceteris paribus* (Cunningham, 2011). Similarly, the rental housing market is deemed to attain equilibrium when the supply for rental housing units sufficiently meets the demand, and contrary outcome leads to rental housing market failure. To expound further, Rojack (2007) argues that the rental housing market failures exist when unsuitable outcome that arise due to the peculiar nature of housing market that makes it unresponsive to the demand and supply factors as compared to the market of ordinary goods.

On the other hand, occasionally the definition of market failure may not follow the strict economic rules of efficient allocation of resources. There are various features of rental housing market failure. For instance, as explained by Gore (1994), the housing market failure can be as a result of the inability of market system to attain the goals as set by the government. However, of much relevance to this study is the rental housing market failure resulting from lack of supply of affordable rental housing. While it is true that an efficiently operating market should self-correct the disparity of supply and demand, however, the intrinsic features of the rental housing complicate the operation of market mechanisms. The rental housing market therefore remains imperfect and prone to failure.

A number of reasons have been put forward to explain the rental housing market failure. For instance, Rojack (2007) points out that the rental housing market is inelastic and has always been at a state of disequilibrium with demand continuously outpacing supply due to scarcity. Perceptibly, if housing supply is inelastic and demand increases, there is likely to be an increase in housing price resulting from the pressure exerted by the growing demand on the limited quantity supplied (Buckley & Kalarickal, 2005). Essentially, the

high housing rents should act as a trigger for developers to supply more units in the market such that the market attains equilibrium in the long-run, but when housing supply is inelastic, this is never the case.

However, as argued by Cunningham (2011), market failure does not connote that a market is completely non-functional, but rather inefficient in producing the desired goods and services. This notion is supported by Greater London Authority (2003) who underscores the fact that rental housing market failure can be in terms of either qualitative or quantitative deficiencies. In this respect, the rental housing market may fail either to meet the desired minimum housing standards or to deliver adequate quantity of housing to the households. Affordable rental housing market relates to this fact as most often. This is illustrated by Gulyani and Talukdar (2008) the market is usually characterized with insufficient units in deplorable conditions, with comparatively high rents. Additionally, there can be demand for a commodity without a corresponding supply of the same. In the case of rental housing, there may be few individual developers/landlords who are willing to invest in rental housing, but the number of units they deliver may not be able to satisfy the growing demand.

2.4.2 Rental Housing, Market Failure and NIE: A Conceptual Analysis.

Ordinarily, the institutions either constrain or enable interactions to influence certain outcomes. The theoretical assumption is that institutional framework incentivises the developers to supply rental housing units and deter the development of low-quality housing, but when they are not able to deliver the desired results, there must be some inefficiency in the institutions. Therefore, when the developers are not motivated to supply rental housing units despite the evidence of high rents, then it means that the institutions constrain their involvement in the rental housing market, and the market fails. Conceptually, there is a potential theoretical relationship between the institutions and certain outcomes in the rental housing market i.e., low quantity, poor quality and affordability. The conceptual question of interest is therefore, how do the institutional environment define the outcomes in the housing market, and particularly the rental housing market? This calls for the conceptual examination of the innate institutional aspects that have potential relationship with the outcomes in the housing market. The relevant institutional elements in housing market as identified in the theoretical framework comprise policy, institutional regulatory framework, property rights and housing finance systems.

Generally, institutional constraints (both formal and informal) associated with housing markets are numerous and these in one way or the other discourage investment in the rental housing sector hence resulting to low supply (Cunningham, 2011). For instance, the influence of informal institutions become effective when certain societal preferences are epitomized as the norms resulting from inherent aspirations due to the socio-economic system under which people live. When this scenario results in preference for one type of housing i.e., home-ownership over rental housing, then the institutions will encourage the desired type. This is illustrated by Boddy (1980:25) in the following statement “*The desire for private property springs not from the individuals but from the socio-economic system.*” Therefore, from this viewpoint, it could be true that the institutionalized societal belief can influence the people in such a way that what they consider they want is different from what they actually need. For instance, the ideology promoting home-ownership can be informally infused in the society such that rental housing is viewed with contempt (Marcuse, 1987).

Additionally, when policy framework has preference for one mode of housing delivery over the other then the results in the housing market are bound to be skewed towards the one favoured by the policy (Stephens, 2017). For instance, when home-ownership dominates policy, then the incentive structure will favour delivery of housing for sale as opposed to rental housing. As such developers for rental housing lack the motivation or the incentive to supply the rental units regardless of high demand in which instance the rental housing market fails. Therefore, if policy does not promote rental housing, the supply is affected since it fails to provide sufficient incentives for rental housing delivery either directly or indirectly (Kamarudin, 2006).

Still, both monetary and fiscal policies can also play a major role in stimulating and sustaining housing market. Tax incentives for affordable rental housing could be a greater source of enticing private developers into the rental market. Therefore, when high taxes are levied on the rental incomes such that they lead to reduction into expected returns, the extra costs of administering the taxes raise transaction costs and discourage investment in rental housing (Peppercorn and Taffin, 2013). Developers are privy to the fact that taxes in rental housing are perpetual. Additionally, monetary policies that offer the developers favourable lending terms provides financial impetus for housing development.

Essentially, other notional arguments for the rental housing market failure tend to focus on the problem of transaction costs which result from inefficient institutional framework and undefined property rights (Karruna, 2013). The market outcomes therefore depends on how the institutions deal with the transaction costs. The theoretical prediction is that when people are faced with transaction costs, the actors involved take steps to minimize them or create institutions/rules to deal with them. But, if the market cannot deal with the transaction costs, then they fail.

Clearly, the underlying features of the rental housing market that result to high transaction costs are associated with search and information, bargaining and decision costs, and supervision and enforcement costs which distort the market, hence leading to market failure (Berner, 2009). These costs are significant in the rental housing context since some of them are borne for the entire period of the investment and also distort the certainty of receiving the projected income. For instance, to fill the vacancies, the landlords have to source for, and acquire relevant information regarding the potential tenants. Information therefore becomes one of the key components of an efficient market.

The conventional illustration of asymmetric information is derived from George Akerlof's model "The Market for Lemons" which demonstrates how information failure can distort the market (Akerlof, 1970). Indeed, just as the wider housing market, rental housing sector is characterized by information asymmetry which make rental housing management be riddled by uncertainty as the landlord does not have much information about the renter i.e., the ability to pay rent, for how long they intend to stay, when do they intend to move among others. Even though some of this information could be indicated in the contracts, there are high tendency of tenants dishonouring the contracts, either intentionally or due to unavoidable circumstances (Sanguinetti, 2010). The landlord therefore has to contend with the costs of background check on the prospective tenants and also in case of defaults, there are costs of recovering the rents and possible litigation process (Peppercorn & Taffin, 2013). As opposed to the home-ownership market where the developer contract with the buyer ends after completion of the purchase process, on the other hand, the contractual engagement between the landlord and tenant is protracted and requires continuous involvement of the landlord or his agent. Such engagement is prone to risks and occasional conflicts that can sometimes become expensive and increase transaction in the rental market (Casas-Arce & Saiz, 2006). While the transaction costs arising from the management of rental housing may not happen

during the development process and hence may appear irrelevant in shaping the developers' decision on whether to deliver housing for sale or rent, but ideally, the knowledge or perception of such costs may act as a deterrent to the developers who would therefore prefer to deliver units for sale rather than for rent.

Ideally, the housing market operates under defined regulatory framework which is usually meant to coordinate development but at times may end up generating high transaction costs that distort the rental housing market. For instance, the zoning and planning regulations which are usually intended to ensure efficient and coordinated land utilization are sometimes counterproductive and disincentive rental housing development (Asabere & Huffman, 1999). Apart from increasing the cost of land, they sometimes prescribe strict development standards in terms of plot coverage and ratios that are financially infeasible for rental housing developers. At times, the zoning rules may confine rental housing developments in inferior locations which may either require the developers to invest more capital before construction or may not attract tenants. The developers would therefore consider the opportunity cost of delivering rental housing in such locations or developing housing for sale in other suitable locations, a fact that might lead to less delivery of rental housing units (Melzer & Moothilal, 2008).

The rental housing market failure can also be attributed to inadequate property rights. There is a potential theoretical relation between property rights and the rental housing market outcomes. The question of property rights revolves around how strong and well-defined they are. The more the strength of property rights to the landlords, the more the incentive for development of rental housing. As explained by Mooya and Cloete(2007), access to formal property rights ease entry barriers to the market. For rental housing, property rights become pertinent since it defines the relationship between the tenant and the landlord, and therefore, when they are not clearly defined, or when they favour the tenants, then the developers/landlords become unwilling to offer the houses to the rental market.

When property rights favour the tenant against the landlord, it implies that the transaction cost of managing the rental housing unit will be higher. For instance, the high costs of dealing with default cases and evictions as well as the cost of continuous search for tenants in case of vacancies increase the transaction costs to the landlord and act as disincentive to the developers to supply the market. This therefore creates uncertainty as to what magnitude of transactions costs could become apparent to the developers. For

instance, when the developers cannot envisage the nature of property rights and how their interests are protected, then they are demotivated from investing in rental housing. This is because sometimes the transaction costs involved in managing rental housing are high and prohibitive to the developers. Additionally, legal enforcement mechanisms in case of rent defaults can also be costly and slow, hence result to high transaction costs which are usually borne by the landlord.

In conclusion, it is essential to note that a clear examination of the rental housing market within the perspective of NIE, clearly demonstrates how the institutional environment can shape the market and lead to market failure. What matters about the institutional framework is the extent to which it acts as incentive or constraints towards development of a certain type of housing. Ideally, the emergence of NIE theory has tried to cushion the weakness in the neoclassical approach. For instance, the NIE approach can be used to articulate the real-world dynamics of social relations while emphasizing the role of institutions in the housing market. However, the impact of NIE is limited to the theoretical domain. This is because NIE, despite having a strong theoretical grounding that explains rental housing market failure comprehensively, it lacks a conceptual framework through which to build viable methodology to guide the empirical work.

2.5 Institutional Analysis and Development (IAD) Framework.

The IAD framework is attributed to the work of Ostrom (1990) who initially conceived it as a tool for analysing common pool resources and how they are controlled by communities in the absence of government intervention. As such, the framework has been used extensively in the analysis of communal natural resources management (Rudd, 2004; Benson et al., 2013; Clement & Amezaga, 2013). The framework has however undergone a number of transformations and presently applicable to a number of studies dealing with the manner of collaboration and establishment among people in different organizations and territorial borders in management of communal resources. The framework provides clarity in the policy process by delineating a methodological technique for analysis of institutions governing activities and results for people acting collectively (Ostrom, 2009).

However, it is pertinent to note that the originator of Institutional Analysis and Development (IAD) framework does not necessarily subscribe to NIE concept. Nevertheless, the framework is compatible with NIE theory. The framework therefore provides an appropriate platform to conceptualize the research problem as it has a well-

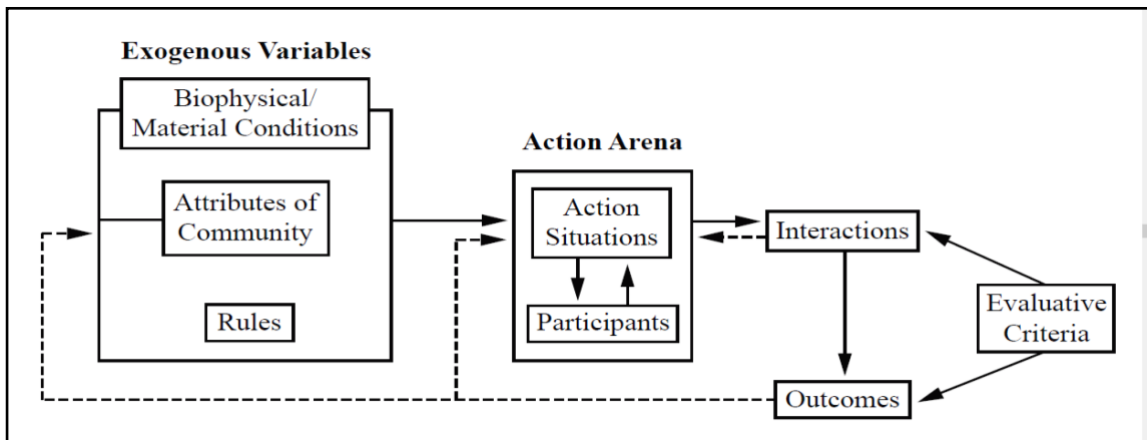
developed conceptual framework that relates to the institutions as contained within the NIE principles. IAD therefore fills the conceptual gap in the NIE theory by offering a conceptual framework to guide empirical research and remains a relevant conceptual instrument for analysing the rental housing market failure.

The IAD framework is '*a multi-tier conceptual map*' since it helps in recognizing and combining activities of various participants, and aids in comprehending intricate societal conditions by categorizing them into sets of viable actions, that is, it identifies wide-ranging groups of variables to be contained within models and concepts. This is through recognition of a multi-level of institutional analysis comprising operational, collective choice and constitutional levels (Ostrom, 2011). The IAD framework therefore provides an understanding of the relationship between theory and conceptual framework, and identification of where to apply 'policy levers' (Mooya & Cloete, 2007).

The operational level of analysis involves collective decisions by individuals about day-to-day activities and is affected by both the collective-choice and constitutional decisions. On the other hand, the *collective-choice level of analysis* emphasizes on options regarding selection of rules that manage *operational activities*, while the *constitutional level of analysis* is concerned with day-to-day decisions of the actors and the rules that govern those choices. Therefore, a careful application of IAD provides analysts with opportunity to circumvent the lapses and interpretations that result to 'policy failures' (Ostrom, 1999; Ostrom, 2005).

As explained by Polski and Ostrom (1999), sequence of analysis by IAD entails three stages, the first being to distinguish the elements responsible for influencing the conduct of the actors. Primarily, these can be conceptualized in clusters based on the physical and material conditions, the attributes of the community within which the situation exists, and the rules and norms that the actors use to control their interactions (Ostrom, 2009; Ostrom, 2011). The variables within these sets generally form the exogenous factors affecting the interactions within the action situation. The second stage involves identifying and evaluating the form of activities in the action area and their outcomes, and consequently formulating an effective policy solution (Figure 2.2).

Figure 2.2. Institutional Analysis and Development (IAD) Framework



Source:(Ostrom, 2005).

Physical and material conditions usually impact on policy action situations and limit institutional arrangements significantly. As explained by Polski and Ostrom (1999:10) physical and material conditions basically comprise the *'physical and human resources and capabilities related to providing and producing goods and services'*. In this sense, they determine what actions are physically possible, what outcomes can be produced, and also identify the physical attributes of the action situation. Of relevance to policy analysis of physical and material conditions is to focus on the economic nature of the products, and how they are produced, as well as the physical and human resources required to produce them. For instance, in the case of housing market, these include factors of production such as land, capital, labour, and funding sources.

The community attributes that are relevant to policy action include the demographic composition, shared norms and beliefs, the level of mutual understanding between the prospective actors about the actions in the policy area. Community attributes can therefore lead to demand of a particular commodity i.e., the demographic structure, norm and preferences can lead to favour a particular housing type or tenure and hence influence policy towards supply of the same (Ostrom, 2011). Specific focus when analysing community attribute should therefore be placed on: i) the kind of knowledge and information held by actors concerning the relationships among policy inclinations, activities and results, ii) the actors' beliefs and preferences regarding the policies and their results, iii) the actors opinions about how policy relates with activities and results, and iv) how the actors perceive policy inclinations of other participants (Polski & Ostrom, 1999).

Rules-in-use remain key element of institutional analysis. They form the minimum but requisite conventional rules required for explanation of the activities, interactions and outcomes associated with policy. Of specific interest are the rules that have close relationship with the components of an action situation (Ostrom, 2011). These rules and norms represent the institutional environment under which the action arena operates. The rules are useful in explaining activities linked to the policy, how they interact, and their results. The analysis of rules in the action arena should be focused on the functional rules regularly applied by the actors and their origins, rather than dormant ones. These rules can be summarized to be connected to: position, boundary, authority, aggregation, scope, information and payoff. Therefore, analysis of these rules involves pertinent questions regarding their nature, source level of compliance and why, and non-compliance level and why. This analysis provides an understanding of the reward scheme in the action arena (Polski & Ostrom, 1999).

The focus of analysis in IAD is on the activities in the *action arena* which comprise the action situation and participants, whose interaction is affected by external elements, and produce results which sequentially affect the action arena (Fig 2.2) (Ostrom, 1995). Ostrom (2005) outlines seven sets of variables that represents action situation to include: (i) participants, (ii) positions held by the participants, (iii) controls applied by the actors, (iv) alternative actions available, (v) information regarding the overall structure (vi) outcomes likely to be affected (vii) benefits and costs apportioned to particular activities and outcomes.

As pointed out by Ostrom (2011), the initial task in problem analysis through IAD framework is the identification of '*conceptual unit*' (known as '*action arena*') that can be used for analysis, prediction, and explanation of the activities within institutional arrangements. The action arena is therefore perceived as the social space for the interaction and transaction of the individuals and therefore analysis in the arena aims to predict the probable conduct of actors within that system.

The performance of the system is evaluated against the patterns of interactions and the outcome (Polski & Ostrom, 1999). A feedback regarding the outcomes is relayed to the participants and the action situation, and also over a period of time may gradually influence some of the exogenous elements. When the interactions for producing the outcomes are favourable to the actors, they may remain dedicated retain the situation to its existing condition so as to keep benefiting. Conversely, when the participants perceive

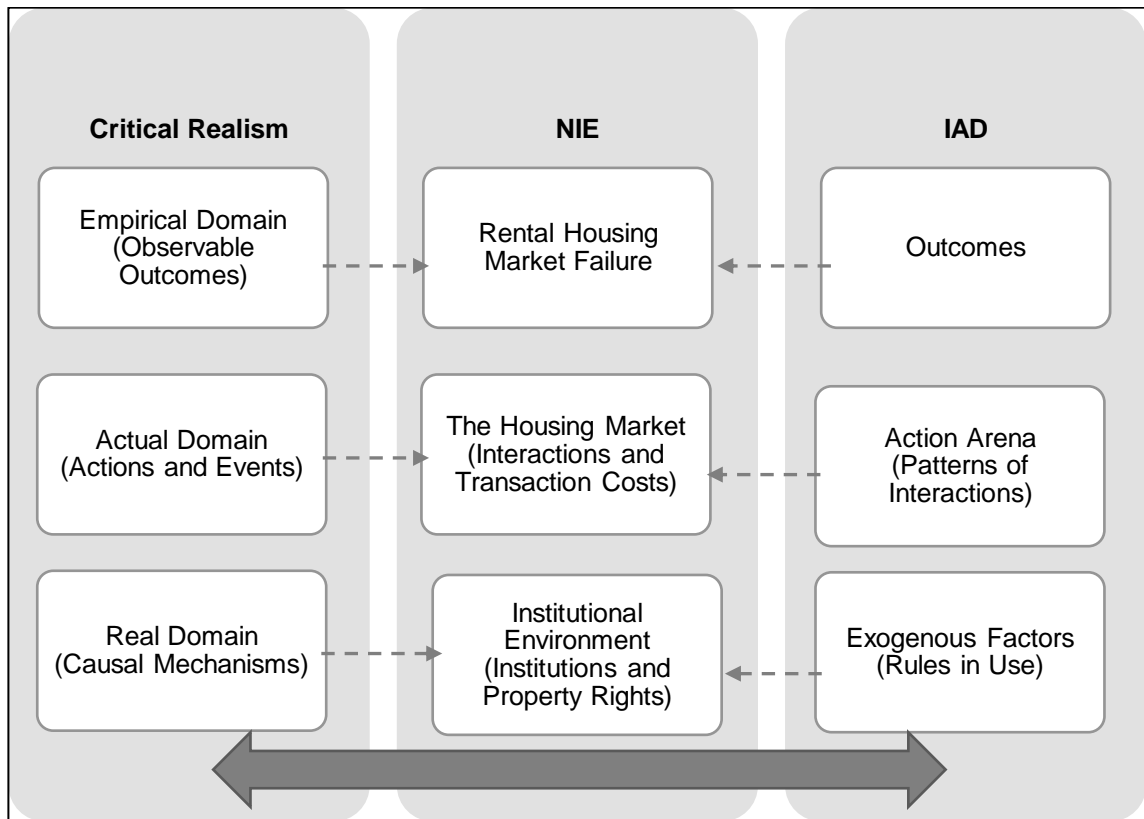
the interactions to be unfavourable, they adjust their approaches even if they are getting favourable outcomes from the situation. When the outcomes are perceived to fail to meet the expectations in relation to other available alternatives, an interest develops to alter the situation through varying the external variables (Ostrom, 2005).

2.6 Affordable Rental Housing Market Failure: A Conceptual framework

The conceptual framework is expected to guide the empirical work, and is therefore linked to the research problem, objectives and the variables to be analysed. The focus of this research is to understand why the rental housing market fails to deliver adequate, quality and affordable rental housing units despite the high demand for the same. To achieve this objective, this research has mapped the principles of NIE to the IAD framework to explain market failure in the rental housing market. This framework combines the conceptualization in IAD and the theoretical richness in NIE to guide this research. Therefore, the framework captures the three NIE concepts that relate to market failure, that is, the institutions, property rights and transaction costs.

For a better conceptualization, it is pertinent to understand how the three concepts of NIE (institutions, property rights and transaction costs) can be mapped onto the IAD framework. Effectively, the institutions and property rights are reflected under the rules, while transaction costs result from the interactions in the action arena (housing market). Similarly, in the perspective of critical realism, actual domain reflects the events and experiences in the housing market while the real domain reflects the institutional environment (unobservable) that influence the interactions in the action arena and the outcomes of the housing market. Clearly, using IAD framework provides a coherent relationship that links critical realism as the ontological foundation (meta-theory) and NIE as the theoretical framework as illustrated in figure 2.3. (Note: A detailed discussion on critical realism philosophical perspective is outlined in the methodology section in chapter 5).

Figure 2.3. Philosophical, theoretical, and conceptual framework nexus



With regards to the foregoing discussion, the IAD framework has been adapted in this research, since it provides an appropriate methodological strategy for evaluating institutions that influence activities and outcomes within the housing market (Ostrom, 2007). It is therefore useful in analysing the housing market using the principals of new institutional economics theory (Akinwunmi, 2009).

As a recap, the research question has been premised on the '*high demand - low supply, low quality rental housing puzzle*', a scenario which has been conceptualized in terms of market failure. The interest of this framework is to conceptually explain this puzzle and identify key variables to guide the empirical research as illustrated in Fig 2.4.

Consequently, in the context of this research, the housing market can be conceptualized as the action arena, where the action situation and the participants interact to produce housing. The participants play different roles but, the focus of analysis in this research are developers and landlords since they are the main supply- side agents in the rental housing market. In the housing delivery process, the developers have to select and acquire suitable lands for development, evaluate the available housing options and mode

and scale of scale of production, Additionally, the developers are subjected to the development control process and mobilization for development funds, after which they have to carry out the construction and market their housing products for sale or rent. The landlords have to contend with management of rental housing. For clarity, it is pertinent to provide the systematic differences between the landlords and developers. Thus, while developers are mainly investors who develop the housings units with primary intention of selling immediately on completion for a one-off income, conversely, landlords' primary intention is to rent the units for periodic income.

The interactions of the housing market are subject to the exogenous variables (material condition, community attributes and institutions) which influence the patterns of interaction and decisions of the actors in the housing market (action arena), and the outcomes (in terms of housing output) that arise from the market activities. For instance, in this research, the *material conditions* have been linked to the type, quality and quantity of the housing delivered, mode of housing production and the scale and scope of delivery, as well as the factors of production and financial sources for the developers; *community attributes* comprise the actors in the housing delivery such as developers, landlords and housing finance institutions and their knowledge and perception of the rental housing market, as well as the socio-economic and demographic profile of the tenants and their preferences. The *rules* (which are considered to be compatible with the institutions within the NIE context) comprise of the institutional framework such as the policy framework, land-use regulations, legal framework (property rights) and housing finance systems.

Actors in the action arena are faced with transaction costs, institutional and bureaucratic limitations, information flow, negotiations and bargains, and contract enforcements as they interact to deliver housing units in the market.

The performance of the housing market is evaluated against the patterns of interactions occurring during the housing delivery process and the outcomes of these transactions (Mooya & Cloete, 2007). Ordinarily, these interactions usually generate transaction costs which in effect influence the action of the developers and landlords in the housing market. The main aim of the actors is to minimize these transaction costs so as to maximize on profitability. For example, the developers' expectation is to realize positive risk-adjusted returns on capital, Net Present Values and shorter payback periods, while the landlord expects high rents, and well-defined and enforceable property rights since poorly-defined rights increase transaction cost. It is however worth noting that even though development

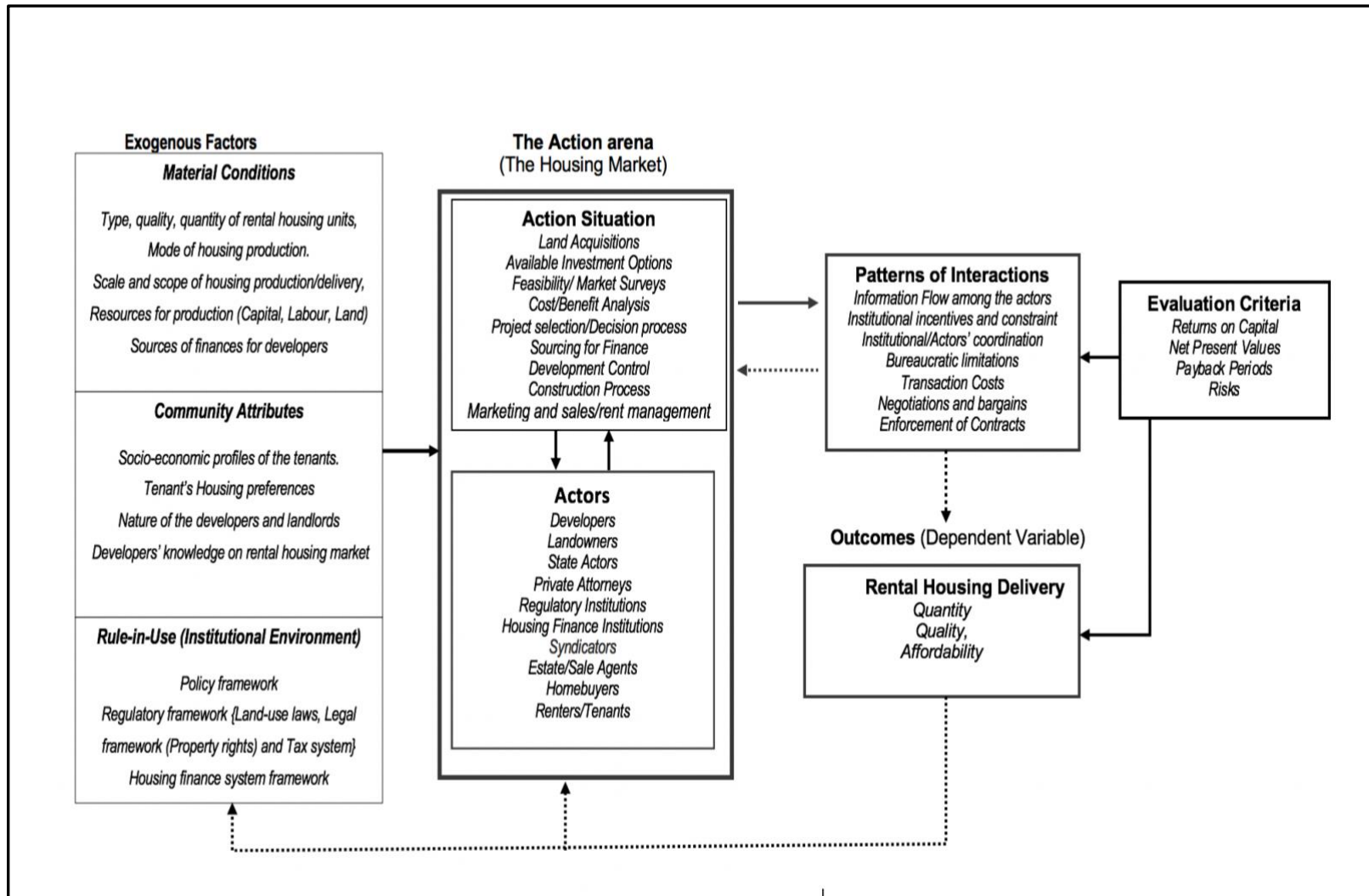
for rental housing or housing for sale incur both production and transaction costs, nevertheless, the former is generally standard across both type of houses, but transaction costs differ for rental and for-sale housing since the former has to contend with the different sets of transaction i.e., costs of management, tax obligations and defaulting tenants among others. The tenants on the other hand are interested in quantity, quality and affordability of the rental housing units produced (Hodgson, 1998).

A feedback mechanism communicates the outcomes to the participants and the action situation, and also over a period of time may gradually have implications on the material conditions, community attributes and institutions within the study area. The nature of outcomes may in effect restructure the interactions within the action arena.

When the transaction patterns in the housing market provide sufficient incentives to the housing delivery agents, then they are motivated to produce more rental units of good quality and affordable rents. Institutional environment can create limitations or incentives that structure the activities of the participants (Polski & Ostrom, 1999). Therefore, the institutions can either constrain or stimulate the activities of the supply-side agents. Consequently, when the developers and landlords realize that the patterns of interaction in the housing market result in higher transactions costs and institutional limitations such that they fail to achieve their expectations, then their motivation to produce more rental housing become low, even if there are indication of high demand in the market. In this case market failure occurs in the rental housing sector.

Again, when the expected outcomes in the rental housing market are perceived to fail to meet the actors' expectations in relation to alternative development i.e., development for sale, the motivation for rental housing development wanes. In these scenarios the rental housing market will fail to deliver the desired quantity, quality and affordable rental housing units (Ostrom, 2005). Such failures may in the long-run have implications on the institutions in terms of policy interventions, and regulatory framework, the community attributes, and the material condition

Figure 2.4. Adapted IAD Conceptual Framework for Analysing the Housing Market



To identify the relevant independent variables to guide the empirical research, it is pertinent to recall that the research has adopted three working hypotheses to arrive at justified conclusions about the subject problem:

1. *The **institutional framework** within which the housing market operates is more supportive of home-ownership than rental housing therefore resulting to **low supply of affordable rental housing**.*
2. *The **housing finance system** has not been supportive to rental housing market, hence, resulting to **low supply of affordable rental housing**.*
3. *The **performance of rental housing market** has been lower in terms of returns compared to housing development for sale hence resulting to **low supply of affordable rental housing** by the developers.*

Consequently, there are three strands of analysis in this framework focusing on the relationship between affordable rental housing delivery and institutional framework, the performance of rental housing compared to houses developed for sale, and lastly the relationship between affordable rental housing delivery and housing finance systems. Therefore, linking the hypotheses to the relevant variables, it is important to note that the independent variables have been linked to the two concepts of NIE namely institutions and property rights, while the transaction costs are reflected in the action arena.

The institutional framework has been clustered into two components comprising policy framework and institutional regulatory framework. Policy framework is deemed to be the government's strategic guide towards the operations of housing market and as such, policy positions may, or may neither be adhered to, nor implemented. Conversely, the institutional regulatory framework is deemed to be the functional rules or laws (i.e., land use regulations, legal framework and fiscal structure) that govern day to day operations of the housing market. Housing finance systems have also been conspicuously detached despite being part of the institutional framework. This is because the financing element is characteristically different from the other regulatory frameworks, and as such, analysing it separately illuminates its distinctive role in the housing market.

The first working hypothesis tests the relationship between the institutional framework and delivery of affordable rental housing. The part requires an understanding of how policy provisions and institutional regulatory framework have impacted on the rental housing market, therefore, the independent variable under the policy is policy framework. The second part tests how the functional land-use laws and legal framework impact on

the rental housing delivery. The main variables identified in this category include land – use regulations (rules) and the legal framework (property rights).

The second working hypothesis explores the relation of housing finance systems with affordable rental housing delivery. This entails understanding how financial institutions and frameworks influence rental housing development. Therefore, in this category, housing finance systems become the independent variable.

The third strand of analysis in this research evaluates the performance of rental housing development compared to that of the housing development for sale using various performance parameters such as rental levels, Internal Rate of Return (IRR), Net Present Values (NPV) and yields and payback periods

CHAPTER THREE:

3.0 Affordable Rental Housing: Theory and Evidence

3.1 Introduction

The main objective that this study seeks to achieve is to understand why supply of affordable good quality rental housing has remained low despite the high demand for rental housing accommodation. As such, this chapter reviews the theoretical and empirical literature with more focus on rental housing market, where it explores some of the studies which have been undertaken on the subject so as to comprehend how it has been theorized for a comprehensive understanding of the study subject, and identify the gaps in the existing field of knowledge. This chapter therefore explores the rental housing market in detail, while expounding on its nature, concepts and the demand and supply factors influencing it. The chapter further draws experiences from developed countries to learn vital lessons which are useful for understanding the rental housing market sector.

This chapter is divided into four themes. The first section offers introduction and explores the significance of affordable rental housing. The second part discusses both the demand and supply factors influencing the rental housing market. The third part draws lessons from private rental housing market in developing countries, while the last part provides the conclusions and identifies the study gaps.

3.2 The Significance of Rental Housing Market

Within the housing context, home-ownership and the benefits that accrue to it have been widely studied (Stephens, 2017; Arnott, 2008; World Bank, 1993; Gurney, 1999; Ronald, 2004). For instance, home-ownership is associated with promotion of a widespread assortment of social-economic, political, behavioural, and neighbourhood changes (Shlay, 2006). In the contemporary socio-economic milieu, home-ownership is hailed as the epitome of traditional values (Forrest, 1983). Furthermore, home-ownership provides economic benefit by being a secure investment vehicle for creating wealth through capital appreciation (Stephens, *ibid*). Housing is also viewed as fundamental human need and right, and therefore, owning a home can be used as a social barometer to gauge household's social status and well-being (Erguden, 2001). It is also widely considered that home-ownership does not only uphold neighbourhood stability, but also enhances individual gratification and helps in controlling households' surroundings (Stephens, *ibid*). In this context, it is widely considered that home-ownership could play a pivotal role

towards sustainability, especially by enhancing stability to households, revitalizing distressed groups, and improving the general economic development.

Nevertheless, as much as home-ownership is argued to be a better option, it is however not necessarily the best for every household (Apgar, 2004). As argued by Gilbert (2004), rental housing is an important constituent of an effective housing market, and should be viewed as a supplement, rather than a competitor to home-ownership. Rental housing embodies a significant alternative housing tenure for the households who find home-ownership either unaffordable or unsuitable.

Generally, the rental sector is diverse in nature and serves a wide spectrum of the population. It accommodates a sizable proportion of households who prefer renting to owning (Haffner, 2009). However, as pointed out by Gilbert (2016), rental housing is fundamentally an urban phenomenon which has grown due to urbanization. For instance, UN (2019) estimates that 55% per cent of the world's population resided in urban areas in 2018 and further projects that about 68% of the world's population will be urban by 2050. Further, it has been observed that rental housing forms a significant proportion of the urban housing market in most developing countries (Cadstedt, 2010; Mwangi, 1997; McCarthy & Watson, 1997). Examples from Kenya indicate that over 80% of the Kenyan urban dwellers are renters (Huchzermeyer, 2010).

The decision to own or rent a house is dependent on various sets of complex socio-economic, legal, political as well as psychological factors. In essence, rental housing is viewed to offer households the ease of leasing, while still enjoying various advantages associated with ownership. However, it should be acknowledged that even though rental housing sector is complex, diverse and dynamic, such that it becomes challenging to capture its entire role in the overall housing market, the inherent benefits of rental housing cannot be overlooked (Apgar, 2004).

Basically, the rental sector remains appropriate for meeting housing demand in rapidly urbanizing cities which are usually characterized by considerable adjustments in employment structure, hence necessitating housing tenure that enhances flexibility and mobility of labourers, and transitional workers who only require temporary shelter to minimize their transaction and fixed costs (Hammam, 2014). For instance, Gilbert (2004) explains that rental housing is suitable for low-income households who are unable to afford home-ownership, the young population with preference for mobility, new urban

settlers, households with small size and those who simply prioritize renting to owning due to personal reasons.

While the rental tenure cuts across households in both high and low-income categories, still, household's income remains a vital element of housing tenure choice. This argument is supported by Carliner and Marya (2016) who carried out a comparative study of rental tenure within European and North American countries and observes that in most cases, rental tenure is more prevalent among the households with below-median incomes as compared to those with higher incomes. Still, in a related study, Pomeroy and Godbout (2011) also investigate the development of the rental housing market in Latin America and the Caribbean and concludes that despite the fact that both social and private rental housing tenures play a transitional role for the majority, in many instances it becomes a lifelong tenure for the low-income households. Similarly, an earlier study by Rugg and Rhodes (2008) indicate that rental housing mainly accommodates larger portion of low-income families and households within the intermediate market, that is, those who are employed and can afford rent but unable to afford home-ownership. Therefore, the rental sector remains a natural channel for the low-income families with inadequate incomes to buy a home, or even meet the threshold to access housing finance.

By and large, the foregoing literature suggest that households rent housing due to various reasons, but as outlined by Carliner and Marya (2016) these can be condensed into two main factors relating to either constraint or choice. That is, while some prefer rental housing because their existing circumstances do not allow them to own, others simply do not wish to own, at least in the interim. As such, the ultimate idea of rental housing is to ensure that housing is available and affordable to the wide spectrum of the populace who may prefer to rent due to various reasons.

Peppercorn and Taffin (2013) underscores the diversity of rental housing ownership and categorizes them into private individual or small-scale owners, institutional investors, and non-profit providers, which include the government. A number of studies however reveal that private individuals are the predominant owners of private rental housing in most countries (Oxley *et al.*, 2011; Berry, 2000). For example, Peppercorn and Taffin (*ibid*) indicates that about 70% of private housing units in Mexico are owned by private individuals, 67% in Germany and 54% in France. Even though most individuals are driven by different investment motives, they are mainly based on rental returns, tax incentives and capital appreciation.

Jacobs *et al* (2010) investigated the trends of rental investment in Australia, while focusing on small landlords and institutional investors. He observed that the existing market incentives, fiscal framework and cultural background of the rental housing market mainly made the small-scale landlords to be the dominant investors in the sector. Institutional investors on the other hand are long-term investors who are very particular on minimising risks and maximising returns, hence mainly invest in rental housing as a mode of diversification, and regularly prefer the higher-income units where risks are perceived to be low.

An earlier study by Melzer and Moothilal (2008) similarly observed that trends in most countries have depicted less interest in the rental housing sector by institutional investors who generally have preference for commercial or industrial property sectors. The non-profit landlords are however identified with social rental housing. As explained by Haffner (2009), in most developed countries, the social rental housing is largely owned by non-profit landlords whose main objective is not to maximize profit but may be pursuing benevolent goals. However, sometimes commercial organizations also engage in social housing in return for tax benefits.

3.3 The Rental Housing Market: Demand and Supply Factors.

Generally, the theme of determinants of demand and supply in the housing market is well-researched in housing studies and economics and as such, the factors are well known. However, rental housing in developing countries has not attracted much research thus resulting to limited literature on the subject. Consequently, most of the literature relevant to the subject is drawn from the development countries. This presents a significant setback in contextual perspective.

Lowe (2007) emphasizes that the private rental housing market is diverse, and the demand and supply characteristics are specific to the sub-markets within the sector. The niche markets are generally classified according to typical features of the tenants and landlords. As a result, understanding the key agents (landlords and tenants) in the rental market is key to appropriate assessment of the demand and supply determinants. Explanation by Rugg and Rhodes (2008) however suggests that a better approach should go beyond analysis of landlord or tenant characteristics and reflect the manner in which supply and demand patterns are framed within the niche markets. Regrettably, research specific to these submarkets have been limited, but still, comprehension of the main

features within the niche markets provides useful knowledge on how the overall market operates.

Nevertheless, a number of authors have identified a wide range of general factors that influence private rental housing market, and characterized them into supply-side and demand-side (Peppercorn & Taffin, 2013; Malpezzi, 2001; Melzer & Moothilal, 2008; Rugg & Rhodes, 2008). But it is important to note that in most instances, any weaknesses or shortcomings within these factors usually generate challenges which have now become inherent with rental housing market. Many authors have pointed out that the main constraints are coalesced around how the rental housing market relates to the institutional environment. This is because institutions influence the outcome in the housing market such that they determine what houses are produced, for whom they are produced, how they are delivered and in what quantity.

3.3.1 Demand-side factors

While analysing the demand factors, it is vital to underscore the difference between need and demand for rental housing. Basically, rental housing need is considered to be normative notion which construes the discrepancy from the acceptable standards of satisfactory rental dwelling units (Bramley *et al.*, 2010), whereas rental housing demand implies the amount and quality of rental accommodation which households are willing and able to consume at a given rent. The need for rental housing is generally determined by a set of measures articulated by policy makers, and does not necessarily translate to demand, unless coupled by the ability and willingness to pay for housing (Melzer & Moothilal, 2008).

A number of factors are however attributed to rental housing demand. Demographic characteristics such as household growth and composition, employment and income levels, and household choices provide vital trends for consideration when analysing demand-side perspective of rental housing markets (Davenport, 2003)

Household Growth: To a greater extent, the demographic trends influence household formation, which in effect determines rental housing demand (Bramley *et al.*, 2010). There is however a distinction between household growth and population growth despite the two being clearly related. For instance, Belsky, Drew and Mccue (2007) clarify that in as much as population increase has a positive correlation with household growth, the key factor that determines household's formation is the increase and changes in adult population structure, and not the growth of overall population. On the other hand,

population growth could also lead to higher proportion of cost-laden households as the increased number of households compete for the limited supply of the rental housing units available in the short-run (Melzer & Moothilal, 2008).

A number of studies have tried to explain the relationship between household trends and rental housing demand. For instance, Belsky, Drew and Mccue (2007) illustrate that household growth has the largest impact on rental housing demand. Therefore, when there are higher prospects of the young population moving from their parents' homes then demand for rental housing increases. This argument is based on the maxim '*one household occupies one dwelling unit*'. This finding concurs with that of Melzer and Moothilal (2008) which provides evidence from South African cities showing a 1.7% increase in the households renting due to growth of households by the same margin. Carliner and Marya (2016) likewise give an example of Sweden which experiences high percentage rental rate due to the tendency of young adults forming their own households. This is a contrast to the situation in Italy where young adults live with their parents, leading to low uptake of rental housing. Similarly, Fallis (1985) also demonstrates that increase in the number of families influences demand for rental units. All these studies clearly demonstrate the high likelihood of new household formations leading to new demand for rental housing

On a different perspective, Tiwari and Hasegawa (2000) investigated effective rental housing demand in the Tokyo metropolitan region using hedonic function and found out that demand for rental housing is dependent on the household type, housing price and household income. They however noted that the rental housing demand is less responsive to permanent income.

Household Composition: Household composition has equally been identified to have significant impact on rental housing demand. Smith (1984) however, clarifies that household composition comprises not only the family size, but also the age, gender composition among others. Apgar (2004) for example observes that renters are more likely to be younger persons, who are most likely single, or have smaller families, and more often with lower income in relation to home-owners. This is further illustrated by Carliner and Marya (2016) who analysed rental housing characteristics in Europe and North America and found out that in most of the countries, the renters were most likely 'single-person households' than larger households. This implies that renting tendency is linked to the size of household. However, rental housing regularly acts as transitional

tenure for this household calibre, as they are most likely to move to owner-occupied unit when their socio-economic status changes. This is again demonstrated by Carliner and Marya (*ibid*) who observed that the oldest population were less likely to be renters as compared to the younger generation.

Employment and income levels: Lowe (2007) identifies elements such as employment levels and households' incomes as further determinants of the rental housing demand. This implies that there is a strong theoretical validation of the significance of unemployment level on the rental housing demand among the low-income families (Davenport, 2003). It is postulated that high levels of unemployment results to low demand for rental housing both in high and low-end markets. A rise in unemployment therefore increases the cost-burden of households in rental house acquisition, whereby the affected households are compelled to compromise on either size or quality of housing. The main argument about the relationship of unemployment and rental house demand still focuses on household formation. Fallis (1985) for instance, argues that a rise in employment levels results to steady income which consequently led to more household formations and increased rental housing demand.

Households Choices and Preferences: Generally, analysis of rental housing demand is intertwined with a clear understanding of consumer tenure choice within the housing market. As observed by Bramley *et al* (2010), the housing market is usually characterized by a disequilibrium due discrepancy between housing demand and supply, hence, making housing tenure choice significant. Therefore, the most important aspects in household's tenure choice comprise household formation and their housing needs; the decision on whether to acquire housing services by renting or owning; what quantity of housing to consume, and, at what cost (Dubel, Brzeski & Hamilton, 2006). Essentially, these decisions occur simultaneously.

However, most analysis of the demand-side factors are often based on the neoclassical theory, which assumes that the economic agents act rationally, while aiming at utility maximization in relation to constrained budget (Arnott, 1987). Therefore, in the case of housing markets, the theory assumes that households make rational choices and are capable of selecting different tenures, based on the 'intertemporal utility' maximization perspective (*ibid*). The intertemporal utility standpoint is where households evaluate consumption strategies periodically with an aim of maximizing lifetime utility while taking

note of their budget limitation and considering both current and future prices and incomes (Fallis, 1985).

3.3.2 Supply- side factors influencing rental housing market.

Normally, the supply of rental housing is relatively inelastic in nature, and slowly responds to the market factors due to the long periods of housing construction process (Melzer & Moothilal, 2008). But as argued by Davenport (2003), the inelasticity of rental housing supply could be limited to the short-run period, since in the long-run the landlords have sufficient time for new housing developments. Nevertheless, the responsiveness of the supply side can be determined by a number of factors.

Peppercorn and Taffin (2013) presents one of the prominent studies in the recent past conducted on rental housing in an attempt to understand the various factors that influence supply in the rental sector. It examines various housing policies in a number of countries around the world with an aim of offering broad-spectrum policy recommendations on housing matters. However, just as most other studies, the research focused on the developed countries and primarily employed a qualitative design where a number of case studies were conducted to understand rental housing markets within the context of the countries covered. In its findings, it emphasizes on the significant influence of institutional framework on supply of rental housing; and further argues that a balance in institutional framework creates conducive environment for rental housing investment.

An earlier study by Pomeroy and Godbout (2011) observed that the main challenge usually encountered in the rental market is to strike the right balance in attaining regulatory goals without jeopardizing potential investors. The balance could however be achieved through balancing of landlord's and renter's rights and obligations in a manner that promotes delivery of rental housing units and offers mechanisms for producing rental stock that is affordable to the low-income.

Other authors however view a balanced institutional environment in terms of functionality of housing market. For instance, Shlomo (2000) describes a functional housing system as one where developers and investors are apathetic to owner-occupied or rental housing development, while at the same time, the consumers remain apathetic to owning or renting. However, this description depicts an ideal scenario which is not always attainable. In fact, an ideal situation does not require formulation of policy framework to stimulate and develop a feasible rental housing system. This is because the market forces of demand and supply would be competitive to sufficiently address the interests of

both the consumers and investors. But, ordinarily, as pointed out by Pomeroy and Godbout (2011), a number of factors relating to housing policies, regulations and fiscal policies distort the housing market and shape delivery structures within the market.

Policy framework: Clearly, government policies on housing have a significant influence on the delivery of affordable rental housing (Malpezzi & Ball, 1999). Housing policies however differ among countries. For instance, a number of authors have carried out comparative studies on policy framework across different countries (O’Sullivan & De Decker, 2007; Oxley *et al.*, 2011; McHardy & Donovan, 2016; Carliner & Marya, 2016). The evident consensus is that policy framework varies from country to country, with varied provisions on rental housing, hence, the varied rental housing levels.

Nevertheless, when viewed from unbiased lenses, the neglect of rental sector by most government policies can either be regarded as the cause of rental housing undersupply, or a consequence of the nature of rental housing market. Studies such as Mahadevia and Gogoi (2011), Gilbert (2009), Asian Development Bank (2013), Peppercorn and Taffin (2013), Dubel, Brzeski and Hamilton(2006) and Watson and Mc Carthy (1997) have theorized that policy preference to home-ownership has resulted to undersupply of private rental housing. In fact, the most notable observation is that a number of policies have been implemented but, idolization of home-ownership remains the dominant ideology surrounding the quest for affordable housing solution. This is based on the premise that home-ownership is the primary desire of most households according to Belsky and Retsinas (2008) and therefore, most housing policies around the world predominantly favour ownership form of tenure (Schwartz, 2010).

Gilbert (2009) for instance demonstrates that few governments recognise rental housing as a critical housing choice, and therefore end up formulating tenure-biased housing policies. He explains that rental housing supply is likely to be retarded when policy frameworks neglect the rental sector and instead favour home-ownership. Pomeroy and Godbout (2011) agrees with this view. They examined the prospects of strengthening and expanding rental housing sector in developing countries; and concluded that imbalanced housing system that favours home-ownership discourages investment in private rental housing, and consequently results into undersupply of rental units.

On the other hand, Cadstedt (2010) argues that the policy neglect could have resulted from the complex nature of the rental housing market, hence the challenge in coming up with a common approach to handle it. For instance, Cadstedt (*ibid*) examined the private

rental sector in Tanzania and revealed that the landlords' interests are viewed to be fragmented since most of the individual owners, who dominate the sector pursue different goals, hence complicating enforcement of legislation. Again, Gilbert (2016) postulates that policy-makers usually overlook rental housing since the tenants are considered to be transient groups who do not require long-term policies. But on the contrary, renters can also be considered to be heterogeneous lot as noted by Hooper and Ortolano (2012) and therefore, while some tenants are transient, others are long term. Consequently, a policy framework focusing on rental housing is necessary for promoting its delivery.

A study by Melzer and Moothilal (2008) however offers suggestions towards promoting the private rental housing sector. They argue that aligning the institutional factors with the desires of investors is considered the most crucial element. They further advise that for enhanced private sector investment in the rental housing, there is need to place greater emphasis on attracting the small- scale landlords, who are the major player in the rental market.

While the foregoing assertions have justifications, some of which are anchored on empirical evidence, yet, the pertinent question that arises is whether there is any plausible justification for policy preference to home-ownership as an ideal housing strategy for the low-income households. Indeed, the question may attract complex answers and varied opinions. Some studies however posit that home-ownership *per se* is inadequate to satisfy housing needs of household at all income levels, especially the low-income in the developing countries (UN-HABITAT, 2004; Rick, 2004). The main challenge for ownership in the low-income segment arises from disproportionate economic growth and lacking distributive policy framework (UN, 2014). In this state, emphasizing on home-ownership for all income classes renders the low-income households weaker and vulnerable in terms of housing provision (Satterthwaite, 2009). But still, home-ownership could probably be a good choice for majority but not certainly the best option for everyone (Apgar, 2004).

Legal Framework: The Legal structure forms one of the most critical components of the institutional framework in regulating rental sector (Malpezzi & Ball, 1999). Pomeroy and Godbout (2011) corroborates the essence of legal framework in the rental sector and reiterate the need for balanced regulatory framework. Rental housing regulations ordinarily comprises two main elements. As noted by O'Sullivan and De Decker (2007), the first one has been through controlling the prevailing circumstances for private rental

market operation, and specifically, the freedom of the landlords to increase rentals so as to maintain affordability, and prevent economic exclusion that could arise if rental levels exceed the tenants' capacity to pay.

Secondly, Pomeroy and Godbout (2011) explains that creating tenancy security builds certainty about occupancy period, and concurrently reduces chances of arbitrary eviction of tenants by landlord, except for prescribed reasons. Peppercorn and Taffin (2013) however, observes that ironically, the countries with strong attitude against rental housing usually provide more protection to the tenants. This irony generates a dilemma whereby the potential investors remain apprehensive in developing rental housing for fear that the law will shield rent defaulters. But, as argued by Pomeroy and Godbout (*ibid*) regulation in itself is not bad, but occasionally, it leads to uncertainty and present bottlenecks to investments, while sometimes they create competitions that make rental developments by private investors unviable.

Many authors have identified rent control as one of the common regulatory tool used in the rental sector (Gilbert, 2016; Peppercorn & Taffin, 2013; Komu, 2013; Malpezzi & Ball, 1999). However, despite rent control being widely used to protect the tenants against manipulation by the landlords (Haffner, 2009), there is a near consensus among the scholars that they are detrimental. The negative impact of rent control is best captured by Lindbeck (1971:39) as *'the most efficient technique presently known to destroy a city other than bombing'*. Accordingly, there have been concerns that rental controls do not only discourage supply of new rental housing units, but also leads to qualitative deterioration of the existing rental stock (Gilbert, *ibid* ; Peppercorn & Taffin, *ibid*). For instance, Niebanck (2016) evaluated the impacts of rent control on the rental housing market New York City and found that 29% of housing under rent control had deteriorated, compared to only 8% of the unrestrained houses which were in same state. Similar statistics have been cited for United Kingdom and Europe (Wilson, 2017; O'Sullivan & De Decker, 2007). Rent control is also considered to retard new investments and hence limit rental housing supply (Malpass & Murie, 1994; Whitehead, 2012).

Peppercorn and Taffin (2013) view rent control as a state-guaranteed subsidy to the renters but paid by the landlord. In this regard, Hughes and Lowe (2017) opine that while the intent of such regulations is to safeguard the tenants, they prevent the landlords from receiving the suitable returns on their investment. The potential investors therefore tend to worry that their investments might be subjected to stringent state-imposed rental

ceilings and hence divert their capital to alternative ventures. Evidence from Kemp (2008) illustrates that within the second half of the twentieth century, rent control played a significant role in reducing private rental housing down to 10% from 50 % of the housing stock in England. Conversely, other studies have shown that deregulation of rental housing sector has led to rise in private rental housing stock. For instance, O'Sullivan and De Decker (2007) observe that there has been a revival in the private rented sector in most UK and EU countries after deregulation of the sector. Subsequent studies have also confirmed a significant rise in private rental housing sector in comparison to regulation era (Bill et al, 2008; Kemp, 2015; Ormandy & Davis in Hughes and Lowe, (*ibid*); Pomeroy & Godbout, 2011).

Some authors have however held different opinions regarding rent control and absolve it from the rental sector problems. For instance, Hilton (2016) argues that the common reasons for discrediting rent control are mere myths that lack evidential foundation. But, an earlier study by Malpezzi and Ball (1999) reinforces the opinions against rent control. They examined the feature and scope of rent control, and their impact in developing countries, and concluded that rent control fails in achieving the intended objectives, and consequently advised the policy makers in the developing countries to avoid using it as a tool of safeguarding the low-income tenants. A subsequent review from Jenkins (2009) strengthens this view by asserting that, in various theoretical and empirical studies touching on issues regarding rental housing sector, the disapproval of rent control has been consistent and predominant, and therefore, a rare consensus among housing scholars is that rent control has more problems than it solves.

The legal framework also has an impact on rental housing supply by significantly defining the landlord-tenant relationship. The significance is based on the belief that a successful private rental housing market requires a competent and stable tenure regulations to control its transactions between the landlords and tenants (Hubert, 1998). Malpezzi (2011) observes that the rental housing sector is governed by private contracts, which are mainly controlled by state. Ordinarily, these laws usually define the nature of rights to be enjoyed by the landlords and tenants as specified in the contract. Most government interventions are aimed at defining the rights and stipulating the circumstances for repossession of the housing units by the landlord. In most cases, the landlord's rights to evict a tenant are however limited (Malpezzi & Ball, 1999).

Generally, a viable rental housing sector requires regulatory framework that aims at achieving secure tenure for the tenants, while at the same time ensuring adequate returns for the investors (Peppercorn & Taffin, 2013). Consequently, inefficient regulatory framework retards the rental sector by constricting supply of private rental housing. A number of studies have confirmed this. For instance, Dubel, Brzeski and Hamilton (2006) examined the post-privatization challenges in the Europe and Central Asia region and observed that due to weak legal context, majority of the private rental transactions are usually administered through contracts, which are enforced by common courts whenever disagreements arise. They conclude that such regulations are ineffective as they lead to prolonged and uncertain litigations hence, act as disincentive to rental housing investment. A related study in Tanzania by Cadstedt (2010) strengthens this evidence by postulating that when the benefits of tenancy regulations are heavily skewed toward the tenants, the landlords become apprehensive, and their greatest concern is usually the ease with which to repossess their property in case of rent default or breach of contract by the tenant. Experience from Chile also illustrates that the difficulty faced by landlords in repossessing their properties, or executing the courts' verdict due to prolonged bureaucratic procedures discourages investing in private rental housing (Sabatini *et al*, 2012). In general, the perception that legal frameworks protect tenants' interests more than the landlords' largely impacts negatively on the supply of private rental housing (Cadstedt, 2006). This evidence illustrates that the landlord-tenant relationship is basically founded upon the extent of power exercised by the landlord, yet, a viable rental sector requires significant contractual neutrality between the landlords and tenants (Davis &Houghton in Lowe, 2007).

Land Use Regulations: The impact of land-use regulations such as building codes, zoning and other land use standards on housing market has been widely studied (Wilson, 2017; Arnott, 2008; Schuetz, 2007; Malpezzi & Ball, 1999; Malpezzi, 1990). One common observation from those studies is that formal housing markets in developing countries are overregulated. A study by Peppercorn and Taffin (2013) similarly concurs that rental sector in most development countries are exposed to excess regulatory and legal processes. Malpezzi (2001) explains that the essence of these regulations is usually to rationalize land use and help in achieving organized urban development, by protecting the neighbourhood against externalities that may result from incompatible land uses. However, they sometimes turn out to be the major constraint that hinders developers' involvement in delivery of affordable rental housing.

It is however worth noting that as much as the regulatory framework influences the larger housing market, the great concern for this study is how the rental housing supply is specifically impacted by these regulations. Evidences from the literatures reveal that only a few studies dichotomize the impacts on rental and owner-occupied housing. One such study is Malpezzi (1990) which investigated the issues and constraints in rental housing sector in developing countries, observed that even though regulations affect both home-ownership and rental markets alike, it is however considered that regulatory rules by nature set high building standards and control densities, hence, tend to affect the rental sector more by increasing the transaction costs associated with rental housing administration.

A subsequent study by Malpezzi and Ball (1999) further confirms that regulations such as building codes, zoning and other land use standards often discriminate against low-cost rental housing. Actually, most zoning regulations restrict construction of multi-family dwelling units by reducing acceptable densities in many prime areas, yet these are the most suited categories for rental housing. For instance, a considerable number of empirical studies have analysed the relationship between land use regulation and the rental housing market and concluded that, land use restrictions constrain the supply of new rental housing and increase rents (Schuetz, 2007; Somerville & Mayer, 2002; Green & Malpezzi, 1996). Similarly, study by Melzer and Moothilal (2008) also confirms that regulations limit supply of suitable land for affordable rental housing given that areas which are less regulated experience more levels of new constructions than heavily controlled regions.

Besides, as argued by Schuetz (2007), bureaucratic barriers to development may delay construction and consequently delay the expected rents. This implies that the payback period for the investment could be prolonged, a fact that may disinterest private developers, and consequently impacts negatively on rental housing supply. The cost related to regulatory procedures is the delays encountered by the developers, hence resulting to tying up capital and increasing risk. For instance, processing of development approvals is not only expensive but may also take several days (Malpezzi, 1990). Sommariva and Patel (2013) view regulations as the administrative barriers that have stifled development in the rental sector. However, regulations are necessary to set the 'rules of the game' but should aim at levelling the playing ground such that housing investments are beneficial to the developers, whether owner-occupied or rental units.

Fiscal Policy: Various studies have also recorded the significance of fiscal policy in influencing supply of rental of rental housing (Gilbert, 2016; Peppercorn and Taffin, 2013; Dubel, Brzeski & Hamilton, 2006); Oxley *at al.*, 2011). Taxation has been identified as an instrument that can be used by governments to boost rental housing investment (Gilbert, 2016). Chiquier and Lea (2009) observes that the preference of home-ownership to rental tenure by most countries have led them to introduce favourable fiscal legislations for home-owners.

According to Dubel, Brzeski & Hamilton (2006), the manner in which fiscal policy treats rental housing forms a critical policy guideline which influences comparative housing rents and prices and consequently the viability of investment and rental levels. Therefore, high tax burdens lower the rate of return and discourage investment in rental housing. Conversely, other studies have also shown that tax incentives promote investments in rental housing. For instance, study Melzer and Moothilal (2008) confirms this assertion. They carried out an empirical study in South Africa and found out that the 'Urban Development Zone (UDZ) tax incentive' had a great impact in encouraging rental housing investments in inner cities by private landlords.

Pomeroy and Godbout (2011) also observe that favourable tax provisions enhance net yields and consequently encourage rental housing investment. Besides, empirical evidence from the developed nations such as France and Germany reveal that countries with favourable tax incentives have vibrant rental sector as opposed to England, where the overall rental quality is poor due to fiscal policy that favours home-ownership (Oxley et al, 2011). On the contrary, at times, tax policies often have inadvertent results. For instance, Peppercorn and Taffin (2013), observes that high tax burden in rental housing might support social policy such that while the landlord receives revenue, it also provides the government with a revenue base with which to offer services. Nevertheless, a weighty tax burden on rental housing discourages investment in formal sector since the potential investors move to the unregulated informal rental sector, where the tenants' powers are reduced while the owners have no motivation to maintain their properties in decent state.

Housing Finance Systems: Housing finance systems constitute a number of market mechanisms as well as policy measures which are aimed in providing housing financing. They involve operations in the monetary and credit systems which are meant to increase development or acquisition of property (Malpass & Murie, 1994). The significance of housing finance is derived from the very nature of housing product. For instance, housing

is an expensive product whose investment requires huge capital and long-term financial commitment. Housing finance is therefore a major pillar in the housing delivery system since it provides funds to the developers and consumers of housing, both rental and home-ownership (Chiquier & Lea, 2009) . Therefore, it is quiet challenging to meet the objective of policy in housing development if there is no well recognized as well as an efficient mechanism in housing finance. As observed by Miller:

'The problem with housing is not building it...we all know how to build houses. It's not demands. There are plenty of people who want houses. The problem is allowing the people who want the houses the financing capacity to buy them.' -Robin Miller, brainchild of the Lilayi Project in Lusaka, Zambia (CAHF, 2010:85).

According to Garnett and Perry (2005) the intent of housing finance is to enable households secure and enjoy housing and services that could have exceeded their ability. Buckley and Kalaricka, (2005) recognize the significance of finance in housing provision and emphasize the need of developing policy measures aimed at sustainable housing finance systems with ability of enhancing housing delivery at all levels. Malpezzi and Ball (1999) argue that housing finance system has widespread effects on shelter delivery in any country. For instance, they point out that an efficiently functioning housing sector requires adequate supply of housing finance, efficiently and fairly allocated amongst housing investors. Consequently, enhancing rental housing supply therefore requires a sound housing finance system that favours not just the demand side but also the supply side of the housing market (Pomeroy & Godbout, 2011).

Significance of housing finance in housing provision has been widely recognized. Consequently, Buckley and Kalaricka (2005) emphasize the need of developing policy measures aimed at sustainable housing finance systems that are able to enhance affordable housing delivery. Buckley *et al* (2009) echoed these studies by arguing that housing finance is hinged on its role in housing, and hence has a direct and indirect impact on the operation of housing market as well as overall national economy.

The influence of housing finance systems specifically to rental housing delivery is well captured. As noted by Peppercorn and Taffin (2013) the nature of financial framework is critical for development of rental housing. When the financial instrument is fashioned in such a way that it ultimately leads to favourable rate of return for rental housing, then private sector is attracted to invest in rental units. For instance, lower interest rates and

longer amortization terms results to lower monthly repayment amounts, hence lowering the expenses and enhancing net income. This in effect results to positive rate of return. Chiquier and Lea (2009) use the Brazilian case to illustrate the scenario, where constantly high cost of finance and unrealistic building standards raise the cost of building in such a way that the rentals cannot achieve suitable returns. They argue that high interest rate compounds rental housing problems by raising the opportunity cost of investing in it. Yet, the existing rental levels are less attractive to spur new investments. Lawson, Hamilton & Pawson (2014) underscore the importance of attracting private finance toward expansion of supply in the entire rental housing segment and observes that favourable financial conditions provide effective opportunities for delivery of rental housing units to the low-income families at affordable rents. They advise that to attract private finance, rental housing developing must provide a valid business case backed by government guarantee through a long-term policy framework.

Other studies have identified additional reasons for lack of in interest on rental housing funding by financial institutions. For example, Chiquier and Lea (2009) opine that regulatory framework should offer supportive incentives to enable competitive institutions avail financial services to rental housing developers. They further observe that in most countries, rental housing sector is viewed less profitable and riskier than commercial properties sector. As expounded by Malpezzi (1990) the risk results due to low and uncertain rental income which may hamper loan repayment. Peppercorn and Taffin (2013) further observe that this has consequently led the banks to prefer lending to commercial property developers as opposed to rental housing, although with exception of high-income residential segment. Further, the formal rental housing particularly in the developing countries is not yet well developed, and search there is limited information. Hence, the dearth of rental housing data also implies that the financial institutions lack the relevant information upon which to make investment. Besides, rental housing development is predominated with small-scale landlords with sporadic investments, hence present more risk as compared to owner-occupier.

Rental Returns: Of significance to note is that all the aforementioned factors by and large greatly impact on profitability of rental housing development. As pointed out by Malpezi (2011), profitability is the major aspect influencing investment in rental housing. In essence, the general principles of investment therefore apply to rental housing and consequently, a rational investor in rental housing will be guided by three principles

namely; total returns, risks, and liquidity (Peppercorn & Taffin, 2013). This is evident since much of the consideration when evaluating the impacts of institutional, legal and fiscal policies on rental housing, the ultimate judgment is based on their overall influence on the returns and risks levels in the rental sector (Lowe, 2007).

According to Chiquier and Lea (2009), rental investment basically comprises ‘a series of cash flows consisting the development costs, rental income as well as maintenance and operation costs (see table 3.1). The net operating income as determined by the variance between rental income, and operating and maintenance costs, is the main determinant of rental housing profitability, and consequently, the key incentive for private investor into rental housing development. This position is confirmed by Oxley *et al* (2011) who argue that normally, the financial appeal of private rental housing investor is often reflected in rental yields and probable capital gains (resulting from increase in property values) that is likely to be achieved. The financial feasibility rule is therefore considered as a practical and operational process applied by housing investors as a guide towards housing investment decisions (Fallis, 1985).

Table 3. 1: Components of Rental Investment Cash flows

Before Completion	After Completion	
Development Costs	Maintenance and Operation Costs	Income
Preliminary development including land costs	Maintenance and repair Costs	Rents for the property
Construction costs	Physical management	
Financial costs	Voids and vacancies	
'Soft' costs such as fees, and taxes.	Tax and administrative management	

Adapted from Pomeroy and Godbout (2011)

Consequently, assessment of financial viability of the potential rental housing investment comprises quantifying the risk-adjusted rate of return, which should be higher than that of the alternative investment to offset the extra risks associated with the subject investment (Peppercorn & Taffin, 2013). There are recent studies to support this notion. For instance, Lawson, Hamilton and Pawson (2014) conducted an empirical analysis of rental housing investment in Australia and point out that rental housing supply is heavily dependent on ‘investor appetite’ as opposed to public policy. They however argue that when rental yields fail to meet the risk-adjusted conditions of the investor, then this

hinders delivery of affordable rental housing, and further explain that this failure could be due to lower rentals associated with units.

Chiquier and Lea (2009) however argue that the failure could result from risks and uncertainties associated with rental housing. They explain that rent collection uncertainties and other risks (such as vacancy, eviction risks, and disposal risks) are determined by the regulatory framework that controls the landlords and tenants' relationship. For example, in most countries, legal and regulatory framework end up shrinking rental returns through increase in operation costs and consequently increase risks associated with rental housing (Lawson, Hamilton & Pawson, 2014). Pomeroy and Godbout (2011) further provides evidence of uncertain cash flows for rental housing in developing countries as a result of legal and regulatory framework which are more inclined on safeguarding the tenants, hence increase the risk to the investor. When it is apparent to the landlords that the framework is unfavourable to them, then they avoid rental housing investment. Failure of the potential risk-adjusted returns to induce rental housing supply therefore requires extra incentives. For instance, sometimes, when the primary objective is long-term affordability, it is viable to involve the non-profit organizations.

3.4 Private Rental Housing Market: Lessons from the Developed Countries.

There is limited literature specific to rental housing in the developing countries. The literature from the developed countries therefore provides the general conceptual principles of rental housing market operations and the learning points on how the developed countries handle the rental housing market. This knowledge is vital in identifying the gaps in the rental housing market in the developing countries.

Across the developed countries, the private rented housing sector has grown in significance since it is considered to fill the gap for housing needs of the households left out by owner-occupier and social housing markets. Housing policy debates have therefore focused on finding the best mode of regulating the private rented housing market to ensure expanded supply, while concurrently protect the tenants from the variations generated by market conditions (Peppercorn & Taffin, 2013)

The structure of private rental sector globally can be distinguished into unitary and dualistic models (O'Sullivan & De Decker, 2007). The unitary rental system is founded on strong social policies aimed at striking a balance on social and economic priority by alleviating the negative effects of free market. The key tenet is to make all interventions

conform to the market condition, and therefore, the rental system is structured by the state in such a way that it allows for competition between profit-oriented and non-profit-oriented investors. The dualist systems are generally characterized with countries having liberal economic policies, which promote allocation of resources through free market mechanism. The challenge with this model is the inability of the market forces to satisfy housing needs for all due to market distortion, and therefore the government is obligated to intervene in the allocation (Kemeny, 1995).

Private rental housing sectors across the developed world therefore have considerable variations depending on the model within the countries. Consequently, none can definitely be comparable to the other (Scanlon & Kochan, 2011). Experience from the United States, Britain and Europe show different levels of private rental housing as a proportion as the existing housing stock. For instance, United States, United Kingdom and the larger Europe apart Germany, Sweden and the Czech Republic, France are considered as ownership region (O'Sullivan & De Decker, 2007). Kemp and Kofner (2010) provide a broad variations of private rental housing models between the US, Europe and Britain. They point out that while individual landlord offering small portfolios with short-term leases predominates the UK market, contrastingly, the USA is dominated by institutional investors possessing huge portfolios rental developments. Experience from the European countries such as France, Germany and Sweden reveal that private rental housing models comprise private landlords with small portfolios, albeit with long-term contracts.

Generally, the privately rented housing sector across the developed countries has experienced an upsurge. While a number of reasons have been put forward to explain this development, the consensus is that deregulation has played a major role towards the transformation across most European countries and the UK. In this regard, Kemp and Kofner (2010) observe that compared to the stringent regulations that characterized the early 20th C period, softer and adaptable rent regulations have been developed. They note that the terminal deterioration of the private rental housing sector was as a result of among others, rent control which discouraged investments into the sector.

Most authors have noted that traditionally, the private rented housing in the UK previously lacked ideological backing. For instance, Kemp (2004) observes that for the better part of the 20th Century, the government imposed unfavourable rent control measures which strongly benefited the tenants at the expense of the landlords, whose

returns were restricted. This led to a considerable decline in the volume of the segment as most landlords avoided it. But as demonstrated by Ball (2004), a major policy reform in 1988 which led to the review of Housing Act changed the fortune for the private rented housing sector. He observes that while the private rented sector had contracted by about 44% between 1971 and 1989, however, in the post reforms period between 1991 and 2000, the number of households in the sector expanded by 27%. Similarly, information from the Department for Communities and Local Government (DCLG) (2011) shows that the private rented segment has continued to grow substantially in the post reforms era. A later study by Gilbert (2016) points out that prior to deregulation, the private rental housing sector in the UK was almost moribund, but, after relaxing rental regulations, the sector has experienced expansion for example in London, it accommodates about 20% of households. Similar trend was also experienced in Finland where the private rental sector had declined to about 13% in the 1980s but recovered after relaxation of rental regulations. The growth of the sector is equally attributed to large number of households who are unable to afford home-ownership or qualify for social housing state (De Santos, 2012; Bill, 2008.)

Germany's case presents a viable experience with tangible lessons for rental housing sector development. The housing policy in Germany has changed from the initial liberal '*laissez-faire*' model which advocated for strong property rights, to the current social welfare state (Kofner, 2007). An examination of the country's housing system reveals that its experience in private rental housing sector demystifies the fallacy that home-ownership is reserved for the high-income households. In fact, the country's private rental housing sector is one of the largest internationally. For example, a study by Haffner (2009) indicate that in Germany, the owner-occupied sector is about 40% and rental sector 60%. Therefore, Germany is renowned as '*a country of tenants.*' Apart from accounting for the large share of the housing stock, the size of the rental sector remained steady for decades (*ibid*). But, Oxley *et al.* (2011) point out a notable distinction that, unlike most countries where rental housing is characterized with the low-income households, the German rental market has a strong demand from both high and low-income groups due to good quality housing and high degree of security of tenure.

The presence of a vibrant rental housing sector in Germany is accredited to the housing policy which is steered by 'social market economy ideology (Gilbert, 2016). 'Tenure-neutral policies' have encouraged several households to be tenants (Peppercorn & Taffin,

2013). Similar sentiments are shared by De Santos (2012) that balanced tenure system works for both landlords and tenants through providing security of tenure as well as mobility flexibility by the tenants, and also protects the landlord's investment interests. The policy has been designed to support economic development through market mechanisms while serving social welfare. This is done through market-guided rent regulation and housing allocation, and unbiased tenure subsidies (Oxley *et al.*, 2011). The system has been formulated in such a way that the landlords and tenants are well protected from risks. Kirchner (2006) accentuates the significance of well-defined laws and maintains that Germany's rental housing sector has clearly defined regulations and tenancy agreements, hence the tenants become apathetic to home-ownership. In such a circumstance, both the landlords and renters feel contented with the tenancy conditions, as the former are able to earn competitive returns, with the regulated rents, while the latter enjoy security of tenure.

Similarly, Hubert (1998) views the German's robust rental sector as a product of well-developed legal and fiscal framework on rental housing. This has been done through modernizing the tenancy laws to conform to the current societal changes. For example, Hubert (*ibid*) observes that principally, the tenancy laws allow the landlords and renters to formulate the contract according to their wishes, but variations of rents for non-subsidized and subsidized rental private rental housing are regulated. The subsidies are also based on a 'concession model' hence provides temporary protection of the subsidized units from the rest of the 'housing market under a special regime'. Besides, the favourable fiscal policy acted as a major incentive to the landlords. As observed by Kirchner (2006), tax concession through fiscal depreciation is regarded as a strong tool for subsidy since it is applicable to all private rented housing.

The United Kingdom's case however presents a contrasting scenario to Germany. But, as common with many other European nations, the private rented sector in the UK plays a residual role in meeting housing needs for the low-income households who are not able to access social housing (Kemp, 2011). As noted by Haffner(2009), the housing policy formulation is mainly done by the national government while the implementation is left for the local governments. Clearly, the rental housing is split between social housing and market rented segment. Private rental housing comprises all other rented housing other than those belonging to the local authorities and housing associations (Van der Heijden, 2002). With regard to the socio-economic status of the renters, Whitehead (2007) for

instance observes that majority of households who rent social housing are either single parents or single-persons. On the other hand, tenants in market rented housing comprises larger households with full-time employment, with an average income which is double that of social renters. Most of the market rented tenants have a higher turnover as compared to social rented tenants. However, in terms of social housing delivery, non-profit sector has continued to eclipse state managed segment due to policy preference to demand- side subsidies as opposed to direct housing provision (Gibb, 2002). In terms of rental contracts, the UK offers short-term contracts as opposed to the long-term contracts in Germany. This is captured by De Santos (2012:15) as follows:

'Renting in England is characterised by short-term tenancies, instability and uncertainty. While this does not necessarily mean all renters face eviction or an unaffordable rent increase after six months, supply and demand imbalances in many markets result in rapidly rising rents and a lack of consumer power. Instability and uncertainty can affect the way people feel in their homes. This is of particular concern given the length of time many people will be renting, and the burgeoning demographic of people in more settled life stages who might legitimately expect to have more stability in their home'.

In the United States, majority of the rental housing are privately-owned and market rented Malpezzi (2011). Low-Income Housing Tax Credit (LIHTC) program is the largest affordable housing construction subsidy in the United States and was incepted in 1986 to create financial incentives to developers investing in low-income rental housing. The program grants equity that is used by developers to subsidize the construction and rehabilitation costs of low-income rental housing (Schwartz, 2010). Under the LIHTC program, the government through the Internal Revenue Service (IRS) allocates non-refundable tax credits to the state housing agencies, which in turn grant the credits to selected developers with qualified housing projects. The developers then sell the credits, either directly or through syndication to investors in exchange for equity financing for the housing project, hence, reduce the debt that the developers would have borrowed. The program is lucrative to the investors since it lessens their federal tax burden with the credits over the successive 10-year period. In addition, rather than tax reduction which is deducted from the taxpayer's total income thus only reduces the taxable income, tax credits are subtracted directly from the investors' tax liability hence reduce tax liability dollar-for-dollar; and the annual credit amount is based on the sum invested in affordable

housing. The investors, who could be individuals, corporations or financial institutions, however do not anticipate any income from the project, but rather consider their reduced tax liability to be the return on their investment (Desai, Dharmapala & Singhal, 2008). Despite the fact that the US housing is still skewed towards home-ownership, the federal government has ensured relevant fiscal and monetary support to enhance supply of affordable rental housing through LIHTC (Chiquier & Lea, 2009).

3.5 Conclusions

A number of conclusions may be drawn from, and gaps identified in the foregoing literature. However, there is no much deviation from the observations in the preliminary literature review in chapter one of this study.

One key recurrent observation from the literature is that rental housing in the developing countries context is under-researched. As such most of the available studies on the rental housing sector are from the developed countries context. This suggests that there is little empirical understanding of how rental housing market is structured and it operates. Nevertheless, evidence from the literature reiterates the significance of the rental housing market. As such, rental housing cannot be overlooked in an effective housing system. This is because for one reason or another, there is a segment of the populace which is unable to purchase housing and therefore would prefer renting. Therefore, the significance of rental housing coupled with the fact that little research interests have been recorded in the developing countries' context is a viable indicator of the need to conduct a rental housing study in a developing country's context to bridge the contextual gap in the subject.

The literature evidently identifies institutional environment under which housing market operates as a significant determinant of the housing market outcomes. As such, the housing policy, land use laws, legal framework, fiscal structure and housing finance systems are key in determining the outcomes in the rental housing market. Therefore, there is need to understand how the institutional framework interacts with the housing market especially in the developing countries. Ordinarily, analysis of these interactions would require that such studies are conducted within certain conceptual frame for comprehensive understanding. There is therefore need to develop a viable conceptual framework that can be applicable to analysing rental housing market in developing countries and similar contexts.

Nevertheless, even when housing policy is examined separately, it is apparent that few governments in the developing countries recognize rental housing as a critical housing choice for the populace as most of the housing policies favour home-ownership. While preference for home-ownership has its merits as articulated in a number of studies, there are however pertinent questions of interest that need to be addressed. For instance, is there any plausible justification for policy preference to home-ownership as an ideal housing strategy for the low-income households even when there is evidence that they are not able to own homes? Do the policies resonate with the demographical socio-economic realities of the developing countries? Are the housing policies knowledge-based or they simply conforming to some societal norms? Do the policies treat both the supply and demand sides of the market equally?

Indeed, the questions may attract complex answers and varied opinions but realistically, home-ownership seems to be inadequate to satisfy housing needs of households at all income levels, especially the low-income, and could be directing more resources towards development of housing for sale as opposed to rental housing, hence the need to examine how rental housing sector can be strengthened. Further, the policies focusing on home-ownership alone are viewed to be rather prescriptive and limiting in terms of incentives towards development of alternative housing sectors. Therefore, to solve the urban housing crisis, there is need for a paradigm shift and exploration of alternative strategies with an aim of developing a well-functioning housing system that integrates both home-ownership and rental strategies and encourages development of houses under various tenures for all household levels.

A number of lessons can be drawn from the successful rental housing cases in the developed countries. For instance, a number of reasons that have propelled Germany's rental sector beyond other countries are clear. While Germany housing programs are focused on offering income maintenance to the landlords, most countries aim at offering poverty reprieve to the tenants. The significance of this is that the well-motivated landlords will supply more rental housing to the market, while on the other hand, programs aimed at protecting tenants inadvertently discourage the landlords or rental housing suppliers hence the low delivery. Additionally, the investment motive of the landlords in Germany is focused on tax benefits and favourable housing finance products as opposed to yield projections and capital gains on re-sale. Lastly, German rental

housing sector offers favourable returns due to conducive regulations as compared to for example UK where the rental regulations are complex (Kemp & Kofner, 2010).

It is evident that favourable fiscal environment has greatly contributed to the success of private rented sector in most countries. This is because it provides *'tax shelter'* and enables the investors realize suitable return on investment. Nevertheless, most developed countries have initiated various forms of rental housing subsidies either for the whole sector or for specific households especially the low-income. While the main motive of such subsidy programs is to spur rental housing supply, the main weakness of such subsidies is that they are laden with fiscal burdens that may be out of reach for most developing countries due to their unfavourable macro-economic conditions.

While it is not expressly stated, the rental housing sector in the developed countries exhibit a favourable standard of state-market interaction in the market economy, where the private developers execute all development roles, while the public-sector acts as a regulator. The model conforms to the enabling strategy approach of housing provision. Purposely, the fundamental idea of the 'enabling strategy' was to expand the role of private markets and for the entire housing sector development as opposed to reliance on project-oriented strategies 'such as sites and services and settlement upgrading programs'. The enabling strategy therefore promotes active involvement of the private sector in housing development, funding and production of building inputs.

On the other hand, government intervention is still essential in terms of creating enabling housing markets for creation of the required legal, regulatory and economic framework for the formal private sector to operate; and ensuring the ease of access to housing supply components such as land, infrastructure, workforce, building materials and technical assistance. The increased budget constraint within the public sector necessitates partnership with private sector for investment. The private sector investment however requires active and positive involvement of the government in manner that increases investor confidence. Therefore, a well formulated state-market interaction model is likely to generate financing out of the private sector for development of affordable rental housing.

CHAPTER FOUR:

4.0 Contextual Framework.

4.1 Introduction

For a clear understanding of the Kenyan housing problem, it is prudent to comprehend the contextual background, especially the institutional environment that closely relate to, and affect the housing market and delivery of rental housing in Kenya. This part therefore presents the contextual framework focusing on Kenya generally and subsequently evaluates the socio-economic context of Mombasa city, and the institutional regulatory framework in terms of development control in Mombasa. Therefore, in terms of chapter organization, part 4.2 deals with the historical, socio-economic and demographic background of Kenya. Part 4.3 explores the background of Mombasa City, while part 4.4 highlights the affordable housing context in Mombasa City. Part 4.5 outlines the institutional environment for housing provision in Kenya highlighting the policy, legal and institutional framework in housing and further exploring the development control and building approval process in Mombasa. This part also highlights the financial services sector in Kenya and explores the Kenyan mortgage market and the prevailing lending conditions

4.2 Background of Kenya

Kenya is situated across the equator in the Eastern Africa region and borders Somalia to the east, Indian Ocean to the southeast, Ethiopia to the north, South Sudan to the northwest, Uganda to the west and Tanzania to the south as shown on figure 4.2. It enjoys a coastline of about 536km long on the Indian Ocean and comprises a total area of 580,370 square kilometres of which about 11, 230 square kilometres (2.0%) is composed of inland water bodies mainly Lake Victoria and Lake Turkana (Ingham, Ominde & Ntarangwi, 2020). The climatic regions of Kenya vary from tropical along the coastal strip to predominantly arid inland (Water Management Authority [WMA], 2017). The Arid and Semi-Arid Lands (ASALs) comprises over 80% of the country's landmass (Republic of Kenya [RoK], 2012a) and exhibit are sparsely human settlement of about 20% of the population (mainly pastoralists) but predominated by rangelands and nature reserves which are home to a greater majority of the country's livestock and wildlife. The remaining land is considered arable and inhabited by about 80% of the population (RoK, 2015; NEMA, 2010).

The link to Kenyan colonial history dates back to the Berlin Conference in 1885 when the European powers partitioned East Africa according to their territorial influences which made Kenya a British protectorate in 1895 and subsequently, formally confirmed a British colony in 1920. Upon securing the Kenyan territory, the white immigrants were allocated the fertile highlands by the British, a move that disenfranchised the Africans. The suppression of Africans' rights instigated the journey to independence which begun in 1940s with agitation for self-rule and heightened in 1952 when a number of African political movements intensified armed struggle for freedom. Kenya therefore attained her independence in 1963 and subsequently became a republic in 1964 under the leadership of Jomo Kenyatta as the first President. In October 1978 Daniel Arap Moi became the second President upon the demise of Mzee Jomo Kenyatta (Gatheru, 2005). He later handed over power to President Mwai Kibaki who became the third President in December 2002 and currently Uhuru Muigai Kenyatta is reigning as the fourth president of the Republic of Kenya.

The Kenyan political and governance structures have experienced a number of transformations since independence, but heavily borrows from the British Commonwealth traditions as mirrored in her judicial system, legislative traditions and executive structure which from the three arms of government. At independence, the country had a multi-party system till 1969 when the government prohibited multi-party politics making Kenya a de-facto single-party state and subsequently ratifying the constitution in 1982 to make the country a de-jure single-party state. But in 1992, the strong agitation for political pluralism spearheaded by the late Jaramogi Oginga Odinga led to repealing of section 2A of the constitution to revert Kenya to multi-party politics to date (Ogot & Ochieng, 1995). Currently, the Kenyan Parliament is a bicameral house comprising of the National Assembly and the Senate.

Nairobi is the largest and the capital city and remains the financial and industrial hub of the country. The second largest city is Mombasa, the port city followed by Kisumu which is at the shore of Lake Victoria. Other major towns include Nakuru and Eldoret. The promulgation of the new Constitution of Kenya on 27th August 2010 changed the country's first-order administrative units from eight (8) provinces headed by appointed Provincial Commissioners to forty-seven (47) semi-autonomous counties as the units of devolved government headed by elected governors. The smallest administrative units in

Kenya are known as locations which often correspond with the electoral wards and are headed by a chief assigned by the government (Constitution of Kenya, 2010).

4.2.1 Kenyan Demographic factors and Urbanization

Kenya's population has experienced steady growth from 9 million at the time of independence (1963) to 52.6 million in 2019 when the last official census was carried out. The country has an estimated annual population growth rate of 2.6 % between 2000-2018 (WBG, 2017). The population is almost equally distributed between the male and female at 49.7% and 50.3% respectively. Even though Kenya is predominantly rural (72.2%), the country has experienced rapid urban population growth, with an estimated urban population of about 27.8 % as at 2019, and the average annual urbanization rate almost doubling the overall population growth rate at 4.2% between 2000 and 2019. Other African countries experience similar trends.

The average Kenya's population density is about 92 people per square kilometre, albeit with uneven spread across the country, varying from less than ten (10) to over 4,000 persons per square kilometre depending on the locality. Nairobi and Mombasa exhibit the highest population densities with 4,429 and 4,206 people per square kilometre respectively. It is estimated that about 50.0% of the population will be living in the cities by 2050, a trend that is expected to exert pressure on the demand for affordable housing and other infrastructural and social amenities. The average household size in Kenya is about 4.2 while that of urban areas is 3.4. The country has a relatively young population with median age at 20 years (KNBS,2018a; WBG,2017).

4.2.2 Kenyan Economic background

Over the last decades, Kenya has experienced a constant economic growth since independence. The country became a low-middle income economy in 2014 when its National Accounts was rebased leading to revision of the Gross Domestic Product and Gross National Income, making the country become the 9th largest economy in Sub-Saharan Africa, and the largest in East Africa region. Kenya is deemed to be the main gateway into the East and Central African regions with Nairobi as the commercial hub (CAHF, 2016). While the country's Nominal and per capita GDP have been steadily increasing, reaching an all-time high US\$87.9 billion and US\$1,710 respectively as at 2018, there has however been fluctuations in annual GDP growth rates, inflation and other economic indicators as shown in table 4.1 and figure 4.1 below. Agriculture is

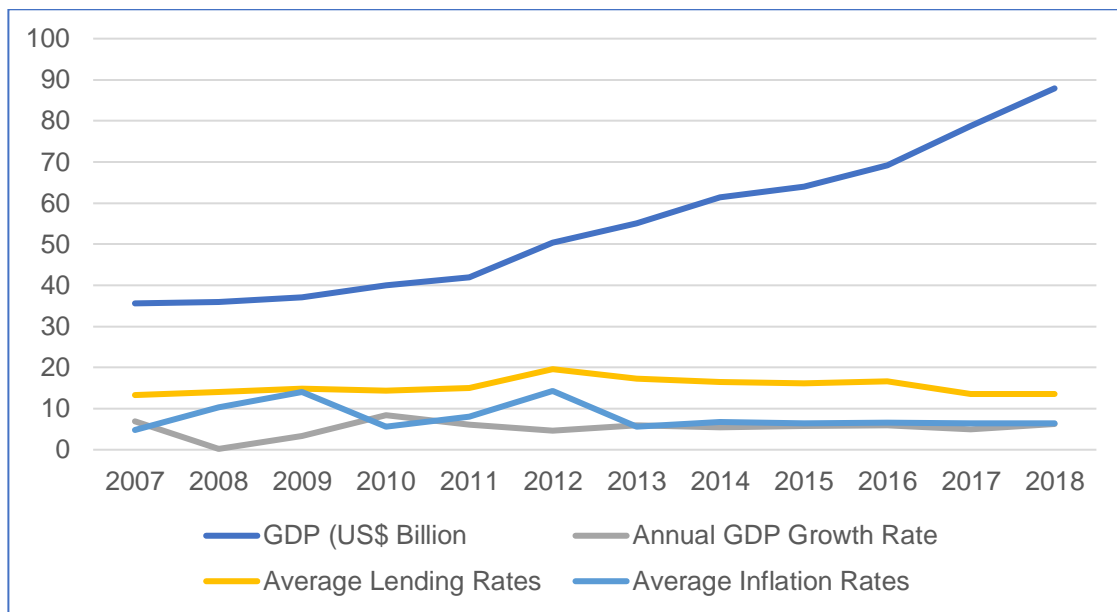
currently Kenya's largest foreign exchange earning sector, followed by tourism (Central Bank of Kenya [CBK], 2018).

Table 4.2: GDP, Lending Rates and Inflation over a ten-year period in Kenya.

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
GDP (US\$ Billion)	35.6	35.9	37.0	40.0	42.0	50.4	55.1	61.4	64.0	69.2	78.8	87.9
Annual GDP Growth Rate	6.9	0.2	3.3	8.4	6.1	4.6	5.9	5.4	5.7	5.9	4.9	6.2
Average Lending Rates	13.3	14.0	14.8	14.4	15.0	19.6	17.3	16.5	16.2	16.6	13.5	13.5
Average Inflation Rates	4.8	10.3	14.1	5.6	8.0	14.3	5.6	6.8	6.5	6.6	6.4	6.5

Source: CBK (2018)

Figure 4.1: Trend of GDP, Lending Rates and Inflation over a ten-year period in Kenya.



4.2.3 Employment Highlights

Kenyan population exhibits high dependency ratio where the estimated labour force comprises 20.42 million which is about 40.0% of the population. Majority of the working population are from the agricultural sector (75.0%) while industrial and service sectors comprise 25.0%. Kenya has high unemployment rate estimated at 40.0% and half the population is estimated to be living below the national poverty line. The employed population is predominantly in the informal sector with about 83.4% compared to about 16.6%% employed in the formal wage-earning sector of which 30.0% are in public sector

and 70.0% in private sector. Notably, the growth rate for the informal employment is higher than that of formal sector. The 2017 statistics indicate that about 72.0% of the urban population are low income earners (CBK, 2018).

4.3 Background of Mombasa City

Mombasa is the second largest city in Kenya after Nairobi which is the country's capital. It is situated on the eastern coastline of Kenya along the Indian Ocean border. The name Mombasa is derived from Arabic word *Manbasa* and '*Kisiwa cha Mvita*' in Kiswahili meaning the Island of War. The name was attributed the numerous struggles and hostilities among the foreign merchants and invaders in attempts to enforce their control on the city owing to its strategically central location. The original inhabitants of Mombasa were the African Bantus, followed by foreigners who included Jordanians during the 6th century, Persians during the 9th and 10th century and subsequently the town became the centre of trade for the Arabs up to 16th Century (Meier, 2016).

However, the Arab control in Mombasa is credited to the Portuguese explorer *Vasco de Gama* discovery of the city in 15th century during an expedition around Africa to locate the sea route to India, and whose main purpose of exploration was to advance the Christianity to broaden Portugal's trading region. The city later faced regular invasion by the Portuguese who inhabited Mombasa. They constructed Fort Jesus and controlled the entry to the old port between 1593 and 1598. However, there were numerous struggles by the Arabs to regain control of the town, but the Portuguese dominated for about 100 years, until their defeat in 1697 when they failed to break the siege and relieved the Fort Jesus to the Omani Arabs. The periods of battles gave Mombasa the name *Manbasa* "the island of War" (Ochieng, 1989).

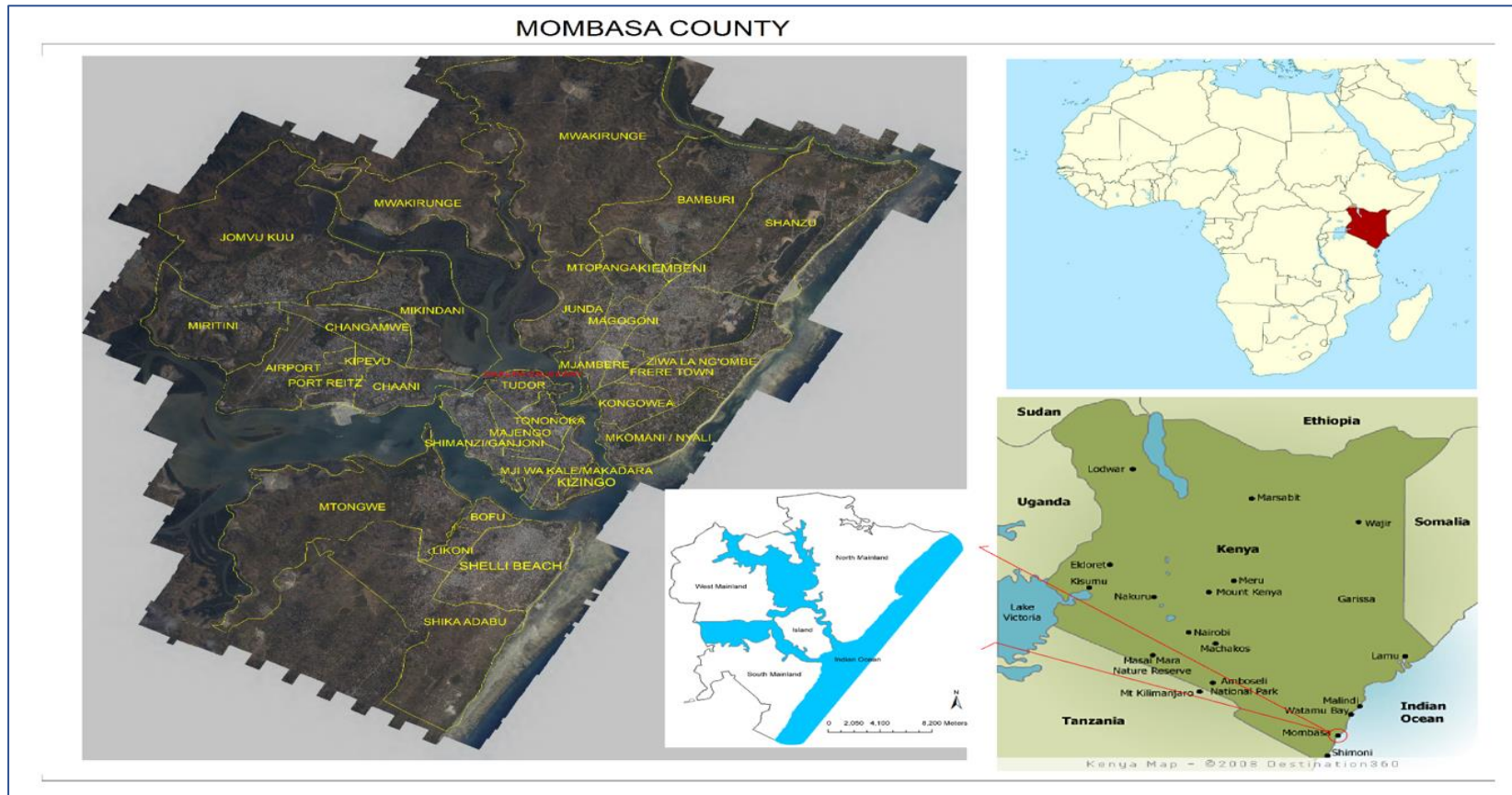
The Arab rule was however encumbered by intrigues and conflicts among rival Omani rulers and Mombasa fell during the reign of the Mazruis, after which the Omani leader, Bey Saidi Sultan Sayyid Said took over in 1822. During this period, Mombasa's economy was mainly supported by the slave trade. However, in 1845, the British forced the Sultan into a treaty that sternly restricted slave trade. In 1886, Kenya became British territory and the Imperial British East Africa Company established its headquarters in Mombasa in 1888. Mombasa therefore became the exploration base for British excursions to Kenya's inland. It was the springboard for the colonization of Kenya and the

commencement of a British ascendancy in the country that lasted until independence in 1963. Due to Mombasa's strategic location as a port city, the British constructed a railway in 1901 extending from Mombasa to Uganda. Mombasa city remains one of Africa's major links to the rest of the world. But despite the British conquest, the Arab influence is still dominant in the city to date as noted in the Swahili culture (Mwaruvie, 2010).

4.3.1 Location and Physical Background of Mombasa

Mombasa is located between the latitudes 3° 80' and 4° 10' S and longitudes 39° 60' and 39° 80' E. It is classified into four zones namely Mombasa Island, Mainland North, Mainland West, Mainland South. Mombasa Island forms the core of the city where the Central Business District (CBD) is situated. It therefore forms part of the dense settlement pattern which eases off towards the peripheral mainland. The city is on the south eastern tip of the Kenyan Coast, about 480 km (300 mi) south east of Nairobi, Kenya's capital. The Island is bounded by two creeks, the Tudor Creek and Kilindini Harbour, which separate it from the mainland, and has three accesses through Nyali Bridge to the north, the Likoni Ferry to the south, and the Makupa Causeway to the west. Mombasa (both Island and mainland) extends to an area of 229.9 square kilometres excluding 65 square kilometres of water mass and borders Kilifi County to the North, Kwale County to the South West and the Indian Ocean to the East (Fig 4.2) (CGM, 2015).

Figure 4.2. Location of Kenya and Mombasa



Source: Environmental Systems Research Institute [ESRI] (2015); Google Map (2019).

Some common features of the city include the Central Business Unit, Fort Jesus, beaches, the Tusks commonly known as '*Pembe za Ndovu*' meaning the elephant tusks, the County Hall and Likoni Ferry Channel as shown on figure 4.3 below.

Figure 4.3. Common features of Mombasa City



Central Business District.



Fort Jesus



Public Beach



The Tusks



The County Hall



Likoni Ferry Channel

The administrative structure of Mombasa comprises six sub-counties namely; Changamwe, Jomvu, Kisauni, Nyali, Likoni, and Mvita as shown in Table 4.2 and Figure 4.4 respectively below. These administrative units also double as electoral constituencies. Changamwe and Jomvu are situated in Mainland West, which is the industrial hub of the city but also have a significant residential development. Mainland to the West is linked to Mombasa Island through Makupa causeway. Kisauni and Nyali are situated in Mainland North, which is the most populous. While Kisauni is predominantly high density low-income residential area, Nyali is dominated by upper-middle and high-income residential developments and beach hotels. The zone is linked to Mombasa Island by the Nyali-bridge to the north. Likoni is situated in Mainland South and is predominately low-income income households. Mainland south is situated to the south-western side of Mombasa Island interconnected to the Island through Likoni and Mtongwe Ferries. Mvita is within Mombasa Island and since it hosts the city, it is predominantly commercial but has a significant size of middle and high-income residential development in Ganjoni, Tudor and Kizingo areas.

Table 4. 3: Administrative units in Mombasa

Zone	Sub-County/ Constituency	Ward	Land Area (km ²)
Mainland West	Changamwe	Port Reitz, Kipevu, Airport, Miritini, Chaani	18.1
	Jomvu	Jomvu Kuu, Magongo, Mikindani	35.0
Mainland North	Kisauni	Mjambere, Junda, Bamburi, Mwakirunge, Mtopanga, Magogoni, Shanzu	83.2
	Nyali	Frere Town, Ziwa La Ng'ombe, Mkomani, Kongowea, Kadzandani	22.8
Mainland South	Likoni	Mtongwe, Shika Adabu, Bofu, Likoni, Timbwani	50.9
Island	Mvita	Mji wa Kale/Makadara, Tudor, Totonoka, Shimanzi/Ganjoni, Majengo	14.4

Source: CGM (2015).

Figure 4.4. A Map of Mombasa Sub-Counties



CGM (2015)

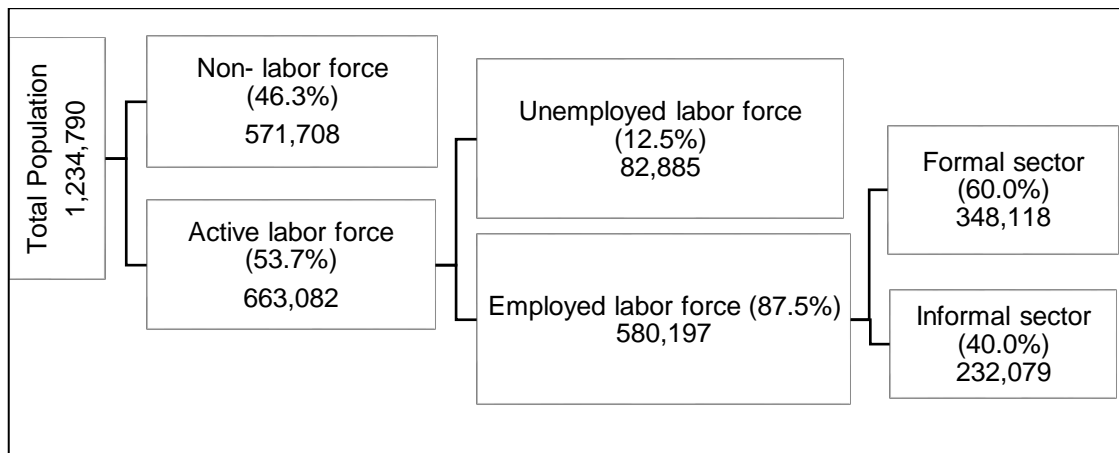
4.3.2 Socio- Economic Context of Mombasa

Mombasa has an estimated Gross Regional Product (GRP) of 7% of Kenya's total economy. The city's economic activities are mainly derived from the key economic activities in the coastal region which comprises tourism, harbour and shipping related trade, industries, fishing and agriculture. The Port of Mombasa being the largest in the East Africa region serves as the hub for Kenya and the neighbouring landlocked countries

such as Uganda, Burundi, and Rwanda South Sudan and Democratic Republic of Congo (DRC) ISUD. Apart from the port, oil refinery and the largest cement factory, Mombasa is also the tourism capital of Kenya. Agricultural activities are however limited in Mombasa due to inadequate arable land (CGM, 2015)

Mombasa’s share of active labour force (53.7%) is higher than that of national average at 37.9%. However, the 12.5% unemployed active labour force is lower than the national average at 17%. Mombasa exhibits a remarkably high employment rate of about 87.5% of the active labour force, majority (60.0%) of who are in the formal sector while 40.0% in the informal sector as shown in figure 4.5 below. The high percentage of employment is due to the vibrant commercial environment of the city resulting from the hotel industry, port related activities, concentrated government operations and robust private sector, and is a good indicator for housing demand. Further, the income structure of Mombasa shows that the average income from the formal sector workers is about Ksh.40,000 (US\$ 400) per month, with more than 50% of the population earning between Ksh.20,000 – 50,000 (US\$ 200 – 500). However, the city depicts a moderate state of inequality with the estimated Gini coefficient of about 0.365 (CGM, 2018).

Figure 4.5. Employment Structure in Mombasa



Source: CGM (2018).

The demographic scope, its structure, trends and dispersal are significant parameters in analysing the status and prospects for the housing market. Mombasa has experienced a steady population growth from 179,576 in 1962 to the estimated 1.2 million as at 2017. The city however has a higher annual population growth rate of 3.3% compared to 2.6% for the nation. For the last 20 years the population of the city has almost doubled as

illustrated in table 4.3 below. Apparently, the male population is slightly higher than the female as indicated by 51.8% and 48.2% respectively. The steady rise in population amplifies the housing requirement within the city. The population density for Mombasa city was 4,086 people per Km² in 2009 and rose to 5,508 people per km² by 2018 (KNBS, 2015a; 2018b).

Table 4. 4: Population Trend in Mombasa

Year	1962	1969	1979	1989	1999	2009	2015	2016	2017	2018
Total population ('000 persons)	179,576	247,073	341,148	461,753	665,018	939,370	1,155,891	1,194,534	1,234,790	1,275,534
Annual average growth %	-	4.7	3.3	3.1	3.7	3.5	3.3	3.3	3.3	3.3

Source: KNBS (2015a; 2018b)

As at 2009, the total number of households in Mombasa was estimated at 299,439 with average household size of 3.4. The number has however increased significantly in correspondence with the increase in the overall population of the city (Table 4.4). The households are spread across residential areas within the city categorized into low, medium, high density zones, while there are informal areas predominated by slum and squatter settlements as well as across income levels with the high-income being the least at 2.0%, followed by the upper-middle income at 15.0%. The majority are the low-income at about 48% while the lower-middle income comprises 35% of the population. Household distribution according to the regions, show that majority (40.5%) of the households live in Mainland North followed by Mainland West which accommodates about 26.6%. Mainland South has about 17.7%, while Mombasa Island has the least number of households at 15.2% as shown on Table 4.8 below. The steady growth in households is a pointer for increased need for housing resource (CGM, 2018; KNBS, 2018).

Table 4. 5: Estimated Households in Mombasa

Year	Total population ('000 persons)	Estimated Households	Estimated Lower-middle Income Households
2009	939,370	299,439	104,804
2015	1,155,891	339,968	118,989
2016	1,194,534	351,333	122,967
2017	1,234,790	363,174	127,110
2018	1,275,538	375,158	131,306

(CGM, 2018; KNBS, 2015a)

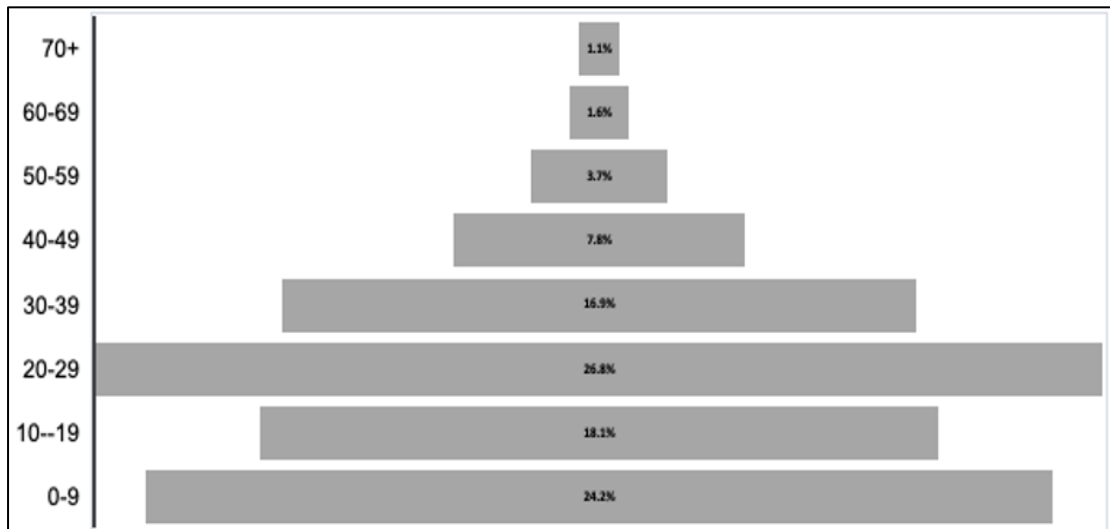
Table 4. 6: Percentage Households per Study Area

Residential Zones	Household Proportions	Sub-Counties/ Constituencies	Household Proportions	Study Areas	Household Proportion
Mainland North	147,087 (40.5%)	Kisauni	75,177 (20.7%)	Bamburi	7.0%
				Kiembeni	4.3%
		Nyali	71,908 (19.8%)	Bombolulu	5.2%
Mainland West	96,604 (26.6%)	Jomvu	39,585 (10.9%)	Miritini (World Bank)	3.5%
				Mikindani	4.8%
		Changamwe	57,018 (15.7%)	Migadini	4.5%
Mainland South	64,281 (17.7%)	Likoni	64,282 (17.7%)	N/A	N/A
Mombasa Island	55,202 (15.2%)	Mvita	55,202 (15.2%)	N/A	N/A

Source: KNBS (2018b)

The age distribution structure of Mombasa County depicts a predominantly youthful population aged between 20 and 49 as illustrated in figure 4.6 below. This age bracket forms the largest portion of the working force and also has a significant impact on the housing market given that majority of this category are in their early careers and small households therefore most likely prefer rental housing (KNBS, 2017).

Figure 4.6. Mombasa Population Distribution by Age Distribution



Source: KNBS (2017)

4.4 Affordable Housing Context in Mombasa City.

The housing sector in Mombasa has generally remained robust over the recent past. The vibrant housing market has been sustained by among other factors, positive demographic dividend occasioned by high population growth rate predominated by the youthful age which forms an integral component of the work force. Additionally, Mombasa being an epicentre Kenyan tourism and diverse international culture has continued to attract continuous inflow from other areas not only as a result of rural- urban migration but also urban- urban migration. The demographic structure therefore favours demand for housing in the city (Cytonn Real Estate, 2018).

4.4.1 Lower-Middle Income Residential Areas under the Study

The Mombasa housing market like any other cities follow the three main classifications according to the income traits of the population living in specific areas and the respective prescribed densities. As such, it follows the conventional classification of low, middle- and high-income housing markets together with the densities in the areas. However, there are intermediary markets between the main market segment in which the lower-middle income market falls between the low-income and the middle income while the upper middle-income market falls between the middle-income and high-income markets. These classifications are spread across the city as per the table 4.6 below showing the predominant categories in the listed areas (CGM, 2018)

Table 4. 7: Categories of Residential Classes within Mombasa City.

Categories	Zone	Residential Areas
Low-Income	Mainland South	Likoni area apart from Shelly Beach and its environs
	Mombasa Island	Parts of Majengo area and Makande (Kaa Chonjo), Old town.
	Mainland North	Parts of Kisauni along old Malindi road, Ziwa La Ngombe, kongowea, Kisimani, Mishomoroni; Mwakirunge, Shanzu Settlement, Bombolulu VOK Mkomani Village, Utange village,
	Mombasa West	Jomvu, Parts of Miritini, Bangladesh, Alidina, Ganahola, Magongo, Chaani.
Lower-Middle Income	Mainland South	Likoni Flats
	Mombasa Island	Section of Majengo, Tononoka.
	Mainland North	Kiembeni, Bombolulu, Bamburi, Mtopanga.
	Mombasa West	Migadini, Miritini (World Bank), Mikindani.
Upper-Middle Income	Mainland South	Along Shelly Beach area
	Mombasa Island	Tudor area, parts of Kizingo
	Mainland North	Mkomani, Maweni, Bombolulu, Shanzu, New Nyali
	Mombasa West	None
High-Income	Mainland South	Shelly Beach
	Mombasa Island	Kizingo, Tudor Nora
	Mainland North	Old Nyali, Bamburi Beach, Mkomani English Point
	Mombasa West	None

Source: CGM (2018)

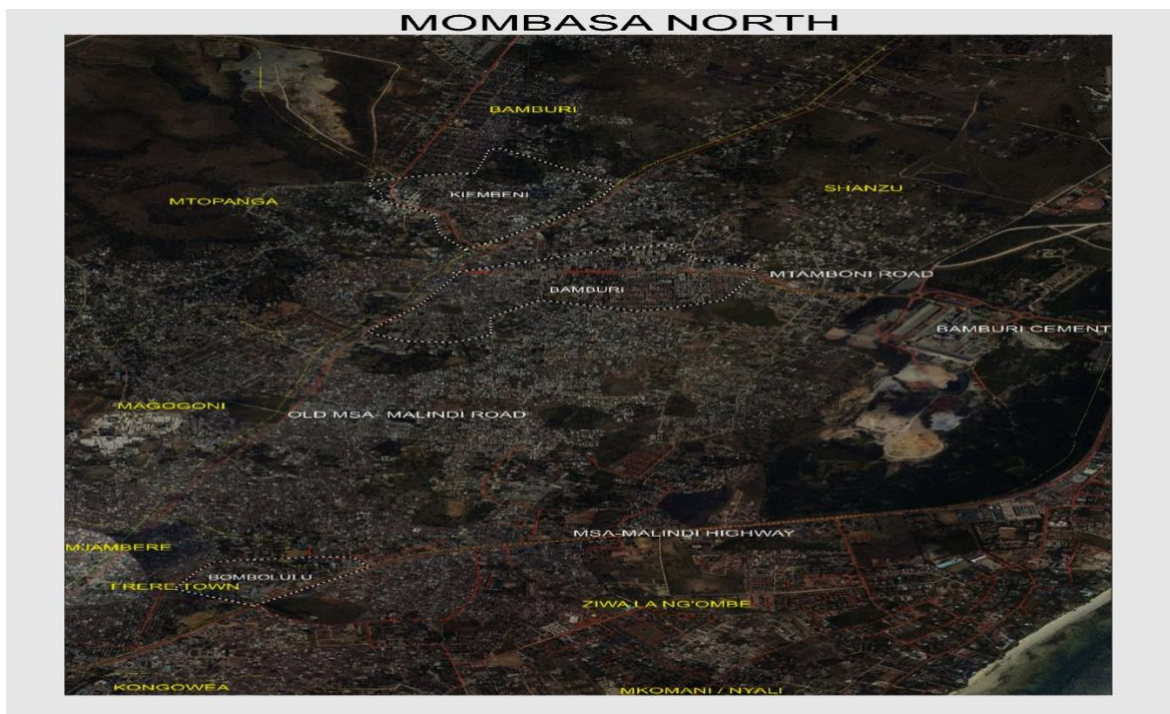
The main focus of this study is the lower-middle income category. From the above information, it is apparent that these categories are mainly spread across Mainland North, and Mombasa West as shown on figure 4.7 and 4.8 below. Mainland South is predominately low-income while the Island is mainly under commercial and industrial user and high income residential in Kizingo area and parts of Tudor. There are however other residential sections in Majengo area, but these are a mixture of low-income and lower-middle income, but this study focuses on the distinct predominant lower- middle income residential areas. Therefore, according to the administrative zone, these can be summarized as per table 4.7 below.

Table 4. 8: Lower-Middle Income Residential Areas under the Study

Residential Zones	Administrative Unit/ Sub-county	Study Areas
Mainland North	Kisauni	Bamburi
		Kiembeni
	Nyali	Bombolulu
Mainland West	Jomvu	Miritini (World Bank)
		Mikindani
	Changamwe	Migadini
Mainland South	Likoni	N/A
Mombasa Island	Mvita	N/A

CGM (2018)

Figure 4.7 Mainland North



Source: ESRI (2015)

Figure 4. 1: Mombasa West



Source: ESRI (2015)

Bamburi is situated within Kisauni sub-county in Mombasa county. Whereas Bamburi generally refers to the larger area extending from the beach front along Mombasa-Malindi highway to Bamburi estate, Utange and Kiembeni areas, the subject area under the study is specifically the Bamburi and Kiembeni estates which are lower-middle income neighbourhoods. Bamburi is about 10 kilometres from the city centre, and stretches along Felix Mendle Road, Mwembelegeza, Baraka, Fisheries and '*Bamburi Mwisho (Bamburi Terminus)*' areas as highlighted on figure 4.9 above. It is one of the most popular and populous residential localities due to its vibrant social life and proximity to public amenities. It has both formal and informal settlements and attracts relatively higher rents compared to other estates in similar category. It has infrastructural services but lacks a sewerage system therefore the residents use soak pits and septic tanks for foul disposal. Piped water is also supplemented with borehole water supply for most of the developments. Figure 4.9 shows sections of Bamburi estate.

Figure 4. 2: Sections of Bamburi Estate



Kiembeni is enveloped within Kiembeni road, Karisa Maitha road, Kashani and Utange. Its distinctive locality further away from the city centre makes it less popular compared to Bamburi and other estates in similar category. As such the rents in Kiembeni are slightly lower as shown in table 4.10 below. In terms of typology, it is predominated by bungalows and Swahili-type housing, with a good number of condominiums as shown on figure 4.10 below. It has both rental and a substantial number of owner-occupied housing.

Figure 4. 3: Sections of Kiembeni Estate



Bombolulu is located off the Mombasa- Malindi highway in Mombasa. It borders Kisauni, Nyali and Bamburi areas. The larger Bombolulu area has mixed developments ranging from low-income in areas such as Kisimani, Ziwa La Ng'ombe and Kadza Ndani; informal settlement such as KwaBulo; and Middle-income such as Bandari Villas, Bombolulu estate and Gichanga area. Most of the lower-middle income areas include VoK area (which was under World Bank site and service scheme), extending to areas

behind Bombolulu Workshop which are predominated with condominiums and Swahili type housing as shown on figure 4.11 below. The middle-income areas are predominantly under owner-occupation. It has both formal and informal settlements, but the rents are relatively higher due to its proximity to the city centre.

Figure 4. 4: Sections of Bombolulu



Miritini generally includes the area bound by the railway line from Jomvu Junction to the Kilifi County border at Bonje, the old Mombasa Nairobi road from Magongo road Junction and stretches along Mombasa Southern Bypass/ Standard Gauge Railway (SGR) line to the Indian Ocean. It is characterized with mixed land use consisting of residential, commercial and industrial. The area has undergone significant infrastructural transformation in the recent past with the construction of the SGR line and its main terminal within the locality, the Mombasa Southern Bypass and the expansion of Mombasa- Nairobi highway. Nevertheless, of relevance to this study is the Miritini World Bank estate which is predominately lower-medium income zone. It is situated along the Main Mombasa-Nairobi highway. It is formally planned and has formal property rights in form of certificates of lease issued by the defunct Municipal Council of Mombasa. The existing infrastructural facilities in the area include the Mombasa West Sewer line, water, electricity and fibre optic cable. It was initially an informal settlement but was transformed to a low-density low-income neighbourhood through the World Bank initiative of site and service schemes. It is predominantly under rental market with sporadic owner-occupied units. The housing typologies comprises condominiums and Swahili-type houses and the rental levels are at par with Mikindani. Sections of Miritini WorldBank are shown in figure 4.12 below.

Figure 4. 5: Sections of Miritini World Bank Estate



Mikindani area lies within Mombasa west region along Mombasa- Nairobi highway and is enveloped by Alidina to the west, Bangladesh to the south east and Tudor creek to the north and east. The estate is believed to have earned its name formerly from *mikinda*, meaning tiny minazi (*young coconut palms*) which had grown in the area. Similarly, it was initially an informal settlement but was transformed to a low-density low-income neighbourhood through the World Bank initiative of site and service schemes. As such, it was planned for single-dwelling units and the beneficiaries given certificates of lease by the then Municipal Council of Mombasa (which has since been replaced by County Government of Mombasa). However, due to the increased demand, most of the initial beneficiaries sold the plots to the current owners, majority of whom have converted the plots to multi-dwelling units increasing the density. It is predominantly a rental market. Despite the transformation, there have been no transformation in terms of infrastructure and amenities such as water and sewer. Besides, despite being a lower-middle income neighbourhood, it is surrounded by informal settlements such as Bangladesh, Ganahola and Alidina. Sections of Mikindani estate are shown on figure 4.13 below.

Figure 4. 6: Sections of Mikindani Estate



Migadini similarly lies within Mombasa west region in the larger Changamwe Sub-county/Constituency. It is situated between Portreitz Road, Chaani Estate. Like Mikindani and Miritini World Bank, it was similarly an informal settlement that benefited from the World Bank's Site and Service programme and as such, it is a planned zone with formal property rights. It is also in close proximity to the port of Mombasa. However, it attracts slightly lesser rents compared to Mikindani and Miritini World bank due to its interior location, but with similar housing typology. It is equally predominantly under rental housing with a few units under owner-occupier. Overview of Migadini is as per figure 4.14 below.

Figure 4. 7: Sections of Migadini



4.4.2 Nature of Affordable Rental Housing in Mombasa.

The estimation of the housing requirement is mainly guided by the household proportions. However, the trend in urban areas has been rapid population increase which leads to high demand albeit with low supply especially in the lower-income segment. Housing

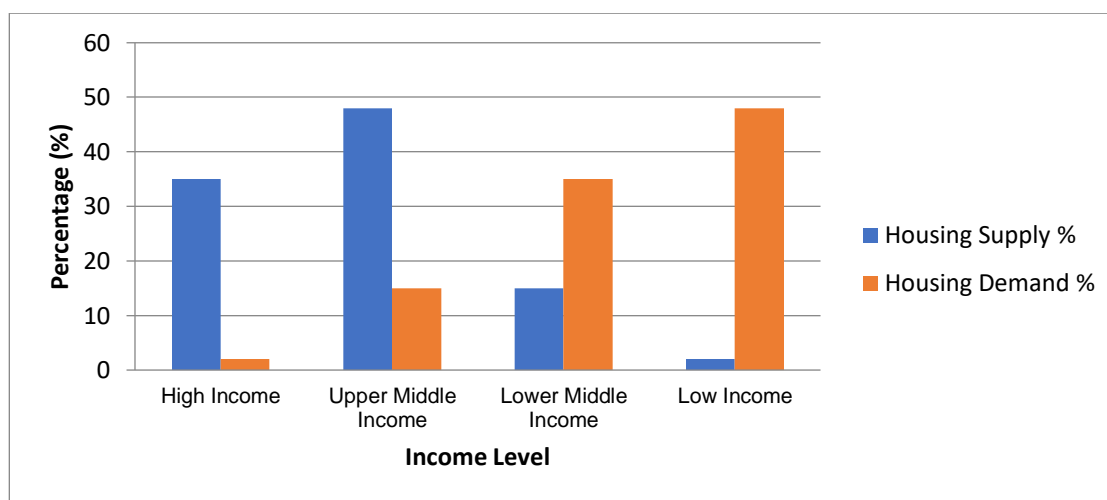
scenario in Mombasa city depicts this trend with a mismatch between demand and supply such that the categories with high demand have limited supply and vice versa as summarized in the Table 4.8 and expressed in figure 4.15 below. The lower-middle income households are commonly associated with the rental housing and therefore deficit within the category can be construed to be predominantly for rental housing (KNBS, 2018b).

Table 4. 9: Percentage Distribution of Housing Supply and Demand

INCOME LEVEL	Housing Supply %	Housing Demand %
High Income	35	2
Upper Middle Income	48	15
Lower Middle Income	15	35
Low Income	2	48
TOTAL	100	100

Source: (KNBS, 2018b)

Figure 4. 15: Percentage Distribution of Housing Supply and Demand



Besides, housing supply profile in Mombasa reveals that the private sector is the predominant housing provider at about 92.1% while the public sector provides a paltry 7.9% mainly through the National government, County government and government parastatals. However, the few public housing is limited to the public sector employees and therefore cannot have substantial impact on the housing market. Additionally, most of them are in bad form with poor amenities and therefore requires redevelopment. On the other hand, most of the private sector developers largely concentrate their activities in the high-end and upper-middle-income for-sale market. Essentially, the affordable

rental housing market has mainly been left to the individual private developers with weak financial abilities (G.o.K., 2010; KNBS, 2015b).

In terms of housing typology, Swahili-type houses have been the predominant design in Mombasa for a long time due to the influence of Swahili culture in city. Initially these have always been made with insubstantial materials comprising mud and mangrove posts with common infrastructural amenities such as water and sanitation. However, to match the current trend, developers have since adopted modern construction techniques albeit with relatively cheaper building materials hence compromising the quality of most affordable housing of this category. But there has also been a changing trend where densification has gained preference over the past years and therefore most developers opt for multi-dwelling blocks of flats. This had been occasioned by the increase in population hence increasing the housing demand but with inelastic supply of land, densification is inevitable (see figure 4.16 below).

Figure 4. 16: Housing Typologies and Patterns of Affordable Housing Development



Typical Swahili house



Development patterns in the study estates

Most of the land that was previously zoned for single-dwelling units undergo change of user/conversion to allow for construction of multi-dwelling residential flats on plot sizes of between 200 - 500 square meters at 100% plot coverage and majority with four (4) floors maximum. The units in this category fall on the low-cost high-rise as per the classification of the Quantity Surveyors of Kenya's construction rates schedule, thus the estimated cost per square meters is Ksh 34,000. The units in the affordable housing market have varied accommodation details ranging from bedsitters (studios), one (1) bedroom, two (2) bedrooms and three (3) bedrooms with average sizes per unit as indicated in CGM (2015)

and rents per locality as derived from the survey of the tenants are indicated in tables 4.9 and 4.10 respectively. Most of the units within the study area are predominantly for rental apart from Bamburi and Bombolulu which some few developments for sale at Ksh 2.5million for studios, Ksh 3.5 million (USD35,000) for one bedroom, Ksh 4.5 million(USD45,000) for 2 bedroom and Ksh 5.5 million (USD55,000) for 3 bedrooms. Nevertheless, most of those who develop for sale prefer the upper-middle class zones (CGM, 2015).

Table 4. 10: Affordable Housing Typology and Average Sizes in Mombasa

House Typology	Average Size (Square Meters)
Studio	40
One Bedroom	60
Two Bedroom	75
Three Bedroom	100

Source: CGM (2015).

Table 4. 11: Rental values in the study areas (in Ksh).

Residential Area	Categories of Housing Units and Respective Average Rents			
	Bedsitter	One-Bedroom	Two-Bedroom	Three-Bedroom
Mikindani	6,000	12,000	17,000	20,000
Miritini	7,000	10,000	17,000	20,000
Migadini	7,000	12,000	16,000	20,000
Bamburi	8,500	15,000	20,000	25,000
Bombolulu	10,000	15,000	20,000	25,000
Kiembeni	6,000	12,000	15,000	20,000

(NB 1USD = Ksh 100)

4.5 Housing Delivery and the Institutional Environment in Kenya

Housing delivery has remained a key focus in the Kenyan housing sector. This is because housing has a strategic socio-economic significance attached to it. The institutional framework guiding the Kenyan housing sector primarily comprises a number of policies, legislative and administrative structures, and actors.

Essentially, Kenya's housing strategies mainly emanates from the National Housing policy and a variety of government policies, statutes, and international treaties relevant to the housing sector. Examining the National Housing Policy reveals that it has undergone a number of transformations since independence. The first Housing Policy for Kenya as articulated in Sessional Paper No.5 of 1965/66 had a lasting objective of

guaranteeing every household access to decent home. It assigned the government an active role in direct provision of housing mainly through the National Housing Corporation (NHC) which was the state housing agency and the Housing Finance Company of Kenya (HFCK) which promoted homeownership through provision of mortgages. Through the guidance of the policy, the NHC and local authorities developed and managed public housing mainly through tenant purchase and site and service schemes respectively while the central government and parastatals or quasi-government institutions also offered limited supplementary rental housing to public sector employees (GoK, 1996).

The first policy's approach of direct housing provision however faced a number of challenges related to rapid urbanization, sluggish economic growth and poor governance and therefore, as part of further intervention, the government had to introduce other approaches to alleviate housing delivery problems. This led to shifting from the direct approach to an enabling approach. As a result, the National Shelter Strategy was formulated in the Year 2000 in line with the International Year of Shelter for the Homeless in 1987 and the Structural Adjustments Programmes (SSPs) of 1990s which advocated for the transformation in housing provision policy (G.o.K, 2004).

Subsequently, a National Housing Policy as specified in the Sessional Paper No. 3 of 2004 was formulated. The policy mainly drew from the principles of Habitat Agenda and embraced the 'enabling strategy', guided by the ideologies of partnership and participatory approach. It therefore advocated that the government stop being the direct agent of housing delivery and instead provide enabling environment for the private sector to supply housing. Apparently, both the first and second policies have a common overriding specific objective of providing adequate and decent housing in a sustainable environment. However, the latter strategy evidently promotes home-ownership and fails to clearly provide a framework for rental housing. Notably, even though rental housing has been mentioned in Clause 25 (c) of the National Housing Policy 2004, there is neither provision for any implementation framework nor further reference in the policy statement (GoK, 2004).

Additionally, the housing policies have been complemented with Vision 2030 which is country's development blueprint aimed at transforming Kenya into a middle-income country by the year 2030. The blueprint equally underscores the need for adequate and decent housing in a sustainable environment, and subsequently proposes to enhance the annual housing delivery from 35,000 to over 200,000 units. It however does not specify

the type of housing to be developed but the proposed framework leans more towards homeownership than rental housing as implied by its emphasis on the need to enhance sufficient funds for property developers and home buyers (GoK, 2007).

Still, the latest effort to increase the supply of affordable housing is exhibited in the reviewed government's priority flagship projects detailed in 'The Big Four Agenda' in 2016 where affordable housing is one of the key pillars. The policy that rides on the Vision 2030 template articulates the plan to deliver one million affordable housing units by the year 2022 out of which 800,000 housing units are to be sold between Ksh 800,000 (USD 8,000) and Ksh 3,000,000 (USD 30,000); while 200,000 units to comprise social housing costing between Ksh 600,000 (USD 6,000) and Ksh 1,000,000(USD 10,000).

Under the proposed housing program, the government through the newly established Kenya Mortgage Refinance Company (KMRC) intends to offer secure and affordable financing at 5% interest rates and prolonged mortgage period of up to 30 years to mortgage lenders, who in turn offer loans to provide long-term mortgages to the private developers and households who are eligible to purchase the housing units. However, the programme has already faced a number of challenges even before implementation due to lack of clear implementation framework. The requirement for mandatory contribution of 1.5% housing levy from the basic pay from all the salaried employees and allocation by lotteries has been challenged by the civil societies and trade unions leading to temporary suspension of the programme by the Employment and Labour Relations Court. Even so, the policy just like the preceding ones is heavily skewed towards homeownership hence housing development for sale as opposed to rental housing (GoK, 2018).

To supplement the policies, a number of efforts have been made towards streamlining the institutional framework for the housing market. Apart from the Department of Housing Strategic Plan, the new Constitution of Kenya 2010 and the Housing Act 2015 have come to affect. The rights of individuals to access adequate housing have been explicitly stated in the Article 43 (1) (b) of the Constitution. Indeed, the Housing Act 2015 which has been realigned to the Constitution of Kenya 2010 is deemed to have replaced the preceding National Housing Policies and is to develop an enabling regulatory framework with new institutions for the housing market (Constitution of Kenya, 2010).

Besides, Chapter 11 (186) (1) (Fourth Schedule) of the Kenyan Constitution also apportions housing roles between the two levels of government i.e. the national and

county government. Therefore, in terms of devolution, the national government is responsible for policy formulation while the devolved governments are in charge of planning and housing development. This essentially means that the national government controls the housing regulatory framework while the county governments execute the policy. But the implication of this structure is that the national housing policy does not provide an appropriate framework for rental housing development at the local levels. Each county is however expected to formulate implementation framework that is customised to their context (Constitution of Kenya, 2010). A summary of the housing delivery framework and actors is outlined in the table 4.11 below.

Table 4. 12: Housing Delivery Framework and Actors in Kenya

Policy Framework	
Policy	Objective
National Housing Policy	The government policy paper that articulates its objective on housing and guides on the strategies for housing provision in Kenya. So far, there have been two national housing policies since independence. The first Housing Policy for Kenya as articulated in 1965/66 in Sessional Paper No.5. The subsequent National Housing Policy is specified in the Sessional Paper No. 3 of 2004
Kenya Vision 2030	This policy provides a long-term development blueprint for Kenya with the main objective of transforming the country into a newly-industrializing, middle income state by the year 2030. The policy envisaged that the government will work towards the realization of adequate and decent housing in a sustainable environment for all Kenyans by the year 2030 through reforming the legislative, institutional and regulatory framework for housing delivery.
The Big Four Agenda	The latest policy blueprint detailing the government priority areas for development and affordable housing is among the flagship projects where the government plans to deliver one million affordable housing units by the year 2022 out of which 800,000 units are to comprise affordable housing while 200,000 units to comprise social housing costing.
Legal Framework	
Legal Provision	Mandate
The Constitution Kenya (2010):	This is the supreme law in Kenya that was promulgated in August 2010 and describes various rights of the citizens as well as the obligations of the citizens and the state. The Article 43 guarantees every person in Kenya the right to adequate and accessible housing and to reasonable standards of sanitation. It also stipulates the roles of the National and County governments in housing delivery. The constitutional mandate of the state to regulate the use of any land or any interests in or right over any land, in the interest of protection, public wellbeing, public stability, public morality, public health, or land use planning is granted in the Article 66 of the Constitution of Kenya. Further all the functions relating to the urban and regional planning have been delegated to county governments through Fourth Schedule.
National Construction Authority Act 2011	This is Act of Parliament that provides for establishment, powers and functions of the National Construction Authority and for the main purpose of overseeing and coordinating the activities of the construction sector.
The Physical and Land Use Planning Act, 2019	An Act of Parliament to make provision for the planning, use, regulation and development of land and for connected purposes. The new Physical and Land Use Planning Act, 2019 (the 2019 Planning Act) came into force on 5 August 2019, repealing the Physical Planning Act of 1996 (the 1996 Act), and now governs matters relating to planning, use, regulation and development of land in Kenya.
The Housing Act Cap 2015	This is an Act of Parliament Cap 117 on housing which was enacted in 1967 and reviewed in 2015. The Housing Act aims at providing for the effective coordination, facilitation and monitoring of the housing and human settlements sector. It provides for the establishment of the Kenya Housing Authority and the National Housing Development Fund for the provision of the right to accessible and adequate housing under Article 43(1) (b) of the Constitution.
The Rent Restriction Act 296 (revised in 2012):	The Rent Restriction Act is meant to protect tenants from exploitation by landlords while guaranteeing the landlords reasonable profits from their investment in housing. This Act provides for restricting the increase of rent, the right to possession and the exaction of premiums, and for fixing standard rents, in relation to dwelling-houses, and for other purposes incidental to or connected with the relationship of landlord and tenant of a dwelling-house.

The Sectional Properties Act (1987):	It provides for the ownership of property horizontally and the common units in those areas being held in common by the owners. It is more relevant for separate ownership of multi-family dwelling housing units.
The Public Health Act Cap 242 (Revised in 2012)	This is an Act of Parliament that provides for securing and maintaining health. Part IX (126) focuses on sanitation and housing. All building plans are circulated to then Public Health departments to evaluate if they conform to the provisions of the Act.
The Urban Areas and Cities (Amendment) Act, 2019	An Act of Parliament to give effect to Article 184 of the Constitution; to provide for the, classification, governance and management of urban areas and cities; to provide for the criteria of establishing urban areas, to provide for the principle of governance and participation of residents and for connected purposes
Land Act 2012	An Act of Parliament to give effect to Article 68 of the Constitution, to revise, consolidate and rationalize land laws; to provide for the sustainable administration and management of land and land-based resources, and for connected purpose.
Institutional Framework	
Institutions /Actors	Role
National Government (State Department of Housing)	The arm of National government with the overall oversight role on the formulation and implementation of policy relating to housing and human settlement. Specifically, it is responsible for formulation and review of housing policies, regulations and legislation in the housing sector, as well as collaboration with the county governments, National Housing Corporation (NHC) and other stakeholders including the international agencies, financial institutions and the private sector on housing issues. The Department is structured into five units comprising: Housing Policy Management and Implementation, Human Settlements, Housing Finance and Incentives, Appropriate Building Materials and Technology (ABMT); and Housing Sector Monitoring and Evaluation.
National Housing Corporation	The State Corporation responsible for the implementations and regulations of the national housing policies and programs. The Corporation promotes low-cost housing and therefore focuses on ensuring provision of subsidized housing through tenant purchase, mortgages, rental and rural housing loans scheme. It was deemed as the main agency through which the housing funds should be disbursed to Local Authorities, a functioned that has since diminished due to change of housing strategy by the government from being the provider to enabler of housing; and review of the constitution that gives the national government a policy role and the county governments implementation role.
County Government (Department of Lands, Planning and Housing)	The devolved government units responsible for formulation and implementation of housing policies and legislations at the local levels. It coordinates planning and development control issues at the county and therefore reviews and decides on the applications for development approvals and carry out supervision to ensure that the construction is done as per the rules on building standards, zoning, density and any other provision on the building permit, as well as managing land rates, rents and levies.
The National Construction Authority (NCA)	The National Construction Authority (NCA) is a government organization established by NCA Act No.41 of 2011 (CAP.449A) laws of Kenya and is responsible for supervision of the construction industry and coordination of its development to ensure an effective and sustainable construction sector. It regulates, streamlines and builds capacity in the construction industry and provides oversight on property developers to ensure compliance to the construction standards and quality assurance of the housing projects.
National Environment Management Authority (NEMA)	The National Environment Management Authority (NEMA) was established as the principal instrument of government charged with the implementation of all policies relating to the environment, and to exercise general supervision and coordination over all matters relating to the environment. Its main responsibility in housing development is to ensure compliance to the stipulated environmental requirements and standards.
Kenya Water Resources Management Authority (WRMA)	Kenya's Water Resources Authority (WRA) is a state corporation under the Ministry of Water and Irrigation established under the Water Act 2016. The Authority is mandated by the National Government to regulate the management and use of water resources in the country. It is therefore responsible for the formulation and enforcement of standards, procedures and regulations for water management and utilization. Its relevance in the housing development process is drawn from the fact that it issues, and reviews permits; and levies fees for water use for the housing projects. Any development therefore has to obtain approval of the authority during the building approval process.

Kenya Water Resources Management Authority (WRMA)	Kenya's Water Resources Authority (WRA) is a state corporation under the Ministry of Water and Irrigation established under the Water Act 2016. The Authority is mandated by the National Government to regulate the management and use of water resources in the country. It is therefore responsible for the formulation and enforcement of standards, procedures and regulations for water management and utilization. Its relevance in the housing development process is drawn from the fact that it issues, and reviews permits; and levies fees for water use for the housing projects. Any development therefore has to obtain approval of the authority during the building approval process.
Kenya Power	Kenya Power is the government agency in charge of the electricity transmission and distribution system in the country
Private Developers and Landlords	Private Sector Construction and management of private housing units. They conceptualize the housing projects, mobilize the funds for development and coordinates the various stakeholders in the development process. There is however a clear distinction between the developer and landlords. This is based on the main objective of developing the housing units. While the private developers' main aim is to develop and sell the housing units on completion, the landlords either develop or purchase the housing units with the primary objective of renting out to tenants for periodic rental income. The developer is therefore a short-term investor who is interested in a one-off sale to recoup the capital invested and the profit, while the landlord is long-term investor interested in prolonged periodic income.
Financial/ Mortgage Institutions	Partnerships with developers and provision of both short-term and long-term financial resources (both equity and debt) for housing development. Even though they are all regulated by the Central Bank of Kenya, they however have varied and distinct lending conditions.
Professional/ Technical team(s)	They offer professional/ technical skills and guidance during the development process. The common ones in a housing project include: Architects, planners, financial consultants, quantity surveyors, engineers, project managers, land economists, estate agents and legal practitioners.
Buyers and tenants	These are the final consumers who either buy or rent the housing product.

4.5.1 Development Control and Building Approval Process in Mombasa

Development control is an essential component of planning process involving administration or regulation of land use with an aim of ensuring developments' compliance to permitted spatial development blueprint and planning policy recommendations, rules and principles. It therefore upholds organized and harmonized development activities within urban area. The county governments have been conferred the power to undertake development control within their jurisdictions subject to the provisions of the Physical and Land Use Planning Act, 2019, the Urban Areas and Cities Act, 2011, and the County Governments Act, 2012. Additionally, development control is also guided by Environmental Management and Coordination Act 1998, Land Act 2012, Public Health Act 2012, Water Act 2002 among others.

In Mombasa County, just like many others in Kenya, management of development control is undertaken by the Development Control Section, within the Planning Unit under the Department of Lands, Housing and Planning, Mombasa. Nevertheless, development control is undertaken in consultation with a number of other relevant departments and government agencies as outlined in table 4.12.

As a procedure, all property development activities must get prior permission before commencement. Therefore, the developer must submit an application requesting for building permit before undertaking the development through county executive committee member who shall subsequently circulate the applications to relevant departments/units and institutions for comments. The county executive committee member then evaluates the comments received from the various units and prepares a report to the County Secretary who then convenes a County Physical Planning Committee to scrutinize and decide whether to grant approval, suspend or reject the application.

According to the existing zoning rules, most of the plots in the areas predominated by affordable rental housing are under single-dwelling classification and therefore if a developer has to construct multi-dwelling units then it has to get approval for change-of-user. It is imperative to note that despite the fact the zoning laws should guide the development of land by formulating the permissible standards and regulations within 25 years from inception with possible revision every 5 years, the last planning and zoning initiative for Mombasa County was formulated in 1971 (CGM,2018). Table 4.12 illustrates the application process for change-of-user and building permit with details of cost per stage and expected timelines. As per the service charter of Mombasa County, each of

the approvals for both change of user and building permit should take 30 days, however, this duration can always vary depending on the period it takes to receive response comments from the external agencies such as NEMA, National Government departments and National Construction Authorities (CGM, 2018). At times, the application can be rejected leading to an appeal by the developer or even litigation in the court, a scenario which can lead to protracted court case with uncertainty of final decision. Such incidences may increase the developers' costs in the development control process (RoK, 2019a).

Table 4. 13: Development Approval Process

NATURE OF APPROVAL	RELEVANT AUTHORITY	REQUIREMENT	PROCESS	EXPECTED DURATION	FEEES AND CHARGES (KSHS.)
Change/ conversion of user	County Government	A Planning Brief Prepared and Signed by a Registered Physical Planner	Publication of the Public Notice and the Preparation of the Application	30 days	83,000
		Physical Planning PPA 1 form filled and signed.	Submission of the Application form for development permission		
		Copy of title deed, Rate Clearance Certificate/Receipt of rates	Invoicing of the application and payment to the County government		
		A 14 Days Public Notice for comment and objection of the residents published in the 2 National Dailies and at the site.	Internal circulation to the following departments; Physical Planning; Public Health; Valuation; Fire and Safety; Public Works; Building Inspectorate; Water and Environment		
		County government statutory fee	External circulation of the application to the relevant agencies which includes; Physical Planning, Survey, Land administration and National Land Commission		
Comments or recommendations of the Physical Planning, Survey, Land Administration and National Land Commission	Approval or Refusal of the application				
	National Government (Ministry of Lands and Physical Planning)	Approval by the County Government.	Department of Land Administration	7 days	5,000
		Payment of statutory approval fee.	Verification of the application and forwarding to Director of Survey	6 days	1,000
			Director of Survey Beacon re-establishment Issuance of new deed plan with new land reference number or amendment of RIM.	7 days	Nil
			Department of Valuation Valuation for rent apportionment.	3 days	1,000
		Department of Registration Issuance of new title deed with endorsed change of user.			
TOTAL DURATION AND APPROVAL COST FOR CHANGE OF USER				53 days	90,000

Building Plan Approval/ Building permit	County Government of Mombasa	Architectural Plan prepared by a registered architect Structural drawing prepared by a registered Engineer Copies of land ownership documents (title deed/certificate of lease) Confirmation of rates payment and clearance.	Submission of the Architectural and Structural drawing online Billing and payment of statutory fee Circulation to the concerned department Approval or Rejection	30 days	0.8% of the development cost
	National Environmental Management Authority (NEMA)	Environment Impact Assessment (EIA) (Project) report. Feasibility Study Environmental Management Plan Public participation Approved building plans and Form PPA2 (Notification for approval for development) Copies of land ownership documents PIN and Personal Identity card	Circulation to all lead agents. Review of the application Licensing or rejection	35 days	Nil
	National Construction Authority (NCA)	Approved building plans and Form PPA2 (Notification for approval for development). Registration Certificate of the contractor. NEMA approval (EIA License)	Review of the application	30 days	Nil
TOTAL DURATION AND APPROVAL COST FOR BUILDING PERMIT				95 days	

Source: RoK (2016)

4.5.2 Financial Services Sector in Kenya.

The Kenyan banking sector is regulated by the Central Bank of Kenya and comprises 43 financial institutions of which 42 are commercial banks and 1 mortgage finance companies. These banks, together with non-bank financial institutions, which comprise 13 Microfinance Institutions (MFIs), savings and credit cooperatives, and mobile phone service providers, form Kenya's formal banking sector and serve 40.5% of the population. The informal financial sector which includes NGOs, self-help groups, and individual unlicensed money lenders serves about 26.8% of Kenyans while 32.7% of the population does not use any form of financial services. Besides, 40 out of the 43 banks are privately owned while three have the government as the majority shareholders. The privately-owned institutions comprise 25 locally-owned (the controlling shareholders are domiciled in Kenya) and 15 foreign-owned. 24 of the locally-owned banks are commercial banks while 1 is a mortgage financier. All the foreign-owned institutions are commercial banks (CBK, 2017b).

Out of the 43 banks, 31 have mortgage portfolio in varying sizes, lending conditions and rates (Table 4.13). Housing Finance is currently the only Housing Finance Institution (HFI), while others are ordinary banks licensed by the Central Bank to engage in mortgage business, though there are no major policy differences for the two categories. Kenya Commercial Bank (KCB) through its subsidiary Savings & Loans commands the largest share in the mortgage market followed by the Housing Finance. Some banks offer limited loans to their staff and prominent customers while others are much larger players who actively engage in mortgage business (CBK, 2017). Micro-Finance Institutions (MFIs) also engage in housing finance through offering technical support and 'micro-loans'; and the key institutions include; Kenya Affordable Shelter Project (KASP) and Pamoja Trust. The National Cooperative Housing Union (NACHU) coordinates the housing cooperatives (Weru, 2004)

Despite the big number of banking institutions, there has been a general decline of credit to the private sector, but the real estate and building construction sectors have experienced growth in credit by 10% and 4% respectively (CAHF, 2017). Recent surveys by the Central Bank exhibit a highly polarized market where the top five lenders account for about 75.0% of the total mortgage portfolio while top two banks hold almost a half of the mortgage market share (Table 4.2) (CBK, 2017b).

4.5.3 The Kenyan Mortgage Market and the Prevailing Lending Conditions.

The Kenyan mortgage market has experienced significant growth over the past decade in terms of both the size of mortgage market and the number of loans; and is currently the largest in the East African region. The mortgage finance market expanded from Ksh 19 billion (approx. \$253 million) in 2006 to Ksh223.2 billion (approx. US\$2.2 billion) at the end of 2017, whereas, the number of mortgage loan accounts significantly increased from 7,275 to 26,187 during the same duration as indicated in table 4.13 below (CBK, 2017a).

The growth in mortgage market is attributed to increased desire for home-ownership. But despite the growth in the mortgage market, affordability is still a major concern as the focus seems to be on the high-income households as evident in the high average loan size of Ksh10.9 million (US\$ 109,000). Average mortgage interest rate is 13.75%, a loan-to-value ratio of 90% with a repayment period varying between 5-25 years depending on the lending institution and the product's type as shown in table 4.14 below. On the other hand, with the evidence that over 50% of Kenyans earn between Ksh 20,000 – 50,000 (US\$ 200 – 500), mortgage is apparently unaffordable and housing prices are equally high, therefore, rental housing becomes relevant as an alternative delivery vehicle (CAHF, 2017).

Table 4. 14: Mortgage Accounts in Kenya between 2006 – 2018

Financial Institution	2015		2018	
	No. of Mortgage Accounts	Percentage of the total (%)	No. of Mortgages Accounts	Percentage of the total %
Kenya Commercial Bank Ltd.	7007	28.6	6496	27
Housing Finance Ltd.	5993	24.5	5711	23.7
Standard Chartered Bank Ltd.	1885	7.7	2379	9.9
Equity Bank Ltd.	1612	6.6	1746	7.2
CFC Stanbic Ltd.	1684	6.9	1660	6.9
Barclays Bank Ltd.	977	4.0	1000	4.2
Cooperative Bank of Kenya Ltd.	643	2.6	928	3.9
Commercial Bank of Africa Ltd.	465	1.9	529	2.2
National Bank of Kenya	348	1.4	259	1.1
Jamii Bora Bank Ltd.	334	1.4	343	1.4

Source: CBK(2018).

Table 4. 15: Prevailing Mortgage Lending Conditions in Kenya

BANK	INTEREST RATE (%)	PAYBACK PERIOD (YEARS) (Maximum)		LOAN TO VALUE RATIO (maximum)%	
		COMMERCIAL DEVELOPMENT	RESIDENTIAL (Own occupation)	COMMERCIAL DEVELOPMENT	RESIDENTIAL (Owner occupation)
KCB Ltd.	13.5	20	25	80	105
HFC Ltd.					
Cooperative Bank Ltd.	13.5	20	20	80	95
Standard Chartered Bank Ltd.	14	-----	25 –patriots 20 –ex-patriots	-----	100
CFC Stanbic Ltd.	13.5	10	18	80	90
Equity Bank Ltd.	13.5	10	20	-----	-----
Barclays Bank Ltd.	14	20	25	80	90
Commercial Bank of Africa Ltd.	13.5	25	25	80	105
Jamii Bora Bank Ltd.					
National Bank of Kenya Ltd.	13.5	25	25	85	90

Source: CBK (2018)

In addition to the above lending conditions, there are certain standard requirements that banks usually consider when advancing loans to their clients. The requirements vary from bank to bank but there are common features that cut across. Most of the financial institutions categorize their requirements around the type of loan, either for purchase or construction; client's profile, whether individual borrower- salaried or self-employed, partnership, limited liability company; type of development, either for own occupation or income generating (sale or rental); and location of the development, either urban or rural. It however pertinent to note that most developers or landlords cut across the clients' profiles, and therefore of significance to this study in relation to the bank requirements is the type of development and specifically income generating (sale or rental) since this is the main focus of our study. This however does not downplay the significance of client's profile in loan evaluation since the bank considers a multiple of factors.

For construction of income generating (commercial) housing, most of requirements are common for both rental and for-sale housing. For instance, most banks will need the following: Approved building plans (architectural and structural drawings) of the proposed project; Bill of Quantities prepared by registered quantity surveyor; profile of the

contractor and building contract agreement between borrower and contractor; profiles of Project Manager and or, Architect, Quantity Surveyor, Contractor, Structural Engineer; Project Implementation Schedule (Contractor's work plan) detailing all activities and scheduled time frames; approval by National Environmental Management Authority (NEMA); approval by National Construction Authority(NCA); evidence of the availability of the developer's contribution towards the project (usually professional fees, preliminary and marketing costs and about 15% of the actual construction costs).

However, there is a variation with regard to loan to value (LTV) ratio and payback period whereby development for sale has a higher rate of between 80% -90% and a shorter repayment duration lasting almost the life of the project which is averagely three years. On the other hand, developers for rental housing are subjected to lower LTV rate of between 60%-70% and a longer repayment period of up to 20 years. Additionally, while borrowers developing for sale are required to provide a feasibility study confirming the viability of the project and the availability of End-Buyers of the units to be developed, the ones developing for rent are instead required to prove availability of sufficient income to repay the loan amount regardless of the proposed investment.

CHAPTER FIVE:

5.0 Research Methodology

5.1 Introduction

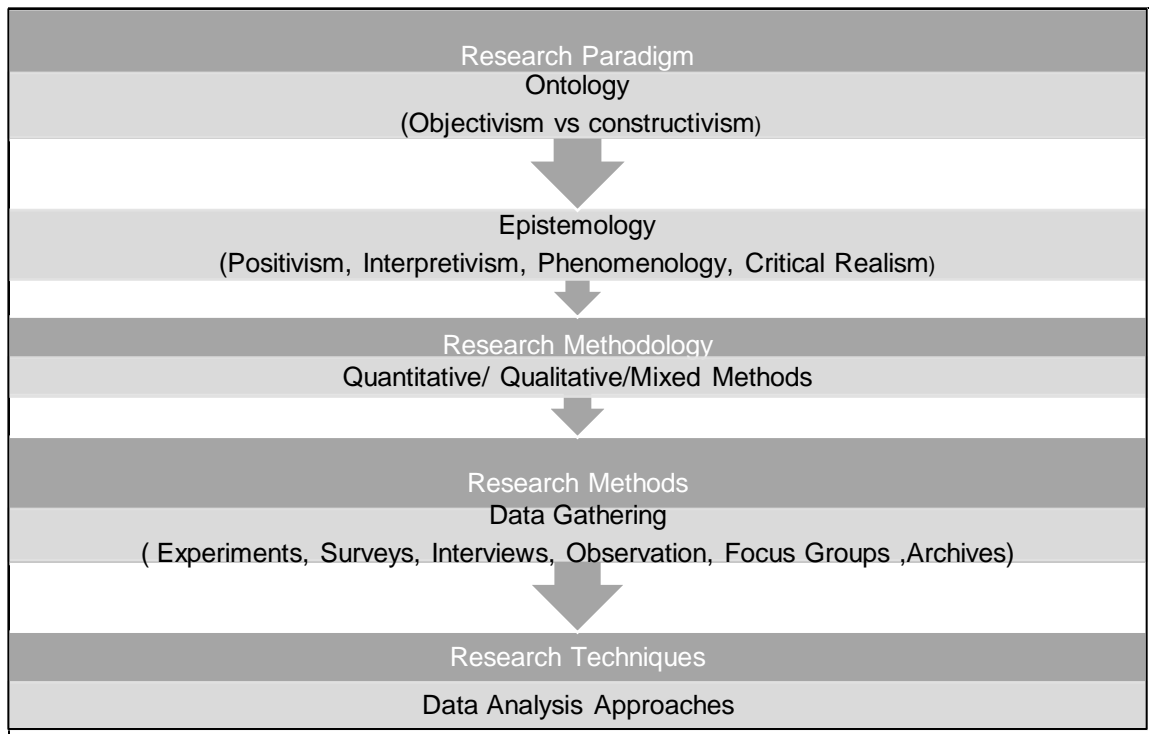
This chapter presents a discussion on the methodological approach that the study has adopted in addressing the research objectives. It commences by laying the general philosophical assumptions of the study in part 5.2. The chapter then highlights critical realism and housing research in 5.3 while part 5.4 entails the methodological challenges of housing market analysis. Lastly, part 5.5 illustrates the research design that has been applied in this research.

5.2 Ontological and epistemological foundations in research methodology.

The essence of methodology is to structure the researcher's activities in accordance to the nature of the problem and the desired outcome. Methodology therefore represents the whole structure of thinking and action involved in the research work (Jonker & Pennink, 2010). More precisely, methodology as illustrated by O'Gorman and MacIntosh (2015), can be described as the '*action repertoire*' based on the theoretical principles and real circumstances that configures the logic of the study depending on the research problem to be solved. The research activity can therefore be considered as a logical sequence of interconnected actions which start from a more abstract point (at paradigm stage) to a very solid argument in the end (see figure 5.1).

According to Hesse-Biber (2010), methodology offers the theoretical grounding upon which a research problem is linked to a particular method(s). Methodology is therefore an outcome of the researcher's perspective of reality (ontology), which consequently leads to epistemological concerns, that fundamentally comprise the question of what is (or ought to be) considered as acceptable knowledge in a given subject. That is, how reality should be studied (Bryman, 2012).

Figure 5. 1: Research Methodology Domain



Adapted from Jonker and Pennink (2010) and O’Gorman and MacIntosh (2015).

5.2.1 Ontology and Research

Recognition and understanding of philosophical directions within the research paradigm adopted is thus important (Collis & Hussey, 2013). This is because the nature of thinking provides a nexus between the research problem and the reality of the society. The reality presents an ontological problem due to the desire of understanding the principle of ‘phenomena’ and the nature of their occurrences.

The research philosophy adopted reveals the assumptions of the researcher’s perception of the world. Thus, an explicit philosophical engagement is key since it not only has significant influence on the research undertaken, but also provides a clear understanding of the research question origination. To some extent, even though the philosophy is based on practical considerations, nevertheless, the main probable influence is the actual perception on how knowledge is related to the process by which it is generated (Saunders, 2009). Himes and Schulenberg (2013) strengthens this position by underscoring the significance of linking philosophy and theory. Such significance is founded on the need to reflect the thoughts of a researcher and recognition of how that understanding is arrived at. From this argument, it is apparent that philosophy and theory

have a perpetual linkage. Therefore, while philosophy influences one's view of the world as argued by Dewey (2008), theory on the other hand configures deliberate interactions of an individual and the world (Hagen, 2005).

Therefore, the significant ontological question that confronts researchers is based on how reality is interpreted. This question leads to two main strands of interpretations upon which the ontological considerations are based, that is, either objective or subjective (constructive) (Bryman, 2012).

According to O'Gorman and MacIntosh (2015), an objective ontology is where reality is perceived to be existing autonomously without the influence of external social actors. As further expounded (*ibid*), through an objective lens, there is a possibility of establishing and describing common principles and truths that are generalizable. This, according to Chalmers (2013) is because reality is based on facts that can be explicitly validated through a diligent and unbiased empirical observation, as opposed to individual opinions or theoretical instincts. Saunders (2009) emphasises that the main proposition of objectivism is that knowledge emanates from experience hinged on awareness, and principally on absolute observation. This emphasis magnifies the strategic role of systematic observation where experience and reflection are considered superior to imaginary assertions.

On the other hand, subjective viewpoint postulates that reality is shaped by perceptions and relations of social actors (O'Gorman & MacIntosh, 2015). It considers facts to be embedded on social and historical foundations and therefore vary with demeanour, attitudes, circumstances, and opinions. The perceptions about reality are framed by clear 'facts, notions, beliefs' and the principles used either 'implicitly' or 'explicitly' by the researcher (Jonker & Pennink, 2010). The subjective ontology hence holds the view that individuals' experiences and perceptions of nature vary with locality and period, and therefore understanding reality requires a compounded approach. In relation to this view, Bryman (2012) opines that reality, being a product of social interactions cannot be considered static but rather dynamic.

Ostensibly, ontological orientations of objectivism and subjectivism have continued to sustain philosophical debate, conceivably due to their largely irresolvable nature. For instance, O'Gorman and MacIntosh (2015) argue that the two strands of ontology are not mutually exclusive, and most researchers adopt philosophical orientations in relation to the two perspectives. To illustrate this argument, they for example observe that when

analysed critically, the view that subjective approach varies with place and time presents a challenge in terms of generalization such that some level of objectivity is necessary to make a universal assertion for a subjective view. On the other hand, while the objective ontology lays emphasis on the observable features of the objects, whose absence would alter their identity, subjective philosophy rebuts this and argues that the visibility of these characteristics only corresponds to certain language, norms, and the individual adherents. Additionally, it is argued that the wide acceptability of empirical knowledge as truth should not be misconstrued that it is universally recognized (*ibid*).

Nevertheless, ontological presuppositions and obligations have a significant influence on the overall research activity and therefore cannot be ignored. Intuitively, the fundamental question that predominate debates on reality is based on the probable extent of similarity or comparability of natural and social worlds. Of ontological relevance is the fact that there is no single view of reality and as such, no universal interpretation of reality (MacIntosh & O’Gorman, 2015; Bryman, 2012). This consequently raises an epistemological concern of how then, should reality be studied? How should scientific knowledge about reality be generated?

5.2.2 Epistemology and Research Activity

The epistemic dimension therefore comprises a vital component of research activity. It is principally concerned with how the social world can (or should) be studied. Precisely, it basically relates to what is valid knowledge and how it can be obtained (Bryman, 2012). Consequently, it therefore considers what method(s) can (or should) be used to obtain knowledge, as well as the type, sources, scope reliability and limits of the data.

According to Jonker and Pennink (2010) epistemology concerns the examination of the distinction between the “*justified belief*” and “*opinion*”. Moreover, they view it as “*quality assurance* of what we know”. But, as further explained (*ibid*), the definite meaning of knowledge remains debatable. For instance, while one standpoint posits that justification is a central component in distinguishing true knowledge from opinion, other view is that genuine knowledge can only be verified by facts (Bullock & Trombley 1999). Whichever the case, the type of data for generating knowledge, and the means of acquiring it must be reliable. The reliability highly depends on the epistemological positions through which the research process is approached. There are a number of epistemological standpoints applied within social science research, but, the two dominant ones are positivism and

interpretivism which are polar opposites. However, of significant interest to this research is critical realism, which lies in between the positivist and interpretivist perspectives.

Essentially, a positivist position is usually aligned to an objective ontological orientation, while interpretivist epistemology tends to be inclined to subjectivism. Critical realism on the other hand provides a nexus between objective and subjective ontologies (MacIntosh & O’Gorman, 2015).

The philosophical leaning of positivist epistemology is towards natural science as observed by MacIntosh and O’Gorman, but, other authors such as Donaldson (1996) suggest that the basic assumptions of positivism are still beneficial to social sciences where empirical methods of natural science may be customized to the study of human activities; and in instances where social research outcomes take the form of causal laws and are unbiased.

Positivists consider the world to be external and objective. They therefore adopt an empiricist approach which postulates that knowledge can only be validated through statistics. Consequently, research inclined to positivist position rely on highly detailed and accurate data, and predominantly applies quantitative techniques, and adopts deductive approach where hypothesis is developed and then tested (Bryman, 2012). Positivist epistemology therefore entails employment of methodical and unbiased experimental observations as a means of acquiring knowledge to understand reality (Danermark, 2002). Essentially, logic and scientific knowledge take pre-eminence as the model for justifiable knowledge for solving human problems.

There have been debates on the applicability of positivism on housing research. Notable amongst them is Oxley (1996) who despite recognizing the social complexity of housing systems, still postulates that housing relations can be demonstrated through explicitly noticeable and quantifiable variables using statistical analysis and producing generalizable explanations. While this assertion is relevant and beneficial to housing research, it however ignores the fact that beyond the observable reality, there are a number of institutional structures and actor which play a significant role in influencing housing systems.

As further observed by Crotty (2003), emphasizing on the absolute objectivity of scientific knowledge and statistical approach of arriving at outcomes fails to appreciate that complex social connections and intrinsic features which in this case can be linked to housing systems cannot be quantitatively described. For instance, some aspects of

housing require subjective judgment which may not be captured within positivist paradigm. Consequently, the research outcomes in such cases have to be arbitrated by the perceptions of the human actors involved to understand the explanatory causal conditions. For instance, whereas the experiment may be able to determine a mismatch between demand and supply, it cannot reveal the underlying reasons for such condition. But still, even where the features can be described using measurable variables, the interpretation of the resultant data may either be skewed towards the researcher's prejudice or fail to precisely determine the qualities of some social phenomena due to limitation of human knowledge on reality (Mouton, 1996).

Besides, the intimation by positivism that nature is uniform fails to recognize that housing market is heterogeneous. Thus, the positivist standpoint ignores the fact that housing reality exists in various forms and the preferences of the actors vary with time and location. This is because social objects cannot exist independent of the actions which form them, or which they shape. Actually, perceptions within the housing market can be influenced by experiences of the actors. This consequently affect their behaviours and ultimately change the institutions (Marsh and Furlong, 2002).

The central principle of positivism confines the researcher's task to finding reality rather than interpreting it. As such, practical knowledge has shown that positivists describe the problem of market failure in rental housing sector and the likely causes without explaining the reasons behind the outcomes and prescribing how the outcomes can be altered (Chalmers, 2013). Considering the foregoing, application of purely positivist approach may not capture a comprehensive understanding of the phenomena of market failure in rental housing. Nevertheless, a number of issues in positivism cannot be overlooked in the context of objective knowledge in housing research.

An interpretivist paradigm on the other hand provides both the explanations and understanding of the fundamental disparities between the natural and social sciences (MacIntosh and O'Gorman, 2015). As such, interpretivism, unlike positivism rejects the notion of objective reality, and aims to comprehend how social world is (or can be) interpreted. It postulates that social world is dependent of personal opinions and is a product of the relation between people and the world surrounding them (Hesse-Biber, 2010).

Essentially, the interpretive paradigm lays emphasis on understanding the activities in a particular context rather than just describing outcomes. For instance, it views reality as a

function of compounded factors such as perceptions of different people, the background of the research problem being investigated, how the researcher(s) comprehend and interpret the data, and the level of the researcher's participation (MacIntosh & O'Gorman, 2015). Consequently, the interpretivist approach is more inclined to subjectivity and qualitative research and is able to provide a better understanding of the housing market from the perspective of real experiences of the actors within the housing market.

According to Lawson (2013) the interpretivist standpoint on reality diametrically contrasts that of positivism. While positivists use deduction, objectivity and observation to define reality, interpretivism on the other hand believe that reality is socially constructed and therefore, can be explained by understanding the hidden causal factors, as perceived by human participants. Subsequently, interpretivism recognizes the significance of opinions of human objects in shaping social world, and that the perceptions are inseparably connected to specific times and locations.

However, interpretivism just as positivism, still do not provide a viable platform to analyse housing market comprehensively. For instance, interpretivist paradigm fails to appreciate that besides events and experiences, social world also includes structures and institutions that control the course of events (Fopp, 2008). Further, while interpretivist approach may excel in explaining the intrinsic features of housing system, it however fails to capture the measurable variables. Besides, it has also been postulated that interpretivism fails to provide a viable substitute to positivism given that that ultimately, the interpretivist analysis still holds the main assumptions inclined to positivism (MacIntosh and O'Gorman, 2015).

Many authors recognize the idea of complexity of housing problem. For instance, housing market, despite being controlled by the forces of demand and supply, the transactions and actors are governed by underlying institutions. Lawson (2013) therefore postulates that to understand housing problem in question, it is pertinent to identify and illustrate the underlying forces and institutions that control the housing market actors and their interactions. However, positivist and interpretivist approaches are perceived to be positioned at the opposite extremes of the ontological perspective

Therefore, the question still remains as to the most appropriate epistemological standpoint to understand market failure phenomena within housing reality. As earlier explained in this study, it is already clear WHAT the research problem is. This research aims to investigate market failure in the rental housing market. In this regard, it aims find

to find out WHY despite high demand for affordable rental housing, there is no corresponding supply of the same. This assertion presents two facets for investigation. First, there is need to confirm the claim of the existence of high demand-low supply matrix. On the other hand, the research aims at finding out WHY and HOW the underlying causes result to this scenario.

From ontological perspective, the research borrows from both objective and subjective ontological orientations. However, in terms of epistemological approach, both positivism and interpretivism may not adequately help in fulfil the research objectives if applied independently. Evidently, both paradigms if used individually are bound to result to polarized analysis which may fail to capture all parameters of the housing market. This is because positivist approach ignores the innate social character of knowledge development, the causal invisible influences, and the bias associated with human perceptions. Conversely, interpretivism over emphasize on human perceptions and the related complex challenges that fail to adequately determine the conflicting assertions to knowledge (Lawson, 2013).

Therefore, for a comprehensive study, there is need to employ a philosophy which is able to capture the intrinsic features of the housing market and provide an appropriate means of capturing reliable data and producing justifiable outcome.

5.2.3 Critical Realism Perspective

Critical realism is comparatively a recent epistemological paradigm which borrows from both subjective and objective ontological standpoints. As explained by MacIntosh and O’Gorman (2015), assumption within the critical realist perspective is that even though reality is independent from human perceptions, the knowledge about it is usually restrained and influenced by those perceptions. Clark (2008) reinforces this argument by postulating that critical realism concurrently acknowledges that knowledge exists independent of human objects but is also socially entrenched and fallible in nature.

Therefore, while critical realism assumes that knowledge about reality can be produced from observation, it also recognizes that reality can take different forms depending on the perceptions of individuals occupying it. From critical realism perspective, there is need to question what is observed, and the facts be validated. This calls for interpretation of reality by observation and then validates it in an objective way using hypothesis. Simply put, critical realism takes a ‘realist’ position about external reality but remain ‘critical’ on human ability to access and quantify it (MacIntosh & O’Gorman, 2015).

Critical realists argue for more structured ontology comprising the overlapping domains. Consequently, reality is defined in three domains which exist independently albeit with contingent interchanges operating between them. These domains comprise the empirical, the actual, and the real (Clark, 2008). The empirical comprises human perspectives about reality (actual and real domains) arising from either personal experiences or scientific investigations. The actual includes the 'events and outcomes' while the real realm represents the causal interactions and structures that govern the operations in the actual domain. However, most of the underlying structures are hidden but somewhat patterned (*ibid*).

According to Cheng (2005), critical realism is principally interested in the distinctions and relations between the people and society, and between people's activities and social configuration. Therefore, critical realist perspective emphasizes on socio-economic reality which not only comprises of 'events and experiences' but also 'structures and mechanisms.' As expounded by (Fleetwood, 1999), contrary to positivism, critical realism is concerned with identifying and illuminating the institutional structures and mechanisms that govern or influence phenomena of experience. Further as noted by Lawson (2013) critical realism overlooks both inductive and deductive approaches and promotes the use of retrodution or abduction. This is because while inductive approach moves from the specific to the general and the reverse for the deductive approach, retrodution goes beyond the known phenomenon and explores 'the real' domain to identify and explain the structures and mechanisms responsible for the phenomenon.

Therefore, critical realism is not only confined to explaining events in the actual domain, but also aims at revealing and demonstrating the causal factors that influence the actions and outcomes within the domain (Clark, 2008). In principle, critical realism expounds that it is not possible to mechanically predict the world since human perceptions are limited in both physical and ideological terms. Consequently, what is observed (the empirical) is part of the actual (what actually happens) which is an indicator of the real (Burgoyne, 2008). As such, the realist standpoint therefore tries to create an understanding of reality through exploring how the events and outcomes (the actual) are influenced by causal factors and structures (the real) (Cheng, 2005).

In terms of theoretical connection, the epistemological position of critical realism has a strong link with the principles of NIE theory. For instance, Clark (2008) affirms that critical realists view reality as complex and recognize the role of institutional structures in

influencing human actions. Cheng (2005) points out that the connection between NIE and critical realism lies in the former's recognition of the underlying institutional factors and the three domains of the later. For instance, from the critical realist perspective, 'the real' domain identifies and illuminates the institutional structures that influence the human interactions and outcomes. On the other hand, from the NIE standpoint, institutions comprise both formal and informal rules that influence human interactions. Furthermore, critical realism eliminates the sources of misperception in NIE. Usually, the institutional model tends to give explanations in terms of narratives and is devoid of the predictive ability. To reduce the confusions, the critical realist viewpoint not only allows the use of scientific models and tools of investigation, but also advocates for explanation and description of the meaning of reality in contextual form rather than just defining it (Table 5.1). Critical realism and NIE therefore provides a viable nexus between theoretical and philosophical perspectives for this research.

In essence, critical realism provides a relevant medium for conceptualizing reality, supporting theory and guiding empirical research. Besides, it contributes both to clarifying the 'WHAT' questions regarding the identified or observable phenomenon (in the empirical) and tries to answer the 'WHY' question (in the actual) while building an exploratory knowledge that purports to actually deal with the real.

Table 5. 1: Research assumptions and various research paradigms.

Assumption	Question	Positivism	Interpretivism	Critical Realism
Ontological	What is the nature of reality?	Objective- Reality comprises uniform observable events	Subjective -Interpreting human actions to understand reality	Structured reality with deep dimensions comprising the mechanisms that generate events in the world.
Epistemological	How is knowledge obtained about reality?	Researcher is independent from the research objects	Researcher interacts with research objects	Interdependent but analytically distinct nature of society, culture (structure) and individual (agency)
Approach	How do theory relate with research?	Deductive - theory testing	Inductive - theory generation	Abductive and Retroductive
Methodology	How is research conducted?	Quantitative	Qualitative	Mixed-methods

Adapted from Bryman (2012) and MacIntosh and O'Gorman (2015)

5.3 Critical Realism and Housing Research

From a critical realist position, the housing market can be seen to be complex and governed by various institutional structures and social relations(Lawson, 2006). Hence,

a range of causal powers control the interaction of the housing market actors. Housing systems can therefore be studied by understanding the contingent social interactions rooted in time and space (Oxley et al., 2011). Therefore, to understand rental housing market failure, the causal factors and mechanisms that govern housing market operations should be examined. Sayers (2000) underscores the significance of these relations and postulates that they play a pivotal role in the activities and the outcome of housing market. As such, they determine the preferences of the actors and housing units provided.

Analysing rental housing market failure from a critical realist perspective calls for a structured understanding of the phenomenon incorporating the three domains of reality. Therefore, the starting point would be to understand the meaning of market failure, which in the context of this study is the mismatch between the supply and demand of affordable rental housing, where demand is high, but supply is low (positivist definition). From the orthodox perspective, rental housing market failure exists due to the preference by property developers to supply housing for sale rather than for rent (Peppercorn & Taffin, 2013).

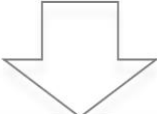
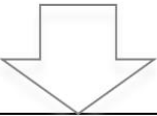
While this conception is empirically true, it only describes the superficial manifestation (i.e. low supply of affordable rental housing units) but remains blind to the relations that generate these empirical appearances (Cruickshank, 2003). It only describes the visible and documentable view of the housing market outcome as it is but fails to illuminate the interrelations generating such outcomes (Cheng, 2005). In other words, it identifies 'WHAT' the rental housing delivery condition is through 'the empirical' realm and goes ahead to explain the behaviour of the actors in 'the actual' realm (WHY). However, it fails to describe WHY and HOW the actors behave as they do. i.e., WHY do they prefer delivering housing for sale as opposed to rental housing, and HOW do the underlying institutional and social relations influence their preferences? These questions can be explained by comprehensively exploring 'the real' domain.

As pointed out by Cheng (2005), critical realism embraces the three domains of reality and recognizes the roles of both actors and institutional structures in influencing human behaviour. In doing this, it considers that housing provision entails various institutions and actors who hold different and often conflicting interests and preferences, hence complicating the activities of the housing market. It therefore seeks beyond the meanings of the underlying mechanisms and explores the possible social and institutional relations and how the overlapping domains of reality shape the housing market. In essence it

incorporates the three domains of reality (empirical, actual, real) in the study of housing, and thus provides a suitable avenue for discovery of the necessary and contingent relations of the housing market so as to explain market failure in the rental housing sector (see Table 5.2) (Cruickshank, 2003).

Critical realism therefore offers a platform for understanding how the structural and institutional foundations of housing research correlates with the empirical, actual and real domains. For instance, while the *empirical* is the observable phenomena such as the quantity and quality of housing, the *actual* explains what actually happens in the housing market, some of which are observable, and others are not. The difference between the *empirical* and the *actual* is that while former is only what can be seen, the activities in the later can either be visible or not. The *empirical* is therefore a *subset* of the actual. The real reveals the fundamental mechanisms that influence what actually happens. This reflects the institutional environment (unobservable) within which the housing market operates.

Table 5. 2: Interrelationships between housing research, the critical realism domains and the conceptual framework

Domain	Phenomena	Event	Focus	Interpretation	Connection to the Conceptual Framework	Methodology
Empirical	Observable	The visible outcome	WHAT is the problem?	Market failure- high demand, low supply of affordable rental housing units/ low quality housing (Housing market output/outcomes)	Outcomes	Quantitative
						
Actual	Observable/ Un-observable	Explains what causes the outcomes in the empirical but does not explore the underlying mechanisms that influence the events	WHY does the problem exist?	Private developers' preference to deliver housing for sale rather than for rent. (Housing market operations)	Action Arena	Qualitative/Quantitative
						
Real	Un-observable	Describe the causal mechanisms and investigate how they influence actions and outcomes in the actual sphere.	WHY and HOW do the mechanisms affect the events in the actual domain?	There must be underlying reasons that influence developers' preference towards developing housing for sale and not for rent. (Institutional environment)	Rules	Qualitative

5.4 Methodological Challenges in Rental Housing Research.

The view that methodology is a key in determining research outcome is not new. Surprisingly, there is little discourse on methodological techniques applied in housing research despite the fact that housing has been a subject of numerous studies locally and internationally. In fact, Jones and Ward (1994) raised concern that despite the significance of methodology, little attention has been given on methodological issue in housing studies. They observed that most housing researchers more often understand the key research questions better than they can formulate suitable methodology for solving the research problem. As such, conducting a research on rental housing in the developing countries is often confronted by a number of methodological challenges that more often arise from epistemological and contextual issues.

From epistemological perspective, housing market is considered as complex multifaceted phenomena. Consequently, housing cannot be viewed from a single-dimensional perspective. Housing study therefore involves multi-disciplinary, fragmented field comprising numerous themes and viewpoints. Such fragmentations present a challenge on how the housing problem is interpreted and consequently the methodology adopted to solve the research problem. As such, some researchers adopt quantitative approaches, others qualitative while others opt for mixed-methods depending on the philosophical interpretation (Hatuka & Bar, 2017).

Contextual challenges arise due to the heterogenous nature of the housing market and product. The housing market, unlike other markets is peculiar due to the unique nature of the housing product. The challenges are compounded by the fact that housing is not only durable and spatially fixed but are also heterogenous in nature. The housing market is therefore heterogenous comprising various submarkets based on typology, locality or the income bracket being served. The variations arising from heterogeneity may call for different methodological orientations since submarkets have different features and may not be comparable.

Besides, while a number of rental housing studies have been carried out in the developed countries Peppercorn and Taffin (2013), limited studies have actually focused on the rental housing sector within the developing country context. And most of the rental housing studies comprise of desk top research using secondary data. Therefore, the dearth of empirical research in rental housing presents methodological implications in

terms of insufficient data on rental housing and scarcity of well-developed research methodology for rental housing studies.

Furthermore, most housing studies have been dominated by the neoclassical approaches. But as argued by Agboola (2015), the principles of neoclassical studies are usually anchored on positivist thinking and do not provide a platform for representative analysis of housing phenomena. Although neoclassical paradigm is useful in illuminating the measurable variables in housing studies, it however fails to provide explanations for the influence of social context in the housing study. It therefore fails to provide a methodology that can deal with the housing complexities that arise from the influence of socio-economic and institutional milieu due to its reliance on methodological monoism, which is basically quantitative.

As a conclusion, it suffices to allude that the apparent methodological challenges that confront rental housing research can be navigated not only through identification of an appropriate theoretical framework that explains housing phenomena comprehensively, but also developing a viable conceptual framework to steer the empirical research. This calls for a convergence of ideas ranging from philosophical, theoretical and conceptual perspectives.

5.5 Research Design

This research was guided by the philosophical paradigm of critical realism. As much as critical realism does not explicitly prescribe the research design to be used under the paradigm, its doctrines place a strong emphasis on sufficient conceptualization, detailed explanation and realistic description of the phenomena being studied (Clark, 2008). Therefore, the methodology adopted under critical realism was suitable for understanding housing phenomena in relation to the three domains of critical realist thinking. For instance, the empirical domain is defined by the observable features of the housing market such as physical shortage and affordability, which are usually, expressed using quantifiable factors and as, a quantitative design would suffice. On the other hand, qualitative methods are more suitable for understanding the intricacies in the actual and real realms (*ibid*).

This study therefore chose to use triangulation of three different research designs in data collection. This involved integrating the use of qualitative methods, quantitative methods as well as conducting document review on policies related to housing in Kenya. Triangulation provides validation and cross examination of data to check on its reliability

and validity and hence helps yield stronger conclusions (Hesse-Biber, 2010). The approach to use both qualitative and quantitative methods was fixed as opposed to emergent, since the need to use mixed-methods was decided from the onset of the research work. In addition, a convergent simultaneous strategy was applied as both qualitative and quantitative data were collected independently at the same time, but subsequently combined and interpreted in one analysis (Patten & Newhart, 2018).

The selected research design is best suited for this study since housing problem is complex, and therefore requires a detailed explanation of the research outcomes for a deeper understanding of the phenomenon. Mixed-methods design therefore not only provides tools for describing the outcome of the housing market interactions, but also offers an understanding of the underlying causes of the affordable rental housing demand- supply mismatch, and accounts for why the trends exist.

The quantitative strand of this research is applicable to housing phenomena that can be expressed in terms of quantities (Kothari, 2004). It relies primarily on numerical data and statistical analysis to give insights on the demand and performance of rental housing market in Kenya (Passer, 2014).

Conversely, the qualitative strand offers explanations of complex issues regarding rental housing market failure and underlying factors related to the same. It provided data on experiences of the housing market players regarding the rental. Besides, it effectively identifies the intangible features of housing and reveals the latent roles played by the institutions, policy and regulations in influencing housing market outcomes (Mack *et al.*, 2005).

Combining the three methods therefore provides better interpretation and understanding of the complex housing reality and clarifies the research outcomes. The complementarity of the three methods is also useful for validating the results. Mixed-methods therefore generates a synergistic effect given that the outcomes from one method aids in developing or informing the other (Saunders, 2009; Hesse-Biber, 2010). The choice of the design for this study was therefore arrived at by mapping out the data needed to answer the research questions and fulfil the research objectives, the sources of the data and the appropriate instruments for obtaining them as outlined in Table 5.3

Table 5. 2: Alignment of methodology to research objectives

Research Objective	Expected Output	Data Needed	Source of Data	Research method
Assess the effective demand for affordable rental housing in Kenya	Demand side information	Tenants" socio-economic data Landlord's assessment Rental levels Occupancy levels	Tenants survey in the target rental housing estates Landlords Estate agents Secondary sources	Survey questionnaires Documentary analysis
Evaluate the extent to which policy provisions influence rental housing supply in Kenya. (Research question1; Hypothesis 1)	Supply side information	The previous and existing policies and their provisions on rental housing Considerations when formulating housing policies Tools for housing problem diagnosis. The institutional challenges the developers face especially in rental housing delivery Any policy gaps with regard to affordable rental housing and the measures to bridge them Any specific programs or policies implemented for the purpose of stimulating rental construction or investment	National Government. National Housing Corporations County Government of Mombasa UN-Habitat. Secondary sources	Semi-structured interviews Documentary analysis
Evaluate the extent that the institutional, regulatory and legal framework influence supply of affordable rental housing in Kenya? (Research question 1; Hypothesis 1)	Supply side information	Planning regulations. Zoning laws, Building approvals process. Fiscal framework- Tax treatment of rental income Legal framework of rental contracts and tenant-landlord relations. Regulatory institutions- duties/overlaps/redundancy	Relevant key informants in the National/County government Property Developers Existing Landlords Secondary sources	Semi-structured interviews Documentary analysis Questionnaires

Research Objective	Expected Output	Data Needed	Source of Data	Research method
<p>To investigate how the housing finance systems relates to rental housing market.</p> <p>(Research question 2; Hypothesis 2)</p>	<p>Supply side information</p>	<p>Mortgage products</p> <p>Financing conditions.</p> <p>Special biases in housing development financing.</p> <p>Developer's financial needs.</p>	<p>Financial Institutions.</p> <p>Property Developers.</p> <p>Existing Landlords</p> <p>Secondary sources</p>	<p>Survey questionnaires</p> <p>Documentary analysis</p> <p>Semi-structured interviews</p>
<p>To assess the performance of rental housing as an investment as compared to development for sale</p> <p>(Research question 3; Hypothesis 3)</p>	<p>Supply side information</p>	<p>Rental levels.</p> <p>Rental housing yields.</p> <p>Development for sale yields</p> <p>Net Present Values for development for sale and rent</p> <p>Internal Rate of Return for rental housing and development for sale</p> <p>Payback period</p>	<p>Property Developers</p> <p>Financial Institutions</p> <p>Secondary sources</p> <p>Market surveys</p>	<p>Survey questionnaires</p> <p>Documentary Analysis</p> <p>Semi-structured interviews</p>

5.5.1 Study Population and Sampling

The unit of analysis for this research is Mombasa city. As such, a cross-sectional study using both qualitative and quantitative approaches has been conducted within the target population which includes the lower-middle income households residing in the city of Mombasa, the landlords owning developments within the lower-middle income residential areas in Mombasa, private property developers in Mombasa, financial institutions, State Department of Housing and Urban Development, Kenya Revenue Authority, County Government of Mombasa, UN-Habitat, and private housing consultants (Table 5.4). The focus on the lower middle-class segment of the population was purposive, given the scope of the study to understand the status of affordable rental housing market in Kenya. As described earlier in chapter 1 and evidenced in the contextual framework, there is a growing population of the lower-middle income segment of the population (who can afford to rent but may not have purchasing power) driving up demand for affordable rental housing.

On the qualitative study, purposive sampling has been applied. Participants have been selected based on their experience and expert knowledge around the study questions (Leedy & Ormrod, 2015). This type of sampling is best suited for this research because the researcher is able to select the individuals who are most appropriate for a study of the central phenomenon (Clark & Creswell, 2015). The technique is appropriate to use because it is effective for selecting respondents who are not conveniently located (Ruel, Wagner & Gillespie, 2016), and also obtaining a ‘typical’ sample based on specialist knowledge (Walliman, 2016). The qualitative interviews targeted participants best placed to answer the research questions and to provide in-depth knowledge of the status of rental housing market in Kenya and the prevailing underlying factors that affect rental housing delivery in Kenya.

As for the quantitative data, a cross-sectional study was conducted in Mombasa City within the residential areas comprising of rental housing predominately by the lower-middle income households. The survey was useful in determining the socio-economic profile of the tenants. A two-stage sample design was used in the household survey. In the first stage, six strata were purposefully identified on the basis of six estates which have been classified by the county government as predominately lower-middle income residential zones. The estates are demarcated residential areas based on similar socio-economic characteristics of the dwellers but the classification is mainly determined by the

rental levels within the areas since that is the most visible parameter. The estates have mixed developments, ranging from single-family to multi-family dwelling units owned by different landlords. These are Bamburi, Bombolulu, Kiembeni, Migadini, Mikindani and Miritini site and service schemes. These six estates were purposively selected to ensure maximum geographical distribution across the sub county areas of Mombasa. The purposively selected estates were drawn from four (4) districts out of six (6) sub counties of Mombasa (As indicated in Table 4.2). The other two sub-counties (Island and Likoni) were excluded since they are predominately commercial and informal settlements respectively.

A representative random sample of tenants residing in the defined clusters was enrolled in the study. The study area's population of about 375,158 households within Mombasa formed the study population (CGM,2018). The target population of the study was 35% of the study population (lower-middle-income households), which is 131,306 (table 4.4). To calculate the required sample size, the study assumed a response distribution of 0.5 (50%) for all factors being measured in the study to obtain the largest possible sample size. With a precision (half-width) of 0.05 and a two-sided 95% confidence interval, a sample size of 384 was derived from a population of 131,308 households. This was further adjusted by 20% to allow for non-response, hence giving a final sample size of 460. Adjustment factor for X % loss = $100 / (100 - X)$ which was 1.2 in this study.

The second stage involved sampling of the tenants within the targeted areas. The core function of this sampling technique is to get a sample that is regarded as 'representative' of the study population (Patten & Newhart, 2018). The researcher tried to obtain a sampling frame of all the households within the selected areas from the Kenya National Bureau of Statistics and other relevant authorities to no avail. As such, each residential area was treated as a cluster. To aid a wider dispersion of sample, the areas were further divided into smaller clusters according to respective 'villages' and systematic random sampling of the tenants conducted within the clusters where one household was randomly selected from every 5th house along the rows in the estates. It is however worth noting that the aim of the survey with tenants was not make any particular inferences to the general population but to provide insights into the socio-economic profile of the participants so as to assess the existing and potential market demand for rental housing. Additionally, the existing landlords who own houses in the study areas were conveniently sampled to give insights on their experience with the rental housing market. Sampling of

the landlords was somehow challenging as there was no data on the number of landlords. For instance, there was no official reference or database to the actual number of landlords in Mombasa in any of the relevant sources searched, i.e., KNBS, County government, national government or any published paper. The only reference to the number of landlords the researcher had access to was from Kenya Revenue Authority (KRA), which is a biased figure given that it represents a subset of the actual population of landlords—that is, only landlords who pay taxes and who are captured by KRA for taxation purposes. Besides most of the landlords are reluctant to give information and reveal their identity due to tax and other personal reasons. Furthermore, some landlords own multiple housing units and therefore using the number of housing units within the sampled areas in Mombasa would also be misleading. Additionally, this is a hidden and difficult population to access as some of them do not necessarily reside within their properties in the sampled areas or may be residing in different towns/cities from their investments and as such, tracing them is a challenge. As a result, the study relied on convenient sampling, where snowballing was used to get the respondents within the landlords' population. The respondents were however confined to the landlords who own rental housing units within the sampled areas. A sample of 83 existing landlords was included in the study. This sample may not be representative of the population, but the purpose of interviewing these landlords was to gain insights and trends into the status and performance of rental housing market in Kenya and to support/validate findings from the qualitative bit of the study.

Ostensibly, this study is mainly qualitative due to the in-depth approach needed to understand the underlying factors influencing affordable rental housing delivery. Survey as a method in data collection has been used by the researcher to help validate the qualitative findings and as such the aim is not to generalize the findings to the general population, but to provide in-depth understanding of the underlying factors around affordable rental housing delivery in Kenya. However, these findings can be transferable to similar contexts.

Table 5.4 Target Population and sample size

Respondents	Target Sample Size
Tenants	460
Landlords	100
Property Developers	15
Financial Institutions (key informants)	10
Department of Housing (key informants)	3
County Government of Mombasa (key informants)	2
UN-Habitat (key informants)	1
Kenya Revenue Authority (key informants)	1
Private Housing Consultants	2

5.5.2 Research Instruments and Execution

Questionnaires, in-depth interviews, and detailed document analysis were adopted as methods of data collection for this study. Self-administered questionnaires were used to gather quantitative data from tenants, landlords. Questionnaires are efficient and effective instruments for collecting quantitative data from large sample (Gliner et al., 2017). It was also considered that data collected from questionnaires would be much easier to ‘manipulate’ or analyse compared to the other research instruments (Devlin, 2018). The questions were drafted with predetermined response choices from which the respondents were to tick as deemed appropriate (see appendix 1.1). Additionally, Likert scale was used in determining the ratings of the respondents on predetermined statements. According to Brace (2018) the Likert scale was preferred due to its effectiveness and simplicity in construction. The questionnaires administered cut across all the research questions. A total of 460 questionnaires were distributed (to cater for non-response). Research assistants were used to distribute the questionnaires, and the respondents either filled in their presence and returned or later according to their preference. As for the landlord, a total of 100 questionnaires were distributed out of which 83 were filled and returned (see appendix 1.2). The research assistants conveniently interviewed the landlords who were found within the study areas, and also relied on referral contacts by either the tenants or the estate agents.

On the other hand, in collecting qualitative data, one on one interviews were conducted with the selected key informants in each category (Table 5.5). In this regard semi-structured interviews were used in collecting primary data whereas documentary analysis was used in collecting secondary data. The semi-structured interviews involved

preparation of predetermined questions which were formulated in a way that allowed for open-ended responses (see appendix 1.3). This was to ensure that the respondents are not limited in expressing their views (Babbie, 2010). The pre-set questions enabled the researcher to be focused on the subject and simultaneously guided the interviewee on the relevant information needed (Skinner, Tagg & Holloway, 2000). The interview sessions were administered by the researcher and the interviews were audio recorded. The use of the interview was deemed appropriate because it ensures that the data collected is in depth and detailed as it allows the researcher to probe and seek clarifications (Bryman, 2012). This research instrument is handy because it has a higher response rate that is applicable when one is gathering 'privileged information' (Altinay et al., 2015). In some instances, researcher's independent observation was used to gather information such as the trend, condition and quality of the existing housing stock (see appendix 1.4). Table 5.3 provides a summary for the data types, tools of collection and sources

Documentary analysis was used to complement the data collected using the primary approach. The secondary data was crucial as it facilitates triangulation and also providing an in-depth understanding of the prevailing housing policy and regulatory environment in Kenya. The existing housing policy documents as well as publications from relevant and accredited institutions, journals, relevant government policy papers, and reports by international organizations such as World Bank and UN-Habitat, articles in the newspaper and periodicals, among other publications that were appropriate and relevant for the research topic were reviewed. The data collected in the documentary analysis was appropriate in acting as a benchmark upon which primary data was assessed and analysed (Rubin *et al.*, 2010).

The research instruments (the questionnaire and the in-depth interview guides) were both piloted before the actual study to test their comprehension and reliability to collect meaningful data (Rothgeb, 2008). The main objective of the pilot test was to detect potential glitches in the research instruments and attend to them before the actual data collection.

Table 5. 5: Data sources, types, tools of collection

Respondents	Type of Data	Research Tool
Tenants	Quantitative	Questionnaire
Landlords	Quantitative	Questionnaire
Property Developers	Qualitative	Semi-structured Interview
Financial Institutions (key informants)	Qualitative	Semi-structured Interview
Department of Housing (key informants)	Qualitative	Semi-structured Interview
County Government of Mombasa (key informants)	Qualitative	Semi-structured Interview
UN-Habitat (key informants)	Qualitative	Semi-structured Interview
Kenya Revenue Authority (key informants)	Qualitative	Semi-structured Interview
Private Housing Consultants	Qualitative	Semi-structured Interview

5.5.3 Data Analysis and Management

Both quantitative and qualitative data analysis techniques have been applied. Quantitative data analysis involved the use of descriptive and inferential statistics. For this purpose, the statistical Packages STATA and Rgui (R) has been used. Inferential statistics including but not limited to chi square test of association, independent samples t-test and analysis of variance (ANOVA) to establish the various relationships in the study have been calculated with the help of the aforesaid software.

In terms of data management, quantitative analysis involved double data entry to minimize data capture errors. The captured data was stored in computers. They were classified into main thematic areas according to research objectives. Data cleaning involved imputing information or excluding records missing key information.

Thematic analysis approach was used analyse the qualitative data. This involved open coding to identify the emerging codes. The codes were then merged to develop the major themes and categories. Axial coding was then done to identify relationship between the major themes. Data management and organization was supported by the use of NVIVO 12. The transcripts were de-identified and numbered with codes before being imported into NVIVO to protect the privacy and confidentiality of research participants as indicated in Table 5.6 below.

Table 5. 6: Interview Respondents

Respondents	Code	Nature of Organisation	Designation
Developer 1	D1	Property Development firm	Director
Developer 2	D2	Property Development firm	Director
Developer 3	D3	Property Development firm	Director
Developer 4	D4	Property Development firm	Director
Developer 5	D5	Property Development firm	Director
Developer 6	D6	Property Development firm	Director
Developer 7	D7	Property Development firm	Director
Developer 8	D8	Property Development firm	Director
Developer 9	D9	Property Development firm	Director
Developer 10	D10	Property Development firm	Director
Housing finance official 1	HFO1	financial institution	Relationship Manager
Housing finance official 2	HFO2	financial institution	Relationship Manager
Housing finance official 3	HFO3	financial institution	Relationship Manager
Housing finance official 4	HFO4	financial institution	Relationship Manager
Housing finance official 5	HFO5	financial institution	Relationship Manager
Housing finance official 6	HFO6	financial institution	Relationship Manager
Housing finance official 7	HFO7	financial institution	Relationship Manager
Housing finance official 8	HFO8	financial institution	Relationship Manager
State Actor 1	SA1	State Department of Housing and Urban Development	Director
State Actor 2	SA2	State Department of Housing and Urban Development	Assistant Director
State Actor 3	SA3	National Housing Corporation	Manager
County Government official 1	CGO1	County Government of Mombasa	Director
County Government official 2	CGO2	County Government of Mombasa	Physical Planner
Housing Consultant 1	HC1	Private Consultancy firm on Urban Development	Director
Housing Consultant 2	HC2	Private Consultancy firm on Urban Development	Director
Housing Consultant 3	HC3	UN-Habitat- An international organization on housing	Housing Consultant
Taxation expert	TE	Kenya Revenue Authority	Taxation Policy

The analysed data has been presented in narrative form backed with tables, figures and charts- predominantly divergent stacked bar plots to illustrate the distribution of LIKERT item responses (Charmaz, 2006).

5.5.4 Reliability and viability of the research instruments

A pilot study was conducted within Mombasa Island area before the actual study in a bid to determine the reliability of the data collection instruments. The questionnaires were simple, precise and devoid of ambiguities, while the questions in the in-depth interview guides were understandable to the participants and yielded in depth data. The researcher employed the use of research assistants to support in data collection. These were bachelor degree holders or college students and were trained to ensure familiarity with the data collection tools and to ensure consistency in how they were being administered. Validity in this study has been improved through adoption of cluster sampling technique to ensure the data collected is geographically spread.

5.5.5. Ethical considerations

The study was approved by the Faculty of Engineering and Built Environment (EBE) Research Ethics Committee (appendix 3.1) and the National Commission for Science, Technology and Innovation (NACOSTI) in Kenya (appendix 3.2). The researcher sought permission from the targeted institutions as well as written individual consent from the respondents at an individual level so that they would agree to be part of this study (appendix 4.0). This was done through a briefing in which an explanation was made to the respondents on the importance of the information that they would provide (Kimmel, 2007). The researcher also assured the respondents that all the information that they will provide will be held in confidentiality and that the findings of the study will only be shared in summarized form without revealing individual identities of the participants (Pervez & Kjell, 2005). The respondents were also informed that the information that they provided will be used for academic purposes only in addressing the research questions (*ibid*).

CHAPTER SIX:

6.0 Data Presentation, Analysis and Discussions

6.1. Introduction

This chapter presents, analyses and discusses results of both the quantitative and qualitative data gathered from primary and secondary sources. The analysis has been fused with the theoretical and contextual information, with the literature review as the reference point, and embedded on the conceptual framework as the guiding blueprint for analysis. For a better understanding, this chapter commences by a recap of the study aim, objectives, hypotheses and conceptual framework. It then presents and analyses the data according to the conceptual framework structure. Additionally, the section discusses the findings thematically according to the objectives and research question, and as well evaluates the hypotheses in relation to the findings and finally deliberates the policy implications of the findings.

Revisiting the study questions and objectives, the central focus of this research is to understand why the rental housing market fails to deliver adequate, quality and affordable rental housing units despite the high demand for the same. This study has been guided by five specific objectives namely: assess the status of demand for affordable rental housing in Kenya; evaluate the extent to which government policy provisions enable or constrain affordable rental housing supply in Kenya; evaluate the extent to which the institutional regulatory and legal framework enable or constrain supply of affordable rental housing in Kenya; investigate how the housing finance system relates to rental housing market; and assess the performance of rental housing as an investment as compared to housing development for sale.

The first objective seeks to assess the status of demand for affordable rental housing in the study areas. It therefore surveys the socio-economic and demographic characteristics of the tenants within the study areas, and also examines the existing landlords to obtain the insight on the nature of the rental housing market with a view to ascertain the study puzzle of high demand, and the high rent -poor quality housing matrix in the affordable rental housing sector. The second objective aims to interrogate the extent to which government policy provisions enable or constrain affordable rental housing supply in Kenya. This objective is intended to answer one broad question of how the institutional framework impacts on the affordable rental housing development. Specifically, it examines various housing policy provisions that have been formulated to address

housing problem and how they have treated rental housing. The third objective addresses the issue of the regulatory and legal framework in the delivery of affordable rental housing in Kenya. This objective delves into the development control process, comprising of building permit approval process, zoning and land-use laws, and taxation regime in rental housing and lease agreements as applicable in the affordable rental housing market. The fourth objective is intended to provide information on how the affordable rental housing market interacts with the housing financial systems. The central motive of this objective is to compare how financial institutions relate with property developers when funding housing projects for rent *vis-a vis* for sale, and examine if there are any biases in loan assessment and lending conditions for the two categories. The fifth objective focuses on assessing the performance of rental housing as an investment as compared to housing development for sale. It is basically interested in probing the risk-return matrix for rental housing and housing for-sale developments and reveal why most developers prefer development for sale to rental housing.

This study further adopts three working hypotheses as the analytical strands for the research problem. Firstly, the study hypothesizes that the institutional framework in the housing market is more supportive of housing development for sale than rental housing, therefore resulting in low supply of affordable rental housing. Secondly, it is hypothesized that the housing finance system is not supportive to rental housing market, hence, resulting in low supply of affordable rental housing. The third hypothesis is that the performance of rental housing market has been unfavourable compared to housing development for sale hence resulting to low supply of affordable rental housing by the developers.

This study has mapped the doctrines of NIE to the IAD structure to explain market failure in the affordable rental housing market. The adopted conceptual framework fuses the conceptualization in IAD and the theoretical robustness in NIE to provides an analytical tool for this study. Therefore, the framework centres on the three NIE concepts that relate to market failure in the rental housing market. These include the institutions, property rights and transaction costs as earlier explained in chapter 2 of this study. Effectively, these have been charted onto the IAD framework whereby the institutions and property rights are represented under the rules, while transaction costs reflected in the action arena which is the central analytical hub in the IAD framework (see chapter 2 Table 2.4).

As earlier explained in chapter 5: IAD analysis comprises three phases, the first being to classify the independent factors that shape the actions of the players in the housing market, followed by pinpointing and assessing the events of the action arena and consequently formulating a suitable policy solution (Polski & Ostrom, 1999). The focus of analysis are the private property developers and the landlords as they are the main agents in the delivery process. Consequently, to understand the outcomes of housing market interactions through the lenses of IAD framework, the analysis delves into the material conditions, community attributes and rules that form the institutional environment under which the housing development and market operate. Additionally, to understand the demand environment within the housing market, a survey has been conducted on the tenants within the sampled areas.

6.2 Respondents' Profile and Distribution

A total of twenty-seven (27) interviews have been conducted. Ten (10) prominent property developers with significant development activities in the housing sector within Mombasa were approached and invited to take part in the study. The researcher had initially sought to interview 15 housing developers, but data saturation was arrived at after interviewing ten (10) developers. As for the financial institutions, data saturation was arrived at after interviewing financial experts from eight (8) institutions. Data saturation was determined by the recurrence of themes. Additionally, to understand the policy and regulatory framework, the researcher sought to interview three (3) state actors with expertise on housing matters drawn from the State Department of Housing and Urban Development and National Housing Corporation, and two (2) officials from the County Government of Mombasa. One (1) key expert from each of the following relevant institutions; Kenya Revenue Authority, UN- Habitat and two (2) private housing consultants were also interviewed. In addition, a total of 389 tenants out of 460 successfully filled the questionnaires while 83 landlords were conveniently sampled. These have been outlined and coded in table 6.1 below.

Table 6.1: Respondents' Profile

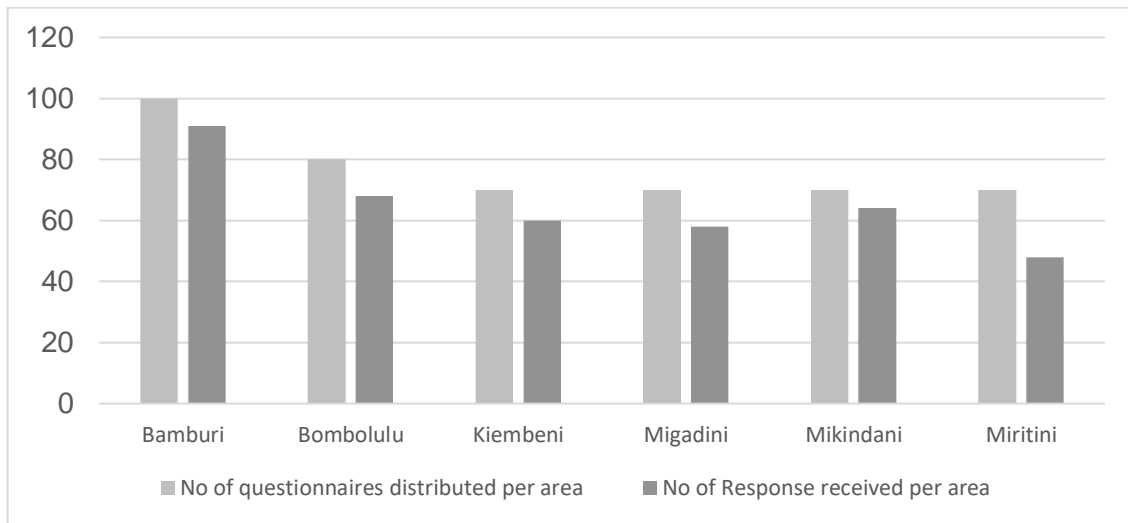
Respondents	Organisation	Role	Target Sample	Actual Sample
Tenants	Residents within sampled areas	Household heads	460	389
Landlords	Individual and corporate Landlords	Property owners within the sampled areas	N/A (convenient)	83
Private property developers	Various property development companies	Directors	15	10
Housing finance officials	Various financial institutions	Relationship officers	10	8
State Actors	State Department of Housing and Urban Development, and National Housing Corporation	Housing policy	3	3
County Government Officials	County Government of Mombasa	Policy and development control	2	2
Private Housing Consultants	Private Consultancy firms on Urban Development	Consultants on Housing Policy and Development	1	1
Housing Consultant	UN-Habitat	Consultant on Housing Policy	1	1
Taxation expert	Kenya Revenue Authority	Tax policy and administration	2	2

The tenants' sample constituted about 84% response rate (Table 6.2; Figure 6.1). The largest proportion of the tenants came from Bamburi which had about 23%. Bombolulu had 18 %; Kiembeni comprised 15%; Migadini 15%; Mikindani 17% Miritini comprised 12%.

Table 6. 2: Tenants' Sample Distribution and Response Rate

Residential Area	No of questionnaires distributed per area	No of Response received per area	Tenants' response distribution per area	Tenants' response rate per area
Bamburi	100	91	23.4%	91.0%
Bombolulu	80	68	17.5%	85.0%
Kiembeni	70	60	15.4%	85.7%
Migadini	70	58	14.9%	82.9%
Mikindani	70	64	16.5%	91.4%
Miritini	70	48	12.3%	68.6%
TOTAL	460	389	100.0%	84.1%

Figure 6.1. Tenants' Response Rate



As earlier indicated, a total of 83 landlords out of 100 successfully filled the questionnaires distributed among the sampled areas as follows: Bamburi 12%, Bombolulu 18%; Kiembeni 17%; Migadini 23%; Mikindani 22% and Miritini 8% (Table 6.3).

Table 6.3: Landlords' Sample Distribution

Residential Area	No of questionnaires distributed per area	No of Response received per area	Landlords' response distribution per area
Bamburi	15	10	12.0%
Bombolulu	20	15	18.1%
Kiembeni	15	14	16.9%
Migadini	20	19	22.9%
Mikindani	20	18	21.7%
Miritini	10	7	8.4%
TOTAL	100	83	100.0%

The landlord respondents have been drawn from owners of the rental housing units in the sampled areas. They however do not necessarily reside in the sampled locations. The sampling was done conveniently with an intention of getting the existing landlords to provide the general insights concerning the status of the rental housing market within the lower-middle income market. Such information is analytically significant in assessing the nature of the product under the study as part of the material conditions as outlined in the conceptual framework since developers' knowledge of the product influences their interest in the sector. The information also provides an understanding on community attributes characterized by the landlords since it reveals their nature, experiences with, and preferences on the rental housing market. Analysis of the landlords' responses have

however been fused with those of the developers in part 6.4 since as the main supply side agents, they form the analytical unit of focus for this study.

6.3 Tenants Profile and Socio-Economic Characteristics

The tenants' profile and socio-economic characteristics have been derived from the tenants living in the sampled areas. The information from the existing tenants was collected in an attempt to assess the status of demand for affordable housing in the sampled areas. The data is significant to this study since tenants' profile in terms of socio-economic features, demographics and preferences form part of the community attributes as outlined in the conceptual framework. Fundamentally, understanding demand for any given product requires a clear awareness of its underlying market determinants, and rental housing market is not an exception. The determinants of demand have therefore been assessed by analysing the community attributes linked to the tenants and how they influence the operations of the housing market and outcomes as espoused in the conceptual framework.

As noted in the literature, rental housing need is only translated to demand by the ability and willingness of the households to pay for the housing services. Further, the literature also identifies socio-economic and demographic profiles of the population as being among the key determinants of rental housing demand. As such, the knowledge of the tenants' profile aids in collecting and analysing the relevant factual information that helps to distinguish the existence of housing demand from ordinary housing need.

From the theoretical stance of NIE, the societal norms, beliefs and preferences often form part of the informal institutional rules that influence human interactions and determine their outcomes. This part therefore presents and analyses data on household characteristics and trends, households' incomes and housing preferences. The findings in this part are relevant for the assessment of the research objective one.

Findings from this study show that a significant majority of the tenants' household heads (59%) interviewed were male against 39% female. This distribution was replicated in all residential estates under study (Table 6.4). This distribution however has no analytical significance but useful in providing insight of the study population.

Table 6. 4: Distribution of Household Heads by Gender

	Bamburi		Bombolulu		Kiembeni		Migadini		Mikindani		Miritini		Total	
	n	(%)	N	(%)	n	(%)	n	(%)	n	(%)	n	(%)	N	(%)
				(100)		(100)		(100)		(100)		(100)		(100)
Households	91	(100)	68		60		58		64		48		389	
Males	54	(59.3)	37	(54.4)	44	(73.3)	25	(43.1)	41	(64.1)	30	(62.5)	231	(59.4)
Females	37	(40.7)	30	(44.1)	16	(26.7)	27	(46.6)	23	(35.9)	18	(37.5)	151	(38.8)
Missing	0	(0.0)	1	(1.5)	0	(0.0)	6	(10.3)	0	(0.0)	0	(0.0)	7	(1.8)

An inquiry into the education level of the respondents reveals that greater majority (80%) have some form of post-secondary education such as university degree or college diploma or certificate (Table 6.5). Similarly, the information on the education levels may not necessarily have an analytical input to this study but still useful in having an insight on the nature of the population under study.

Table 6. 5: Tenants' Education Profile

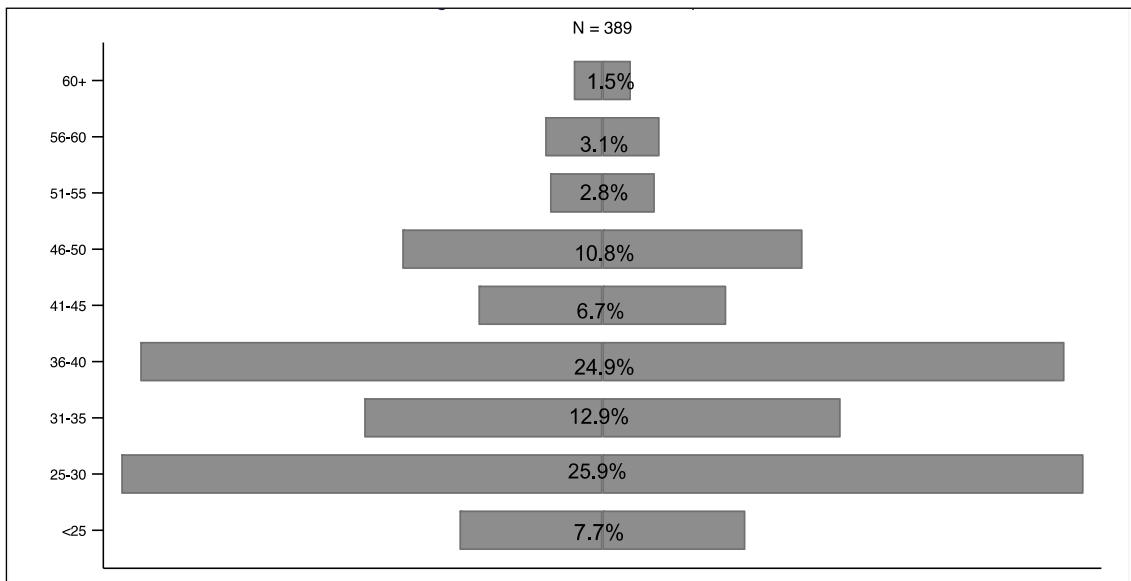
	Bamburi		Bombolulu		Kiembeni		Migadini		Mikindani		Miritini		Total	
	N	(%)	n	(%)	N	(%)	n	(%)	n	(%)	n	(%)	N	(%)
Education	91	(100)	68	(100)	60	(100)	58	(100)	64	(100)	48	(100)	389	(100)
Primary	0	(0.0)	9	(13.2)	1	(1.7)	0	(0.0)	3	(4.7)	0	(0.0)	13	(3.3)
Secondary	12	(13.2)	11	(16.2)	11	(18.3)	14	(24.1)	10	(15.6)	2	(4.2)	60	(15.4)
Tertiary	75	(82.4)	47	(69.1)	48	(80.0)	44	(75.9)	51	(79.7)	46	(95.8)	311	(79.9)
Missing	4	(4.4)	1	(1.5)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	5	(1.3)

In terms of age, a larger proportion of the sampled tenants are still in youthful ages as depicted by the data showing that, about (65%) of the households are aged between 25-40 years. In contrast, only 7% of the renters are aged 51 years and above. Bombolulu has the highest number of the youngest population while majority of the oldest tenants are found in Mikindani (Table 6.6).

Table 6.6: Household Heads by Age

Age (years)	Bamburi		Bombolulu		Kiembeni		Migadini		Mikindani		Miritini		Total	
	n	(%)	N	(%)	n	(%)	n	(%)	n	(%)	n	(%)	N	(%)
Age (years)	91	(100)	68	(100)	60	(100)	58	(100)	64	(100)	48	(100)	389	(100)
<26	7	(7.7)	10	(14.7)	4	(6.7)	6	(10.3)	2	(3.1)	1	(2.1)	30	(7.7)
26-30	30	(33.0)	28	(41.2)	15	(25.0)	7	(12.1)	12	(18.8)	12	(25.0)	104	(26.7)
31-35	12	(13.2)	6	(8.8)	9	(15.0)	8	(13.8)	10	(15.6)	5	(10.4)	50	(12.9)
36-40	17	(18.7)	10	(14.7)	23	(38.3)	16	(27.6)	15	(23.4)	16	(33.3)	97	(24.9)
41-45	8	(8.8)	0	(0.0)	1	(1.7)	4	(6.9)	10	(15.6)	4	(8.3)	27	(6.9)
46-50	9	(9.9)	9	(13.2)	6	(10.0)	5	(8.6)	8	(12.5)	6	(12.5)	43	(11.1)
51-55	2	(2.2)	1	(1.5)	0	(0.0)	8	(13.8)	2	(3.1)	0	(0.0)	13	(3.3)
56-60	0	(0.0)	3	(4.4)	1	(1.7)	3	(5.2)	3	(4.7)	2	(4.2)	12	(3.1)
60+	2	(2.2)	1	(1.5)	0	(0.0)	1	(1.7)	2	(3.1)	0	(0.0)	6	(1.5)
Missing	4	(4.4)	0	(0.0)	1	(1.7)	0	(0.0)	0	(0.0)	2	(4.2)	7	(1.8)

Figure 6.2. Tenants' Distribution by Age



The demographic composition corresponds to that of the contextual background of Mombasa as indicated in the national census statistics exhibiting a predominantly youthful population (Figure 6.2). Ordinarily, the predominant age brackets are mostly young graduates and mid-level professionals of age 25 to 30 years who most likely prefer rental housing since they have ability to pay rent but unable to pay for huge loan premiums. But as people advance in age, few tend to live in rental housing probably because most individuals at this age have either acquired homes or retired and relocated from the city. This has been proven by the empirical data showing that only about 8% of

the tenants are over 51 years and above. The preference for rental housing by the youthful majority portends that there is demand for this housing market segment.

The study also investigated household sizes so as to assess if it has any relationship with preference for rental housing and consequently its demand. The information on household size indicates that simple majority of households (42%) comprise of between 3-4 members, while 32% comprise of 1-2 members. Families with over 6 members are only 5% as shown on Table 6.7. On the marital status of the respondents the findings show that most of the respondents (66%) are married while 25% being single and 4% are divorced.

Table 6. 7: Household size

	Bamburi		Bombolulu		Kiembeni		Migadini		Mikindani		Miritini		Total	
	n	(%)	N	(%)	n	(%)	n	(%)	n	(%)	n	(%)	N	(%)
Household size	91	(100)	68	(100)	60	(100)	58	(100)	64	(100)	48	(100)	389	(100)
1-2	26	(28.6)	22	(32.4)	18	(30.0)	26	(44.8)	20	(31.3)	14	(29.2)	126	(32.4)
3-4	41	(45.1)	28	(41.2)	25	(41.7)	23	(39.7)	27	(42.2)	20	(41.7)	164	(42.2)
5-6	14	(15.4)	16	(23.5)	12	(20.0)	9	(15.5)	14	(21.9)	12	(25.0)	77	(19.8)
>6	9	(9.9)	2	(2.9)	4	(6.7)	0	(0.0)	3	(4.7)	2	(4.2)	20	(5.1)
Missing	1	(1.1)	0	(0.0)	1	(1.7)	0	(0.0)	0	(0.0)	0	(0.0)	2	(0.5)

These findings imply that majority of the youthful population are characterized by small families. These are most likely to be either single individuals or single parents or newly married couples with no children or young families with about two children. Prediction from the literature signifies that at this stage in life, in most cases the priority may not be owning a house and therefore renting becomes a viable alternative, hence provide a viable demand for rental housing. This finding is strengthened by Apgar (2004) and Carliner and Marya (2016) who also observed that rental housing mainly attracts single young individuals or smaller families with low-income, and in most cases acts as a transitional tenure.

Income profile of the tenants shows that a simple majority of the households (33%) earn between Ksh 20,000-40,000, followed by Ksh 41,000 - 60,000 at 25%. A relatively small proportion of the households (6%) earn above Ksh 100,000 (USD 1000) (Table 6.8).

Table 6. 8: Household incomes

	Bamburi		Bombolulu		Kiembeni		Migadini		Mikindani		Miritini		Total	
	N	(%)	n	(%)	N	(%)	N	(%)	n	(%)	n	(%)	N	(%)
Income Levels (KSH '000)	91	(100)	68	(100)	60	(100)	58	(100)	64	(100)	48	(100)	389	(100)
20 – 40	30	(33.0)	27	39.7)	28	(46.7)	17	(29.3)	19	(29.7)	7	(14.6)	128	(32.9)
41 – 60	22	(24.2)	14	(20.6)	13	(21.7)	18	(31.0)	21	(32.8)	11	(22.9)	99	(25.4)
61 – 80	16	(17.6)	7	(10.3)	12	(20.0)	12	(20.7)	15	(23.4)	16	(33.3)	78	(20.1)
81–100	6	((6.6)	7	(10.3)	6	(10.0)	6	(10.3)	7	(10.9)	5	(10.4)	37	(9.5)
>100	6	(6.6)	6	(8.8)	1	(1.7)	3	(5.2)	2	(3.1)	4	(8.3)	22	(5.7)
Missing	11	(12.)	7	(10.3)	0	(0.0)	2	(3.4)	0	(0.0)	5	(10.4)	25	(6.4)

The relevance of the income profile of the renters to this study is the revelation that majority of the populace have modest incomes and therefore, whereas they cannot be classified as the urban poor, equally, they are not the high-income households who are able to easily access mortgages to own homes. As such, renting becomes their natural choice, hence enhancing their demand for rental housing. To ascertain this view, the respondents were asked to state their reasons for renting and the results shows that a higher percentage (67%) of the tenants rent due to constraint in ability to purchase housing as compared to 33% who rent by choice. This finding corresponds with the analysis of Lowe (2007) and Davenport (2003) that rental housing is suitable for low-income households whose income are not adequate to purchase homes, the young population with preference for mobility, new urban settlers, households with small size and those who simply prioritize renting to owning due to personal reasons.

Nevertheless, the preference for home-ownership is still deeply entrenched within the populace in total disregard of their economic realities. Remarkably, an overwhelming majority (81%) among the tenants who rent by choice desire to own homes in the future. Home-ownership comes with a cultural and sentimental value attached to it. This finding corresponds to that of Carliner and Marya (2016) that rental housing is viewed as transitional to most renters as they are bound to be home-owners once their financial circumstances change.

Subsequently, the overall evaluation of the sampled tenants (lower-middle income household) points to a population with modest earnings that can enable them to afford renting but not sufficient for house purchase. Accordingly, the empirical data showing that about two-thirds of the households rent due to financial limitation and inability to afford

ownership can be interpreted that a significant number of the population rent due to their financial circumstances. This implies that if their financial circumstances allowed, they would purchase houses. Nevertheless, with the economic profile of the bigger chunk of the populace, majority are bound to be renters as this is what is practicable. This is because housing is inherently a costly product whose acquisition requires huge capital outlay which cannot be afforded by majority. This finding resonates with World Bank (2015) analysis which also found out that only a paltry 3% of the whole population in Africa can afford mortgages to purchase housing, hence strengthens the notion that home-ownership is not practically possible for all households even if they desired to own. Renting therefore becomes their natural alternative, a fact that portends high demand prospects for rental housing among the low-income households. This finding has analytical significance with regard to the community attributes associated with the renters. Conceptually, the attributes of the renters under the study suggest that given their economic circumstances, their housing preference would be skewed towards rental housing as opposed to home-ownership. As such, this population segment provides demand for rental housing units. Of interest is therefore why the activities of the housing market (action arena) yield outcomes that do not deliver adequate rental housing units. This points to underlying causes or mechanisms that make the developers prefer to deliver more housing for sale than rental housing units.

6.4 The nature and status of rental housing market in Mombasa

This section aims to gain valuable insights into the nature of the resource being studied which in this case is rental housing. Conceptually, it contributes to the variables that represent material conditions that shape the private developers' perception of the rental housing market and consequently influences the activities and outcomes of the housing market (action arena). Therefore, to understand the nature and status of the rental housing market, this study has gathered the empirical information from the tenants regarding the typologies of the housing units they occupy, their experiences with the quality of the housing stock they occupy, as well as the prevailing rental levels and affordability of the housing units; the nature of tenancy agreements and the relationship between the tenants and the landlords. The information from this part further provides more insight on demand status of the rental housing units and preferences of the tenants and hence contributes to the research objective one.

The sampled tenants were asked to state the typologies of the housing units they occupy in terms of number of rooms. This was to get insight on the predominant housing types and sizes with the study area. The findings indicate that one-bedroom units are almost as popular as two-bedroom units at about 37% and 35% respectively while the bedsitter (studio) units and three-bedroom units are equally less popular both at about 12%. Double-rooms and units larger than three bedrooms are the least popular at about 3% and 1% respectively (Table 6.9). The double-room is typically housing unit with two distinct but interconnected rooms without internal amenities such as bathrooms and kitchen, which are usually outside and accessed communally with other tenants. On the other hand, bedsitters (also known as studios) comprise one room, but with the amenities within the room exclusively accessed by a single household. Evidently, most households prefer housing with fewer rooms, where one- and two-bedroom units are considered the most popular. While this preference could be attributed to the small family sizes, it is however evident that most families prefer space and privacy. The three-bedrooms however seem to be unpopular with the lower-middle income probably due to higher rent or redundant space for the small families. From observation, most double rooms may also be unpopular due to their lack of self-contained amenities such as bathrooms within the house hence hinder privacy.

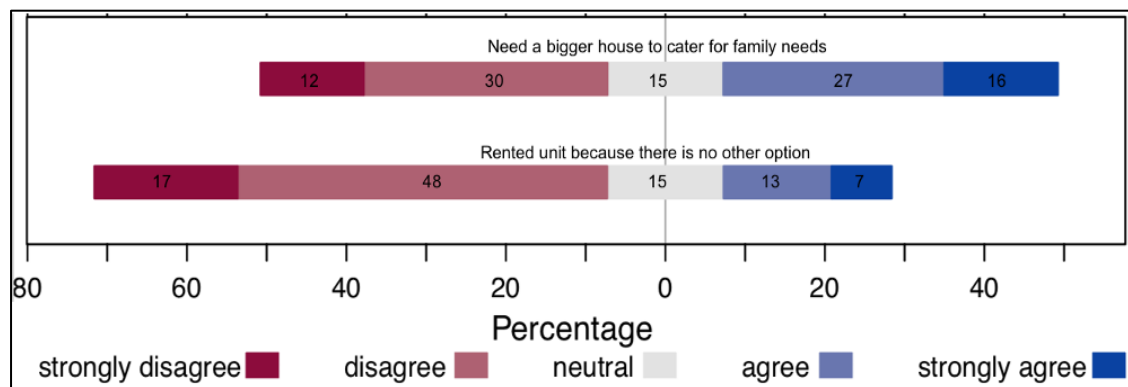
Table 6. 9: Distribution of Tenants' House Occupation by Size

	Bamburi		Bombolulu		Kiembeni		Migadini		Mikindani		Miritini		Total	
	N	(%)	n	(%)	N	(%)	n	(%)	n	(%)	N	(%)	N	(%)
Size of rental														
	91	(100)	68	(100)	60	(100)	58	(100)	64	(100)	48	(100)	389	(100)
Bedsitter(studio)	13	(14.3)	10	(14.7)	7	(11.7)	11	(19.0)	7	(10.9)	0	(0.0)	48	(12.3)
Double room	3	(3.3)	4	(5.9)	0	(0.0)	2	(3.4)	2	(3.1)	0	(0.0)	11	(2.8)
One-bed	34	(37.4)	28	(41.2)	28	(46.7)	14	(24.1)	14	(21.9)	24	(50.0)	142	(36.5)
Two-beds	27	(29.7)	19	(27.9)	20	(33.3)	21	(36.2)	25	(39.1)	24	(50.0)	136	(35.0)
Three-beds	9	(9.9)	7	(10.3)	5	(8.3)	10	(17.2)	16	(25.0)	0	(0.0)	47	(12.1)
> Three-beds	4	(4.4)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	4	(1.0)
Missing	1	(1.1)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(0.3)

To further understand the physical quality of the existing rental housing stock, the tenants were asked to report the assessment of the quality of their dwellings on a Likert scale ranging from poor to very good. The findings reveal that majority of the households (53%) view their units to be of fair quality compared to 42% of the tenants who state that their housing units are of good quality while and about 4 % state that their housing is of poor

quality. In a similar fashion, when asked whether their dwellings are adequate for their family needs, almost half of the tenants (42%) indicated their discontent as illustrated in Figure 6.3. Correspondingly, evidence from the contextual background indicates that even though most housing units are constructed of permanent materials, a sizeable number are Swahili-type design constructed from basic rudimentary building materials hence compromising on their quality. Further, for an independent judgement, the researcher made a random observation of the physical condition of the existing housing stock within the sampled areas and noted that a substantial number were of fair to poor quality. These findings depict that a significant portion of the existing housing units are not of good quality nor adequate for the households that dwell in them. However, when the tenants were asked to state whether they occupy their units due to unavailability of options, a greater majority of about 55% disagreed. This finding implies that there could be available rental housing options but the tenants have stuck to their current dwellings due to affordability.

Figure 6. 1: Adequacy of Current Rental Units.



The study also sought to establish the duration of tenancies with a view to assess the turnover rate of the existing tenants and rental housing market to a larger extent. The tenants were therefore asked how long they have lived in the current dwelling and whether they have plans to vacate in the near future. The findings depict varied trends with regards to the duration of tenancy. Cumulatively, a greater majority of the tenants (58%) have occupied their units for between 1-3 years while about 42% for over 3 years (Table 6.10). Further findings reveal that most of the existing tenants (69%, 95% CI 64.6-73.3) have no plans of vacating their units in the near future. But, among those planning to move out, majority (46%) plan to purchase or build their own units, while about 23% and 25% cited high rent and poor quality respectively as their reasons for vacating.

Table 6. 10: Duration of Tenancy

	Bamburi		Bombolulu		Kiembeni		Migadini		Mikindani		Miritini		Total	
	N	(%)	n	(%)	N	(%)	n	(%)	n	(%)	n	(%)	N	(%)
Duration of renting														
	91	(100)	68	(100)	60	(100)	58	(100)	64	(100)	48	(100)	389	(100)
1 year and below	19	21%	14	21%	14	23%	14	24%	7	11%	12	25%	80	20.6%
2-3 years	35	38%	28	41%	21	35%	23	40%	20	31%	19	40%	146	37.5%
4-5 years	17	19%	12	18%	11	18%	17	29%	22	34%	14	29%	93	23.9%
6-7 years	7	8%	6	9%	9	15%	2	3%	10	16%	2	4%	36	9.3%
8-9 years	5	5%	3	4%	2	3%	2	3%	1	2%	1	2%	14	3.6%
10+ years	7	8%	5	7%	3	5%	0	0%	4	6%	0	0%	19	4.9%
missing	1	1%	0	0%	0	0%	0	0%	0	0%	0	0%	1	0.3%

The foregoing findings point to the fact that although most of the tenants have signed one-year leases, majority have demonstrated the ability for longer tenancy duration given that a significant number have been in occupancy for over 4 years. This suggests that despite the standard one-year lease, most of the tenants renew the contract at the expiry of the contract period. This observation is strengthened by the indication from a greater majority of the tenants who have no plans to move out of their current residence in the near future, a fact that has positive bearing on demand for the units and uninterrupted rental income flow. With this trend, rental housing becomes suitable investment vehicle for the investors interested in long-term secure income. The fewer households (30%) who plan to move out from their current units can be considered to be transitional tenants either whose incomes or size have grown and therefore require better house or more space. They could be those who plan to move out of the city due to labour mobility or even those who plan to acquire homes.

Additionally, for further understanding of the nature of the rental housing market, the tenants were asked to state whether they have signed tenancy agreements for the units they occupy. Tenancy agreements basically reveal the nature of property rights in the rental housing sector, and how they are distributed between the tenants and landlords. From the findings, a slight majority of the tenants (59%) had tenancy agreements compared to 41% who did not have. This implies that there is still a significant number of tenancy arrangement that lack defined property rights since they have no tenancy agreements. From the theoretical perspective, the absence of well-defined property rights may result to high transaction costs to the landlords in the management of rental housing. Evidence from the literature also anchors the success of rental housing market on to a

well-defined legal framework to define the landlord-tenant relationship and reduce the transaction cost. Even though the transaction costs associated with rental housing management are not encountered during the development process, developers' knowledge or perception on the property rights lapses in the rental housing sector have an influence on their investment decisions and dissuades them from delivering rental units.

This study also carried out an assessment of rental levels for the housing units within the study area. The tenants were asked to state the range of the rental expenditure they incur for the units they occupy. The literature suggests that rental levels form a major component when defining the nature of housing market since it provides significant insights that help in determining housing affordability to the tenants and profitability to the developers. The findings in this study indicate a wide variation in monthly rental expenditure where majority (46%) pay between Ksh 10,000 - 15,000 per month. A significant number of households (22%) spend between Ksh 16,000 – 20,000 while 20% pay below Ksh 10,000. A paltry 2% of the households spend above Ksh 30,000 (Table 6.11). NB: Exchange rate USD 1=Ksh100.

Table 6. 11: Rental expenditure by the tenants

	Mikindani		Miritini		Migadini		Bamburi		Bombolulu		Kembeni		Total	
	N	(%)	n	(%)	n	(%)	n	(%)	n	(%)	N	(%)	n	(%)
Rental expenditure per month (KSH '000)	91	(100)	68	(100)	60	(100)	58	(100)	64	(100)	48	(100)	389	(100)
<10k	19	(20.9)	18	(26.5)	17	(28.3)	13	(22.4)	6	(9.4)	5	(10.4)	78	(20.1)
10 – 15	36	(39.6)	28	(41.2)	29	(48.3)	21	(36.2)	40	(62.5)	25	(52.1)	179	(46.0)
16 – 20	17	(18.7)	12	(17.6)	11	(18.3)	14	(24.1)	15	(23.4)	16	(33.3)	85	(21.9)
21 – 25	6	(6.6)	5	(7.4)	1	(1.7)	8	(13.8)	3	(4.7)	2	(4.2)	25	(6.4)
26 – 30	3	(3.3)	5	(7.4)	1	(1.7)	1	(1.7)	0	(0.0)	0	(0.0)	10	(2.6)
>30	6	(6.6)	0	(0.0)	1	(1.7)	0	(0.0)	0	(0.0)	0	(0.0)	7	(1.8)
missing	4	(4.4)	0	(0.0)	0	(0.0)	1	(1.7)	0	(0.0)	0	(0.0)	5	(1.3)

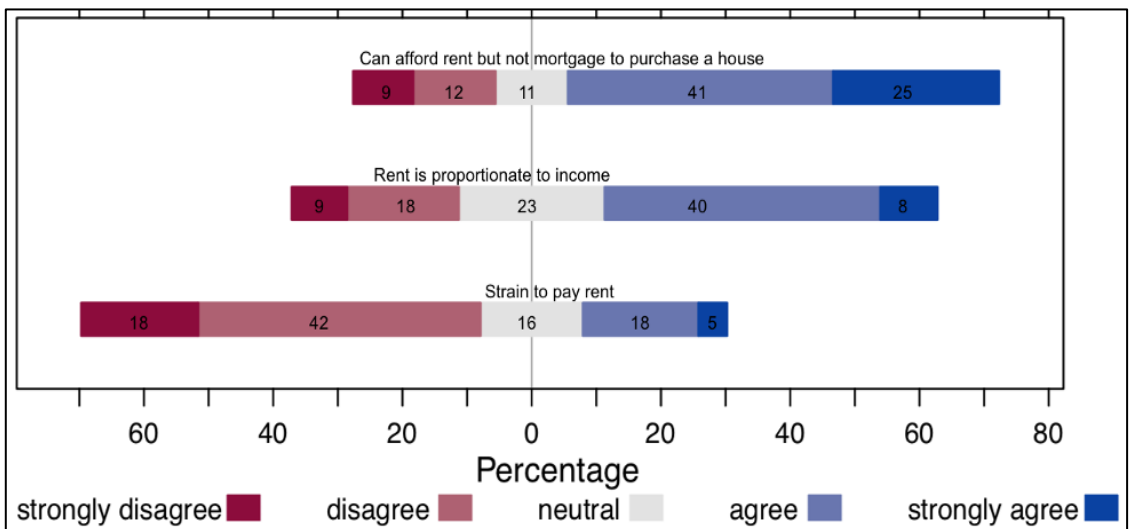
To assess the ability of the tenants to pay rent, the respondents were asked a set of questions on a Likert scale on the proportion of their rents and incomes; whether they strain to pay rent, and if they are able to afford mortgage. The findings show that about 48% of the tenants pay rent proportional to their income and do not strain to pay rent as opposed to 27% who indicate that the rents are not proportionate to their income hence, they strain to pay rent. This implies that they can bear the rent burden as further confirmed

by a greater percentage of tenants (59%) who indicate that they do not strain to pay rent as opposed to 23% who strain to pay rent. But despite the fact that majority indicating that they can pay rent comfortably, the survey also reveals that a larger proportion of the tenants (66%) indicate the ability to pay rent but find mortgage unaffordable (Table 6.12 and Figure 6.4).

Table 6. 12: Tenant’s experiences on rent – affordability indicator.

	Mikindani		Miritini		Migadini		Bamburi		Bombolulu		Kembeni		Total	
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Rent proportionate to income	88	100%	68	100%	59	100%	58	100%	64	100%	46	100%	383	100%
strongly disagree	15	16%	4	6%	9	15%	2	3%	5	8%	0	0%	35	9%
disagree	23	25%	3	4%	8	13%	14	24%	15	23%	8	17%	71	18%
neutral	12	13%	14	21%	11	18%	16	28%	9	14%	26	54%	88	23%
agree	31	34%	27	40%	28	47%	24	41%	35	55%	12	25%	157	40%
strongly agree	7	8%	20	29%	3	5%	2	3%	0	0%	0	0%	32	8%
strain to pay rent	88	100%	68	100%	58	100%	57	100%	61	100%	47	100%	383	100%
strongly disagree	19	21%	20	29%	10	17%	8	14%	10	16%	1	2%	68	17%
disagree	34	37%	19	28%	22	37%	22	38%	27	42%	38	79%	162	42%
neutral	12	13%	12	18%	9	15%	9	16%	15	23%	5	10%	62	16%
agree	19	21%	13	19%	13	22%	14	24%	9	14%	3	6%	71	18%
strongly agree	4	4%	4	6%	4	7%	4	7%	2	3%	0	0%	18	5%
Can afford rent but not mortgage	82	100%	67	100%	59	100%	58	100%	35	100%	48	100%	383	100%
strongly disagree	7	8%	8	12%	7	12%	5	9%	8	13%	1	2%	36	9%
disagree	10	11%	4	6%	8	13%	16	28%	6	9%	4	8%	48	12%
neutral	18	20%	10	15%	4	7%	5	9%	3	5%	3	6%	43	11%
agree	41	45%	24	35%	22	37%	18	31%	18	28%	37	77%	160	41%
strongly agree	13	14%	21	31%	18	30%	14	24%	29	45%	3	6%	98	25%

Figure 6.4. Tenant's experiences on rent - a driver of demand.



These findings are relevant indicators of demand for rental housing and suggest that majority of the sampled tenants have the ability to pay the rents, but find the premiums associated with mortgages to purchase housing unaffordable. Apparently, the propensity

to rent is inversely proportional to income. Therefore, the high-income earners are most likely to purchase homes while the low-income earners prefer renting hence the high demand for rental housing among the low-income earners.

To a greater extent, these findings tend to agree with the literature that there are relationships between household incomes and rental levels, and household sizes and the size of the houses occupied. To test these relationships, a Chi-square test has been conducted to show if there is significant relationship between incomes-rental levels and household size-housing space occupied, with the number of rooms acting as a proxy for space. Secondly, a logistic regression has been conducted to determine if tenants select the size of the houses based on the household size or income. This has applied the antilog on the multi-predictor model to get the probabilities of the outcomes of interest as follows:

$$p = \frac{e^{\alpha + \beta_1 X_1 + \dots + \beta_k X_k}}{1 + e^{\alpha + \beta_1 X_1 + \dots + \beta_k X_k}} = \frac{1}{1 + e^{-(\alpha + \beta_1 X_1 + \dots + \beta_k X_k)}}$$

The subject logistic regression has been determined as follows.

$$\text{Logit}(p_i) = \beta_0 + \beta_1 X_1 + \beta_2 X_2$$

Where

Therefore, in this study;

Logit(p) = Size of house

X_1 = Income level

X_2 = Household Size

β_0 = coefficient

β_1 = coefficient of household size

β_2 = coefficient of income

In this case, size of the house p_i has been treated as the outcome variable while the independent variable is household income X_1 and household size X_2 . The variables have been tested using ordered logistic regression. Analysis of the outcome is such that if the household size is the main predictor then that implies that the size of the household is the main consideration for rental choice regardless of the rent paid. On the other hand, if the income is shown as the main predictor then that indicates affordability issues such

that some larger families could be living in smaller houses due to constraints. Tabulations for household size and size of houses, and income level and household rent per month are shown on the below tables 6.13 and 6.14 respectively.

Table 6.13: Tabulation of household size and size of house

household size	size_of_house						Total
	one-bed	two-beds	three-beds	more than three-beds	single room/bedsitter	double room	
1-2	71 51.08	15 11.19	0 0.00	0 0.00	39 79.59	6 60.00	131 34.11
3-4	53 38.13	76 56.72	22 46.81	0 0.00	9 18.37	1 10.00	161 41.93
5-6	12 8.63	37 27.61	22 46.81	1 20.00	0 0.00	2 20.00	74 19.27
7-9	2 1.44	6 4.48	3 6.38	3 60.00	1 2.04	1 10.00	16 4.17
10 and above	1 0.72	0 0.00	0 0.00	1 20.00	0 0.00	0 0.00	2 0.52
Total	139 100.00	134 100.00	47 100.00	5 100.00	49 100.00	10 100.00	384 100.00

NB - First row has *frequencies* and second row has *column percentages*

6.14: Relationship between income level and household rent per month

income level	House rent per month						Total
	below 10000	10000-15000	15000-20000	20000-25000	25000-30000	above 30000	
20000-40000	59 84.29	59 34.91	4 4.71	1 4.35	1 11.11	0 0.00	124 34.25
40000-60000	7 10.00	69 40.83	22 25.88	1 4.35	0 0.00	0 0.00	99 27.35
60000-80000	2 2.86	27 15.98	35 41.18	7 30.43	3 33.33	2 33.33	76 20.99
80000-1000000	0 0.00	10 5.92	17 20.00	6 26.09	2 22.22	3 50.00	38 10.50
above 100000	2 2.86	4 2.37	7 8.24	8 34.78	3 33.33	1 16.67	25 6.91
Total	70 100.00	169 100.00	85 100.00	23 100.00	9 100.00	6 100.00	362 100.00

NB - First row has *frequencies* and second row has *column percentages*

Having done the analysis on ordered logistic regression, below is the output on Table 6.15;

Table 6.15: Ordered Logistic Regression on Influence of Household Size and Income on Size of the House

Size of house X_2	Coefficient	Standard Error	t-value	p-value	[95% Confidence Interval]		Significance
household size							
1-2	Reference						
3-4	2.189	0.284	7.71	0.000	1.632	2.745	***
5-6	2.769	0.349	7.94	0.000	2.086	3.453	***
7-9	2.903	0.602	4.82	0.000	1.722	4.083	***
10 and above	4.812	1.958	2.46	0.014	0.974	8.650	**
Income level X_1							
20000-40000	Reference						
40000-60000	1.432	0.286	5.01	0.000	0.872	1.991	***
60000-80000	2.221	0.323	6.87	0.000	1.588	2.854	***
80000-1000000	2.477	0.415	5.97	0.000	1.664	3.289	***
above 100000	3.413	0.479	7.12	0.000	2.474	4.352	***

Table 6.15 above shows the coefficients, standard errors, t-tests and the associated p-values, and the 95% confidence interval of the coefficients. The analysis indicates that all household categories are statistically significant. This means that for one unit increase in household size (moving from (1-2) to (3-4)), there is an expectation of a 2.18 increase in the log odds of being in a higher level of size of the house, given all of the other variables in the model are held constant. Likewise, for a one unit increase in household size (moving from (1-2) to (5-6)), there is an expectation of a 2.7 increase in the log odds of being in a higher level of size of the house, given that all of the other variables in the model are held constant. More so, for a one unit increase in household size (moving from (1-2) to (7-9)), there is an expectation of a 2.9 increase in the log odds of being in a higher level of size of the house, given that all of the other variables in the model are held constant. Lastly a one unit increase in household size (moving from (1-2) to 10 and above), there is an expectation of a 4.8 increase in the log odds of being in a higher level of size of the house, given that all of the other variables in the model are held constant. The analysed trend implies that tenants with large households are more likely to be in bigger housing units.

A similar trend has been replicated in the analysis of the incomes and household sizes. For instance, as demonstrated in the table above, one unit increase in income (moving

from (20000-40000) to (40000-60000)), there is expected increase of 1.4 in the log odds of being in a higher level of size of the house given all of the other variables in the model are held constant. Likewise, for a one unit increase in income (moving from (20000-40000) to (60000-80000)), there is expected increase of 2.2 in the log odds of being in a higher level of size of the house, given that all of the other variables in the model are held constant. More so, for a one unit increase in income (moving from (20000-40000) to (80000-100000)), there is expected increase of 2.4 in the log odds of being in a higher level of size of the house, given that all of the other variables in the model are held constant. Lastly a one unit increase in income (moving from (20000-40000) to above 100000), there is expected increase of 3.4 in the log odds of being in a higher level of size of the house, given that all of the other variables in the model are held constant. The analysed trend implies that tenants with higher incomes are more likely to rent housing units which are bigger in size.

The outcome presented in the table above shows that the coefficient increases with growth of both the household size and the income level, given the standard errors for each. The p-values of all household sizes and income levels fall below 0.05 significant level at 95% confidence interval. Therefore, both income and household size have a significant relationship with the size of the housing unit rented by the tenants. However, a comparison of the coefficients of the household-size and income level indicates that the values for each household-size coefficient are greater than those of each income level. This implies that household size X_2 is relatively more important in explaining size of house compared to the income level X_1 . Further, dominance analysis has also been used to confirm the relative importance of household size and income level in predicting housing unit size and the results are shown on the table 6.16 below;

Table 6.16: Dominance Analysis of Household Size and Income Level in Predicting Housing Size

Variable	Dominance Statistic	Standardized Dominance Statistic	Ranking
Household Size	0.104	0.516	1
Income Level	0.097	0.484	2

From table 6.16 above, household size has a larger standardized dominance statistic (0.516) as compared to income level (0.484). This implies that in terms of relative importance of predicting size of the house, household size X_2 is considered as the more

useful predictor as compared to income level X_1 . The above results confirm the study hypothesis that the lower-middle income category is not in the urban poor category who are unable to afford rents. They are able to pay affordable rents for the units they occupy. However, they are more concerned about the size of the housing in terms of the available space to cater for the size of their families. The fact that tenants pay less consideration to the rents in comparison to the household size to a greater extent implies the ability to pay for rent and accentuates the fact that demand for rental housing in the lower-middle income segment is strong given that effective demand is evaluated by the capability to pay. This view resonates with the findings from Hammam (2014) that the rental sector basically remains appropriate for meeting housing demand in rapidly urbanizing cities which are usually characterized by considerable adjustments in employment structure, hence necessitating housing tenure that enhances flexibility and mobility of labourers, and transitional workers who only require temporary shelter to minimize their transaction and fixed costs. The findings also concur with Belsky and Drew (2007) who also observed that increased urbanization results to net household growth and hence demand for rental housing by the new households being created. Melzer and Moothilal (2008) also exhibited similar findings in South Africa.

6.5 Responses from the Private Property Developers, Landlords and other stakeholders

As earlier alluded, private property developers and the landlords are the main delivery agents in the housing market and therefore form the analytical unit of focus for this study. The private developers' views have been captured through semi-structured interviews while the landlords' experiences with the rental housing market have been captured through questionnaires. The ten (10) respondents from property developers have been drawn from purposively selected individuals who carry out residential housing developments within Mombasa city, which is the unit of analysis. The information from the developers is useful in identifying the community attributes, material conditions and the rules-in-use that they interact with in the housing development process or associated with the rental housing market as demonstrated in the conceptual framework. For a comprehensive analysis, the data from the developers have been fused with that from the existing landlords and other relevant actors in the housing market including state actors mainly from the housing department and county government, housing consultants, and housing finance officials all who were also purposively sampled. The findings have

been presented and analysed in the subsequent sections in conformity to the conceptual framework blueprint.

6.6 Community Attributes

The knowledge of community attributes is analytically significant to this study in the sense that it reveals the nature of the developers, their knowledge of the housing market, preferences and target outcomes. Theory postulates that the housing market is characterised by various actors with different roles and interests. Understanding the nature of these actors and their preferences provides a pointer as to what influences their decisions that is, the nature of the developers may determine their motivation for housing for sale development instead of rental housing. The literature on the other hand stipulate that investments decisions are usually guided by the nature of the investors, their preferences and perception of the housing market.

The findings regarding the nature of the developers reveal that while majority operate under the banner of limited companies, a substantial number run their developments and acquisition of property as individuals as demonstrated by statements from D1 and D6 below. As such, most of these developers cannot be viewed as corporates, but just as business entities run by single individuals. Further, from the financial sense of their investments, some developers' choice to invest as a company or as an individual is purely driven by the taxes that would be incurred upon sale of their properties as explained by D2 below:

"I carry out development both as an individual and as an organization... What really necessitates either way is the acquisition of the property; there are properties I have had as an individual for some time. If I choose to develop them and go the organization way, I have to transfer them to the organization, that attracts cost. So, case by case there are what we have acquired as an organization, there is what I have acquired as an individual" (D1).

"I develop as an individual, but I have incorporated my outfit into a company. It is more convenient in terms of partnering, accounting and taxes, but I run the company as an individual director" (D6).

And also, for tax purposes, there are cases where I've earned some overflow in terms of positivity/negativity in KRA [Kenya Revenue Authority]. So, like if I have a credit at KRA, then when I make sales at the CGT [Capital Gains Tax] level, I look as if I have negative as a company; then if I develop as a company, that cost will go to offset the negative KRA (D2).

Additionally, given that housing development requires substantial capital outlay, most of the individual developers have financial limitations, consequently, they work in partnerships or through joint ventures to get leverage in terms of capital investment into

the business. Through partnerships, some developers opt to transfer their private properties i.e., land to their companies when entering into development in partnership with other developers. Other developers also opt to incorporate landowners into the companies and offer them equity shares in the projects. The latter option provides the developers with convenient head start since they do not need any capital expenditure on the land component as the land-owners are sorted at the completion of the project. Example is stated by D3:

“There are two types of developments that we do, one is that people who own the land and then we do a joint venture with them; in the joint venture we give them a share of...example is someone who is owning a land and its Ksh 50 million when we do the joint venture we give you about Ksh 80 million worth of apartments once they are completed. It is an advantage to us because we do not have to give money up front to buy the land” (D3).

Further, it can be noted from the findings that most developers operate as companies either individually or in partnership with other developers. The outfits are business oriented and as such the developers have preference for short-time capital growth as opposed to long-term periodic income. They are mostly driven by scale of production and sale turn-over of the developed units. Most developers engage in one project at a time with a few undertaking multiple projects simultaneously depending on the magnitude of the development, with the sole intention of selling in order to realise capital gain and finance the successive projects. However, it is not uncommon for developers to rent out some of their developments. For instance, the residential houses that developers are not able to sell immediately after completion are put up for rent (D5, D6). This gives developers the flexibility to continue making some income even as they look for buyers even though renting is not the initial objective and therefore, they will function as traders or investors.

“I develop to sell. Payback period for rent is quite long, if you approach a financier/banks, if it is for rent, they will not be willing to come back to really participate in that because you’re going to hold onto that capital for quite some time; but for sale, they know that capital will rotate very fast and then you payback. Maybe between 3-5 years, if you give it a grace period of maybe 2 years to develop then selling another 2 years for example, so they know between 0-4 years or worst-case scenario 5 years, they shall have gotten back their money. And you also you have everything, you can even reinvest. But for rent it will take over 10 years to get that back” (D9).

“We have got some apartments; sometimes what helps us is that there is residue. When I build 100 apartments, 90 are sold, I’m stuck with 10, so these 10 I rent” (D5).

“Rental is for people who have other businesses and they are doing it as an investment for future growth. For sale, we do it as a business for capital growth, so

basically that is our livelihood. So, if you ask me, I develop majority for sale, but there is a small number on the development I set aside for rental" (D6).

This study also attempted to assess community attributes with regards to the existing landlords to understand how they influence the rental housing market. The respondents were asked to state whether they own the developments as individuals or institutions (corporates). For clarity, it is prudent to state that the institutional rental properties are those owned and managed by corporate entities or companies or organizations. The findings among the sampled landlords show that private rental housing ownership is dominated by individual landlords (88%) as compared to institutional investors who comprise only 12%. The foregoing finding agrees with that of Peppercorn and Taffin (2013) which also observed that private rental housing market is predominated by the individual owners world over.

Analysis of the foregoing findings reveal that the nature of private property developers is predominated by individual persons who trade as limited liability companies to enjoy the benefits attributed to corporate entities. However, they operate as small-scale traders who develop one project at a time which mainly comprises of a block of flats with few units as opposed to mass housing development. Ideally, their main motive is focused on capital accumulation and growth as opposed to long-term investment for periodic income associated with those who develop to rent (landlords). Such a scenario implies that the developers' preferences and evaluation of the performance of the housing market operations is based on the return on investment and the payback period within which the invested capital can be recouped. It can therefore be inferred that the preference for short-term capital growth which is associated with housing for sale overrides that for long-term periodic income which is linked to rental housing. Developers therefore incline their activities towards development of housing for sale as opposed to rental units and hence this diminishes delivery in the rental housing market. On the other hand, the landlords, being individual owners, also lack adequate finances for mass housing delivery and therefore mainly rely on personal savings or loans for small-scale rental housing development which cannot make a significant impact. Additionally, they may also compromise on the quality and sizes so as to complete their projects within constrained budgets.

6.7 Material Conditions

Material conditions do not only reveal the physical nature of the good being studied but also outlines the manner and magnitude of its delivery. Therefore, in the context of this study, material conditions comprise the nature of the housing market; how the houses are produced and delivered; the physical, human and economic resources (factors of production) used in housing development as well as the scale and scope of housing production. It therefore focuses on the available options of the housing types, land acquisition and the development process, sources of finances and the technology used in housing production. The analytical significance of this information lies on its illumination of how the interrelation of the material conditions with other exogenous factors such as rules and community attributes influence the developers' decisions in the housing delivery process and possible reasons that could skew their preferences for certain type of housing, in this case either rental or for- sale housing.

The study attempted to determine the physical nature of the housing being produced in the market within Mombasa city. Consequently, the developers were asked to describe the type of housing they deliver. The findings indicate that housing development takes various forms comprising physical design, density, the primary intent of the developer, and the target market. Evidence from the developers reveal that the nature of housing development in Mombasa is similar to other main urban areas in Kenya. For instance, housing development in Mombasa is broadly categorized into single-dwelling and multi-dwelling units which relate to low-density and high-density respectively. Further classification of the housing delivered is based on the target market comprising of low-income, middle-income and high income (D1, D10, D9).

"I do high density[developments] in middle- and high-income areas... we are looking at of course motivational factor here is the economies of scale. You see on half an acre piece of land, if I can put up 40 apartments, the profit margin per apartment, could just be the same as what would have been profit margin per bungalow on probably the same size of land. So, the motivation is that if you are building one bungalow [single dwelling unit], the cost of supervision is the same as when you're building ten apartments. So, it revolves around economies of scale" (D1).

"Developments cannot be uniform, they will always vary in designs and sizes, then there are those zones where you build just a single house and others you can put a block of flats, and then there are the targeted buyers; you must know their taste. You cannot build a high-end house in a low-income neighbourhood. So, we consider all these" (D10).

"We focus on the middle class but do so many[units] in a single development [multi-dwelling] and so most of them are high density like apartments" (D9).

The developers deliver both single- dwelling and multi-dwelling units either individually or jointly depending on the location of the project and prevailing market preference as stated by D2, D5, D8. The decision on what housing type to deliver and the likely clientele is however based on some kind of market survey by the developers. Independent observation by the researcher within the sampled areas also reveals that even though most of the old housing stock comprises single dwelling units mainly of 'Swahili design' type in fair quality, there are however changing trends and a number of developers are putting up multi-dwelling high-rise residential units, albeit at a slow pace. Interestingly, it is conspicuously observable that residential development activities in Mombasa city are concentrated in the middle-income and high-income residential neighbourhoods where developers mainly deliver modern high-quality units mainly for sale as confirmed by statements from D2, D5 and D8 below. In other instances, the location of the development and the neighbourhood characteristics also play a role in determining what kind of houses are delivered, and influence developers' decision to build for sale or rent. Some areas perform poorly for housing developments for sale, and therefore developers venturing into these areas have no option but to develop rental housing (D9).

"The market of the particular area needs to be assessed to establish what demand is there. Going into the single dwelling, apartments need to have extensive survey. So far the demand in most locations I operate has been for the apartments in the middle-income neighbourhoods so we develop and sell there" (D2).

"It depends on where we get land. We do singles [single-dwelling units] when we get land in very appropriate places and we also do a number of [multi-dwelling units] depending on what we find. We normally concentrate on the local preferences; you find that the people who are within the area, they are our clients and most of them are in the middle-income areas and they buy the units" (D5).

"In the area where we are, people are more attracted to detached housing [single-dwelling units]; so, it is the clientele in the area where we work, in terms of attitude of the end users. Many prefer to buy detached development because it is spacious with its own compound and all that. These can only be middle and high-income clients" (D8).

"In areas where they are not selling well, let's say Migadini, and then there are some also in Bamburi, you know those areas are not easy to sell and so you mainly develop in these areas to rent not to sell" (D9).

The scope of delivery depends on the nature of the development and the capacity of the developers (D4). From the emerging evidence, most of the developers are individuals operating under business entities, mainly utilizing their savings and accumulated capital growth. As such, they are not capacitated to undertake mass housing in a single project. Sensibly, the developers therefore mainly carryout single projects at a time, where those doing multi-dwelling mainly deliver one block of apartments comprising several units at a

time (D6). Those doing single-dwelling units usually decide on the number of units to be built at a time but these numbers are usually not sufficient to be considered mass housing. For instance, most of the land available are usually about one to two acres and a few units can amply be put up. On average, these projects last about 3-4 years from the commencement of construction to disposal (D3, D1).

"It depends on the development, how big and all. If for example there is one we have done recently, nearly a block of 21 flats we finished in one and a half years and again sold off in another one and a half years" (D4).

"We do one block of flats at a time. It takes 2 years, from the time you start the process of acquiring land getting the approvals to the time you do the completion of the construction. (that is when approvals take normal time). You have to work within that period because if it goes beyond, then you will mess up the business. So, once you have gotten approvals, construction and completion should be 18 months" (D6).

It takes about 4 years. Finishing and even selling. Sometimes the approval may take 1 year, sometimes I cannot sell, so I cannot go very fast. But all those things taken together it will take a about 4 years for a project for construction and selling" (D3).

"We were able to sell 50% off-plan, and after completion, we were again able to sell 25% within 3 years. As the units decrease, the price increase. Because we are looking at when will our next project be ready because we do not want to run out of stock and also, we do not want to sell at a lower price when we could sell for more. Practically we have never had a project that took over 1 year to sell after completion. So 3years for both development and full sale" (D1).

In terms of resources, land, building technology, labour and capital, are key factors in housing production. Even though all these factors are significant, the developers consider land to be a major element when it comes to housing development (D7). Apparently, the government does not have land bank that can be allocated for housing development hence the developers have to acquire private land (SA2). As such, the respondents point out that one major challenge that developers face is the availability of suitable land for their projects. Land is not only expensive but come with restrictions imposed by the land-use regulations and property rights (D9). Therefore, the developers have to think about location of the land and zoning rules. This has a direct bearing on the type of housing development or buildings that can be approved for construction. Still, where the developers acquire unused land, they have to incur high costs due to extra investments in infrastructure and other amenities (SA1).

"The biggest gap is lack of affordable or cheap land for provision of rental housing. The issue of land is critical because the private developers are buying land in the market and that is very expensive. The government as you may be aware has not land banks that has been reserved for housing development" (SA2)

"the cost of land in the country has also become so expensive, and for instance, in the affordable housing, since we are looking at low-income earners and the middle class, most of them would prefer a house that there is public means, easily

accessible, social amenities are also well developed and available. That tells you that it must be a developed area. I will give you an example with Mombasa, you realize they would want an area like Bamburi, Bombolulu Kiembeni and the likes. The prices of land in those areas have already shot. So, it also goes back to the cost of land. When land is expensive, it means generally the whole project will be too expensive” (D7).

“Then there will also be legislation; this area maybe they cannot allow a high-rise exceeding this number of floors, statutory bodies, then the neighbours are also saying this we cannot allow” (D9).

“One of the biggest challenges we have in the policy is the land issues in Kenya. You realise that land in urban areas in Kenya are over exaggerated in terms of pricing. That one I know you already know... and then there is the problem of infrastructure. We need to provide bulk infrastructure to the[development] sites. That has been a bit challenging in this country. And the feeling is that part of the reason why the houses become expensive is because the developer has also put in the infrastructure and this pushes the cost of development up” (SA1).

This study further delved into understanding the mode of housing delivery in Mombasa. Evidence indicate that most developers deliver housing through formal set-up, implying that the housing projects are carried out on sites with clearly defined property rights and land-use rules which the developers must adhere to. As such, the developers have to follow a series of activities whether based on individual practice or legal requirements during the housing development process from inception to completion of the projects. Consequently, to investigate the manner in which housing production is carried out and understand the critical stages involved in the delivery of housing, the developers were asked to give an account of the processes involved in their development activities. The findings reveal rather common processes across the developers albeit with little variations on how they conduct their activities from feasibility studies to the completion of the project (D10, D8 and D6). However, the development process do not necessarily follow a strict sequence as some may overlap while others such as financing cuts across all the stages. Of significant to note is that these processes signify the core activities in the housing market [action arena] and therefore lead to certain patterns of interactions between the developers and other stakeholders.

“I often look for land just like any other developer. However, before I purchase the land, I consult with the planning department of the county; I need to know what is allowed in that area to avoid inconveniencies. After that, I do the change of user while the architect begins drawing and designing, then I find an engineer. After getting the perfect design the architect applies to get the approval” (D10).

“It begins with identification of a site, suitable site, based on the other parameters; you know if you want to develop housing how near is it to town, what are the networks of communication, proximity to where people would want to settle, industries and all that. Two, is to determine the typology that we want to do whether they are single detached houses, apartments and all that. Then you consult in terms of building consultancy with architects, engineers, environmentalists and all that, then we take

our proposals for approvals and sometimes the financial institutions that can fund our developments. After all the statutory approvals we move to site” (D8).

“We look at the returns on investment, there is the location, the kind of house you are going to put up in terms of quality, the market to develop for and overall, it is just about the viability of the project when doing the feasibility study; but normally it is just the location and the type of houses that you are going to develop” (D6).

Developers therefore spend considerable amount of time conducting market survey to identify and ascertain the right project to undertake in terms of the location, scale and typology, mode of production and the target clients (D8). In fact, the unavailability of government land for housing projects implies that the developers have to acquire the resource through alternative means. A greater majority of developers reveal that they acquire land through direct purchase as it is the easiest among the available options. Other options such as joint ventures have also been utilized by the developers without well-defined implementation framework, sometimes they are encumbered with complex contractual challenges hence make them unattractive (D1). While land banking is also possible for the private developers, it comes with a lot of management challenges since such large undeveloped parcels attract squatters who invade the land(D2).

“Acquisition most of the time it is not very easy because the correct location that you probably want to have a project, you may not get the size of land that you want so it then means that you have to do several purchases and you have to amalgamate or there are issues of succession that you have to do before you get your land, the title of the land of the developer” (D8).

“I go for outright purchases; I do not believe in joint ventures because of the challenges that come with it. Of course, joint ventures are picking up in this place with people offering their land; but without proper structures in place, there are a lot of disputes that arise in the course of the processes and gets you and sometimes become messy. As for me, I go for outright purchases” (D1).

“For us, we had acquired [land banks] earlier, we are just building on the same one for now. Well, we can say a small one [small portion of land] because for the others now we have ordinarily had challenges and squatters have invaded the land; that becomes difficult to manage” (D2).

Land acquisition remains a tedious process since the developers have to source for, and acquire suitable land for the housing project. These processes not only cause the developers to incur the development costs but also the transaction costs. For instance, aside from the money used for land purchase, the developers incur search and information costs to source for details during feasibility study, and further costs for due diligence when verifying any physical attributes and ownership details of the suitable land. Again, during land acquisition the developers incur bargain and decision costs since sometimes they engage real estate brokers for advice. Moreover, the land transfer process is encumbered with complex contracts which not only takes a long time but are

also accompanied by extra costs to facilitate the process. These processes are therefore associated with high transaction costs. By and large these transaction costs however cut across both housing development for sale and rental but of significance to this study are the transactions costs specific to rental housing market, which will be identified when material conditions are considered wholesome at the end of this section.

There is also evidence that the building industry in Mombasa and Kenya at large is still predominated by the traditional construction techniques (D9). As such, the developers mainly use brick and mortar. While the alternatives to brick and mortar have been strongly considered by developers as critical to reducing the time, labour and material costs of housing developments, and ultimately bringing down the overall costs of housing to an affordable range (D7); there is a deeply held consumer attitudes which mean that developments deviating from the traditional brick and mortar technology are often perceived as being substandard hence rendering them unattractive in the market (D1). The result is that the housing market continues to be unaffordable to most low-income segment of the population. Developers argued that the biggest consumer concerns with using technologies such as EPS (Expanded Polystyrene Systems) and interlocking bricks are issues around the strength of the building, with the general consumer belief being that brick and mortar delivers a stronger building compared to other building technologies. This can be construed as lack of information on the part of consumers leading to technological lock-in and raised market entry costs for developers making use of new technology.

“So far, I think the market is still reserved with the traditional technologies, though there are others that are coming up especially with the Chinese but people see them as very low because when you bring in the elements, the EPS, of late they were used to build mass housing but in the market for selling and renting, but people want the traditional, people believe in brick and mortar, if you bring something else, the mindset will be that you do substandard, it looks like maybe you are building a box. If you deviate a lot from the brick and mortar the people will not accept” (D9).

“Something has to be done; but generally, I will say the property market in Kenya, the cost, the prices are very high. Maybe they can come up now with the prefabs, Personally, I would not mind having a prefabricated house ..., you cannot say the weather because even here, it is hot, why do we need brick and mortar, maybe for commercial buildings, fine. May be the attitude. hapa kama nyumba si ya mawe, si nyumba, hiyo si nyumba [if a house is not made of brick and mortar, then that is not a house]. Because I have even seen the ones they do in Dubai and wherever, they are tall but they are not brick and mortar. They are not. But here our attitude does a lot to them” (D1).

Therefore, one of the main challenges that arises from preference for 'brick and mortar' is the high cost of building materials which consequently influences the overall cost of housing development. Consequently, despite the huge demand for affordable rental housing, most developers argue that the high costs of building materials push the cost of development high such that for the projects to be profitable, they have to target the middle to high income market since affordable housing is associated with low-cost low-income projects (D1 and SA1).

"Looking at our case in Kenya, looking at the cost of cement, looking at the cost of steel, looking at the cost of coral rocks that we use in the coastal area, as long as the cost of those materials remain high, how do you achieve a lower value of house? For me if the cost of construction materials is not addressed, and someone is trying to address the cost of housing only, then it is a mirage, it is not achievable. So, the low-cost housing; the people talking about, are talking so loudly but they are out of touch with reality" (D1).

"So even if we develop the houses, the offloading of those houses into the market is a challenge because many people cannot afford. There are many things: the issue of the building materials; our laws, we have very stringent laws that make it very difficult in terms of acceptability of new building materials" (SA1).

As for the workforce, the developers engage both manual labourers and, in a few cases, mechanised techniques. The choice of the techniques is often driven by the costs and efficiency in terms of time and quality of output desired (D7). However, most developers intimated that given the high initial costs of using mechanised systems, they mainly used manual labour, but are gradually moving towards using mechanised systems to improve efficiency and save on labour costs, that is, using machines that can be operated by a few individuals to do plastering.

"We have tried to introduce some machines, we are also trying to instead of a lot of people doing plastering, we bring all the machines on board so that they be operated by a few people. The outside of the houses we are still doing brick and mortar but now we are trying internally to do the portioning with the interlocking blocks which we process ourselves. We had to import some machines to do so. We are also trying to integrate the machines to see if we can cut on labour and also the time taken to do the construction. In construction time is everything, the lesser the time you take the better for you as a developer" (D7).

Financing is equally a significant component in housing development and as such the developers must have reliable sources of funds for project implementation. This is because housing development is an expensive venture, whose implementation becomes a challenge without sufficient and reliable financial sources (SA1). Evidence suggests that most developers often start development projects with minimal capital from savings

and accumulate it through ploughing the proceeds back into the successive projects (D10 and D2). They mainly leverage on the off-plan sales to boost their equity funds (D7). This way, they minimise on the interests and other extra costs associated with debt financing. Nevertheless, some developers still raise capital through bank loans. Most of the debt funding are from the conventional lenders who provide short-term financing for the housing projects (D1). The bank funding is however expensive and consequently increases the cost of housing (SA1) Moreover, the process is quite complex and therefore not guaranteed to the developers hence the developers prefer to have start-up capital from their savings or alternative sources” (D8).

“And then we note that development of housing is a very expensive affair and finances are not there. As much as we say that housing is a right in the constitution, implementation becomes a challenge because of the funding. And also, if you compare funding for housing for example, mortgages, they are more expensive than in the western world. To get a mortgage in Kenya is an expensive undertaking” (SA1).

“We use personal savings which are ploughed back into the business and not loans” (D10).

“Well, since we started with our own capital, now we build it up and it’s on self-financing, by redeveloping” (D2).

“There are[bank] loans, but we try to sell our properties as off-plan, that means the client brings some commitment first in our case 50% of the purchase price. So that also brings a pool of funds. And of course, initially when the project was starting, the company had some savings to start with. So, our main source of capital has been our initial capital the company had when it was starting the project. Then there are loans from the banks and now there is also the pool of deposits that we receive from clients” (D7).

“Traditionally we have a problem with our banking institutions, they will not fund an idea they want an outgoing project. So that means that as a developer you need to have initial capital to start the project. The processes of funding are tedious and expensive. You may qualify for a loan but you do not have facilitation fees for the same because there is a lot of things to be paid before you obtain that loan so generally financing is so expensive. Financing has become one of the biggest challenges, because not only getting it, but also the process of getting it is very expensive” (D8).

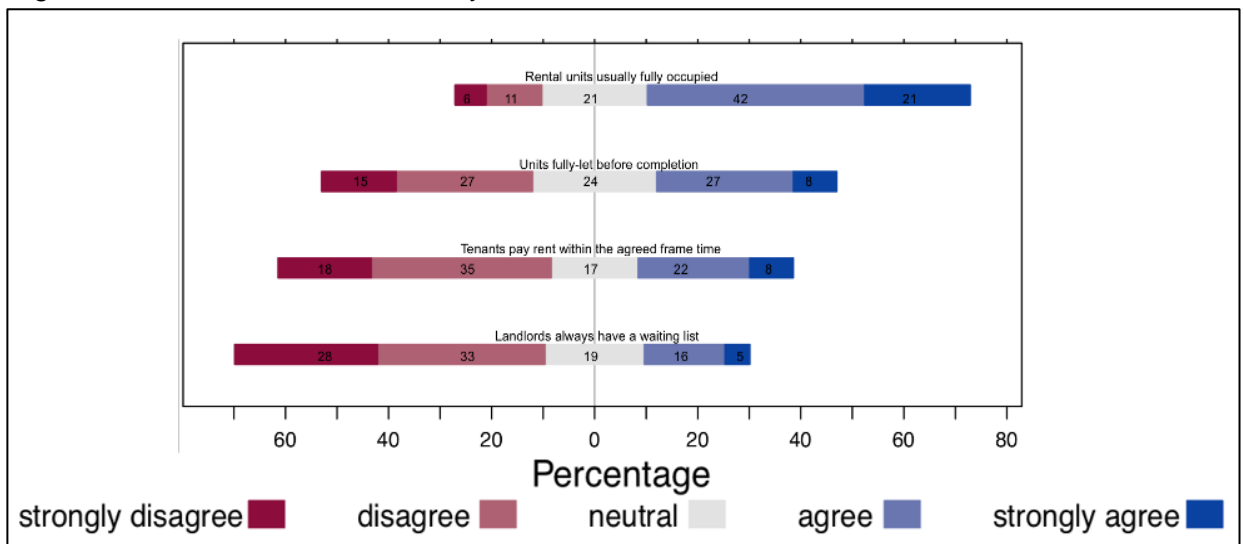
For further understanding of the material conditions associated with the rental housing market this study sought to get insights on from the experiences of the existing landlords. These experiences provide vital indicators that can inform the developers of the nature of the rental housing market. This study therefore sought to probe the landlord’s experiences with regard to the demand of the existing rental units in a scale of high, moderate and low. From the findings, about 39% stated that demand for the rental housing units is high while about 57% stated the demand to be moderate. Only about 5% stated that the demand is low (Table 6.17).

Table 6. 17: Landlord’s Experiences on Demand for Rental Housing Units

	Mikinda		Miritini		Migadini		Bamburi		Bombolul		Kemben		Total	
	n	(%)	n	(%)	N	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Demand for rental	2	(100)	1	(100)	1	(100)	1	(100)	13	(100)	1	(100)	8	(100)
high	6	(30.0)	5	(33.3)	6	(50.0)	5	(45.5)	4	(30.8)	6	(50.0)	3	(38.6)
moderate	14	(70.0)	7	(46.7)	6	(50.0)	6	(54.5)	8	(61.5)	6	(50.0)	4	(56.6)
low	0	(0.0)	3	(20.0)	0	(0.0)	0	(0.0)	1	(7.7)	0	(0.0)	4	(4.8)

Further, for a detailed assessment of demand existing for the rental units, the landlords were asked a set of questions on a Likert scale regarding occupancy levels, pre-completion lettings, payment of rent within contract time and availability of a waiting list. The findings on occupancy rate according to a substantial number of the landlords is consistent with that of the tenants’ response on low turnover rate. For instance, a greater majority of about 63% of the landlords indicate that their units are usually fully-let most of the time, while substantial portion of about 35% also indicate that their rental units are usually fully-let by completion time. Additionally, about 21% of the landlords indicate that they usually have a waiting list even when the houses are still fully-let (Figure 6.5). The substantial pre-letting of the units and low tenants’ turnovers point to the prospects of good demand for the rental housing units.

Figure 6. 5: Demand Assessment by the Landlords.



However, some information obtained from the landlords portrays a contrasting picture from that indicated by tenants with regard to rent payment. For example, most landlords (53%) indicate that their tenants do not pay rent in time compared to about 30% who indicate that their tenants make prompt payments. Similarly, more landlords (46%) observe that their tenants struggle to pay rent compared to about 33% who indicate that their tenants pay rent with ease. However, about 22% remained neutral on the rent payment issue. While the information from the landlords could be true to some extent, the common practice by the landlords to conceal their true rental earnings cannot be overruled. In fact, a similar opinion has been advanced in Peppercorn and Taffin (2013) which also points out that the landlords habitually hide their actual rental income status to avoid taxation. Yet still, a nagging question from this scenario is that if indeed demand is need coupled with ability to pay, how then do the landlords admit there is demand but again claim that the tenants struggle to pay? However, the truth in the landlords' assertion could raise affordability implication.

Ostensibly, analysis shows that both developers for rental and sale are subjected to the same material conditions. Nonetheless, the interest of this research is on the features of the material conditions that disadvantage delivery of affordable rental housing either directly or latently. Some of the features can be illuminated by considering the interplay between the material conditions and the other exogenous factors such as rules and community attributes. As such, even though the developers may have a choice on the nature of housing development they deliver, it is dependent on other factors including the location of development, the permitted densities, and the preferences of the target client. Evidence suggests the mode of housing delivery influences the decision supply development for sale due to high cost of development. For instance, the developers prefer the formal mode of housing delivery. This implies that the developers have to source for land that not only have ownership titles but also in locations which have clearly defined land-use rules. Such land is very expensive and consequently raises the cost of construction. Additionally, the strict building codes associated with formal housing market prescribe high standards of construction which also raise the cost. Essentially, the high cost of development has implications for affordable rental housing development. Developers being business-oriented individuals, majority of whom utilise their own savings as the start-up capital and are more focused on short-term capital growth would therefore desire to recoup their capital and make profit within a shorter period. On the

other hand, affordable rental housing is usually associated with low-cost delivery. As such, when the cost of production is high then it does not make business sense to the delivery of affordable rental housing. Developers would therefore prefer to develop for sale despite the evidence of demand as stated by the existing landlords. But even if the sold units filter into the rental market through the investor buyers, they would not be in the affordable rental housing category since the developments are targeted to the middle- and high-income areas.

Again, there is some evidence that the mode of financing do not favour rental housing development. Given that developers who utilise their own finances prefer development for sale market since it aids faster capital accumulation, financial institutions would have played a major role in facilitating those who are desirous of rental housing development. However, financial institutions funding preferences is skewed towards development for sale compared to affordable rental housing. But housing development is a capital-intensive venture such that without adequate financing, delivery is hampered. Therefore, developers prefer delivery of housing units for sale which is more favourable for their modes of financing.

6.8 Rules in Use

This part focuses on how the housing market interacts with the institutional environment. The institutional environment plays a pivotal role in influencing the operation of the developers and the housing market at large. From the theoretical stance, institutions are the foundations upon which the housing market is established and as such, they influence its activities, transactions and outcomes. Actually, the institutions are meant to incentivise or discourage certain outcomes, but, sometimes, the incentives may be skewed to one segment of the market hence encourage the developers towards the advantaged segment; while at times, their interaction with the housing market may lead to high transaction costs for some market segment hence discourage developers from supplying that particular housing segment and results to market failure.

The influence of the institutional environment can be demonstrated by comprehending the policy, regulatory and legal frameworks within which the housing market functions. Analysis in this section emphasis in the institutional environment whose components comprise of policy framework, institutional regulatory framework, legal framework and housing finance systems are the main independent variables within the conceptual framework. They influence the activities of the housing market actors and determine the

market outcomes. The analytical focus is therefore centred on how these components interact with the housing market (action arena), and what result they yield (outcomes) as outlined in the conceptual framework. Therefore, the intent of this section is to answer the research question seeking to unravel the extent to which the institutional framework enables or constrains affordable rental housing supply in Kenya.

6.8.1 Policy Framework and the Housing Market.

Policy is one of the institutional tools that has a significant role in influencing how resources are allocated within an economy. Correspondingly, the policy framework on housing equally has substantial effect on how housing resource is allocated to the different categories of households. Understanding the role of policy in affordable rental housing delivery requires acknowledgment of both empirical and notional issues of significance to the overall housing market. This part therefore relies on primary data mainly from the state actors and secondary data comprising the relevant policy documents to evaluate how the successive housing policies have influenced the outcome in the rental housing market. It covers research objective two and partly answers research question one.

The theoretical stance postulates that even though policy framework may not influence the housing market directly, it can still skew the operations and outcomes of the market activities in a certain manner. This viewpoint corresponds with the evidence arising from the literature. Equally, analysis of the evidence from documentary review and interviews in this study reveal certain pertinent policy issues which could have indirectly deterred rental housing development.

Notably, the findings indicate that the successive policy framework has consistently maintained a strong home-ownership focus as stated by SA3 and CGO1 below. For instance, all the housing policies from independence starting with the Sessional Paper No.5 of 1965/66, to the Sessional Paper No.3 of 2004 and the latest articulated in the Sessional Paper No.3 of 2016 do not give much significance to rental housing. This implies that since home-ownership is inherently linked to housing development for sale, therefore the resultant initiatives and incentives ranging from financial, regulatory and legal factors inadvertently skews the developers' activities towards delivery of housing units for sale. Consequently, policy framework incentivizes the actors in the housing market [action arena] to deliver housing for sale as opposed to rental housing units.

“There has not been any policy developed towards the provision of affordable rental housing in Kenya for a long time. Besides, what we currently have as affordable housing is actually inclined towards home ownership rather than rental, thus creating a big gap in terms of policy provisions. Kenyans and the entire world should therefore know that most of the current policies are geared towards home ownership, which is wrong. This is because we are going to have people in Kenya living in urban areas that will never buy houses unless those houses are provided freely. So as long as we do not plan for rental housing as an alternative to home ownership, we will still get it wrong on our policy frameworks”. (SA3)

“We do not have any framework at the moment, but we are in the process of doing one. Again, we do not have any programme specifically for rental housing neither do we have the capacity for direct development of housing” (CGO1).

In addition, housing market ordinarily comprises of different segments mainly determined by housing typology and households' income. Therefore, an effective housing policy should take into consideration the various submarkets. But when the policy initiatives appear to be biased to some market segments, as it does to rental housing sector which is only mentioned in clause 25(c) of the Sessional Paper No.3 of 2004, then delivery in the overlooked submarkets is hampered as is evidenced in the undersupply of the affordable rental housing units as pointed out by HC3 below. This is due to the fact that policy as one of the main components of the external environment provides the ideology for both the formal and informal institutional framework that steers housing market operations and outcomes. Evidently, policy bias against rental housing is not only experienced in the Kenyan housing market as other studies such as Belsky and Retsinas (2008) and Schwartz et al. (2006) also found out that most housing policies around the world predominantly favour ownership form of tenure.

‘The policies are meant for housing development for sale, not for rental. The objective of the current housing policy is to encourage ownership not rental [housing]. The policy has bias, it is against the rental because it gives incentives such as the removal of VAT on some construction materials are applicable for housing developed for sale but not for rental’ (HC3).’

However, as much as home-ownership preference is attributed to policy inclination, it is also true that the desire for home-ownership is strongly espoused by the Kenyan culture which views owning a house as superior to renting. But there seems to be a blurred distinction when the policy and culture are considered within the cause - consequence matrix. In this scenario, the overriding concern is whether the culture of home-ownership preference has been influenced by policy inclination, or if the policy inclination towards home-ownership is a response to the deep-rooted culture attached to owning a home. While this study has not delved deeper to unravel such concern, however, in whichever case, homeownership's dominance of the policy ideology accentuates the developers' preference for housing development for sale as opposed to rental housing units. Such

view has been strengthened by Mahadevia and Gogoi (2011) which also concluded that focusing on home-ownership by the policy diverts attention away from rental housing, hence limits delivery of the rental units. But a study by Cadstedt (2010) has a different perspective about the policy biasness. While the study acknowledged that the policy has been partial against rental housing, it however pointed out that the interests in rental housing are so fragmented such that it becomes a challenge as to which interests the policy should pursue. Nevertheless, this should not be construed as a justification for policy biasness and instead, should be treated as an indicator of how much efforts should be channelled towards streamlining rental housing sector and making it more effective.

Both primary and secondary evidence suggest that the housing policy as currently formulated has failed to define the rental housing problem and as such cannot be the antidote to the market failure in rental housing sector. For instance, the dominant opinion emerging from the respondent's points to the fact the housing problem is not well defined in the policy as illustrated by HC3 below.

"In Kenya we really do not have a housing policy, the document we have is just that, it is a document. Why do I say that? Because the only reason we have a policy is to solve a problem but if you look at the Kenyan housing policy you cannot tell what the Kenyan housing problem is, that has not been defined... We do not have a policy, it is something very impractical, I'll explain... how do you have a housing policy whose central pillar is mortgage in a country with only twenty thousand mortgages? In a country where you have over 90% renters... almost everybody rents but the policy does not speak to rental housing... so basically we should forget about the housing policy" (HC3).

Further, the policy's definition of affordable housing in terms of accommodation details (number of rooms) and sizes without prescribed quality and cost/rent can be viewed to be theoretically flawed (National Housing Policy 2004- Clause 26-28). This is because affordability is typically based on the ability to pay in relation to the cost of housing and not the size of the house. Defining affordable housing in spatial terms ignores the socio-economic and locational aspects of housing market, yet in actual sense, the cost of housing with similar sizes would vary with location depending on the socio-economic context of the neighbourhoods. But, as earlier alluded in the literature section of this study, affordable rental housing is more suited to the low-income households, but the findings on the policy shows that it fails to capture the basic tenets of affordability in its definition of low-cost housing. This can be interpreted that the existing policy is not practically well-matched with the housing needs of the majority and therefore cannot be relied upon for rental housing solution due to its failure to clearly define the housing problem.

Notably, without adequate and relevant data on affordable housing needs, it becomes rather challenging to define the housing problem and develop an appropriate strategy for delivery as stated by SA1 and CGO1 below. Yet, both the county and national governments do not have sufficient data on which to base their housing policies. They mainly rely on the census data from the National Bureau of Statistics most of which is historical since it is collected after every 10 years. The challenge of obtaining sufficient data is further exacerbated by unwillingness of the developers to share information with the policymakers due to fears of tax liability. The information inadequacy implies that the policy makers may be lacking sufficient tools to diagnose the housing problem since they may not capture the real-time facts from the housing market.

“The capacity that we may be lacking is getting the data in real-time, data on what is happening in the site [housing market]. Probably because we are very few in the ministry and also we need to link up with the other players in the sector but that has not happened...we tried to get information at some point and this was when the rental income had just been introduced, so people questioned why are you looking for this information, are you taking it to KRA (Kenya Revenue Authority), so people[developers] are not going to give out the information. So those are the challenges we are facing, of trying to convince that they can give us information without them being followed on the non-payment of rental income and everything else or being known what they are worth (SA1)

“At the county level we do not have that data, we are relying on the government. we are yet to formulate our housing policy although we do not have sufficient data. But we know rental housing is on high demand going by the demand of the council houses (CGO1).

Nevertheless, it can be argued that the housing policy has no bias towards any housing tenure as in principle, it provides for both housing development for sale and rental housing (SA2), but it is the failure to provide an appropriate implementation framework that works against rental housing (SA3). For instance, the National Housing Policy 2004 reveals that provision of affordable rental housing has notably been mentioned in Clause 25 (c) but there is neither articulation for any implementation framework nor further reference of rental housing in the entire policy statement.

“When I look at the policies personally, I think in spirit, the policy provides a drive to ensure that there are both housing for sale and rental. I think where the policies fail to meet the rental housing is in the proposed implementation strategies. You find that the strategies which promote ownership maybe are more easily implemented. Because the strategies which target rental housing are incidental and target the developers ... but when the developer produces the houses and find the market is favouring sale, they go ahead and sell. Another example if you look at the Housing Policy of 2004, you find it had proposed a secondary mortgage market. which is supposed to promote delivery of housing; this one is not geared towards either rental, or ownership, it is just about delivery, and delivery is supposed to assist both... So, at the strategies, that's where I think the policies are not very firm on the implementation, strategies and mechanism (SA2).

Currently, the policy makers have not put anything in place towards rental housing. In fact, if you look at the policy that has been in place since 2004, which an attempt was made to revise, there has not been a strong mention of rental housing tenure. At a personal level I have always told the economics and micro-economists at the treasury and even the ministry that as long as we do not have in place proper rental policy program, all that we are doing will come to no good. Therefore, we currently mention rental but it is not given its proper place, and that is what is ailing the Kenyan housing delivery (SA3).

This implies that whereas the current policy framework does not explicitly articulate preference for a particular housing delivery, it is apparent that it indirectly provides more incentives for development of housing for sale as compared to rental housing. For instance, through the Value Added Tax (Remission) (Low-Income Housing projects) Order, 2008, incentives to investors comprises exemption from VAT payment on building materials intended for low-income housing project if at least 20 units are proposed for the low-income earners. The weakness of this provision is that it does not specifically refer to rental housing and therefore, the benefit of such provisions could only accrue to the developments for sale. For adequate rental housing delivery to be realized, the policy should explicitly support the sector, otherwise, more attention to housing development in terms of fiscal policy and subsidies inadvertently favours housing delivery for sale. A mere mention of rental housing in the policy without the requisite implementation framework does not amount to neutrality in terms of tenure preference since it somehow latently but effectively deters delivery of rental housing units. This position therefore advances the hypothesis of home-ownership preference by the housing policy as earlier alluded above.

Apparently, the weaker link that bedevil the implementation of the affordable housing delivery strategy is the disconnect between the two levels of government. For instance, Chapter 11 (186) (1) (Fourth Schedule) of the Kenyan Constitution stipulates that the national government sets the policy agenda on housing, whereas the county government plays a part in implementation through coming up with strategies such as formulation of local housing delivery policy, provision of social amenities and infrastructural development to incentivise the developers and support the housing sector. However, this arrangement has borne little fruit, with county governments failing to provide bulk infrastructure nor prioritize affordable housing due to lack of technical capacity, inadequate data on housing requirement and lean budgetary allocations towards housing (SA1). Despite the fact that the failure of the county governments to create a conducive environment for implementation of the housing policy impedes delivery of both housing

for sale and rent, the failure specific to rental housing has mainly been attributed to the fact that a significant cost of housing is related to the high cost of land and financing challenges (SA3). Most of the housing that is located in prime areas is reserved for middle and high- end housing markets. Evidence from the literature suggested that ordinarily, affordable rental housing is mainly associated with the low-income housing. Yet most of the areas reserved for the low-income housing development lack requisite social and physical amenities. This implies that developers have to incur extra cost and there limit their activities in such localities (SA2).

“One of the biggest gaps is; at the beginning I said that housing is a shared function between national and county government, but when it comes to implementation, that’s where we have a problem. Because for a house to be affordable, county government must be able to provide land and the requisite infrastructure for the development of those houses but we have not seen that being taken as a priority by the county government. Then for some counties, the people they have put in place (political leadership) do not understand the sector, so they would not even budget for housing because they do not understand it, they do not even see its role in the development of a county” (SA1).

“The biggest gap is lack of affordable or cheap finance for funding provision of rental housing because it requires government backing or long-term debts that can now be used for rental houses. In addition, there is the issue of land for instance; the NHC is buying land in the market just like any other private developer; hence, the central government is currently being pushed to use what was government houses before to redevelop them into high-rise and also have some form of cross subsidies where part of it could be at the market rate and the other part at affordable rate” (SA3).

“For example, Kenyans who own parcels of lands are paying land rates which the county government is supposed to use to provide bulk infrastructure; therefore, if you want to do a project you have to find a way of getting bulk infrastructure close to your site, which often costs about 30% of the overall housing cost. So, in a situation where the county governments are not providing bulk infrastructures housing cannot be affordable even if they were for rental” (SA2).

There have been recent attempts to address the affordable housing issue in Kenya where the government has come up with housing as part of its ‘Big Four’ agenda. Under this scheme, the government intended to deliver 500,000 houses in five (5) years through the affordable housing plan. Through this programme, the government intended to overcome the land challenge by devising a strategy involving public private partnership in a joint venture arrangement where the county governments were intended to avail their old estates to be redeveloped with affordable housing units by the private developers (SA3) above. However, this has often been met with resistance from the current occupants of the old estates who challenge the eviction notices in court. Notwithstanding, this programme may not enhance delivery of adequate affordable rental housing units since it is propelled by the ownership ideology as evident by a bigger proportion [approximately

90%] of the proposed development under the scheme earmarked for sale while only a paltry 10% to be reserved for rental purposes (CGO1).

We are encountering so many challenges at the moment: 1, is relocating people from the existing house for the time period for that house to be built. 2, there is resistance, these are our tenants and those houses are not in very good conditions; if you can remember in the year 2006, they had even taken us to court saying that those houses should be condemned. Now removing them, taking them to another place they are asking for compensation and yet they are tenants. We look at them and think of humanitarian grounds just to have relocation allowance, they want to have that money as per the current market value of where they might even be going to rent. So, it is a challenge to us... on the joint venture, the private developers will do houses for sale, but there is a certain percentage that is going to be given to the county for rental. Initially we were talking about 30%, but I was made to understand that it is about 10% (CGO1).

Further evidence show that social housing has been given little attention in the current policy. For instance, even though there is provision for social housing in the affordable housing programme (SA1), the proposed proportion (20%) is still insignificant. Still the most common approach of social housing delivery has been through slum upgrading which has not only been able to produce sufficient units but is also focused towards the urban poor and therefore excludes the lower-middle income households who are the subject of this study (SA3). For instance. The national government , in partnership with the UN-Habitat, the private-sector and the county government engage in slum upgrading through the Kenya Slum Upgrading Programme (KENSUP).

While provision of social housing highlights attempts by the government to make housing affordable and accessible, this strategy is also inclined towards ownership, as these houses end up being purchased through tenant purchase schemes (SA2). Therefore, this implies only 10% of the units is to be reserved for rental housing (CGO1). In previous arrangements, the government, through the NHC employed tenant-purchase schemes primarily targeting the middle-and low-income groups albeit, the schemes mainly benefited public servants, who paid 10percent of the total housing cost as the initial deposit and the balance through a monthly remittance within a span of 20 years; and the total cost is usually below-market rate. However, the main drawbacks to the schemes include defaults and arrears problems, which sometimes lead to dispossessions or evictions hence defeating the original purposes (SA3).

“Yes, the policy does have a whole section on social housing, and we have also mentioned that for social houses to thrive, the government has to come in with a lot of subsidies. And the subsidies of course are the provision of infrastructure. And even the issue of having the housing fund, it was to address the issue of social housing

because the funds will not operate like the banks... Apart from the social housing that we have in the housing policy, we have also come up with a slum upgrading policy. The line between slum upgrading policy and social housing is very thin. So the policy is supposed to make us focus on social housing and also slum upgrading” (SA1).

“Yes, we do have social housing. That one is the greatest thing that we were looking into; apart from the developer doing all this, we said social housing should be there in all the estates. We are looking that the people who are living in the Morotos [slums] we remove them from there to the social housing; In fact there is a time we did a socio-economic survey and found out that even our own [council] houses are charged about Ksh 800- 1000 [US\$ 8-10] monthly, you find that the people living in Tudor Moroto [slums] houses are paying Kshs. 3000 [US\$ 30]; yet our houses are better, a nice room with electricity, water. So, we decided that all developers must integrate within that development, we have the high [high-income] ones, we have the middle [middle-income] and then we have the social housing. Social housing we will have 10% for renting and out of the 10% there is social housing” (CGO1).

“The provision of social housing entails uplifting the status of your people. However, those people who are supposed to access social housing do not have resources to buy or pay the required amount of rent. Therefore, one would make a deliberate decision that the housing will benefit the people, for example by paying as low as Ksh2000 [USD 20] ... The government also has a slum upgrading program under social housing program being done in Kibera, but they have not been able to fund it due to lack of adequate funds” (SA3).

“If you look at other strategies, which should promote rental housing, for instance, Kenya Slum Upgrading which is proposed in the housing policy, it is still implemented but now, as you implement the strategies, towards the tail end, you find they start getting inclined towards ownership.... almost all of it is sold through tenant purchase, direct purchase, or rent to own ... so you will find every other delivery is going towards ownership” (SA2).

The foregoing evidence imply that little attention has been specifically aimed at rental housing provision. While the successive policies have consistently mentioned affordable housing as a priority, they have however focused on home-ownership. The portion (10%) considered for rental is insignificant compared to about 74% of the population renting (SA1). Even where social housing is considered, the attention is towards the urban poor who are not able to pay sufficient rent to induce the developers interests into the rental sector. From the existing policy, it is apparent that the lower-middle-income segment is conspicuously not captured, yet this is a distinct group who are able to pay affordable rent but find mortgage payments unaffordable. Therefore, the failure of the policy to provide the blueprint for affordable rental housing inadvertently disadvantages the market segment in terms of implementation strategy and incentives hence limited delivery.

6.8.2 Institutional Regulatory Framework and Rental Housing Delivery.

The main purpose of this section is to evaluate the extent to which the regulatory and legal framework enable or constrain supply of affordable rental housing in Kenya hence covers research objective three and partly answers research question one. In doing this, it has examined the mechanisms for housing delivery and the institutions responsible for regulating the housing sector. Specifically, this study has delved in the regulatory and legal frameworks governing land use planning and development as well as the fiscal framework applicable within the housing sector.

Ordinarily, the essence of these regulations is usually well intentioned and meant to provide a legislative and administrative instrument, for the delivery of the housing policy and promote healthy housing sector development, while conserving the environment as stated by the respondent CGO2.

“... a lot of planning regulations always endeavour to make a place first of all habitable, it also endeavours to increase the aesthetic value of a place and also health and safety of a place and also to increase access...you know you zone various land uses with their standards in particular areas just to control development and also to attain order” (CGO2)

From the theoretical stance, the regulatory framework represents the ‘rules of the game’ that mediate between the policy aspirations and the actual realization of the intended outcomes. They are therefore crucial in facilitating the implementation of policy. Evidence from the literature show that even though the land-use regulations and zoning provisions are usually intended for efficient and organized land utilization, sometimes they generate adverse outcomes which may distort the market and disincentivise the developers from delivering to a market segment. As such, when the regulatory framework favours one segment of the housing market at the expense of the other either through incentives or restrictions, there is a higher probability of skewed outcomes with regard to housing delivery.

Even though the regulatory framework has a wide-ranging ramification on the general housing sector, the focus of this section is primarily on its impacts on the affordable rental housing market. Especially, the features of the regulations which lead to higher production and transaction costs. Moreover, such features which ultimately affect profitability of the rental housing, are major deterrents towards the rental housing market. Apparently, the findings from this study have no considerable deviation from the theoretical prediction articulated in the earlier chapters. From the onset of inquiry into the

regulatory framework, there is strong indication of either latent or direct biases against affordable rental housing development, gauging by the documental evidence, as well as the sentiments of respondents who disapprove the existing regulations as restrictive. Analysis in this section has been classified into three strands namely: land-use regulations, legal and fiscal frameworks.

Land-use regulations are institutional tools of development control that influence the activities of the housing market. The main elements of land-use regulations include: building approvals/permits, zoning rules and building codes/standards. The manners in which the developers perceive or interact with these regulations influence their decisions on various segments of housing market. By and large, development control in Kenya is managed by the county (local) governments in collaboration with other relevant bodies. Therefore, the county government is the leading agent in ensuring that the developments conform to the prescribed standards and rules. They therefore evaluate the proposed development plans and in collaboration with other relevant authorities/ agencies (as earlier outlined in Table 4.12), issue permits/approvals to the eligible applications.

The first step in development control is usually to issue building permits before commencement of development activity. The building approval process therefore forms the initial platform where the developers interact with the regulations in the housing market, whether developing for sale or rental. As such, the speed with which the building approvals are processed is key to the developers. However, this study shows that the approval process is habitually encumbered with delays, which emerge as one of the undesired outcomes of land-use regulations. The timelines assigned for the approvals are barely adhered to by the authorized bodies hence creating prolonged delays and making the whole process cumbersome to the developers as stated by the respondents D1 and D7 below.

“The challenges in the building approval processes like I said, there is no definite time. Sometimes it is without being informed, they just throw it somewhere. So, you expected the approval to come within two months; it is 5 months and you do not have the approval. You see the communication is not there; because you would rather expect a situation whereby something goes to a process and there is an issue, it is escalated out. But here is a case whereby you expect approval in two months, you do not get it, after 5 months, you are not getting it, on the sixth month you are told it was declined because they did not see the 10% greenery[green space]. Then you now mark the greenery and resubmit. Remember you have changed nothing; you have only pinpointed; did it really have to take 7 months?” (D1).

“There is a lot of challenges. First, we start with the county government for approvals that is where the big problem is, because sometimes it will take you even one year before you get an approval for a project. That means you have wasted a full year

before you commence the project so that becomes one big challenge. Secondly, we have a big challenge with NEMA approvals and all that. At least for NCA not much but we have a few challenges here and there. With these institutions I think the biggest challenge we have is wastage of time. You may have projected to do a project within a year but that project ends up taking 3 years” (D7).

One of the reasons for the delays in the building approval process is attributed to the bureaucratic challenges associated with the numerous stages within different institutions that the application is subjected to, and the different laws that regulate construction process. There is lack of harmonization of the approval process such that developers apply for separate approvals from various institutions such as County (Local) Government, National Environmental Management Authority (NEMA), National Construction Authority (NCA) and Water Resource Management Authority (WARMA) as described by respondents D6, D7 and D9 below. Incidentally, each of the institutions has their own set of laws governing their processes some of which overlap or conflict. Similarly, even within some institutions such as the county government, there are several sub-sections that give independent approvals as per the except of the service charter on table 6.18 below.

“We interact with many developers. During land acquisition, it is the Ministry of Lands, then during the approvals, you deal with the county government, the National Environment Management Authority (NEMA) and the National Construction Authority (NCA). Those are the ones we deal with; then from there we just do construction. KPLC we will deal with them when we are seeking the supply of power line...if you are doing borehole, you will interact with WARMA. In a region where we have water supply by the local authorities, we deal with local water and sewerage company” (D6).

“The [approval] process is already too lengthy... there should be a way of synchronizing the process to shorten it so that when you are going to pay for instance for approval it should be a one stop shop where you pay for everything once then they give you the timeline when to come for it. It would really help... but now it is like you go to more than five (5) agencies and this is not good” (D7).

“I think for me, what is key, is for National Construction Authority (NCA) to harmonize all the units for a single permit approval... NCA as the body charged with that responsibility, should be the one to regulate; so that we go to NCA, then they follow up with respective county governments. Right now, what is happening, we have NEMA, which is a separate institution, we have WARMA which is a separate institution, we have the county government which is a separate institution; because of sewer and the utilities, we have water and sewer; then we have KPLC, which is a separate institution, and each has a cost and time...so why don't you just go to NCA and harmonize all those units then it becomes easier” (D9).

Table 6.18 Development approval process projected and actual time and costs.

NATURE OF APPROVAL	RELEVANT AUTHORITY	PROCESS /CIRCULATION	PROJECTED DURATION	AVERAGE ACTUAL DURATION	PROJECTED FEE (KSHS.)	FACILITATION FEE (KSH)
Change/ conversion of user	County Government	Circulation to the relevant department and agencies	30 days	90 days	83,000	100,000-150,000
	National Government (Ministry of Lands and Physical Planning)	Department of Land Administration	7 days	30 days	5,000	30,000- 50,000
		Director of Survey	6 days	60days	1,000	5,000- 10,000
		Department of Valuation	7 days	30 days	Nil	3,000- 5,000
		Department of Registration	3 days	10 days	1,000	3,000- 5,000
Building Plan	County Government of Mombasa	Circulation to the relevant department and agencies	30 days	90 Days	Varies with the size of development	Varies with the size of development
	National Environmental Management Authority (NEMA)	Circulation to all lead agents.	35 days	6 months	Nil	10,000- 15,000
	National Construction Authority (NCA)	Review of the application	30 days	30 days	Nil	10,000- 20,000

Source: County Government of Mombasa (n.d) and field survey

Hence, in analysing the evidence presented above, it can be construed that the approval process is not well coordinated since it is characterized by multiple regulatory agencies and laws. This finding resonates with the literature which indicate that formal housing markets in developing countries are overregulated. For instance, assessment of the process reveals a total of about five (5) institutions, eighteen (18) main processes and several sets of requirements in each organization. The multiplicity of the approval authorities and laws encumbers the process with compounded overlaps in roles, procedures, timelines and sets of requirements including costs as earlier illustrated on Table 4.14, D6, D7 and D9 above. For instance, the fragmentation of the approval process does not only delay the development process but also increases both the development cost for the developers since there is a fee attached to each application. Actually, in most cases, the fragmentation increases bureaucracy hence makes the process of obtaining building permits longer than even the actual construction process.

The delays also generate high transaction costs since the developers spend a lot of time trying to navigate through the bureaucratic procedures in each of the relevant institutions. The transaction costs mainly result from lack of communication or poor feedback mechanism leads to information asymmetry which compels the developers to incur search and information costs to ascertain the progress of their applications or even pay 'facilitation fee' [bribes] to fast-track the process (D5, D7 and D8).

"No. if I were to rate as a percentage, the free information is 5%. You have to pay for it, you have to follow up, sometimes you even have to fight for it when you don't want to pay for it. You have to put serious demand, because you have a right to the information. So, you get very tired sometimes. Let me be honest, you're forced finally to have 'your people' in those places. So, there are specific people you deal with, so that you facilitate them and they facilitate your job to move faster. So, when you have 'your people' are there any additional costs you have to incur? of course. That facilitation cost. Once you send him your things, you'll have to send him 'lunch and dinner' to work extra time, to make sure he finishes your job" (D5).

"Of course, because now, it is a sad thing to say, that pushing to get the information has a cost but officially it is nowhere. I don't know how that is quoted. There is a lot of facilitation in between and officially you cannot put it in any record. That also makes the project become very expensive. Even if you're given finance by bank or so, you cannot disclose that there are these costs that is going somewhere but in real sense it is there and without it the project won't move. (can you quantify it?) not really, it depends with the moods" (D7).

"So, most of the time the information is not available to the public until you source it up with the officers. Of late the process is automated but also the automation has not worked, you still have to go physically to these offices to get the processes moving and maybe extra information that may be required for progress through some facilitation fees that is not official" (D8).

Ostensibly, it can be argued that effectiveness of land-use regulations is not only measured by the promptness with which they facilitate the development process from commencement to completion, but also the resultant costs incurred by the developers. The costs under consideration are both actual monetary costs spent on the approvals and the transaction costs resulting from any ineptitude in the process. In this case, approval process therefore remains one of the significant barometers for effectual land-use regulation. However, taking cognizance of the fact that the process cuts across both housing for sale and rent (D10), of significant importance to this study is how and why they negatively impact on supply of rental housing more. Ideally, most developers under the study are short term investors who would rarely navigate the numerous bureaucratic hurdles only to invest in rental housing where it will take a longer time to recoup the capital invested. They would rather invest in the sale market where it takes shorter time to close the transaction(D5).

"Currently our development control process is not looked at as an incentive, and then

you find that because of that it's not looked as part of a solution to the housing problem both rentals and for sale, and then you find because of that then in fact everybody whether you are putting up a casino, a hotel, low income housing whether for rent or for sale , you are subjected to exactly the same development control process and what value does that add to both parties...the government looks at it strictly from the revenue collection perspective... the development control is another obstacle the developer needs to go through" (D10).

The [building] approvals takes so long to process... the time goes and by the time I get all the approvals the timber, steel and materials generally have gone up... no, I would go for sale because after all the struggle, I just want to sell the houses and get my money back... if I rent where will I get the money fast?" (D5).

Additionally, a significant number of developments are funded through loans that attract interests as evidenced in the material conditions faced by the developers; yet, approval takes too long. Given the relatively short period of time it takes to sell and recoup the capital, the impact of delays is not much felt. This however has a knockdown effect on rental housing developments since often times financial institutions require building approvals as part of their due diligence before advancing loans to developers. It is quite challenging for developers to access finances, especially given that they cannot account for/disclose where these extra costs are going to.

While most previous studies have captured the negative impacts of the bureaucratic obstacles towards housing market generally, this study concurs with Malpezzi (2001) that the bureaucratic procedures associated with obtaining building permits are more injurious to the rental sector since unnecessary delays in the construction process and the subsequent delays in the projected incomes makes rental sector unattractive to the developers. The finding also conforms to the findings in a study by Cruz (2008) that that a number of regulatory instruments applied to attain efficient land-use, sometimes result to high transaction costs associated with navigating through the long processes hence end up yielding negative market outcomes and constrain rental housing supply.

Zoning is another key area of land-use regulation that plays a key role in influencing developers' decisions in the housing market. Unfortunately, zoning rules are sometimes deemed to make approval process be more unfavourable to the rental housing. Generally, evidence from the literature suggests that affordable rental housing is favourable with multi-family dwelling units. The findings from this study also concurs with the literature but further illuminates conflicting zoning rules in Mombasa such that most of the plots in the areas under this study, which are suitable for low-income rental residential developments [affordable housing] are instead zoned for single-dwelling units,

which means that only one housing unit hosting one household per plot as pointed out by CGO2 below.

'there is this trend that most of the land that is suitable for rental housing, okay first of all most of the zoning plans require single dwelling units, yet if the developers for rent would develop the single-dwelling [units] then they will not really realize value of their land because it's the multi-dwelling units that they deem such kind of development... again most of this land set aside for affordable rental housing are far off such that even if developers were to go and build there they would not get tenants, because these guys consider proximity a lot, yes. So, there is a way that zoning has contributed so you would rather just get the land close to town or in prime areas, build the houses and sell' (CGO2).

Analysis of the zoning rules points to the fact that they have significant, albeit latent negative impact on rental housing development. This finding confirms that of Mayer and Somerville (2002) that land use restrictions constrain the supply of new rental housing and increase rents. This is because most areas suitable for affordable rental housing development have plots designated for single-dwelling unit, therefore, the developers who select such areas have to undergo a longer process in obtaining building permits, since they first have to undertake conversion of land use [change of user] from single-family to multi-family dwelling units. Conversion of such plots to allow for construction multifamily dwelling units is usually encumbered with a number of complications, extra time and transaction costs which make them unattractive to the private developers who would instead opt for areas already designated for high density- high or middle-income neighbourhood to allow them put up multi-dwelling units for sale as state by D1 and D9.

"These challenges interestingly do not apply to one section and leave the other; even if you are doing single dwelling, you will still be faced with the similar challenges because they both go through the same processes. But the challenge would not have a big impact unless say where you applied for multiple-dwelling. You have to get the change of user before you apply for the building approval and if you never got approval. then you might abandon the project. And you see the titles in most of these areas you talk about [areas suitable for affordable housing development] are marked single-dwelling so converting means you have to do double process and it is not very interesting" (D1).

"Challenges are there in NEMA, NEMA sometimes have issues with multi dwelling and maybe they are not accepting so it will force you now to bribe NEMA for you to get the license. Or sometimes when you're doing multi dwelling, the regional officers are not empowered to do up to a certain level, for example, there's a development of 30 units, that one the regional officers cannot approve, they will say they have to push it to Nairobi [head office] so that the Director General handles it" (D9).

Subsequently, after the conversion of land use, the developers have to undergo the normal development approval process and therefore, apart from delaying issuance of the building permit by over one (1) year, it increases the actual cost of approval by about 180% as the developer has to incur costs for both change of user and building permits

(see table 6.13 above). Again, evidence from the developers suggests most of them utilize bank loans for housing development and that actual construction lasts approximately 18 months. This implies that on average, the approval duration is almost equal to the development process, disregarding the time it would take to process finance application where loan is required. This is because ordinarily, financial institutions would require duly approved building plans as prerequisite for loan application which is equally a protracted process and therefore, the overall approval process for a housing development being financed may be longer than the actual development process.

These delays negatively impact on the rental housing development due to fact that rental housing is long-term in nature and therefore, when it takes longer time for approval, and again longer time to obtain finances, it makes the cumulative construction period be longer and delays income and discourages developers.

Another land use regulatory element that impedes the supply of rental housing units are the building codes. The building code often prescribe strict codes which come with strict approval and supervisions hence lead to high production and transaction costs (supervision and enforcement costs), a fact that makes housing construction expensive. The main argument is that affordable rental housing is typically associated with the low- and lower-middle income households and as such, there should be deliberate efforts to make delivery affordable from the building materials and construction process to enable mass production otherwise the high construction costs become prohibitive towards developers' efforts to produce more as stated by respondent D6 below. Malpezzi & Ball (1999) had the same opinion.

“...the by-law book which we use was actually made in 1968...is quite archaic and unrealistic conditions. In world over, construction of affordable housing is done using appropriate technology that makes the construction costs quite affordable. You see when I construct housing units for the low-income and I incur such high costs... how much will I make? I would rather construct the expensive houses for those who will afford...” (D6).

Legal Framework is the other institutional tool used to regulate the housing market. Theory suggests that the legal framework provides the key pillars for property rights and serves two main purposes, one of which is to control the rental market by offering protection to the tenants against possible arbitrary rent increase by the landlord (O'Sullivan & De Decker, 2007). Secondly, it offers tenancy security and prevents tenant from indiscriminate evictions (Pomeroy & Godbout, 2011). In essence, the legal framework is more concerned with rental [lease] contracts and agreements that confer

property rights to the landlords and tenants. It can therefore be construed that the legal framework determines the landlord-tenants relationship and bestows certain property rights to the parties. Therefore, with regard to the conceptual framework of this study, it is postulated that the developers' perception of the powers conferred to them in property rights structure will either incentivize or discourage them into rental housing market.

Evidence suggests that skewed legal provisions may deter some developers from investing in rental housing and instead opt for housing for sale because with the latter, developers enter into a pre-sale agreement with the would-be buyer before handing over the housing units hence negating any potential future conflicts. Additionally, with housing for sale, developers can reclaim their houses in cases of dispute and retain some of the money paid and still manage to resell the houses to other potential buyers. This however may not be possible with rental housing as indicated by respondent D1

"Again, you build rental houses and somebody lives there and he pays you the way he wants and he tells you he knows his rights, he will take you to court and it is worse ...So, there should be some incentive especially, because you see if you build a house and somebody is buying your house they have to pay. You can also refuse to handover the house unless you are paid, the terms are pre-agreed, and you are negotiating when you are friends" (D1).

Further evidence from this study reveals that the legal framework is formulated in such a way that it leads to high transaction costs in the management of rental housing units a fact that discourages the developers from producing rental housing hence shrinking the supply in the rental market. For instance, this study shows that tenancies are usually encumbered with issues such a rent defaults, evictions and other management issues which not only generate conflicts between the landlords and tenants, but also mainly increase transaction costs to the landlords in dealing with the rental units. It is quite challenging to evict a defaulting tenant whether or not the provisions for eviction are stipulated in the lease agreement. Most of the time, the landlord will engage the auctioneer to undertake the process hence incurring extra costs. But still, sometimes the tenants go to court to stop the auctioneers and enjoin the landlords in the suit. In such circumstances, the landlord incurs the costs of on the auctioneers and litigation process which are protracted at times. In light of the foregoing, the developers view the current law is weak and lacks precision, and not easily enforceable when dealing with rent defaulters as illustrated by statements from respondents D2 and D7. The lack of clarity in the rental laws often leads to protracted legal battles between the landlord and the tenant and higher transaction costs related to contract and enforcement to the landlords and recurrent search costs to fill the vacancies in case of evictions.

“The challenge with rental [housing] is the management of the property and the law should be really strict on the people who default on the agreement...you know if I tell you [the tenant] to pay rent by 5th of every month and you expect me to give you necessary service on what we have written then you should pay. And if it does not work [if you fail to pay rent], there should be a strict control...but people default to pay and then tell ‘go and do whatever you want’ ...And the courts and all that, they are costly” (D2).

‘It is very difficult to deal with management of rental housing...things such as defaults make the income uncertain and if you have to deal with them, you have to go to court and you see that is extra cost and time. And courts can drag for ages and you have to live with it...the law is not very clear and seems to have a softer spot for the tenants. So, the management costs can be high, but you see when you develop for sale, you get your money and you move. But for rental you still have to manage the tenants” (D7).

Apparently, the Rent Restriction Act Cap 296 which is normally expected to provide regulations for conflict resolution between the landlord and tenant has become obsolete. Incidentally, as currently constituted, the Act only regulates properties under controlled tenancies within the purview of the Rent Tribunal. These are residential properties whose rents do not exceed Kenya Shillings, Two Thousand Five Hundred (Kshs. 2,500/=) [US\$ 25]. However, as demonstrated by the empirical data from the tenant survey, most of the rental units sampled do not fall within the category of controlled tenancy as their rent are over Kshs 2,500/-. This reveals one of the weakness of the Act. Having been enacted in 1966, the legislation has not been revised to expand its pecuniary jurisdiction in conformity with the current rental levels. Therefore, the Tribunal can be viewed as a mere judicial artefact devoid of meaningful relevance in regulation of the rental housing market.

Consequently, the jurisdictional limitation of the Rent Tribunal to regulate contractual agreements for residential properties portends that in the event of any unresolved dispute, the aggrieved landlords seek redress in Court of law as stated by D2 and D7 above. Ironically, in most instances the court processes entail protracted legal battles with uncertain outcomes and extra costs borne by the landlord. Sometimes during the proceedings there could be court orders prohibiting the landlord from collecting rent until the matter is determined, or the landlord may ultimately lose the case altogether and end up losing the rental income accrued. But, even if the landlord were to win the case, still, the knowledge of both the actual and transaction costs associated with prolonged court processes greatly demotivates the developers against venturing into the rental housing market as stated by D1.

These conflicts are a pointer to deficient and imbalanced property rights that are more beneficial to the tenants than the landlords. The finding tallies with the theoretical

prognosis that the type and manner in which property rights are formulated play a critical role in influencing the developers' decision on what kind of housing to deliver (Libecap, 1993). And therefore, when the rental housing market exhibits unbalanced property rights and more tenants-centric as evidenced, the developers avoid that sector. Besides, there is no variation from related literature which also depicts legislative provisions as a major source of high transaction cost in rental housing market especially when they offer unbalanced property rights between the landlords and the tenants. This points to the fact that the laws are partial and less considerate of the landlords in case of conflicts yet, rental housing being a long-term contractual engagement between the landlord and tenants cannot be devoid of disagreements. Ideally, when the developers perceive such a scenario, they avoid the rental sector and instead prefer the sale market.

Fiscal Framework is another institutional regulatory tool whose significance and its impact on the rental housing market cannot be over-emphasized. Therefore, analysis of the rental housing market would be deficient without understanding the impacts of the taxation regime under which it operates. Within the conceptual structure, it forms part of the regulatory framework as part of the rules that influence the activities and outcomes in the housing market [action arena]. Theory suggests that just like the other regulatory instruments, the manner in which taxation treats rental housing will either encourage or discourage more investments into the rental housing sector since institutions either aid or constrain human actions. Similarly, the literature postulates that taxation is often viewed as the most prominent fiscal tool that can be used to influence the decision of the developers on the type of housing to produce and under what tenure to deliver them. The findings from this study depict a tax system that is somewhat unfavourable to the rental housing sector. Evidently, examination of the Income Tax Act Cap 470 reveals that the system is devoid of any meaningful incentive towards delivery of rental housing.

There is no special considerations for housing even when you are going to do approvals; you are doing statutory fees, there is no any special considerations for housing projects (D8).

Evidence from the developers indicates that taxation issues stand out as one of the institutional impediments toward rental housing development. Most developers view taxation on rental housing income as a disincentive and note that the tax on rental income is very high. For instance, as pointed by respondent TE, rental income exceeding 10 million shillings a year attracts an income tax of 30% on the net income which is computed

as per the accounting standards while a 10% tax is levied on the gross rental below 10 million shillings annually as confirmed in the Section 6 of the Income Tax Act Cap 470.

“Notwithstanding any other provision of this Act, a tax to be known as residential rental income tax shall be payable with effect from the 1st January, 2016 by any resident person from income which is accrued in or derived from Kenya for the use or occupation of residential property, and which is in excess of one hundred and forty-four thousand shillings but does not exceed ten million shillings during any year of income (Income Tax Act Cap 470 (6A)).

On the other hand, those who develop housing for sale subjected a 30% tax on net income, and further granted some tax relief depending on the kind and size of their development project. For instance, residential developers for sale enjoy a 15% tax reduction for development of more than 400 units per year. Furthermore, the government also introduced tax incentives through the Value Added Tax (Remission) (Low-Income Housing projects) Order, 2008, whereby investors are exempted from VAT payment on building materials intended for low-income housing project if at least 20 units are proposed for the low-income earners. Other tax incentive for housing as stipulated in the Kenyan Income Tax Act Cap 470 2nd Schedule Part II Sections 5(1)(f) and 5(1) (ff) includes the 25% capital deduction allowances to the investor who incurs capital expenditure on the construction of rental housing, however, it is not specifically for affordable housing as it can include even the high-end properties. Even if some of these units filter through to the rental market, majority are always meant for the high-end market while a paltry 20% is earmarked for the low-income segment. These incentives can therefore be construed to have no significant impact on affordable rental housing.

Therefore, the tax treatment is viewed by the developers to incentivise housing development for sale as opposed to rental housing development as stated by respondents D7 and D8. A number of developers feel that there is need for tax waivers and tax holidays for developers venturing into rental housing to help them recoup their capital within a shorter period and make rental developments more attractive for investors.

“one of the key government policies that is discouraging people to do rental is the tax after development because for development where you are earning over 10 million annual rent, they want 30% of the net income. That is huge so when it is below 10 million, it is 10% of the gross income. It really discourages so you find the biggest hurdle...one of the things that do not encourage people to go for rental and I am sure is that idea of taxation because you lose a lot of your money in tax” (D7).

“Development of rental housing has not attracted any special attention like you know, tax rebates or even exceptions from statutory approvals so they outline incentives like the zero renting on cheap import of plant, has not been easily realized” (D8).

Analysing the housing tax system in Kenya reveal that to a greater extent it is influenced by the housing policy ideology and as such, its benefits are more inclined towards delivery of home-ownership schemes. It is evident that tax obligations from developers for housing for sale can be anticipated from the inception of the project and can be quantified, budgeted for, and these costs are often pushed over to the buyers. However, there are no specific incentives for affordable rental housing delivery. Comparatively, taxation on rental housing is not only high but also long-term, as it has to be paid annually for the life of the investment. Besides, the higher the income, the higher the tax. For instance, a landlord is expected to pay 10% tax on gross rental income that is below 10 million shillings per year, but any rental amounts higher than 10 million shillings per year attracts 30% of the net income (Income Tax Act Cap 470 (6A)). But taxation based on gross rental income appears unrealistic and punitive in the eyes of the developers since it ignores various management issues that encumbers rental housing with overheads and transaction costs to the landlords. For instance, what happens when the landlord undertakes a major renovation from the rental proceeds? What happens when the landlord posts zero or negative profit due to major renovation work that consumes a bigger part of the rent or prolonged vacancy rates that shrinks the rental income? The tax provision is silent on renovation works which is a major expenditure to the landlord. Failure to recognize these costs during taxation shifts the burden to the landlord and ultimately slices off the expected returns. In view of this fact, most developers would not enter into to rental market when privy to the inherent protracted taxation regime that will constantly burden them.

Still, taxation at 30% on net rental income for amounts above 10 million shillings are not any better. Intuitively, the requirement that net incomes must be computed as per the accounting standards implies extra costs that could disincentivize the developers. Ordinarily, the computations and preparation of accounting reports are laden with enormous documentary evidence that may be cumbersome to prepare or even be unavailable since some of the costs arise from spontaneous occurrences, hence, the landlord may miss out on the waivers by failure to provide the proof and ultimately pay higher tax. Besides, preparation of legitimate standard accounting reports requires the input of technical finance professionals who must be paid for their work. The process therefore generates more transaction costs (which are permanent) associated with management of rental housing. The findings in this study therefore confirms those in Melzer and Moothilal (2008) that favourable tax regime lowers the burden on the

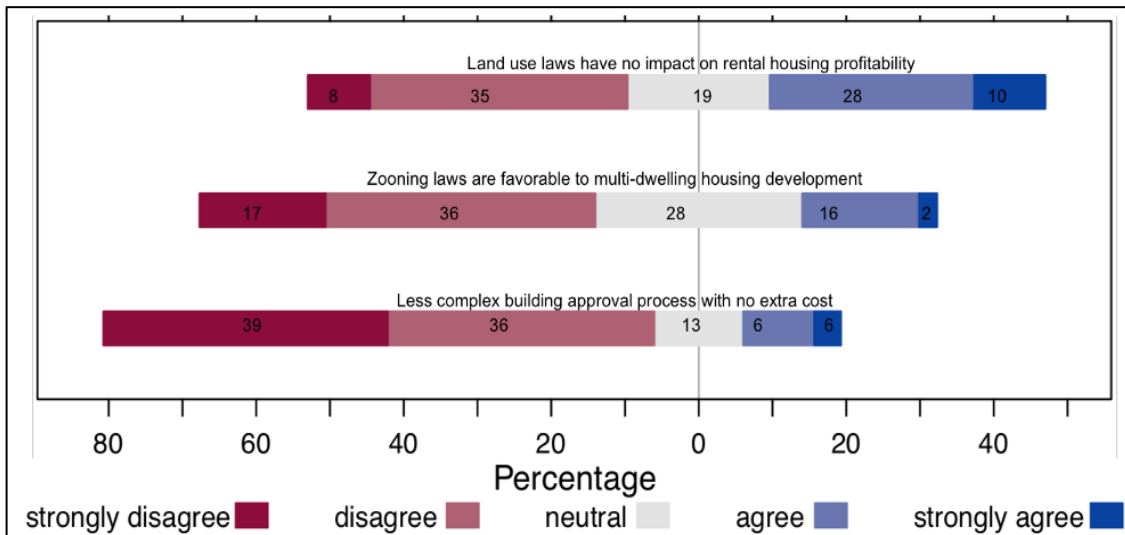
developers, hence increases returns and ultimately motivate them to deliver more rental housing. However, they only view the negative impacts of taxation from the perspective of the actual tax incidence that slices the expected returns but fail to appreciate that the extra administrative and transaction costs associated with tax administration which also burdens the developers and further reduces the rental income.

Realistically, planning and budgeting for tax in rental housing outfit is invariably challenging due to the fact that the rental incomes are usually associated with uncertainties resulting from voids, vacancies and defaults. Besides, unplanned maintenance also negatively impacts on the income, and consequently, the amount of tax becomes uncertain given that the incomes vary periodically. The developers are therefore uncertain of the expected transaction costs which could be invariable high. Developers would not entertain such uncertainty and hence mostly avoid rental housing market. Therefore, as currently constituted, the tax system is incapable of stimulating rental housing supply as it does not provide adequate impetus to stimulate the developers' interest in the sector, instead it raises transaction costs and subsequently perpetual financial burden to the developers.

Further, to validate the developers' assertions on the institutional regulatory framework, this study sought to get an insight of the existing landlords on their experiences with the rules-in use in the rental housing market as outlined in the conceptual framework. The landlord respondents were asked on a Likert scale of 1-5 to state their experiences with land-use regulations which include approval process and zoning during the construction of their housing units. The findings reveal that a greater majority of the landlords (75%) stated that the approval process is complex and encumbered with extra costs. Only about 13% have no qualm with the approval process. Again, about 46% of the landlords stated that land-use laws and landlord-tenant laws impact on the profitability of rental housing market to a greater extent, while about 22% stated that the laws impact on rental housing development to a lesser extent. A significant proportion of the respondents (21%) remained neutral while a paltry 10% stated that land laws have no impact on rental housing development. The landlord respondents were also asked to state their experiences with regard to zoning rules and multifamily dwelling units so as to consequently infer if the rules have any impacts on affordable rental housing delivery. The results indicate that significant majority (53%) of the landlords concur that zoning rules are not favourable for multifamily dwelling units and often result to extra costs during

approvals for various developments. Only about 18% stated that the zoning laws are favourable to multi-dwelling units (Figure 6.6). The analytical significance of this finding arises from the fact that multi-dwelling developments are usually suited for affordable rental housing delivery since they are able to produce larger quantities within one project and space as opposed to single-dwelling developments.

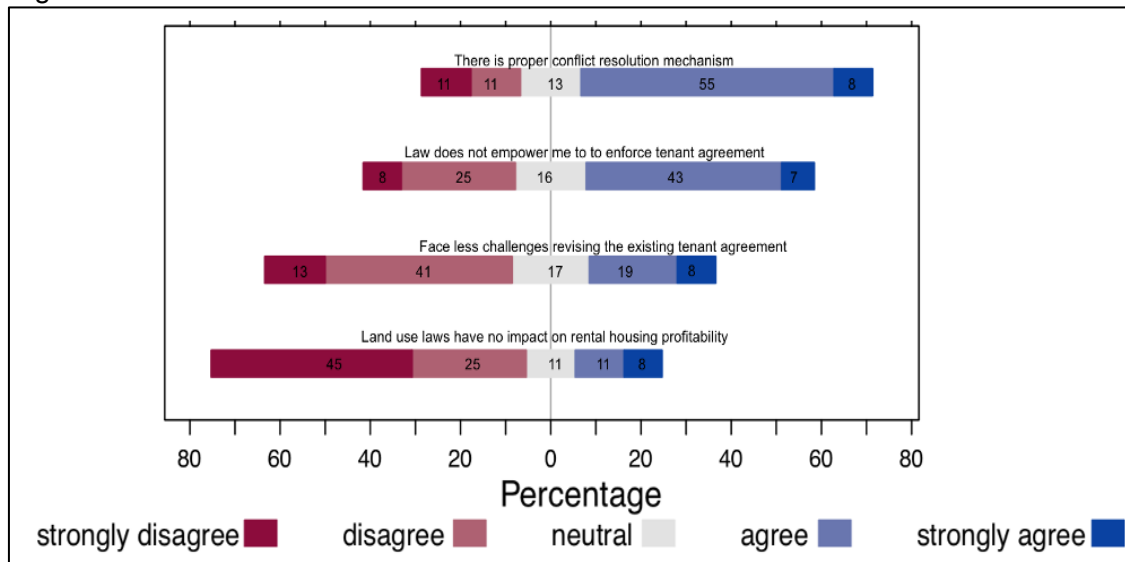
Figure 6. 6: Landlords' experiences with Land-use Laws



Additionally, to get an insight of the landlords' experiences with the legal framework, they were asked a number of questions on Likert scale with regard to tenancy agreements and the responses are illustrated on figure 6.7 below. The findings concur with those of the developers that as currently constituted, the tenancy law is weak and devoid of properly laid down landlord-tenant conflict resolution mechanism within the law as indicated by about 70% of the respondents against 23% who state that there is a proper mechanism for resolving emerging disagreements. As a result, majority of the landlords do not feel empowered to enforce the contracts as expressed by about 51% of the respondents. This means that they are unable to implement the provisions of the contract without challenges and end up incurring extra costs in resultant litigations. Only about 34% of the respondents feel empowered by the tenancy law. This fact is corroborated by almost equal number of landlords (54%) who indicate that reviewing tenancy agreements is usually quite challenging to them compared to only 28% who have indicated that they do not face any hurdles when reviewing their tenants' agreements. This trend is consistent with the experience during rent review. For example, majority (70%) of the landlords sampled have faced some resistance when increasing rents while only 19%

have been able review rents with ease. The challenge in revising the leases and rents is particularly significant to this study due to its link with transaction costs given that in such circumstances the landlords are obligated to search for other solutions including legal redress. With the evidence that most (79%) tenancy duration span over one year and most of the tenancy agreements are revised either annually or biannually. This portends that the landlords are faced with tenancy related challenges every year and they have to incur higher transaction costs in dealing with the challenges. For instance, in scenarios where the conflicts are solved though eviction of the tenant result to additional costs of eviction since the landlord has to incur extra transaction costs in searching for the new tenant, auctioneers and legal costs if the tenants move to court.

Figure 6. 7: Contracts and conflict resolution



Theory suggests that an effective contract should be definite and binding to the parties, besides clearly articulating the consequences for the breach. Therefore, any instances complicating the landlords' rights to enforce the agreement as evidenced in the findings in this study not only exhibit inherent weakness in the tenancy agreements which disadvantages the landlords' interest, but also reveal the uncertainty associated with such contractual agreements. Consequently, awareness by the developers of such weaknesses and uncertainties discourages them from supplying rental housing, and instead venture into the housing for sale market where they do not have to encounter tenants. This analysis conforms to the theoretical prediction that when property rights favour the tenants, the developers become unwilling to offer housing units to the rental

market. The scenario for rental housing as depicted by this study fails to reach the threshold as stipulated in the theoretical framework (Bulte & Van Kooten, 2000).

In general, with regard to the regulatory framework, taxation system comes out to be the most significant factor that would influence majority of the landlords' decision to supply more rental housing, followed by streamlined planning and approval process, and well-defined landlord-tenants' agreements. For instance, the existing landlords rated the factor as very significant at 89.2%, 86.5% and 80.5% respectively. On the other hand, rental control, policies and land-use rules seem to be less considered by the landlords as significant and are rated at 37.3%, 72.3% and 74.7% respectively (see Table 6.19 below). This implies that tax on rental income is the most unpopular with the landlords, a concern was also recurrent in developers' interviews. It can be interpreted that while all the other regulatory elements constrain the developers' desire from rental housing in an invisible manner, taxation is felt to have the greatest impact since reaps it the actual income from the landlords' coffers.

Table 6.19: Regulatory Framework

		Less Significant	Significant	Very Significant
Rank	Factors			
1	Favourable taxation laws for rental housing	4.8%	6.0%	89.2%
2	Streamlining process of planning and approval	2.4%	12.0%	85.5%
3	Well-defined and enforceable agreements	7.3%	12.2%	80.5%
4	Cost-effective and speedy conflict resolution mechanism	7.2%	13.3%	79.5%
5	Flexible zoning and land-use rules	7.2%	18.1%	74.7%
6	Policies aimed at encouraging development	8.4%	19.3%	72.3%
7	Abolishing rent control	32.5%	30.1%	37.3%
<p>The above have been ranked in the order from the most significant to the least significant (using the last column). A chi-square goodness of fit test (with Bonferroni correction) has been conducted to compare the proportions of what the landlords considered significant in each question. The null hypothesis is that the proportions are the same. Chi-square value from the test is 76.399, degrees of freedom = 6. P- Value is <0.0001 Conclusion: reject the null hypothesis. the proportions are significantly different from each other. This adds onto the strength of evidence regarding the rank above</p>				

6.8.3 Financial Systems and Rental Housing Delivery

This section is primarily interested in investigating how the housing finance systems relates to the rental housing market. It therefore covers the research objective four and answers research question two. The analysis is premised on the significance of finance in housing delivery process. Ordinarily, housing finance is viewed as a major pillar in the housing market since it offers the monetary support needed by the developers to deliver housing both for rental and sale. In the conceptual framework of this study, housing finance system has been categorized under the rules which define the institutional framework that influence the activities of the housing market. As such, housing finance system as an institution plays a significant role in influencing decisions of the developers in the action arena on whether to deliver housing for sale or rent. This in turns has an implication of the expected output from the housing market. Nevertheless, housing finance still forms a vital component of the material conditions since it injects the capital which is one of the factors of production required for housing development.

From the theoretical stance, financial system comprises key institutional component that determines the actions and outcomes of the housing market and therefore, when the lending conditions are supposedly favourable to the developers, they are encouraged to supply more housing units. Literature on the other hand suggests that an effectively functioning housing system should efficiently and fairly allocate finances amongst housing investors, developing for either sale and rental. The effectiveness of the financial systems is therefore analysed on the basis of their dealings with the developers for sale and rentals to determine if there are any biases.

Consequently, understanding the banks' rules and processes for providing finance for various types of housing is key. The findings regarding lending conditions reveal that the perception of risk plays a significant role. Therefore, of interest to this analysis are the banks' mode of risk assessment as entrenched in their lending conditions and the impact of interest rates to various categories of their clientele.

The first instance of risk assessment by the financial institutions usually involves determination of the ability to pay back the loan and the probable payback period since key among the bank's concern is whether the borrower will be able to pay back the loan plus interest in the shortest period (HFO1). As pointed out earlier in the contextual framework, the difference between the two categories of developers' springs from their primary objective for undertaking housing development. While one category of the

developers has the primary objective of developing and outright sale of the units upon completion, the other category's key objective is to rent out the units for long-term periodic income hence making them landlords. However, not all landlords are developers as some purchase already completed units and offer them for rent.

The banks interrogate the developers' objective when assessing the ability to pay as this has an element of risk. This evaluation clearly shows a clear bias between the developer for sale and rental. For instance, for development of rental housing, the financial institutions assess the developers' potential ability to repay the loan plus the interests without considering the projected rental income from the proposed rental development. The developer must therefore provide evidence of adequate source(s) of income without including the rental income expected from the proposed project. So, the developers for rental housing mainly depend on personal loans with their independent sources of income as collateral. On the other hand, clients who require money to develop housing units for sale are evidently given preferential treatment such that their proposed developments are considered for project financing and the ability to pay is pegged on the projected income from the sale proceeds of the units which is usually proven by pre-sale contracts with the potential buyers as illustrated by the excerpts from respondents HFO1, HFO2, HFO4 and D9 below.

"we look at it in terms of scale; because how we finance, right now we consider how the facility will be repaid; if it is a large scale whether commercial or residential for sale, we are able to lend basing on projected income; we look at, fine, once we finance you to construct these houses, how fast are they going to be occupied? Then basing on that we are able to lend to you the grace period and all that; we give you conditions such that when we give you money, we know that after 2 years, your loan will be paid. On the other hand, is whereby if it is rental housing units, we look at your current source of income; are you able to pay the loan; as much as you are building rental houses, your houses could stay empty for 5 years, that alone would be a big risk" (HFO1).

"As I have said most our mortgage products depend on net worth of an individual ...but we do have a particular product called commercial property development loan... Mortgage we can give you up to 20 years but for that one [commercial property development loan] it's specific to 10 years and the challenge with that particular product you as the person borrowing first of all have to give us demonstration of additional income. You should not come to us seeking a facility purely to be serviced by the rental income. You need to give us proof that you can service this facility on your own separate from the rental income. So, you find it is a facility that mostly taken up by well-established individuals who have been in business for a while and have several properties and several money schemes" (HFO2)

"If you look at rental; depending on how your location is and your target market, ... most of the time when you are also borrowing, we look at the repayment ability not the expected incomes; now that is the main thing that is informing our decision; why this on rental? Because what rental [units] is anticipating to collect is not ideally what

you are able to pay currently; banks are mainly restricting themselves with the repayment ability as at now [the time of taking the loan], not the expected incomes; so expected incomes could be high but the payment ability right now is limited. The other part is that, for facilities, you start paying every 30 days or if you are given an interest. Development for sale is mainly like project financing... most of the off-plan projects financed by banks" (HFO4).

"If you are going to source [money] for rental they are quite hesitant because they have to be sure that your income is going to be paid because the rental income takes a long period of time to recover unless maybe they give you a mortgage of maybe 15 years. But if you go for financing for sale, they will be very happy if you even go with 30% people who have committed, they lock that money that they have and then give you same money as a loan, and you pay back with interest, and now everyone who's paying back with the locked part of it. So, it is a win-win to them and sometimes it's quite expensive because you have already looked for buyers who have committed, instead of using that money fully, they lock a portion of it and then they advance you again" (D9).

Analysis of the mode of assessment for ability to pay implies that those who develop housing for sale require no financial backup as long as their proposed development is viable, a fact that gives them financial leverage and impetus over those who develop to rent. Actually, the requirement that those who develop rental housing must have the capacity to repay from incomes other than the expected rental proceeds locks majority from being eligible and consequently few rental housing units are supplied due to financial limitation. Therefore, it can be construed that the parameters used to assess the ability to repay the loan are more stringent for the rental housing developers compared to developers for sale.

However, when the rationale for banks' preference is viewed critically, an obvious but overarching fact that cannot be ignored is that the banks are business entities and are therefore profit oriented. As such, the financial institutions are risk averse and '*would not like to have their skin in the game*' (HFO6). This implies that they prefer to be fully insulated from any risks in their financial dealings and therefore, the lending conditions tend to be as protective of banks' interests as possible. As rational investors, the financial institutions can be viewed to be more interested in the profits expected from their financial services as opposed to offering financial support to the property developers. But typically, as noted by a number of bank officials interviewed, rental housing market is associated with unpredictable incomes due to issues of vacancies, voids and rent defaults. This implies that sometimes, the actual amounts and timings of rental incomes receivable may not be certain. Yet, loan repayments entail definite amounts within specified intervals for a predictable duration. Hence, pegging repayments on projected incomes becomes tricky due to the uncertainty. The lower and uncertain rental incomes associated rental housing

is assumed to cap the landlords' ability to repay the loans as projected without challenges.

The foregoing assertion is backed by the empirical evidence from a greater majority of the landlord (88.0%) who pegged their limitation towards securing loan from financial institutions to the lower incomes which make loan repayment challenging (Fig 6.9). It is however prudent to clarify that the lower rent referred to does not mean that rental levels of the units are low, but rather that the cumulative rent after considering seepages from vacancies, voids and rent defaults is less than the expected total rental income from the units within a given period. And since the developer cannot predetermine the rate of vacancies, voids and rent defaults beforehand, dealing with rental housing therefore becomes uncertain and risky, and could potentially cause them to incur higher transaction costs arising from mitigative administrative procedure when dealing with borrowers for rental development. Subsequently the most probable rational action from the developers would be to avoid the sector or formulate stringent measures to mitigate against the high transaction costs that may result.

Secondly, the banks also base their risk assessment on the projected loan payment period. Accordingly, as business entities, the banks prefer to venture into shorter and definite business engagements as prolonged period of engagements are clouded with uncertainties and prone to extra risks. There are some suggestions that financial institutions are more interested in transactions rather than relationships as stated by respondent HFO3. While it is rather obvious that housing for sale has shorter repayment period compared to rental housing, of significance to this analysis is how the scenario impacts decision of the financial institutions when evaluating financial requests for rental and sale developments.

"We prefer to lend for sale, the risk is lower because it is within the short repayment term. So, any financial institution will take the lower risk. The other reason, you will find preference to sale than to rent I have told you is, for sale you are looking at, more of a safer, it is safer investment because dealing with sale is easier than rent; I sell to you whatever happens is your problem; if I rent to you, for as long as that loan is outstanding, we still have a tie to bother each other; and I do not want us to continue bothering each other; I want us to finish with each other quickly. Such that when you look at those rent verses sale financial relationships. Financial institutions want a short financial relationship...to us we value transactions more than a relationship. And that is why we are financing for sale within 3 years than financing for rent for 10 years... The uncertainties in renting are just too much... those uncertainties will make me be happier to finance for sale than to finance for rent" (HFO3).

Ostensibly, developments for sale are perceived offer shorter transactions with less relationships than the rental housing which is viewed to result to longer relationships but

with fewer transactions. For instance, housing development for sale usually takes a shorter period of about 3 years from inception to completion and disposal. From the banks' perspective, providing finance for housing for sale imply an engagement of about three years and subsequently move to another project. Comparatively, this gives the banks opportunity to have more transactions lasting shorter periods hence the perceived risks low. The repayment duration for loans against housing for sale is even compressed by the fact that in most cases, the banks are able to supervise the sale of the developed houses through contracts requiring that all financial transactions from the sale proceeds are processed through the bank until it recoups its money. The bank is therefore able to monitor and deduct their instalments hence defaults are unlikely as expressed by respondent HFO6. Still, the period could even be shortened by the fact that most of the units are sold off-plan and therefore, full payment can be finalized by completion of construction which is normally about two to three years depending on the size of the project hence minimizing the risk as stated by respondent HFO7. On the other hand, financing rental housing is deemed to be long-term engagement since the repayment spans about 10 years or more, a period over which the bank develops a long relationship while transacting just one business. Such protracted relationships are deemed to be prone to high risks of defaults due to uncertainty of the projected incomes as aforementioned in this discourse.

"What we do is we support the developers who are doing an outright sale because the banks will help to build the first show house or rather the first show house we build we keep unlocking funds for stage 2, stage 3, stage 4 ...but in terms of rental purposes we will not lend to the viability of that project we'll look at the developer's other security and we'll take the developer's other cash flow to be able to put up this project because banks don't believe in rental, banks don't lend to future cash flow so they make it very difficult for developers to access facilities based on your future rental income which is quite sad it should not be the case. As for sale you see and even that off plan now makes for a significant portion which now the banks become a partner and controls the finances, so it becomes easier to recover the monies within a short period" (HFO6).

"We look at like the development for sale, basically look at the projections what is the expected income that will come from the sales and that is what is expected to pay the loans. And you see also for sale they are short term loans because period is about between 24 and 36 months, for sale. So that means the person is able to construct that we give you that period on the size of the project so if the project is more it could be 12 months and another 12 months to sale to offload the units and pay off the debt and then you move on but you see for rental they are long-term facilities and, those are long term facilities and the rental incomes need to be sufficient to service a loan or you need to have existing income to support the instalments for the sale, the off-plan sales proceeds can settle the loan as construction progresses" (HFO7)

Furthermore, the perception of high-risk premium in the rental housing market is accentuated by the nature of legal framework under which it operates. Much details on the legal framework and how it influences the developers' decision has been discussed in the preceding part 6.3.3.2 of this study. This part however investigates the implication of the legal framework and how it impacts on the relationship between rental housing market and financial systems, which ultimately also impacts on the developers. In fact, there is a consensus among the housing financing institutions that funding a house for owner-occupation [for sale] is more secure than rental since in the former, the bank directly deals with the end user while in the latter, a number of parties could be involved some of whom have no contract with the bank. For example, the overarching concern is in regard to the complex legal challenges for financial institutions in administering a rental unit in case of a dispute. Usually, when advancing finance for rental housing development, a Rental Deed of Assignment is usually signed between the institution and the developer to compel the later to remit an agreed amount of rental to the bank monthly failure to which the bank takes over the premises and appoints their own agent a to collect rent on their behalf as stated by respondent HFO5.

'...there's what we call Rental Deed of Assignment...The other day I had somebody who has been unable to meet the obligations then you realize, the Rental Deed of Assignment that you signed such that if you do not willingly pay, the bank takes over and it collects through an agent; was not enforceable. So, I do not know, since am not a lawyer as such, I don't know whether it is this that was done wrongly, but the communication I got from our internal team was that we do not have a legal framework to enforce Rental Deed of Assignment however much most of the banks draw them.'(HFO5)

But the notable weakness of this instrument is that it lacks a legal framework for enforcement in case of breach. To enforce it, the banks have to go to court and get a court order, but this involves protracted litigation which may end up favouring either parties, and huge litigation costs. This is more so due to the fact that the property rights structure is seen to contribute to the uncertainty in a number of ways. Primarily, the concern is elicited by the fact that the financial contract exists between the bank and the landlord, and therefore if the latter's grip on the property is weakened, then recovery of the loan may be jeopardized. The banks have no contract with the tenants. Therefore, in the event of default by the landlord and the bank opts for foreclosure, the rights of the tenants cannot be wished away. And indeed, the tenants can file or be enjoined in the suit as third parties with legitimate interests. This means that the possibility of loan recovery could be leveraged on the goodwill of third parties who are not actually part of the original contract. The outcomes of such suits are usually uncertain. In addition, the

judicial process is sometimes protracted, besides being encumbered with uncertain conditions and outcomes, some of which may result to the tenants withholding paying rents, or even the landlord putting loan repayments in abeyance. Worse still, in an unfortunate demise of the borrower [developer], the successors or the administrators of the estate complicate the payment program. Such scenarios increase the risks to the banks and in effect daunt them from financing rental housing development.

This scenario points to an implication of lack of properly laid down property rights. Theory suggests that unclear property rights increase transaction costs. In this scenario, the anticipated transaction cost of navigating the disputes and litigations is perceived to be high by the bank and therefore, they avoid or minimize their financial engagement with rental housing developers. This in turn limits the developers' financial ability to deliver more rental units.

The banks also control the amount of funds released to the developers using the norm of Loan to Value (LTV) ratio as a form of reducing its risk. This study reveals that despite the general Loan to Value (LTV) ratios outlined earlier in table 4.14 (Chapter 4), the banks further analyse developers and revise the ratios to suit their assessments depending on the project type. As such, the ratios equally depict the systematic bias against rental housing where all the sampled banks offer a lower loan percentage to rental housing compared to that given to housing for sale. For instance, most banks are more likely to finance about 80-90% of housing development for sale whereas for rental housing, they would only finance about 50- 60% of the facility through credit as per sampled statements from respondents HFO3 and HFO8.

"I have said if it is for rental, maximum is 50-60%; for sale it can go up to 80%. That is already a bias. Because it means that the person who is building for sale, has more credit available. Then for sale, we don't consider the current income status for the payment of the facility; we consider the anticipated sales. If it was for rental, we consider your current income not the anticipated rent." (HFO3)

"There is a calculated risk that rental income is riskier, it is a high-risk venture in comparison to home ownership [housing for sale]. That is a calculated risk because you find that even the insurance on a rental property would be higher than insurance on an individual home. So that is actually a confirmed risk, it is riskier and therefore we can only fund about 50% of the project but for sale the percentage is higher...around 80% to even 90%" (HFO8).

Such scenarios imply that the person who is building for sale has more credit available compared to developer for rent. Therefore, the developers are disincentivized from rental housing development as they have to look for additional sources for financing. This could be one of the reasons why affordable rental housing development has been relegated to

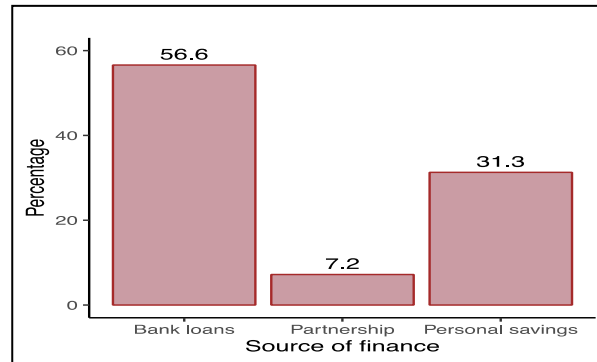
small-scale individuals with feeble financial clout and therefore when the bank funding is constricted, their ability is equally curtailed and hence are unable to supply more units into the market thereby leading to market failure.

Moreover, the bank lending rates have also been identified as a major factor in determining rental housing development. The interest rates on mortgages and construction loans for example are seen to have a more direct influence on housing delivery. Despite the interest rate dropping from 18-21% to current interest rate cap of 13.5%, however, rental housing developers are still limited due to the stringent loan requirements especially for the rental housing sector. Interestingly, since most housing developments are financed through loans, which attract interest even before the housing project has been completed, the developers would be more inclined towards developing for sale in order to be able to service the loans. This is because housing for sale have a faster and higher returns as compared to rental housing, which is perceived by most developers as a long-term investment. Ostensibly, housing development being an expensive venture requiring huge capital outlay invariably rely on bank finance. The finance is structured in such a way that ultimately, the amount paid depends on the payment duration i.e., *the shorter the period, the lesser the amount paid and the longer the time, the more the amount paid*. This implies the prolonged period of payment attracts more interest and vice versa. In most cases, the payment of interests commences even before the construction is completed. As earlier stated, rental housing financial engagement takes a longer time compared to development for sale and therefore attracts more interest. For instance, at the end of 10 years, the developer could have paid almost double the amount borrowed. On the hand, development for sale averagely takes about 3 years and therefore will attract lesser amount. The developers therefore avoid rental housing development for fear of being subjected to more interest and therefore opt to develop for sale projects which last a shorter period hence they payback lesser amount.

Additionally, the existing landlords were asked about their experience with the housing finance systems, so as to get the insight of how the financial institutions impacted on their actions. The significance of housing finance has been accentuated by the insight from the existing landlords from whom a substantial majority (66%) acknowledge that availability of funding impacts on their decisions to a greater extent, and further about 57% reveal their dependence on bank loans to construct their housing units, compared to 31% who use personal savings, whereas a paltry 7% rely on partnerships or joint

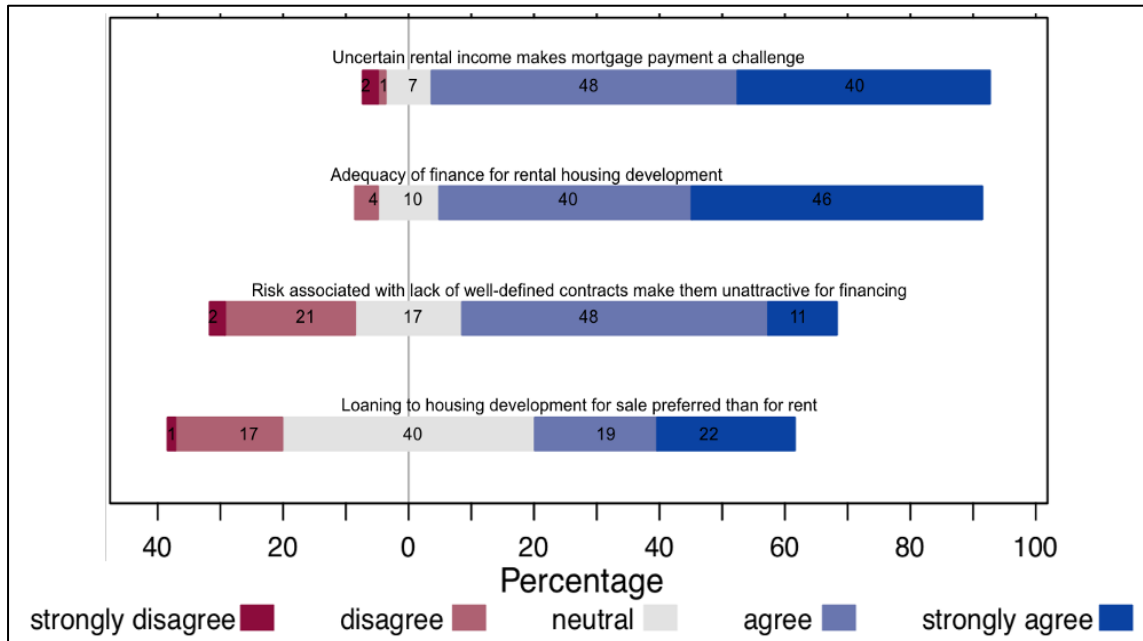
ventures as shown in figure 6.8. This finding agrees with (Chiquier and Lea, 2009) who underscored the significance of housing finance, by affirming that housing is typically an expensive product whose construction entails a huge capital commitment, hence seldom possible without financial aid.

Figure 6. 8: Source of Finance for the Existing Landlords



On the biases by the banks, about 86% of the landlords agree that stringent bank lending conditions have negatively impacted on the number of the rental housing units they develop. Additionally, a greater majority of the landlords (88%) indicate that low rental income poses a challenge with loan repayment, hence is one of the reasons behind limitation towards securing loan from financial institutions. Only a small percentage of landlords (4%) indicate that the low rents have no impact on loan repayment. However, the experiences about the treatment of the financial institutions are almost divided in the middle with 41% of the landlords indicating that the financial institutions prefer giving loans to housing development for sale than rental housing development, whereas about 40% remain neutral on the subject. Only 18% disagree that the banks give preference to development for sale. The unattractiveness of rental housing for finance, is mainly attributed to the risks associated with uncertainties due to lack of well-defined contracts, with about 59% agreeing with the fact while about 21% disagreeing as illustrated in Figure 6.9 below.

Figure 6. 9: The relationship between housing finance systems and the rental housing market



In summary, the analysis above, not only shows significance of housing finance in housing development, but also highlights how the financial system as an institution has systematically favoured housing development for sale over rental housing. The analysis of the results is suggestive of bank lending conditions that are stringent and restrictive towards rental housing development. Nonetheless, the severe conditions are evidently a consequence of how the banks perceive risks associated with rental housing in relation to those for sale. When the performances of the two types of developments (rental and sale) are viewed from unbiased lenses, the rental housing is seen as inferior to housing for sale in many aspects, which include: lower and uncertain returns, longer payback period and incomplete property rights, leading to unclear and unenforceable contracts. These features of the rental housing market send cautionary signals to the financial institutions about the potential high transaction costs that could increase the risk premium associated with the sector. Evidently, the legal framework under which the rental housing market operates is feeblers on the landlords' protection and characterized with many loopholes which may frustrate the bank's interest and make loan recovery uncertain. It is therefore construed that being cognizant of such gaps makes the banks apprehensive about dealings in the rental housing market, hence denying the developers the much-needed financial impetus for rental housing delivery. This study observes that through

the developers' lenses, the measures are perceived as open biases against rental housing financing rather than being protective procedures for banks' interests. When the developers find it easy to obtain finances for developing housing for sale, they therefore concentrate their efforts on the housing development for sale and the neglect of the rental housing makes the market fail since only a few have the financial might to develop rental housing without the support of the banks. Thus, financial system as an institution has failed to incentivise rental housing development due to its association with high transaction costs and evidence of unenforceable property rights.

6.9 Performance of Rental Housing Market: An Evaluation Criterion

The main objective of this section is to assess the performance of rental housing as an investment as compared to housing development for sale. Hence, it covers the research objective five and answers research question three. Actually, one of the most overarching themes that emerged during the discussions of factors influencing developers' choice in the housing market revolves around performance of the investment, a fact that implies the most probable position it holds in the developers' motivation hierarchy.

Referring to the theoretical stance, market actors are rational investors whose primary aim is to earn optimum returns through adjustment of costs and outputs. Performance is therefore used as an evaluation criterion against the outcome of the *'interactions box'* within the conceptual framework. This implies that performance is the sum total of the interactions within the action arena [housing market] and can be viewed as the barometer for gauging conduciveness of the institutional environment to the rental housing market. Literature also suggests that evaluation of the performance of an investment is based on the maxim that the ultimate motive of an investor is profitability. Consequently, in the context of this study, it is worth suggesting that even as the private developers venture into production of housing for different market segments, the primary goal is profitability of their investments. Profitability therefore determines the performance of the investment and is seen as the prime stimulator for investor's appetite.

This section has therefore relied on the interviews with the developers to get their expectations and experiences on housing market performance in relation to development for sale and rent, and further conducted an empirical analysis based on the contextual and empirical data to evaluate the performance of development for rent and sale using the identified parameters. The information gathered from the developers reveals that the main evaluation criteria applied in the housing market just as in any other investment

comprises returns [IRR], Net Present Value [NPV] and liquidity [payback period]. The NPV decision is made based on the outcome; in which a positive NPV value is the underlying asset as economically profitable while the negative NPV shows that the asset is not profitable. Therefore, any NPV that is greater than zero is always acceptable. On the other hand, IRR is the discount rate at which the net present value of an investment is equal to zero. In other words, it is the compounded annual return an investor expects to earn over the life of an investment. Therefore, a project with a higher IRR and higher NPV is always preferred by many investors as it shows that an investor will actually earn a larger return from over the life of an investment. Even though most developers interviewed stated that they do not actually belabour to delve into detailed calculation of these parameters, but have some kind of rule-of-the-thumb blueprint for determining the factors. (D10, D9, D6).

"I often look at the amount of input and the expected amount of profit I will walk out with in the long run. And the period within which I get my money back; very important" (D10).

"Profitability for rental is payback period, that comes first, then for sale is IRR. We do the maths [calculations], actually that comes way ahead, at the feasibility stage you have a projection, that projection gives you a template of the actual things that are happening, you slot in figures where you had already projected with the actuals so that by the end of it, it gives the actual mark-ups"(D9).

I can tell the payback period through market survey; I will know roughly the projected payback period for my units. I did the calculations in my first project but after that through experience I have an idea of the IRR for my projects. So, as I say whether through calculation or experience in the property market, NPV, IRR and Payback Period are key" (D6).

6.9.1. Return on Investment

The common argument among the developers, is that as much as housing policies and financial systems significantly influence their choice on which segment of the market to supply, financial returns on investment is the most superior motivator of their investment decision. Given that there is demand for both housing for sale and rental housing means that developers have to make a rational choice based on the projected returns. For most developers however, faster and higher returns offered by housing for sale makes it more attractive than developing rental housing as articulated by respondents D3, D1 and D2 below;

The rental market in Mombasa is very low. You see the earnings is about 4%-5% in rental. You buy a 5 million house the maximum monthly rent you will get is 20,000-25,000. The yield is so little only if you are interested in long-term investment then you build or buy to rent" (D3).

“My intention is just to build for selling because it builds capital faster than rental housing” (D1).

“Returns of sale is higher because you get straight away, and you get people who are going to afford straight away and they can buy it, so you keep on developing... rent is very low and getting your money back takes forever” (D2).

Ordinarily, developers are considered as investors and going by the principle of rationality, every rational investor is motivated by optimum returns. As such, private property developers are interested in realizing maximum returns from their investments. Actually, evidence from the developers unanimously confirms that returns is the most important factor, which influences their investment decision and further accentuates the notion that rental housing have lower returns compared to housing development for sale (D8, D7 and D5). Investing in housing for sale ensures that developers recoup their capital within a shorter period and re-invest the capital into other development projects. This is due to the fact that income from sale proceed come as one off lumpsum that allows the investor to recoup the capital within 2 to 3 years, other factors remaining constant. Conversely, rental housing income is received in smaller instalments over a long period of time. Generally, when the small periodic incomes are compared against the initial capital outlay, it is rather obvious that the rate of return will be lower than that of one lumpsum payment.

“From the moment I set my mind to develop motive is very clear that I want good returns. I am not doing charity work so I seek to maximise my profit so I go for the development that will give me exactly that” (D8).

“You see what matters in these projects is the returns. I develop and after selling I have between 30-40% profit within three years. Even if I spread it casually that translates to about 10% per year. If you get 5% from rentals[development] in a year you are very lucky” (D7).

“To me profitability is a must because I am putting [investing] my money to get returns in the fastest way. Rental [housing] will definitely not give you that kind of return. You have to sell and keep investing” (D5).

Further, this study has utilised an empirical analysis using both primary and secondary data, regarding the rental levels from the tenants' surveys, house prices from listed transactions in the valuation department, Mombasa Lands office (Ministry of Lands and Physical Planning (2018), types of developments and the estimated costs of construction from the developers. These have been used to compare the performance of rental housing development with development for sale (appendices 2.1, 2.2, 2.3 for multi-dwelling units and 2.4, 2.5, 2.6 for single dwelling units). The part mainly examines the yield (all risk yields), NPV and IRR as summarised in Tables 6.20 for multi-dwelling units and 6.24 for single-dwelling units. The analysis includes both rental and development for

in affordable housing sector and aims to demonstrate whether it is more profitable to build and sell than to rent in affordable housing sector. This has been done by comparing the PV of the future rents X_R and the housing prices X_S . Therefore, if $X_R > X_S$ then rental is better and if $X_S > X_R$ value then it is better to develop and sell.

Additionally, the analysis also includes which option is best for investment among the different categories (in terms of types based on number of rooms). This has been based on the proportion of the house where $X_R > X_S$ and $X_R < X_S$. Suppose $X_R > X_S = 1$ and say $X_R < X_S = 0$ which is considered variable y . Then a logistic regression has been developed where $y = \beta_0 + \beta_1 * \text{number of rooms}$. This indicates whether smaller houses (houses with fewer rooms/bedrooms) are more profitable or if the size of houses (number of rooms) is not a factor such that all categories (i.e., 1-bedroom, 2-bedroom etc) are equally profitable. This guides the investors on what categories they could consider should they venture in rental housing. This test has been done separately for multi-dwelling and single-dwelling units.

Table 6.20: Summary Table for Performance of Multi-dwelling Units

	Input				
	Output				
Rental Escalation	5%				
Cap rate	6%				
Holding period	5 years				
Exit Cap Rate	7.0%				
Growth Rate	5%				
Discount rate	11%				
Typology	Average Size (sqm)	Average Cost /Sqm	Average cost per unit		
1B	50	34000	1,700,000.0		
2B	70	34000	2,380,000.0		
3B	100	34000	3,400,000.0		
Outcome (Average)					
Typology	Rent IRR	Sale IRR	Rent NPV	Sale NPV	Rent Initial Yield
1 BD	22%	38%	802,687	1,014,304	11%
2 BD	21%	32%	1,017,328	878,755	10%
3 BD	17%	32%	800,690	1,308,354	9%
Total	20.25%	33.92%	882,005	1,058,939	9.90%

NB-The rent escalation and growth rates has been based on the provision on tenancy agreements. Capitalization rate based on the prevailing market rates. The construction costs based on the Quantity surveyors' publications and rents on the market rental levels obtained from the data collected. The holding period of 5 years has been based on the market norm where development takes about 2 years then developers indicated that they hold the units for about 2-3 years hence making the project cycle about 5 years. Hence to compare the performance of housing for rent and sale, 5 year period was appropriate to evaluate the performance within a similar period.

Using a statistical analysis R, a logistic regression has been conducted on the NPV for sale and rent for each category of houses to determine whether housing sizes (number of bedrooms) is a significant factor in profitability and the outputs below have been achieved;

Call: glm(formula = rentnpv ~ onebedrent)

Coefficients:

(Intercept) onebedrent

9.090e+05 -1.325e-01

Degrees of Freedom: 2 Total (i.e. Null); 1 Residual

Null Deviance: 3.1e+10

Residual Deviance: 2.347e+10 AIC: 82.85

Call: glm(formula = rentnpv ~ twobedrent)

Coefficients:

(Intercept) twobedrent

9.090e+05 -1.045e-01

Degrees of Freedom: 2 Total (i.e. Null); 1 Residual

Null Deviance: 3.1e+10

Residual Deviance: 2.347e+10 AIC: 82.85

Call: glm(formula = rentnpv ~ threebedrent)

Coefficients:

(Intercept) threebedrent

9.090e+05 -1.328e-01

Degrees of Freedom: 2 Total (i.e. Null); 1 Residual

Null Deviance: 3.1e+10

Residual Deviance: 2.347e+10 AIC: 82.85

Given the output of the coefficients of each category of rooms (bedrooms). It implies that a unit change of the explanatory variable beta1 (bedrooms) as the logistic regression

$y = \beta_0 + \beta_1 \times \text{number of rooms}$ can generate a tabular output of rent NPV as follows (Table 6.21).

Table 6.21 Logistic regression for rent NPV

Rooms	Intercept (β_0)	Room coefficient (β_1)	Unit change output
onebedrent	9.090e+05	-1.325e-01	908999.868
twobedrent	9.090e+05	-1.045e-01	908999.896
threebedrent	9.090e+05	-1.328e-01	908999.867

Analysis from the outcome shows that the best investment in terms of housing size [no of rooms] is, two-bedroomed, followed by one-bedroomed, while the least suitable investment for rent are three-bedroomed housing units.

A similar logistic regression for sale NPV yields the following results

Call: `glm(formula = salenpv ~ onebedsale)`

Coefficients:

(Intercept) onebedsale

1.094e+06 -7.813e-02

Degrees of Freedom: 2 Total (i.e. Null); 1 Residual

Null Deviance: 9.646e+10

Residual Deviance: 9.228e+10 AIC: 86.96

Call: `glm(formula = salenpv ~ twobedsale)`

Coefficients:

(Intercept) twobedsale

1.094e+06 -9.018e-02

Degrees of Freedom: 2 Total (i.e. Null); 1 Residual

Null Deviance: 9.646e+10

Residual Deviance: 9.228e+10 AIC: 86.96

Call: `glm(formula = salenpv ~ threebedsale)`

Coefficients:

(Intercept) threebedsale

1.094e+06 -6.057e-02

Degrees of Freedom: 2 Total (i.e. Null); 1 Residual

Null Deviance: 9.646e+10

Residual Deviance: 9.228e+10 AIC: 86.96

Given a unit change in the explanatory variable predictor of sale NPV a tabular output is generated as table 6.22 below;

Table 6.22 Logistic Regression for Sale NPV

Rooms	Intercept (beta 0)	Room coefficient (beta1)	Unit change output
One-bed-sale	1.094e+06	-7.813e-02	1093999.92
Two-bed-sale	1.094e+06	-9.018e-02	1093999.91
Three-bed-sale	1.094e+06	-6.057e-02	1093999.94

Analysis from the outcome shows that the best investment for sale in terms of housing size are three-bedroomed units, followed by one-bedroomed and while the least suitable investment for sale are two-bedroomed housing units. However, an overall comparison of the coefficients shows that the average unit change for sale (1094000) is higher than that for rental housing units which is 908999.9 as shown on table 6.23.

Table 6.23: Average Unit Change Output

Housing Category	Average output
Rent	908999.9
Sale	1094000

Table 6.24: Summary Table for Performance of Single-dwelling Units

	Input				
	Output				
Rental Escalation	5%				
Cap rate	6%				
Holding period	5 years				
Exit Cap Rate	7.0%				
Growth Rate	5%				
Discount rate	11%				
Typology	Average Size (sqm)	Average Cost /Sqm	Average cost per unit		
1B	40	34000	1,360,000.0		
2B	70	34000	2,380,000.0		
3B	100	34000	3,400,000.0		
Outcome (Average)					
Typology	Rent IRR	Sale IRR	Rent NPV	Sale NPV	Rent Initial Yield
1 BD	23%	37%	660,009	678,685	10.7%
2 BD	16%	28%	420,410	711,906	7.4%
3 BD	13%	30%	249,271	1,163,985	7.1%
Total	16.16%	28.69%	413,560	746,625	8.24%

NB-The rent escalation and growth rates has been based on the provision on tenancy agreements. Capitalization rate based on the prevailing market rates. The construction costs based on the Quantity surveyors' publications and rents on the market rental levels obtained from the data collected. The holding period of 5 years has been based on the market norm where development takes about 2 years then developers indicated that they hold the units for about 2-3 years hence making the project cycle about 5 years. Hence to compare the performance of housing for rent and sale, 5 year period was appropriate to evaluate the performance within a similar period.

Using the statistical analysis tool R, a logistic regression has been conducted on the NPV for sale and rent for each category of houses to determine whether housing sizes (number of bedrooms) is a significant factor in profitability and the outputs below have been achieved;

Call: glm(formula = rentnpv ~ onebedrent)

Coefficients:

(Intercept) onebedrent

3.246e+05 5.082e-01

Degrees of Freedom: 2 Total (i.e. Null); 1 Residual

Null Deviance: 8.635e+10

Residual Deviance: 1.136e+10 AIC: 80.68

Call: glm(formula = rentnpv ~ twobedrent)

Coefficients:

(Intercept) twobedrent

3.246e+05 8.385e-01

Degrees of Freedom: 2 Total (i.e. Null); 1 Residual

Null Deviance: 8.635e+10

Residual Deviance: 1.136e+10 AIC: 80.68

Call: glm(formula = rentnpv ~ threebedrent)

Coefficients:

(Intercept) threebedrent

3.246e+05 1.345e+00

Degrees of Freedom: 2 Total (i.e. Null); 1 Residual

Null Deviance: 8.635e+10

Residual Deviance: 1.136e+10 AIC: 80.68

Given the output of the coefficients of each category of rooms (bedrooms). It implies that a unit change of the explanatory variable beta one (bedrooms) as the logistic regression $y = \beta_0 + \beta_1 \times \text{number of rooms}$ can generate a tabular output of rent NPV as indicated in Table 6.25

Table 6.25 Logistic Regression for Rate NPV yield

Rooms	Intercept (beta 0)	Room coefficient (beta1)	Unit change output
One-bed-rent	3.246e+05	5.082e-01	324600.5082
Two-bed-rent	3.246e+05	8.385e-01	324600.8385
Three-bed-rent	3.246e+05	1.345e+00	324600.1385

Analysis from the outcome shows that, the best investment in terms of housing size [no of rooms] is two-bedroomed, followed by one-bedroomed and while the least suitable investment for rent are three-bedroomed housing units.

A similar logistic regression for sale NPV yields the following results;

Call: glm(formula = salenpv ~ onebedsale)

Coefficients:

(Intercept) onebedsale

8.865e+05 -3.062e-01

Degrees of Freedom: 2 Total (i.e. Null); 1 Residual

Null Deviance: 1.819e+11

Residual Deviance: 1.531e+11 AIC: 88.48

Call: glm(formula = salenpv ~ twobedsale)

Coefficients:

(Intercept) twobedsale

8.865e+05 -3.408e-01

Degrees of Freedom: 2 Total (i.e. Null); 1 Residual

Null Deviance: 1.819e+11

Residual Deviance: 1.531e+11 AIC: 88.48

Call: glm(formula = salenpv ~ threbedsale)

Coefficients:

(Intercept) threbedsale

8.865e+05 -1.786e-01

Degrees of Freedom: 2 Total (i.e. Null); 1 Residual

Null Deviance: 1.819e+11

Residual Deviance: 1.531e+11 AIC: 88.48

Given a unit change in the explanatory variable predictor of sale NPV a tabular output has been generated. Analysis from the outcome shows that the best investment for sale

in terms of housing size are three-bedroomed units, followed by one-bedroomed and while the least suitable investment for sale are two-bedroomed housing units (Table 6.26). However, an overall comparison of the coefficients shows that the average unit change for sale (886499.7) is higher than that for rental housing units which is 324600.5.(Table 6.27).

Table 6.26: Logistic Regression for sale NPV

Rooms	Intercept (beta 0)	Room coefficient (beta1)	Unit change output
onebedsale	8.865e+05	-3.062e-01	886499.6938
Twobedsale	8.865e+05	-3.408e-01	886499.6592
Threebedsale	8.865e+05	-1.786e-01	886499.8214

Table 6.27: Average Unit Change Output

	Average unit change
Unit changeoutputrentsa	324600.5
Unit change outputsalesa	886499.7

By and large, profitability has been identified by the developers as the ultimate evaluation criterion that influences their decision not only on the market segment to supply but also the type, quantity and quality of housing units to deliver. As such, performance plays a significant role in determining the outcomes of the housing market. The findings in this study have demonstrated that the benefits of housing development for sale outweighs rental housing development in all the evaluation parameters applied. For instance, for the multi-dwelling units, the average IRR for housing for sale and rent are 33.92% and 20.25% respectively. This implies that housing for sale produces better percentage returns on the capital invested. In a similar fashion, the NPV for sale is 1,058,939 compared to 882,005 for rental housing units. This implies that housing for sale produces higher value for the capital invested compared to that for rent. An analysis of the single-dwelling units exhibits a similar trend as for the multi-dwelling units, except with lower values. For example, the average IRR for housing for sale and rent are 28.69% and 16.16% respectively, while the NPV for sale is 746,625 compared to 413,560 for rental housing units. In this case, housing development for sale offers the developers better returns compared to rental housing.

Still, evaluation of the initial yields for the shows that one-bedroom units have the highest yields followed by two-bedroom and lastly three-bedroom. This implies that the smaller units that is, with fewer bedrooms have higher annual returns compared to bigger housing units that is, with many bedrooms have lower returns. Critically, tenants within the lower income category comprises of smaller families who may not need bigger houses. Demand in this market category is therefore concentrated within the smaller units meaning, one-bedroom and two-bedroom units as opposed to three bedrooms, which make the former be able to obtain higher rents hence better returns. On the other hand, the bigger units that is, three-bedroom units have the best performance in terms of sale since these are targeted by bigger and stable families which have the ability to buy homes. Recalling the response from the tenants' survey, majority were smaller families who preferred smaller houses to larger ones. Hence, 3-bedroom units were the least popular in the sample and which are predominantly in rental neighbourhoods. And from the interviews, most developers are capital growth focused as opposed to regular rental income investors. As such, they would prefer developments that offer higher NPVs and IRR. As such, housing development for sale becomes more preferable.

6.9.2 Liquidity

Liquidity basically refers to the ease with which the developments can be converted to cash. This study has found out that developers appreciate the flexibility that comes with development for sale as compared to rental housing development. Unlike rental units which must be fully completed before attracting tenants, housing for sale, developers can sell the units off plan and use the funding to complete the units and still make profit from it (D4). The flexibility of developing housing for sale also means that developers are still able to make income from the housing by renting out their premises as they look for a suitable buyer as pointed out by one developer (D1).

"We did apartments for 6.4 million, they were finished 6 months before, we have not finished construction, but they are all sold out, they were sold out 6 months before" (D4).

"...you can borrow money, develop a house, pay off the creditor I mean sell off the house pay off the creditor and retain your profit. And if the sale delays, I have tenants in the meantime. But if you were to build a house for rent, so rent comes in bits and pieces, so you have to pay the creditor in bits and pieces not many creditors will want to lend." (D1)

Liquidity is intertwined with the payback period such that the developer considers the period they take to recoup their capital. Rental housing as demonstrated by this study, often comes lower than expected income, and hence it takes long for the investor to

recoup capital with projections of between 10 to 20 years. On the other hand, with housing for sale, developers noted that they can make an average of 30% return on capital, on the gross income within a period of about 2 to 3 years.

"Well, it is a broad spectrum, for me as a person and this is for myself, I actually started with rent and I was looking at this as a full pack or security or income thing for regular income for me and my family. But once my daily needs are met, now if am to make money then I would not make good money in rent. ...so rental housing for me is more of something for regular income, something for sure income but it is not business...rent is not for making money if you want to make money and get return on investment then sale... For instance, I had developed a plot in Bombolulu with some eighteen two-bedroom units and decided to sell half of it off-plan to raise funds to supplement my construction costs and reserve the remaining half for rental for regular income. But after completion I changed my mind and sold the entire development because I would recover my money within a year or two plus profit (D1).

"I look at it from my initial cost, vis-a-vis return; if you do units worth 90 million, assuming they are 10, and you sell each unit for 15 million, your return of investment, with a marginal assumption 60 million, you will get your money back quickly. For me it's all about return... rental income is too slow and low for me" (D10).

However, evidence from the existing landlords have a number of implications to this study. First, they clearly unveil the distinction between the landlords' and developers' viewpoint. While the developers view rental housing as low-return investment, the landlords however find it to be profitable. This could nullify the perception by the developers that rental housing is not profitable, confirming that it is actually profitable, only that its returns are lower compared to that of development for sale. However, majority of these landlords are perceived to be individuals engaging in small-scale developments for long-term incomes and therefore, their evaluation of profitability may be based on mere fact that they receive continuous flow of rental income to meet daily obligations. This could also explain their view on the risk element. On the other hand, developers are mainly short-term investors who are interested in recovering their capital and move on to the next project. Therefore, longer engagement associated with rental housing are identified with high transaction cost and risk which act as a disincentive to the developers. For them, it is more profitable to put their money in investments running for about 3 years like development for sale compared to rental which take almost 10 years. Therefore, when the developers consider performance, they prefer venturing in the housing development for sale and avoid rental housing. The latter is dominated by individual small-scale landlords who cannot deliver sufficient quantities as per the demand; hence the rental housing market fails.

"If I develop and sell the whole project, put together I will get the rental income of 6 to 7 years in advance... even if I pay taxes then I remain with about 5 years' profit, then it is better to develop and sell than to develop and rent so you get 7 years profit

at one go... and move on to another project so if I do one every year then it's like am getting 5 years rent in advance and I wash my hands and leave, that's the reason.” (D5).

6.9.3 Risks

Risk is another element that plays an active role in influencing the developers' decision. As investors, developers are risk averse. Even though rental housing development is considered to be encumbered by a number of risks, evidence from this study indicate that financial and management risks are the most conspicuous.

As much as financial risks exist in both housing for sale and for rent, the risk is perceived to be lower in housing for sale due to relative predictability that gives the developer a clear idea to quantify the costs and expected income from sale. Conversely, the expected income from rental housing may not be easily quantifiable given other factors such as unpredictable defaults, voids and vacancies as well as additional maintenance costs incurred by the landlord some of which are unscheduled make them receive lower-than-expected rental income as explained by the respondent D1 below. Sometimes, disputes erupt between the landlords and the tenants and take long to be solved, a period which rental income may be halted to await the outcome of the arbitration process. This implies that the rental housing is clouded with a high level of information asymmetry which increases the risk to the landlords. Information asymmetry increases financial risks associated with rental income. For instance, some tenants move out of the houses unplanned hence the landlord not only loses the rent but also incurs additional costs of searching for a new tenant; a landlord also is not able to tell a stubborn tenant from a good one beforehand as stated by respondent D6. Even when the landlord tries to get the tenants information, there is no framework for background check on the tenant during tenant selection. And still, dealing with defaulting tenants is problematic and the landlord has to incur costs of listing them at the credit bureaus.

‘One, like I said, tenancy on and off; two, you have got tenants who are not paying you on time or are paying in bits and pieces; three, the house tend to suffer a lot of degradation, some tenants just punish you in a way you may never know, because like how do you know when the tap is running inside the house? You can say that the water is coming from the borehole, yes, but it is filling your soak-pit, when the soak-pit is full, and you have to drain it, you are paying all the money he has been paying you the last 3 months.’

(01).

“Housing for sale is simple, most of the time you know you are selling your apartment for a certain amount. Enter an agreement for 90 days and you can know what to

anticipate... rental is just a mess, you can know which tenant is defaulting next month, which tenant is escaping tonight you see. A septic tank may just burst all over a sudden the rain comes, and the perimeter wall is down you see, that is a cost to you. If you sold it is none of your business...rental [income] is just too uncertain" D6

There is however a minimal risk to developers once a house has been completed and transferred to the buyer. Unlike in rental housing where there is a risk of tenants defaulting on rent, developers argued that housing for sale offers better protection against such risks, as prospective buyers have to enter into an agreement with the developers before the house is handed over and they also have to demonstrate they have the financial ability to procure the housing. Besides, the default risks experienced in the rental housing can be averted when developing for sale as the developers can still withhold some of the deposit made by the buyer, or can resell the house to a new buyer. Hence, this protects the developers from any eventualities and financial risks associated with defaults as noted by respondent D3.

" there should be some incentive especially, because you see if you build a house and somebody is buying your house they have to pay. You can also refuse to handover the house unless you are paid, the terms are pre-agreed, and you are negotiating when you are friends. But you see when you are collecting rent after some time the tenant starts looking at you as a tax master and may easily default " (D3).

Again, as revealed by majority of the landlords, the developers similarly noted that unlike rental houses where rent is relatively difficult to adjust upwards in the face of inflation, building housing for sale protects them from any losses that may accrue from inflation as they are able to push over the extra costs incurred during the development on to the buyer. This implies that the income is influenced by the weaker lease agreement that limits the landlord's ability to increase rent hence reducing the expected income.

Another significant risk identified is associated with day to management of rental housing. Unlike the housing for sale where the developer relinquishes active involvement upon transferring the property to the purchaser, rental housing requires day to day attention of the landlord. This entails additional costs of repairs and maintenance. As earlier mentioned in part, maintenance include both scheduled and unscheduled. These costs are a burden to the landlord since they directly reduce returns. However, there are other management issues which generate transaction costs. These have been discussed at length in the legal framework section earlier in this study. Thus, managing conflicts and handling tenant's evictions may generate high transaction cost to the landlords. Even in cases where the landlord wishes to disengage from the management of the premises and engage a real estate agent, there is a cost to be born.

Most developers view the additional costs of management as a disincentive. Furthermore, unlike housing for sale whereby the house is sold when in good condition and therefore no additional costs to the developer, rental housing suffers a lot of degradation, especially from irresponsible tenants as stated by respondent D8. Moreover, housing designs keep on changing and therefore the landlords have to spend to renovate and modify their houses, in order to keep up with the market trends. This is so as to fend off competition from new developments, if they are to charge their units at the prevailing rents.

“if you are doing rental housing then you will have to spend this overtime and obviously there are also other issues with the risks that are involved with doing rental housing you know this degradation overtime, dilapidation because of occupation and all that so the recoup time becomes even longer than if you were doing your rental housing than for sale which you do once and you know you recoup your money and move to another phase” (D8).

The transaction costs associated with management of rental housing therefore make the developers perceive the sector as high risk compared to development for sale. Again, the high uncertainty in the day-to-day management increases the transaction costs. Ordinarily, when the transaction costs are high such that the developers are dissuaded, then they shun the sector, hence the market fails. These findings echo those of Chiquier and Michael (2009) to the extent of identifying the main risks associated with rental housing, but the earlier study failed to relate these risks to the element of transaction costs which is actually the main underlying factor for the developers' demotivation.

Results from the existing landlords on the performance of the rental housing however contradict those of the developers on some issues but agree on others. For instance, while the developers consider the speed at which they can sell the units as an important factor in business, interestingly, the response from the existing landlords show that liquidity is least considered while profitability is the highest motivator. (Fig 6.10; Table 6.28). This can be construed that most landlords are investors interested in long-term ventures and therefore the speed to recover their capital is least in their consideration. Private developers are however interested in short term investments and therefore perceive the long-term investments such as rental housing to be associated with high risk hence they avoid it.

Figure 6. 10. Profitability, Risk and Liquidity of Rental Housing

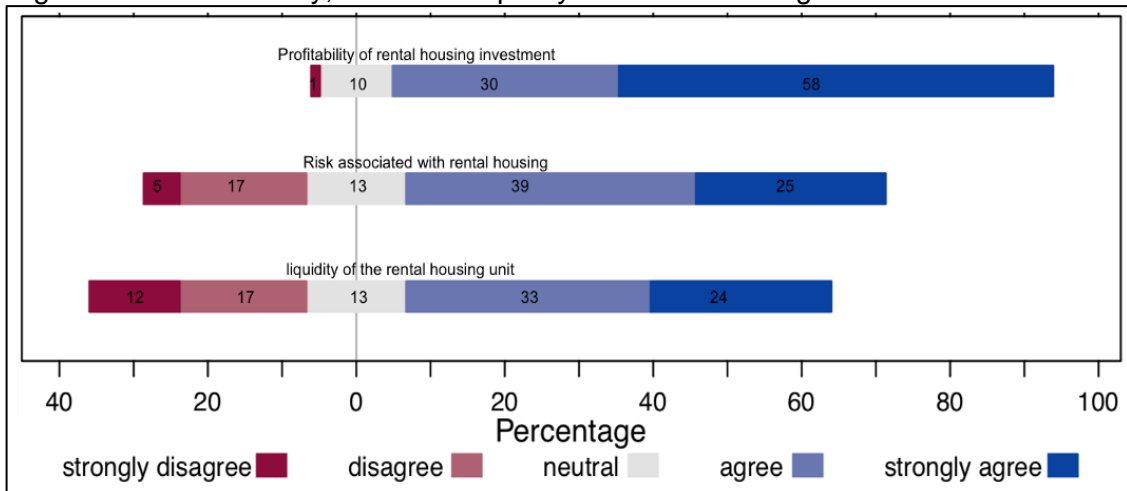
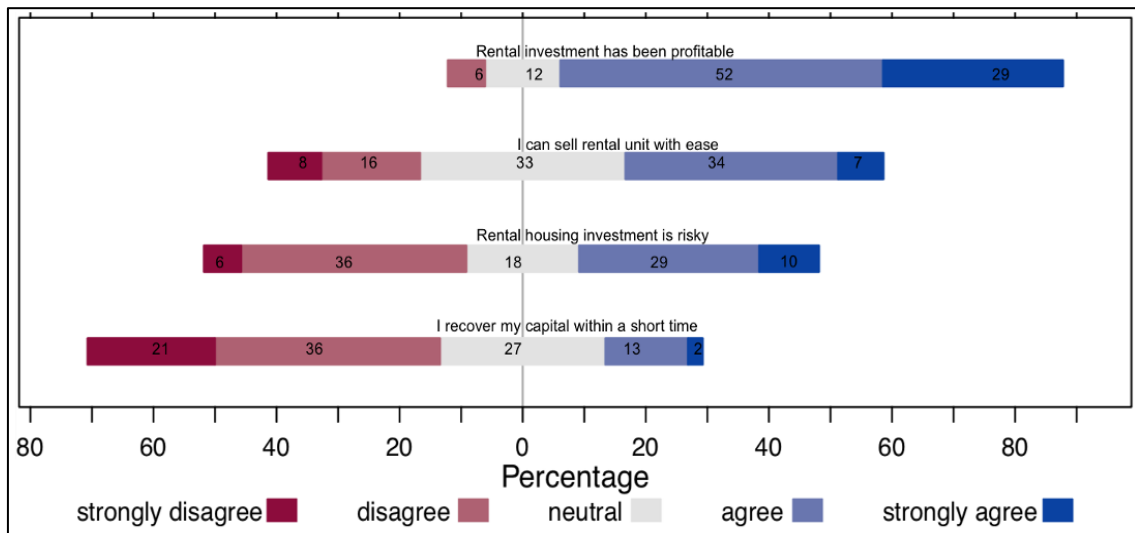


Table 6. 28: Order of Significance of Performance Indicators

Order of significance		insignificant	neutral	significant
	Profitability of the rental housing investment	1.2%	9.8%	89.0%
	Risks associated with rental housing	22.0%	13.4%	64.6%
	Ease of selling the property	29.3%	13.4%	57.3%
The above have been ranked in the order from the most significant to the least significant (using the last column)				
We have conducted a chi-square goodness of fit test (with bonferonni correction) to compare the proportions of what the landlords considered significant in each question.				
The null hypothesis is that the proportions are the same.				
Chi-square value from the test is 21.059, degrees of freedom = 2. P- Value is <0.0001				
Conclusion: reject the null hypothesis. the proportions are significantly different from each other. This adds onto the strength of evidence regarding the rank above				

Additionally, further results from the landlords in this study, indicate that their experiences contradict those of the developers, as a slight majority (42%) of landlords consider rental housing as a low-risk investment. Nevertheless, a significant number (39%) still view rental housing as a risky venture. Similarly, a simple majority (30%) of the landlords state that their rental investments have been profitable. A sizeable percentage of the landlords (33%) are however apathetic on the liquidity of their units as shown on figure 6.11 below. This indicates the divergent business goals between the developers and landlords. While the developer is interested in short-term income, the landlord is more interested in the long-term income.

Figure 6. 11: Experiences on the Performance of Rental Housing as an Investment



6.10 Evaluation of study Hypotheses

As earlier posited, this study developed a multiple working hypothesis in a bid to explain the research phenomenon. The multiplicity of the hypotheses was informed by the broadness of the research problem, as well as the fact that the housing market is influenced by a myriad of institutions that interact with it. Thus, analysing the housing phenomenon from one broader perspective could ignore some crucial lines of inquiry with regard to the market failure in the rental market. The study has therefore been steered by three working hypotheses. The first hypothesis conjectured that the institutional framework in the housing market is more supportive of housing development for sale than rental housing; consequently, resulting to low supply of affordable rental housing. Secondly, it was hypothesised that the housing finance system has not been supportive to rental housing market, hence, resulting to low supply of affordable rental housing. The last hypothesis was that the performance of rental housing market has been unfavourable compared to that of housing development for sale; hence resulting to low supply of affordable rental housing by the developers.

With the conclusive analysis of the data, this section seeks to evaluate the working hypotheses, and find out their conjectural relations to the study findings. It is nonetheless critical to note that even though the study adopted a mixed methods approach, much of the quantitative analysis has been applied to have an insight on the prevailing status of the rental housing market. More specifically, the study assesses the rental demand outlook so as to understand the general experience of the existing landlords in the rental

housing market, as well as the performance of housing market. As such, the working hypothesis primarily revolved around institutional environment influencing the supply-side of the market. This was due to the study inclination that the market failure in the rental housing market arise from supply deficiency as opposed to demand. The study therefore trained its analytical focus on the supply side of the market, where the data was primarily qualitative, albeit with a few descriptive statistics. And so, it is imperative to note that the nature of data do not provide suitability for a quantitatively testable hypothesis. The study is therefore based on the evaluation of the working hypothesis, where the qualitative facts have been examined to determine the degree to which they agree or disagree with the hypotheses for affirmation or rejection of the same.

Consequently, in evaluating the first hypothesis, that the institutional framework in the housing market is more supportive of the housing development for sale than rental housing, the study examined the broader institutional framework comprising the policy and the institutional regulatory framework. From the policy perspective, the study evaluated the successive housing policies and other relevant policy documents in Kenya since independence with a view to understanding how they have treated rental housing market. Additionally, empirical data was collected from the state actors in attempt to understand how various policy provisions articulate delivery of rental housing. The institutional regulatory framework was detailed into three components comprising of: land-use regulations, legal, and fiscal frameworks.

Evidence show that the successive policies have favoured home-ownership, which is linked to housing development for sale; as a result, most of the incentives are focused towards home-ownership, which subsequently benefit the housing development for sale segment. The fact that rental housing framework is conspicuously missing from the housing policy, strengthens the argument of policy being unsupportive to rental housing development. The institutional regulatory framework has also exhibited numerous biases against rental housing development. Right from approvals for development, zoning laws, the building standards, construction process, and liabilities after development completion, rental housing is evidently disadvantaged as compared to the housing development for sale. This was confirmed by the developers unanimously. The transaction costs arising from land-use laws and perception of the unbalanced property rights weigh down on the developers, hence they find rental housing an unattractive venture. Additionally, the taxation regime is more injurious to the rental sector. Apart from inadequate fiscal

incentives to encourage rental housing development, high taxes such as income tax is based on gross income and high tax premium (10%) payable for the entire life of the investment. Most tax incentives target development for sale market where most taxes are one-off. Therefore cumulatively, the study confirms the first hypothesis.

The second hypothesis was that the housing finance system has not been supportive to rental housing market, hence, resulting to low supply of affordable rental housing. This hypothesis was evaluated by comparing how the financial institutions treat both for-sale and rental housing developments when advancing development funds. It is evident from the results that the financial institutions are more accommodative to housing for-sale developments but apply unfavourable terms to the financing of rental housing. There is unanimity from the developers and an overwhelming majority (85%) of the landlords that the bank's lending conditions are stringent and restrictive towards rental housing development. For instance, the bank's eligibility criteria show open bias against rental housing where borrowers must prove their ability to repay regardless of the expected rental income from the development, while the borrowers for development for sale are allowed to use expected sale proceeds as proof of ability to pay. Additionally, the Loan to Value Ratio for rental housing developers is much lower (50-60%) than that for development for sale (80%). Lastly, the cumulative interest levied on rental housing development tend to be higher than that of for-sale development, given the longer period it takes for rental housing borrower to repay the loan. Therefore, from the foregoing evidence, the study confirms the second hypothesis.

The third hypothesis was that the performance of rental housing market has been unfavourable compared to that of housing development for sale, hence resulting to low supply of affordable rental housing by the developers. To evaluate this hypothesis, this study examined the performance indicators within the housing market. Specifically, the study compared the Net Present Values (NPV), the Internal Rate of Returns (IRR) and payback periods for rental and for-sale housing developments, as well as the risks associated with them.

The outcome of the evaluation shows that the performance of the housing development for sale supersedes that of rental housing in all the indices tested. For instance, the NPVs for housing development for sale are much higher than those for the rental housing development as computed for multi-dwelling units at 1,058,939 and 882,005 respectively, while for single-dwelling units at 746,625 and 413,560 respectively. Additionally, the

Internal Rate of Return (IRR) for development for sale and rent are 34% and 20% respectively for multi-dwelling units, and 29% and 16% respectively for single dwelling units. It is also worth noting that, the property developers were unanimous that rental housing are less profitable than the development for sale. Even though the payback period was not tested empirically, it is obvious from the cash flows and the evidence from the interviews that rental housing takes about 10 years. On the other hand, development for sale recoups the capital after a shorter duration of about 1-2 years after completion, mainly because as gathered from the interviews with developers, most of the developments are sold off-plan and therefore by the time of completion, the sales are concluded. Even if the construction period of about 18 months is taken into consideration, the payback period for for-sale projects will be 3 years which is still shorter than 10 years for rental housing. Therefore, with the foregoing evidence, the study confirms the third hypothesis.

6.11 Affordable Rental Housing Market Failure: Discussions and Policy Implications

Subsequent to the comprehensive analysis in the previous sections, the discussion on this section is premised on the central research question while taking cognizance of the philosophical, theoretical and conceptual alignment of the study. As a recap, the main objective for this research was to investigate the reasons for limited supply of affordable, good quality rental housing despite the high demand. Consequently, the analysis has delved into the specific research questions which cumulatively act as tributaries to the fundamental research question, and provide vital insights and evidences to understand the phenomena of market failure in the rental housing sector.

Thus, it is apparent from the philosophical, theoretical and conceptual standpoints of this study that the underlying mechanisms within the institutional environment play pivotal role in influencing the outcome of the housing market, and therefore this is where policy levers aimed at addressing market failure in the rental housing market should be focused.

Ostensibly, this research has emphasised the significance of institutional factors in influencing the activities and outcomes of the housing market. It has provided a theoretical basis through which the institutional environment under which the housing market operates has been viewed, and in fact, to a greater extent, analysis has revealed a convergence of theoretical suppositions and the empirical facts collected with regard to the underlying causes of the rental housing market failure. Accordingly, the evidence link

the main causes of rental housing market failure to the elements of new institutional economics where institutions, transaction cost and property rights have featured prominently.

The rental housing market ineptitudes have therefore been linked to the unfavourable institutional framework which has consistently either failed to induce or constrained the actions of the private developers towards the sector. Much of the negative institutional effects to the housing market outcomes arise from inappropriate policies, legal and regulatory frameworks, and may be mirrored in the biases in delivery processes that ultimately constrict the expansion of the affordable rental housing market. Consequently, the biases result to high transaction (and production) costs due to the protracted processes and/or skewed property rights; or skewed incentives that do not benefit the rental sector. The findings correspond to Peppercorn and Taffin (2013) who also underscored the significance of institutional influence of the developers' preferences, which can either stimulate or impede market transactions and consequently distort the market. However, the studies have failed to distinctly highlight the implication of transactions costs in the overall institutional influence.

In fact, it is evident from the findings that the institutions systematically, but inadvertently distort the housing market by limiting supply of rental housing, a situation which is contemptuous of the common platitude that the institutional framework is aimed at providing enabling environment for delivery of adequate and quality housing for all. Actually, the ineptness of the institutional framework in supporting rental housing delivery is manifest right from the policy, which in turn influences the manner in which rental housing is treated by the financial, legal and regulatory frameworks. Both anecdotal and empirical evidences have proven that the institutional regulatory framework inadvertently skews the developers' preference towards delivery of housing for sale as opposed to rental units by offering more incentives and motivation to the former and generating higher transaction costs to the latter.

Ordinarily, the housing market is presumed to operate under the very principles that govern the market of ordinary goods. Consequently, the reasonable assumption would be that in an efficient housing market, the supply should match demand for housing for various cadres. However, the findings from this study corroborates the theoretical prediction and reveals why rental housing supply has not been forthcoming despite the demand. It is therefore apparent that the rental housing market has inherent inefficiency.

When viewed through economic lenses, the rental housing problem is perceived in the perspective of market failure. However, from policy perspective, the demand-supply mismatch could be a pointer of an inappropriate policy prescription for housing delivery.

Hence, one overarching concern that emerges from this scenario, is to determine whether the inadequate supply of affordable rental housing is as a result of policy failure or market failure; a situation that presents further complication in understanding the rental housing problem. Even though the visible outcome is manifested as market failure due to the demand -supply mismatch in the rental sector, but when analysed critically, it becomes apparent that housing market systems cannot be divorced from policy matters and as such, market failure cannot be separated from policy failure though they are not mutually exclusive. While a number of previous studies such as Malpezzi (1999); O'Sullivan and De Decker (2007); and Oxley et al (2011) acknowledge the significance of policy in housing delivery, this study however underscores that housing policy should be viewed as the first among equals when considering the institutional environment within the housing market operates. This is because policy plays a pivotal role in shaping the institutional milieu that defines how housing market operates and consequently determines housing delivery. Indeed, from the findings, it can be construed that housing policy influences what houses are produced, for whom they are produced, how they are delivered and in what quantities.

Therefore, reflecting on the policy influence upon rental housing delivery, this study has clearly shown that policy has played a major role on the outcomes of the Kenyan housing market. Ideally, evidence from this study suggests that the genesis of undesirable outcomes in the rental housing market relates to the conventional policy platitude in Kenya (and other developing countries) that homeownership is the dream of all households and disregards the fact that not everyone can own a house either due to constraint, or choice as empirically proven in the findings. Incidentally, homeownership is inherently connected to housing purchase and therefore the benefits intended to it naturally flow towards the housing development for sale, and subsequently concentrates developers' interests to that segment. But suffice it to say, the significance of homeownership cannot however be overemphasized as it comes with a number of documented benefits to the owners.

The inclination of the policy towards home-ownership is therefore perceived to be rather prescriptive, limiting, and exhibits tenurial biased against rental housing. Moreover, while

both policy and regulatory frameworks are clearly biased in influencing the activities of the housing market, policy failures however to a greater extent arise from omissions. This is because most housing policy initiatives fail to provide framework for rental housing. This scenario is however not unique to Kenya as it is common in many other countries as captured in (Cadstedt, 2010). The failure of the policy to provide a framework for affordable rental housing, implies that the ensuing incentives mostly benefit housing development for sale while rental housing is conspicuously marginalized, and fail to get meaningful stimuli for expansion. Apparently, the policy has remained dysfunctional within the rental housing sector and has achieved very little direct impact on influencing developers' choice. As such, the impacts of its initiatives are therefore not felt within the realms of rental housing as demonstrated by the empirical evidence from the state actors.

Therefore, of great concern to the policy-makers should be how to handle the institutions and rules which have demonstrated latent but potent detriments towards the affordable rental housing market. Evidently, the implications of the previous and current policies are mirrored in their apathy towards the rental housing market. Actually, their embrace of home-ownership tenure is merely based on the ideological platitude that a home is the dream of all households. But such assertions raise interesting concerns as to whether housing policy should be premised on aspirations rather than realistic evaluations of the households' socio-economic profiles in relations to the housing market conditions. Besides, the desire for home-ownership is strongly rooted in the Kenyan socio-cultural system while rental housing shunned. But as much as the dream about home-ownership could be valid, the policy-makers should be more concerned whether it is practical or necessary for all households.

Consequently, there should be a shift from policy based on abstract ideologies, to knowledge-based policy where housing delivery strategies are premised on rationally examined evidence on the housing markets and practical households' abilities and preferences. In practice, this implies that a lot of emphasis should be laid on detailed studies as foundation for viable policies. What works for the high-income households may not necessarily work for the low-income households, and similarly, the sale market is distinct from the rental housing market. Policy levers should therefore be focused on having unbiased housing delivery strategies which are responsive to various housing markets and accommodate diverse households based on their socio-economic status. This way, policy-driven incentives should not only target both developments for sale and

rental housing markets such that developers become indifferent to supplying the two markets [rental and sale], but should also extend to other forms of housing delivery such as social housing should they prove to be a viable alternative. Simply put, policy as an institution should be able to incentivize housing delivery for all segments.

Another institutional element that has strongly emerged as a possible underlying cause for the rental housing failure is the regulatory framework. While the essence of such regulations is to streamline the operations of the housing market, evidence has shown that they have however ended up yielding lopsided outcomes by shrinking investment towards rental housing developments. Therefore, one central concern is how the regulatory framework can incentivize developments towards rental housing. The negative market outcomes resulting from regulations present significant implications for policy makers. This is because the regulatory framework has a widespread ramification ranging from duration of development, quantity and quality of the housing produced; nature of lease agreements between the landlords and tenants; and the fiscal framework. Dealing with regulatory frameworks therefore requires a delicate balancing act to ensure that they neither disincentivise the developers nor generate high transaction costs, which ultimately distort the market and results to undesirable outcomes in the housing market, either directly or inadvertently, as they currently do to the rental sector.

However, one pertinent issue of interest is the nature of policy implications that is presented by the institutional regulatory framework. Ideally, regulatory framework comprising land-use laws, zonal regulations, building codes, legal and fiscal frameworks remains the major tool used by the government to exert its influence and maintain orderliness in the housing market. The manner in which these frameworks are defined significantly impacts on the outcome of the housing market. The policy makers therefore need to evaluate the current framework vis a vis the outcomes in the housing market, and identify the weak links that negatively impacts on the rental sector. As evidence has demonstrated, each component of the regulatory framework (land-use laws, zonal regulations, building codes, legal and fiscal frameworks) should be examined comprehensively to determine what aspects need to be reformed to make them friendly to rental housing development. For instance, it is clear from the findings that the existing land-use and zoning laws do not favour development of multi-dwelling units, which are considered to be most suited for mass affordable rental housing development; while rigid building codes impede adoption of cheaper materials for affordable housing. Additionally,

the legal frameworks have been formulated in a way such that the benefits are perceived to protect the tenants over the landlords, while the fiscal policies not only push heavier tax burden to the landlords of the rental units as compared to the developers of units for sale, but are also payable for the entire life of the rental housing as compared to one-off payment for sale. All these factors make rental housing undesirable compared to the development for sale.

This study has provided pertinent pointers that could be beneficial in policy formulation and review. The evident that the institutional regulatory framework impedes the performance of the rental housing market provides fodder the policy-makers. The pertinent policy question is therefore how the regulatory frameworks can be improved to encourage rental housing delivery. This question portends that the policy levers should be focused towards improving the existing regulatory frameworks, with a view of fixing the identified weaknesses. This is so as to make the rules less biased against the rental housing market. However, there should be conscientious efforts to ensure that the prevailing regulatory benefits are not eroded even as the policy-makers seek to level the play field in the housing market, as this will lead to a zero-sum game.

Consequently, regulatory rules and tenancy agreements need to be formulated in a way that they will minimize the bureaucracies and ambiguities, which cause delays in development approvals and dispute resolutions in rental housing contracts respectively. In addition, the fiscal policy should be tailored to suit the conditions of the rental housing market such that the landlords and developers do not feel deprived by the tax regimes. As much as taxes are a significant revenue base for the government, they should however not discourage investment in the rental housing sector. Therefore, the policy-makers should strike a balance to ensure that the government maintains its tax base but at the same time, fiscal environment does not distort the rental housing market.

Another relevant area identified in this study for intervention is the housing finance system. The evidence from this research has obviously demonstrated that the financial institutions are more accommodative to those who develop for sale, a scenario that portends more ramifications for the rental housing market, since the banks provide less financial impetus to rental housing developers. Regrettably, most of the of landlords are individual investors who rely on either personal loan from financial institutions or their own savings. As such, most landlords are not well endowed financially, but as earlier articulated in a study by Chiquier and Lea (2009), housing development requires a huge

capital investment which is beyond the reach of most individual investors. Housing finance therefore remains prominent as a critical component of housing development.

Housing finance has however been viewed from different standpoints. For instance, this study advances the argument on finance from the perspective of developers (development finance) and explains the extent to which financial institutions have discouraged them from venturing in rental housing market. While this study shares similar views with Peppercorn and Taffin (2013) and Chiquier and Lea (2009), it however differs from a number of studies keys among them Garnett and Perry (2005) and CAHF (2010) which have considered finance from the perspective of households (consumption finance), explaining how the stringent lending requirements have systematically excluded the low-income earners from the benefits of housing finance. Precisely, the later studies focus on financing home-ownership by the low-income earners. But if rental housing supply is to be boosted, acquisition of development finance by the property developers should made more accessible, affordable and sustainable without discriminating against rental development funding.

Therefore, this study also shows that the financial aspect of housing equally presents a challenging policy concern. This is because while financial institutions remain key players in the housing markets, financial dealings with rental housing sector is considered to be uncertain and high-risk investment. But this study is in agreement with Malpezzi (1999) that such risk cannot be solely tied to the rental housing as a product, since much of it is derived from the unfavourable institutional environment. This is due to the fact that housing product as well as the housing market is multi-dimensional in nature. As such, a number of distinct but interconnected institutions are involved in housing production and market operations. Consequently, the impact of one institution can spread and influence the outcomes of another. It is from this perspective that the stance of the financial institutions towards the housing market to a greater extent is viewed to be influenced by the outcomes arising from the inefficient regulatory framework. Similarly, there is a notable connection between financial and housing policy, since both of them gravitate towards home-ownership which apparently benefits housing development for sale.

Nevertheless, it is intuitive to underscore that the ultimate motive of a developer is profit (Malpezzi, 2011;Peppercorn & Taffin, 2013;Hughes & Lowe, 2017). But evidence emanating from this study shows that the current reward scheme for the rental housing development is rather lean and devoid of any impetus to thrust the developers' interest

towards the rental sector. The performance parameters ranging from the profitability index, NPV, IRR and payback period give housing development for sale investment a level of superiority compared to rental housing. As such, it can be inferred from the study that much of the current motivation towards rental housing development do not spring from the policy initiatives or profits, but rather from other factors such as the aspiration for regular stream of income or merely social status. Such reasons may not be sufficient to propel the supply of rental housing to match the demand, since delivery of that kind is mostly dependent on whimsical benevolence of the individual landlords or developers according to their motives. This assertion agrees with the findings of Lawson et al (2014) and strengthens the view that rental housing investment to a greater extent is determined by the 'investor appetite' as opposed to policy. For the developers to be motivated towards rental housing development, then they should be able to achieve favourable returns within the shortest period of time.

Overall, there should be concerted efforts to ensure profitability and enhanced returns in the rental sector. In doing this, the policy-makers need to apply a multi-pronged strategy that will fix the policy, regulatory frameworks and housing finance systems. This requires an overlap and collusion of social, political and economic interests in housing policy formulation. Integrating these interests will ensure that the resultant housing system is practically well-matched to the requirements of the different housing markets, unbiased and devoid of unnecessary failures such as the ones experienced in the rental sector.

CHAPTER SEVEN:

7.0 Conclusions and Recommendations.

This section is divided into four parts under different themes. The first part (7.1) basically details a summary of each chapter of the thesis. The second part (7.2) provides the main findings, conclusions and recommendations. The third part (7.3) highlights how the study contributes to the body of knowledge, and the last part (7.4) articulates the limitations of the study and recommends areas for further research.

7.1 Summary of the Thesis

Fundamentally, the main objective of this study was to investigate market failure in the rental housing sector. As such, the study sought to understand the underlying reasons for inadequate supply of quality affordable rental housing units notwithstanding the high demand for the same. The objective was premised on the existing high need for decent urban housing and that notwithstanding, a majority urban populace is in the low-income category with natural housing choice being rental units. The developers have consistently preferred to deliver housing for sale hence resulting to market failure in the rental housing market. The study therefore carried out a detailed and critical interrogation of the housing institutional environment with a view to reveal the causal elements and mechanisms that influence the operations and outcomes of the housing market, and consequently suggest policy recommendations that can help improved affordable rental housing delivery. The study focused on the areas considered to be predominated by the lower-middle income households within Mombasa City, in Kenya, since such neighbourhoods are considerably served by affordable rental housing. This study utilised mixed methods research design.

The study was motivated by the sustained discourse both locally and internationally on the affordable housing delivery to the urban populace. Such discussions have been informed by the persistent urban housing challenge. In the light of the global efforts to attain the Sustainable Development Goals (SDGs) and the Kenyan Vision 2030 where housing feature prominently, delivery of decent and affordable housing cannot be ignored. Additionally, realization that rental housing can boost the pursuit of housing solutions to the urban households has drawn interest to the sector, albeit with insignificant impact in terms of both quality and quantity delivered into the housing market. Consequently, there is still need to understand what bedevils rental housing market, with an aim of proposing viable measures to fix the sector.

Overall, this thesis comprises eight chapters. Basically, Chapter one forms the introductory section which articulates the study background and research problem. Additionally, it presents the research questions, objectives, hypothesis as well and the justification and significance of the study; and also examines the concept of affordable rental housing and clearly distinguishes it from social housing.

Chapter two details the theoretical underpinning of the study. The initial part of this chapter explains the concept of NIE theory and its key principles namely the institutions, transaction costs, property rights which have been deployed to analyse the study problem. The chapter also explores the concept of market failure and explains the circumstances under which housing market can fail. It further maps the main concepts of NIE onto the housing market to explain how they relate and subsequently provides theoretical predictions on how the NIE principles can be used to understand market failure in the rental housing market. The second part of this chapter articulates the conceptual framework to guide the empirical work of the study. The conceptual structure has been formulated by mapping the NIE principles on the IAD framework. Therefore, it concludes that the market failure in the rental housing sector can best be understood by recognising the institutional environment under which the housing market functions.

Chapter three covers a detailed literature review related to rental housing categorized into three sections. The chapter starts by exploring the nature of rental housing and highlights its significance in the housing market. The second section of this chapter mainly focuses on the factors influencing rental housing markets where both supply and demand factors have been explored. The study however noted the dearth of literature related to rental housing in developing countries; and therefore, most of the references have been drawn from the developed countries context. Much emphasis has however been laid on the supply-side factors as the theoretical prediction suggested that affordable rental housing problems mostly centres on the developers' unwillingness to deliver rental units despite the high demand. Additionally, the section three has explored rental housing literature from the developed countries considered to have efficient rental housing systems to benchmark the best practices. In conclusion, the literature has revealed that rental housing forms a viable component of housing system, but its delivery has been hampered by unfavourable institutional environment.

Chapter four focuses on the contextual background of the study and mainly covers socio-economic features of Kenya and Mombasa being the respective country and city in the

study has been conducted. Mombasa is a typical third world city and therefore provides a suitable and comprehensive urban laboratory for analysing the urban housing problem. Therefore, studying housing market in Mombasa and Kenya generally offers an appropriate context for understanding the problem and relevant solutions towards the rental housing question in the developing countries of similar context.

Chapter five basically presents the research methodology. It is divided into three sections, of which the first articulates the philosophical orientation of the study. It explores both the ontological and epistemological foundations and recognises critical realism as the most suited paradigm to guide the study, since it is able to capture the intrinsic features of the housing market. The section further highlights methodological challenges in the rental housing research which mainly arise from the epistemological and contextual issues. It concludes that the inherent methodological challenges can be scaled by fusing ideas from philosophical, theoretical and conceptual viewpoints. The last part outlines research methodology where mixed-methods design has been utilised for data capture, analysis and presentation.

Chapter six presents research findings and subsequently analysis and discussions, while chapter seven presents conclusions and recommendations.

7.2 Main Findings, Conclusions and Recommendations

The main objective of this study was to understand the reasons for inadequate supply of affordable rental housing despite the high demand for the same. The study therefore sought to build an understanding of the supply-side of the rental housing market using three strands of research questions.

The first question investigated the extent to which the institutional framework enables or constrains supply of affordable rental housing in Kenya. This question was steered by the working hypothesis that the institutional framework in the housing market is more supportive of housing development for sale than rental housing therefore resulting to low supply of affordable rental housing. The study finds that the institutional framework in its current form does not provide any meaningful impetus towards rental housing delivery. Much of the institutional incentives benefit development for sale than rental housing, albeit inadvertently. While the policy overlooks rental housing, the stringent and imbalanced regulatory framework create biased environment that works against rental housing development. The prevailing policy interventions lack tenure neutrality and favour home-ownership, hence create market distortion in the rental housing sector which

has become unfeasible and unattractive to the private developers. Land-use laws create unintended latent barriers that increase transaction costs whose negative impacts are heavily skewed towards rental housing developers. In a similar fashion, the legal framework is more dissuasive to the rental housing developers due to its biased and ambiguous property rights which are more beneficial to the renters than the landlords who view them as sources of high transaction costs. The tax regime is equally more punitive to the rental housing sector since it is high and endures for the life of the investment compared to one-off taxes against the development for sale, most of which is paid by the buyers. Therefore, taking cognizance of the housing policy, land-use laws, legal structures fiscal framework in the housing market, the study concludes that to a greater extent the institutional framework in its current structure offers more incentives and less transactions costs towards housing development for sale and conversely, it provides less incentives and higher transaction costs to the rental sector a fact that makes it be considered as one of the main constraints to affordable and adequate rental housing delivery.

The second problem of this study was concerned with how the financial system relate to the rental housing market. The hypothesis related to this problem was that the housing finance system has not been supportive to rental housing market, hence, resulting to low supply of affordable rental housing. For a clearer comprehension of this problem, the study delved into the bank lending conditions, mode of risk assessment and the impact of interest rates. The study found that housing finance remains a critical component of the housing market as it leverages the housing delivery process. But the financial institutions are profit oriented and therefore strive to minimize risks. The findings reveal that the banks' lending conditions are more stringent and restrictive towards rental housing development, since it is perceived to be high risk than development for sale. The banks prefer to engage in shorter and definite contracts, since they give credence to number of transactions as opposed to the duration of relationships they maintain with clients. In conclusion, the developers' preference towards the developing housing for sale is influenced by the lenders' reluctance to finance rental housing development. On the other hand, the lenders' preference for development for sale is influenced by the perception of high risk and uncertainty that clouds loan recovery in rental housing sector.

The third question was concerned with how the performance of rental housing as an investment compares to that of housing for sale. The corresponding working hypothesis

was that the performance of rental housing market has been unfavourable compared to housing development for sale hence resulting to low supply of affordable rental housing by the developers. The study evaluated common performance indices of the two types of developments and validated the assumption that development for sale is more profitable than rental housing. Housing development for sale outperforms rental housing in all performance parameters assessed. Development for sale has higher returns and lower risks compared to the rental housing development. Similarly, development for sale enables to the developer to recoup the invested capital within a shorter time compared to rental housing which has a longer payback period. Therefore, the inferior performance level of rental housing is not sufficient to inspire the developers' appetite to the rental sector, hence they prefer the sale market which is more profitable. Consequently, the developers' preference for sale market denies the rental market sufficient supply.

In conclusion, the study reiterates the significance of a well-functioning rental sector in the overall housing system, and equally recognizes that the ultimate desire for developers is profitability. Thus, affordable rental housing delivery must be customized in a way that stimulates the developers' interest in the sector. The study also underscores the significance of institutional environment in influencing the outcomes of the housing market. As currently constituted, the institutional framework is not practically well-matched to support delivery of affordable rental housing units. The frameworks ranging from policy regulatory and financial framework are coupled with inferior performance of rental sector compared to the performance for-sale development, systematically, but inadvertently leads to market failure in the rental housing market. Therefore, efforts to expand rental housing supply should focus on the institutional frameworks and aim at easing the common obstacles that constrain rental housing delivery. The obstacles range from the inadequacies experienced in the legal and regulatory frameworks, to unfavourable macro-economic conditions such as fiscal and financial policy that are unfavourable to rental housing investment.

From policy perspective, rental housing has always been overlooked yet it represents a critical part of any housing market. Ideally, a housing policy in a country dominated by renters should at least provide a framework for rental housing. As such, policy interventions should be premised on the significance of a vibrant rental housing sector in the overall housing system. This is because housing policy as currently formulated does not exhibit tenure neutrality and appears to be more of an ideological artifact devoid of

the ability of stimulating the rental housing sector into a viable market that can attract private developers. Nevertheless, while addressing the affordable rental housing problem, it should be considered that housing is multi-dimensional and as such, unlocking housing glitch cannot be approached from a singular strategy. Consequently, there is need for policy-makers to find the confluence of policy provisions, housing market conditions and households' socio-economic features and lay more emphasis on formulating strategies that are aimed towards building and regulating rental housing so as to integrate it into the functioning housing system. This calls for the adoption of a more integrated approach based on a diversified means of housing provision that include rental and social housing as opposed to over emphasis on one, home-ownership.

Particularly, formulation of Rental Housing Policy and the Rental Housing Act complete with implementation framework should be prioritised so as to distinctly give prominence to, and handle issues intrinsic to the rental sector. The policy should comprise the relevant incentives including, but not limited to fiscal, financial and regulatory stimulus aimed at attracting private capital into affordable rental housing sector. Fiscal measures such as tax holidays, waivers and credits to rental housing developers for a specified period after completion of the development should be considered. This is because most housing developments are financed through loans, and therefore tax waivers or holidays would enable the developers service their bank loans and still make profits from rental income until they breakeven. The tax system should also be tenure neutral and non-distortive to the housing market. At the same time, approval process should be expedited by harmonizing the process into one-stop shop so that developers do not apply for separate approvals from various institutions. To improve rental housing allure to the financial institutions, the housing policy provisions should be intertwined with the financial market system such that the financial institutions become apathetic to both rental and development for sale lending. Additionally, since housing developments requires huge capital outlay, the policy should encourage institutional investors. Mass affordable rental housing requires attraction of corporate or institutional investors with strong financial muscles to complement the few individual investors currently engaging in rental housing delivery.

7.3 Contribution to Knowledge

This study has made various and diverse contributions to the existing body of knowledge which comprise theoretical, methodological, contextual, empirical and policy perspectives.

7.3.1 Contribution to Theory Development

The main role of a theory in a study is to provide the analytical focus through which a phenomenon is understood and demonstrate how the variables within a conceptual structure relate. A theory thus guides the researcher on the area of focus, factors to consider and how to examine them. The study has applied the principles of NIE to rental housing market analysis in the developing countries context. While the NIE theory has been sparingly applied in the real estate market analysis, which has been dominated by neoclassical economics, majority of studies which have used NIE analysis have considered the general real estate market and not specifically rental housing market (Karruna, 2013;Ball, 2006). While others have applied NIE to explore industrial property market (Kamarudin et al., 2008). Mooya (2009) also utilised NIE but chiefly examined the connection between real estate markets and poverty alleviation. Other studies have however explored the rental housing market albeit without demonstrated theoretical grounding (Pomeroy & Godbout, 2011;Peppercorn &Taffin, 2013). There appears to be a theoretical lacuna in the analysis of rental housing market. This study therefore builds on the existing ones by extending NIE theory to explore the intrinsic nature of rental housing market and mapping the tools of NIE to illuminate how institutional factors specifically leads to rental housing market failure. It therefore enhances the theoretical platform for analysing rental housing phenomena and other housing studies in different contexts.

The study has further developed a conceptual framework that analyses the housing market to explain failure in the rental housing sector. Ordinarily, the conceptual framework helps in shaping the problem, classifying the relevant variables and then offering the relationships that explain the research question. Therefore, the study has innovatively fused the tools of NIE theory and IAD framework to formulate a conceptual framework, that explains how the housing market interacts with the institutional environment to influence the outcomes in the rental housing market. It leverages on the well-grounded conceptual framework of the IAD and theoretical rigor in NIE. The

framework is relevant to the general housing market research and therefore advances housing theory.

7.3.2 Contribution to Methodology

A number of housing studies have been carried out but that does not preclude methodological issues in housing research. Indeed, housing studies have faced a number of methodological challenges comprising both conceptual and contextual nature. Selection of research methodology normally depends on the nature of research problem and the philosophical orientation of the study (Jonker & Pennink, 2010). As earlier alluded, housing discipline is multifaceted and as such requires a multipronged approach to study. Cognizant of this fact, this study has therefore designed a methodology aimed at aiding a deeper understanding of the research problem. The study has considered the nature of the housing market and employed a strategy that not only confirms the predicted market outcomes, but also reveals and explains the underlying factors that lead to such outcomes. This study has therefore developed a mixed method approach and utilised IAD framework as the analytical tool, which is a clear departure from most housing studies that take either positivist or interpretivist trajectory and thus adopt quantitative or qualitative methodologies respectively. The methodological approach developed in this study therefore strengthens the existing ones for housing research.

7.3.3 Contribution to Policy Development

Ordinarily, research entails carrying out a study to answer particular questions and societal issues, or to broaden the understanding of a certain phenomenon and provide relevant solutions. Ultimately, research aims at influencing policy development or modification towards solution of certain social-economic challenges to the government where efforts to abate the crisis have been unfruitful or inadequate. Indeed, the successive policy deliberations have failed to yield much with regard to rental housing and mainly given more credence to home-ownership. This study has however illuminated the policy and market weaknesses that have incessantly led to market failure in the rental housing sector and pointed out policy levers for the policy-makers to focus on hence will make significant contribution to policy development. Therefore, this research on the rental housing market in a developing country will provide new knowledge that will be of practical interest to governments and policy-makers and other stakeholders in housing sector and offers new paradigm in efforts to provide housing solutions.

7.3.4 Contribution to the Empirical Literature

This study has contributed to the empirical literature in a number of ways. First, as earlier alluded, there is a dearth of not only rental housing literature but also studies specific to developing countries' context. This study therefore extends the literature on affordable housing and also makes an empirical contribution to understanding of rental housing market specific to Kenya, but replicable to similar cities in developing countries. It therefore provides rental housing literature from a developing countries county's setup and offers opportunity for comparison with other studies in similar or different contexts. It also offers an understanding how the principle of market failure is applicable to rental housing and therefore expands the literature and general knowledge of market failure. Additionally, most housing studies have been studied from the perspective of neoclassical economics theory and as such, the avalanche of the available rental housing literature relates to neoclassical perspective. This study therefore provides rental housing literature in relations to NIE perspective. It explains how the principles of NIE relates to rental housing and goes ahead to test these empirically. The resultant literature makes a contribution to the body of knowledge within housing studies.

7.4 Limitations of Study and Areas for Further Research

Ordinarily, a study of this nature would thrive on an environment with enriched information on the sector. But there was limitation with regard to empirical data regarding various aspects of rental housing in Kenya. There is generally lack of sufficient data on housing since there has not been any comprehensive study on housing in Kenya generally as well as rental housing. As such, there is lack of empirical facts to quantify the level of demand for different housing segments. The study was not able to carry a comprehensive empirical survey to determine the extent of demand for affordable rental housing and only relied on the strong anecdotal evidences together with landlords' and developers' views. Empirical research specific to rental housing is also lacking and therefore much of the literature relied upon emanates from the developed countries context augmented with sporadic information from Africa and developing countries context.

Methodological limitations specifically arose from the challenges of sampling the landlords due to lack of any data on the landlords in Kenya. Most of the landlords conceal their identities and are not easy to find. This study therefore utilized convenience sampling to map the landlords within the study areas. Additionally, as a result of time and resource constraints, this study was restricted to only a representative portion for the

target population. This limitation was occasioned by the fact that this is an academic work that should be completed within a specific time period and hence the need for the sample to be drawn from only accessible population.

The limitations accentuate the need to put more efforts to minimize the challenges for future related studies. More emphasis should be placed on conducting comprehensive housing studies that will generate empirically generated housing demand and supply indicators for better analysis. Additionally, rental housing remains a key sector in the housing system and therefore should attract more studies on how to invigorate the sector. This study has only revealed how institutions have failed to abate rental housing market failure and given recommendations on how the institutional constraints can be eased. But still, more studies should concentrate on how mass rental housing delivery can be realized. Specifically, there is need to evaluate how corporate entities such as pension schemes can venture into rental housing delivery since they are financially endowed.

REFERENCES

- Abelson, P. 2009. Affordable Housing: concepts and policies. *Economic papers*.28:27-38.
- Agboola, A. O. 2015. Neoclassical economics and new institutional economics. *Property Management*.33:412-429.
- Akerlof, G. A. 1970. The market for 'lemons' Quality, Uncertainty and the Market Mechanism. *The Quarterly Journal of Economics*.84:488-500.
- Akinwunmi, A. 2009. *An investigation into factors affecting housing finance supply in emerging economies: A case study of Nigeria*, University of Wolverhampton.
- Allen, C. 2008. *Housing Market Renewal and Social Class*, London & New York: Routledge.
- Allen, D. W. 1991, 'What are Transaction Costs?', *Research in Law and Economics*. 14:1-18.
- Apgar, William C., Jr. 2004. *Rethinking Rental Housing: Expanding the Ability of Rental Housing to Serve as a Pathway to Economic and Social Opportunity*. Working paper W04-11. Cambridge, MA: Harvard University, Joint Center for Housing Studies.
- Arku, G. 2009. Housing Policy Changes in Ghana in the 1990s: Policy Review. *Housing Studies*. 24:261-272.
- Arnott, R. 1987. Economic Theory & Housing. *Handbook of regional & urban economics*. 2:959-988.
- Arnott, R. 2008. *Housing Policy in Developing Countries: The importance of the informal economy*. California: University of California, Riverside.
- Arrow, K. J. 1969. The Organization of Economic Activity. *The Analysis and Evaluation of Public Expenditures*. 1: 59-73
- Asabere, P. K. & Huffman, F. E. 1999. Discount Point Concessions: Reply and Further Evidence. *Journal of Real Estate Finance and Economics*.19:263.
- Ayres, R. 1983. *Banking on the poor: The Worldbank and the World poverty*. Cambridge:M.I.T: Press
- Babbie, E. R. 2010. *The practice of social research*. London: Wadsworth.
- Ball, M. 1998. Institutions in British Property Research: A Review. *Urban Studies*.35(9):1501-1517.
- Ball, M. 2006. *Markets & institutions in real estate & construction, (Real Estate Issues)*. Oxford: Blackwell.

- Bator, F., M. 1958. The Anatomy of Market Failure. *The Quarterly Journal of Economics*. 72:351-379.
- Belsky, E. & Drew, R. 2007. *Taking stock of the nation's rental housing challenges and a half century of public policy responses. Revisiting Rental Housing: A National Policy Summit*. Harvard MA: Joint Center for Housing Studies of Harvard University.
- Belsky, E. S., Drew, R.B., Mccue, D. 2007. *Projecting the underlying demand for new housing units: inferences from the past, assumptions about the future* Harvard MA: Joint Center for Housing Studies of Harvard University.
- Belsky, E. S. & Retsinas, N. P. 2008. *Revisiting rental housing: Policies, programs, and priorities*. Washington D.C: Brookings Institution Press.
- Berner, E. 2009. *A Tale of Two Cities: Market Failures, Haphazard Policies and the Global Proliferation of Slums*. Washington DC: Urban Research Symposium, World Bank.
- Berry, M. 2000. Investment in rental housing in Australia: Small landlords and Institutional investors. *Housing Studies*. 15(5):661-681
- Bhalla, A. S. 2001. *Market or Government Failures*. New York: Palgrave.
- Bill, P. 2008. *The Future of the Private Rented Sector*. London: Centre for Cities and The Smith Institute.
- Bolt, G., Özüekren, S. A., Phillips, D. 2010. Linking integration & residential segregation. *Journal of ethnic & migration studies*. 36:169-186.
- Borooah, V., K. 2003. *Market Failure An Economic Analysis of its Causes and Consequences*. Ulster: Ulster University Press.
- Bovaird, T. 1993. Analyzing urban economic development. *Urban Studies*. 30:631-658.
- Brace, I. 2018. *Questionnaire design: How to plan, structure and write survey material for effective market research, 4th ed*: Kogan Page Publishers.
- Bramley, G., Pawson, H., White, M., Watkins, D., Pleace, N. 2010. *Estimating Housing Need. Research Report*. London: Communities and Local Government.
- Bryman, A. 2012. *Social Research Methods*. New York, NY: Oxford University Press Inc.
- Buckley, R. M. & Kalarickal, J. 2005. Housing policy in developing countries: Conjectures and refutations. *The World Bank Research Observer*. 20: 233-257.
- Buckley, R. M., & Kalarickal, J. (Eds.). 2006. *Thirty years of World Bank shelter lending: What have we learned?*. The World Bank.
- Buckley, R. M, Achilles, K & Laura W. 2016. Addressing the housing challenge: avoiding the Ozymandias syndrome, *Environment and Urbanization*. 28(1):119-138.

- Burgoyne, G. J. 2008. *Critical realism*. In the sage dictionary of qualitative management research: Sage publications.
- Bushouse, B. K. 2011. Governance Structures: Using IAD to Understand Variation in Service Delivery for Club Goods with Information Asymmetry. *Policy Studies Journal*. 39 (1): 99–113.
- Cadstedt, J. 2010. Private rental housing in Tanzania. *Habitat International*. 34:46-52.
- Centre for Affordable Housing Finance in Africa .2010. *Yearbook 2010 Housing Finance in Africa: A Review of Some of Africa's Housing Finance Markets*: Finmark Trust
- Centre for Affordable Housing Finance in Africa 2011. *Yearbook 2011: Housing Finance in Africa – a Review of Some of African's Housing Finance Markets*, Finmark Trust.
- Centre for Affordable Housing Finance in Africa. 2016. Year book 2016 *Housing Finance in Africa- Understanding Kenya's Housing Finance Market*. Finmark Trust.
- Centre for Affordable Housing Finance in Africa. 2017. *Year book 2017 Housing Finance in Africa- A review of some of Africa's housing finance markets, 8th ed*. Finmark Trust.
- Carliner, M. and Marya, E. 2016. *Rental housing: an international comparison, working paper*. Harvard MA: Harvard Joint Center for Housing Studies of Harvard University.
- Cassidy, J. 2009. *How Markets Fail: The logic of economic calamities*, NY: FSG.
- Central Bank of Kenya. 2017a *Bank Supervision Annual Report 2017*. Nairobi: Central Bank of Kenya.
- Central Bank of Kenya. 2017b. *Annual Report & Financial Statements 2016/17*. Nairobi: Central Bank of Kenya.
- Central Bank of Kenya. 2018. *Bank Supervision Annual Report 2018*. Nairobi: Central Bank of Kenya.
- Chalmers, A. F. 2013. *What is this thing called Science? 3rd Ed*. Queensland: University of Queensland Press.
- Chang, H.-J. 2011. Institutions and economic development: theory, policy and history. *Journal of Institutional Economics*. 7:473-498.
- Edson, C. L. 2010. Affordable housing - An intimate history. *Journal of Affordable Housing & Community Development Law's*. 20(2):193-213.
- Charmaz, K. 2006. *Constructing grounded theory: A practical guide through qualitative analysis*. London: Sage Publishers.

- Cheng, C. P. 2005. Critical Realism and Institutionalism: Integrating the Scientific Method of John R. Commons and Douglass C. North. *Soochow Journal of Economics and Business*. 51:297-318.
- Chiquier, L. & Lea, M. 2009. *Housing finance policy in emerging markets*. Washington D.C: The World Bank.
- Clark, A.M. 2008. *Critical Realism*. In: Given, L. M. (2008). The sage encyclopedia of qualitative research methods. Thousand Oaks, CA: Sage.
- Clark, V. L. & Creswell, J. W. 2015. *Understanding Research : A Consumer's Guide*, London, UK: Pearson Education, Inc.
- Clement, F. 2010. Analysing decentralised natural resource governance: proposition for a politicised institutional analysis and development framework. *Policy Sciences*. 43:129– 156.
- Clement, F., and J. M. Amezaga. 2013. Conceptualising context in institutional reforms of land and natural resource management: the case of Vietnam. *International Journal of the Commons* 7:140–163.
- Coase, R. H. 1988. The Nature of the Firm: Meaning. *Journal of Law, Economics, & Organization*. 4(1):19-32.
- Collis, J. & Hussey, R. 2013. *Business research: A practical guide for undergraduate and postgraduate students*, 4th ed. London: Palgrave Macmillan.
- County Government of Mombasa. 2015 *Integrated Strategic Urban Development Plan for Mombasa Town 2035*. Nairobi: Geodev (K) Ltd
- County Government of Mombasa. 2018 *Second County Integrated Development Plan (2018-2022)*: County Government of Mombasa
- Crotty, M. 2003. *The foundations of social research: Meaning and perspective in the research process*. London: Sage Publications.
- Cruickshank, J. 2003. *Realism & sociology: Antifoundationalism, ontology and social research*, Routledge.
- Cruz, P. C. R. 2008. Transaction Costs and Housing Affordability in Asia. *International Real Estate Review*. 11:128-150.
- Cunningham, S. 2011. *Understanding Market Failures in an Economic Development Context*, Pretoria: South Africa Lina Stamer.
- Cytonn Real Estate. 2018. *Mombasa Real Estate Investment Opportunity*. Nairobi: Cytonn
- Danermark, B. 2002. Interdisciplinary research & critical realism the example of disability research. *Alethia*. 5:56-64.

- Datta, K. & Jones, G. A. 2001. Housing and finance in developing countries: invisible issues on research and policy agendas. *Habitat International*. 25:333-357. <https://doi.org/10.1558/aleth.v5i1.56>
- Davenport, J. L. 2003. The Effect of Supply & Demand Factors on the Affordability of Rental Housing. *The Park Place Economist*. 11.
- Department for Communities and Local Government(DCLG) 2011. *Private Landlords Survey*. London:DCLG.
- De Santos, R. 2012. *A better deal towards more stable private renting* Shelter. Policy report. London: Shelter
- Desai, M. A., Dharmapala, D and Singhal, M. (2008) Tax Incentives for Affordable Housing: The Low-Income Tax Credits. *National Bureau of Economic Research/ Tax Policy and the Economy*. 24(1).
- Devlin, A. S. 2018. *The Research Experience : Planning, Conducting, and Reporting Research*, Thousand Oaks, California: SAGE Publications, Inc.
- Dubel, H.J., Brzeski, W. J., Hamilton, E. 2006. *Rental Choice and Housing Policy Realignment in Transition: Post-privatization Challenges in the Europe and Central Asia Region*. Policy Research Working Paper; No. 3884. World Bank, Washington, DC.: World Bank.
- Eggertsson, T. 2013. Quick Guide to New Institutional Economics. *Journal of Comparative Economics* 41:1-5.
- Environmental Systems Research Institute (ESRI), 2015 Mombasa County Geospatial Digital Map[ArcMap] ArcGIS version 10.3.1.
- Fallis, G. 1985. *Housing Economics*. Canada:Butterworths.
- Fleetwood, S. 1999. *Critical realism in economics: Development & Debate*. London & New York: Routledge.
- Fopp, R. 2008. *From weak social constructionism to critical realism in housing theory- Exploring Issues*. Australasian Housing Researchers' Conference 2008: RMIT University.
- Forrest, R. A. M. 1983. Residualization & council housing: Aspects of the changing social relations of housing tenure. *Journal of social policy*.12:453-468.
- Furubotn, E. G. & Richter, R. 1984. The New Institutional Economics: Symposium June 6-10, 1983, Mettlach/Saar: Editorial Preface. *Zeitschrift für die gesamte Staatswissenschaft/Journal of Institutional and Theoretical Economics*. 1:140.
- Furubotn, E. G. & Richter, R. 2005 . *Institutions and economic theory: The contribution of the new institutional economics*, 2nd ed. USA:University of Michigan Press.
- Gabriel, M., Jacobs, K., Arthurson, K., Burke, T. & Yates, J. 2005. *Conceptualising and measuring the housing affordability problem*, AHURI Research Paper No. NRV3-

- 1.Melbourne: Australian Housing and Urban Research Institute Limited. ,
<https://www.ahuri.edu.au/research/nrv-research-papers/nrv3-1>.
- Garnett, D. & Perry, J. 2005. *Housing Finance*. Coventry: Chartered Institute for Housing.
- Gatheru M, R. 2005 Kenya: *From Colonization to Independence, 1888-1970*. USA: McFarland & Co.
- Van Genugten,M. L. 2008. *The Art of Alignment: Transaction Cost Economics & the provision of public services at the local level*. Enschede: University of Twente.
- Gibb, K. 2002. Trends & change in social housing finance & provision within the European Union. *Housing Studies*. 17(2):325-336.
- Gilbert, A. G. 2004. Helping the poor through housing subsidies: Lessons from Chile, Columbia and South Africa. *Habitat International*. 28:13-40.
- Gilbert, A. 2009. The rise (and fall) of a state land bank.*Habitat International*. 33:425-435.
- Gilbert, A. 2016. Rental Housing: The international experience. *Habitat International*. 54:173-181.
- Glaeser E. J., Gyourko, A. A. S. 2008. Housing supply and housing bubbles. *Journal of Urban Economics*. 64:198-217.
- Gliner, J. A., Morgan, G. A. & Leech, N. L. 2017. *Research methods in applied settings : An integrated approach to design and analysis*. New York, NY: Routledge.
- Google Map. 2019. *Africa and Kenya*. <https://www.google.com/maps/place/Kenya> [May 2018]
- Government of Kenya. 1996. *National Report and Plan of Action on Shelter and Human Settlements to Habitat 11 Conference*. Nairobi: Ministry of Public Works and Housing.
- Government of Kenya. 2004 *Ministry of Lands and Housing: Sessional Paper No.3 on National Housing Policy*. Nairobi, Government Printers.
- Government of Kenya. 2007 *Ministry of Housing: Proposed Housing Sector Incentives and Market Re-Engineering Measures*.
- Government of Kenya. 2010a *Ministry of Housing: The right to the city: bridging the urban divide. Kenya Country report 5th session of world urban forum Rio de Janeiro 22-26 March, 2010*.
- Government of Kenya. 2010b *Ministry of Finance: Income Tax Act Chapter 470*.Nairobi, Government Printers.
- Government of Kenya 2010c *Ministry of Finance: Value Added Tax Act Chapter 476*. Nairobi, Government Printers.

- Government of Kenya 2018 *Third Medium Term Plan 2018 – 2022- Transforming Lives: Advancing Socio-Economic Development through, 'The Big Four'*. The Presidency. Nairobi.
- Gravelle, H. & Rees, R. 2004. *Microeconomics 3rd ed.* Essex, UK:Pearson Education.
- Great London Authority. 2003. *Market Failure & the London housing market*, London:Greater London Authority.
- Green R. K.& Malpezzi, S. K. 1996. Metropolitan-specific estimates of the price elasticity of supply of housing, and their sources. *The American Economic Review*. 5(2):334–339. <https://doi.org/10.1257/000282805774670077>
- Gulyani, S. & Talukdar, D. 2008. Slum real estate: The low-quality high-price puzzle in Nairobi's slum rental market and its implications for theory and practice. *World Development*. 36:1916-1937.
- Gurney, M. C. 1999. Pride & prejudice: Discourses of normalization in public & private accounts of home ownership. *Housing Studies*. 14:163-183.
- Haffner, M. E. 2009. Bridging the gap between social and market rented housing in six European countries.*Housing and Urban Policy Studies*. 33: 332.
- Hammam, S. 2014. Housing matters. *World Bank Policy Research Working Paper.6876*.Washington D C: World Bank.
- Hammond, P. 1998. The efficiency theorems and market failure. *Elements of General Equilibrium Analysis*: 211-260.
- Han S. S. & Wang, Y. 2003. The institutional structure of a property market in inland China. *Urban Studies*. 40:91-112.
- Harriss, J., Hunter, J. & Lewis, C. 1995. *The new institutional economics and third world development*. London: Routledge.
- Hatuka, T. & Bar, R. 2017. Navigating housing approaches: A search for convergences among competing ideas. *Housing, Theory and Society*.34:277-296.
- Hawtrey, K. 2009. *Affordable housing finance*. London: Palgrave Macmillan.
- Hesse-Biber, S. N. 2010. *Mixed methods research: Merging theory with practice*.New York, NY: Guilford Press.
- Hilton, A. 2016. How to Repair The Housing Market Quickly–A Crisis Response. *Communication Workers Union*.
- Himes, H. & Schulenberg, J. 2013. Theory and philosophy should always inform practice. *Academic Advising Today*. 36.
- Hodgson, G. M. 1998. The approach of institutional economics *Journal of economic literature*. 36:166-192.

- Hooper, M. & Ortolano, L. 2012. Motivations for slum dweller social movement participation in urban Africa: a study of mobilization in Kurasini, Dar es Salaam. *Environment and Urbanization*.24: 99-114.
- Hubert, F. 2006. The economic theory of housing tenure choice *A companion to Urban Economics*. 145-158.
- Huchzermeyer, M. 2010. Pounding at the tip of the iceberg: The dominant politics of informal settlement eradication in South Africa. *Politikon*.37:129-148.
- Hughes, D. & Lowe, S. (Eds) 2017. *Regulating a deregulated market. The Private Rented Housing Market*. London: Routledge.
- Hulchanski, D. J. 1995. The Concept of Housing Affordability: Six Contemporary uses of the housing expenditure to income ratio. *Housing Studies*. 10:471- 491.
- Ingham, K. , Ominde, S. H and Ntarangwi, M. 2020. Kenya. *Encyclopedia Britannica*, March 20, 2020. <https://www.britannica.com/place/Kenya>.
- Jenkins, P. L. F. 2009. *Architecture, Participation And Society*. London & New York: Routledge.
- Jacobs, K., Atkinson, R., Colic-Peisker, V., Berry, M. and Dalton, T. 2010. *What future for public housing? A critical analysis*. AHURI Final Report No. 151, Australian Housing and Urban Research Institute Limited, Melbourne, <https://www.ahuri.edu.au/research/final-reports/151>.
- Jones, G. A. & Ward, P. M. 1994. The World Bank's 'new'urban management programme: Paradigm shift or policy continuity? *Habitat International*.18:33-51.
- Jonker, J. & Pennink, B. 2010. *The essence of research methodology: A concise guide for master and PhD students in management science*. London New York:Springer.
- Kamarudin, N. 2006. Institutions and the provision of the Malaysian industrial property market. *Malaysia Journal of Real Estate*. 1:87-94.
- Karruna, R. 2013. *Institutional ignorance in an Urbanising world: Does new institutional economics provide a useful tool for understanding the provision of land and housing to the poor?* Working Paper. London: Development Planning Unit/The Bartell/ University College.
- Keivani, R. & Werna, E. 2001. Modes of housing provision in developing countries. *Progress in planning*.55:65-118.
- Kemeny, J. 1995. *From public housing to the social market: rental policy strategies in comparative perspective* London: Routledge.

- Kemeny, J., J. Kersloot, And P. Thalmann 2005. Non-profit Housing Influencing, Leading and Dominating the Unitary Rental Market: Three Case Studies. *Housing Studies*. 20:855-872.
- Kemp, P. A. 2004. *Private renting in transition*. Coventry: Chartered Institute of Housing.
- Kemp, P. A. 2015. Private renting after the global financial crisis. *Housing Studies*. 30:601-620.
- Kemp, P. A. & Kofner, S. 2010. Contrasting varieties of private renting: England and Germany. *International Journal of Housing Policy*.10:379-398.
- Kemp, P. A. 2011. *Transforming private landlords: Housing,markets & public policy*. West Sussex: Wiley-Blackwell
- Kenya National Bureau of Statistics. 2015a. *Kenya National Housing Survey 2012/2013 -Basic Report*. Nairobi: Kenya National Bureau of Statistics
- Kenya National Bureau of Statistics. 2015b (1962-2009) *National Population and Housing Census, Integrated Strategic Urban Development Plan for Mombasa Town 2035 Interim Report*: Kenya National Bureau of Statistics.
- Kenya National Bureau of Statistics (KNBS) and Society for International Development (SID) 2013: '*Exploring Kenya's inequality: Pulling apart or pooling together?*' *Mombasa County*. Nairobi: Kenya National Bureau of Statistics
- Kenya National Bureau of Statistics. 2018a. *Economic Survey 2018*. Nairobi: Kenya National Bureau of Statistics
- Kenya National Bureau of Statistics. 2018b. *Basic Report Based on 2015/16 Kenya Integrated Household Budget Survey* . Nairobi: Kenya National Bureau of Statistics
- Keogh Geoffrey & D'arcy, E. 1999. Property Market Efficiency: An Institutional Economics Perspective. *Urban Studies*. 36:2401-2414.
- Khan, M. H. 1995. State failure in weak states: A critique of new institutionalist explanations. In *Harriss, J, Hunter, J, Lewis, C.L (eds)The New Institutional Economics and Third World Development*. London: *Routledge*.1995:71-86.
- Kimmel, A. J. 2007. *Ethical issues in behavioral research: Basic & Applied perspectives*. Malden: Blackwell.
- King, P. 2001. *Understanding Housing Finance*. London: Routledge.
- Kirchner, J. 2006. *Housing provision for households that need support: German housing policy, a European Comparison*. Wiesbaden: Deutscher University.
- Kofner, S. 2007. Housing allowances in Germany. *In: KEMP, P. A. (ed.) Housing allowances in comparative perspective*. Bristol: The Policy Press.

- Kohn, D. & Pischke, J. 2011. *Housing finance in emerging markets: connecting low-income groups to markets*. Berlin, Heidelberg:Springer Science & Business Media.
- Komu, F. 2013. Rental Housing in Tanzania: Power and dialects of Misidentification 1. *Journal of building and land development*, (special):45-57.
- Van Kooten, C. G & Bulte, E. 2000. *The Economics of Nature: Managing biological assets*, Malden: Blackwell Publishers.
- Kothari, C. R. 2004. *Research methodology: Methods and techniques*. New Delhi: New Age International.
- Lawson, J. 2013. *Critical realism and housing research*. London:Routledge.
- Lawson, J., Berry, M., Hamilton, C. and Pawson, H. (2014) *Enhancing affordable rental housing investment via an intermediary and guarantee*, AHURI Final Report No. 220. Melbourne *Australian Housing and Urban Research Institute Limited*, <https://www.ahuri.edu.au/research/final-reports/220>.
- Leedy, P. D. & Ormrod, J. E. 2015. *Practical Research : Planning and Design*. London, UK: Pearson Education Limited.
- Libecap, G. D. 1993. *Contracting for property rights*. Cambridge: Cambridge University Press. doi:10.1017/CBO9780511664120
- Lindbeck, A. 1971. The political economy of the new left. *An outsider's view* 39. New York: Harper & Row
- Lowe, H. D. S. 2007. *The private rented housing market*. Aldershot: Ashgate.
- Mack, N, Woodsong, C., MacQueen, K. M., Guest, G., Namey, E. 2005. *Qualitative research methods: A data collector's field guide*. North Carolina: Family Health International.
- Mackenzie, D. W. 2002. The market failure myth. *Mises Daily*. <https://mises.org/library/market-failure-myth>.
- MacLennan, D. & Williams, R. 1990. *Affordable housing in Britain and the United States*. York: Joseph Rowntree Foundation.
- Macoloo, C. G. 1994. The changing nature of financing low-income urban housing development in Kenya. *Housing studies*. 9:281-299.
- Mahadevia, D. & Gogoi, T. 2011. *Rental Housing in Informal Settlements: A Case-Study of Rajkot*. Centre for Urban Equity, September 2011. Working Paper 14. Centre for Urban Equity, CEPT University.
- Malpezzi, S. 1990. *Rental housing in developing countries: issues & constraints*. Washington DC.: The World Bank.

- Malpezzi, S. 1999. Economic analysis of housing markets in developing and transition economies. *Handbook of regional and urban economics*. 3:1791-1864.
- Malpezzi, S. 2001. The contributions of Stephen K. Mayo to housing and urban economics. *Journal of Housing Economics*. 10:72-108.
- Malpezzi, S. 2011. Private rented housing in the United States. In Scanlon, K & Kochan, B: *Towards a sustainable private rented sector, The lessons from other countries*. London: LSE London.
- Malpezzi, S. 1994. Urban Regulations and the price of land & housing in Korea. *Journal of Housing Economics*. 3:330-356.
- Malpezzi, S. & Sa-Aadu, J. 1996. What have African housing policies wrought? *Real Estate Economics*. 24:133-160.
- Malpezzi S. & Ball, G. 1999. *Rent Control in Developing Countries*. *World Bank Discussion Papers*, 129. Washington D C: The International Bank for Reconstruction and Development/The World Bank.
- Malpezzi, S. & Mayo, S.K 1985. *Housing demand in developing countries*. Washington D C: World Bank.
- Marinescu, C. 2012. Transaction Costs and Institutions' Efficiency. *American Journal of Economics and Sociology*. 71(2):254-276.
- Marsh, D. & Furlong, P. 2002. A skin not a sweater: Ontology and epistemology in political science. *Theory and methods in political science*. 2:17-41.
- Martin, L. L. 1993. Credibility, Costs and Institutions: Cooperation on economic sanctions. *World Politics*. 45: 406-432.
- Mashoko, S. G. 2012. The role of low income urban housing delivery schemes in curbing the housing problem in the city Mutare. *Journal of sustainable Development in Africa*. 14:202-216.
- Mayer, C. J. & Somervill, E, T. 2002. Government regulation and changes in the affordable housing stock. *Centre for Urban and Economics and Real Estate*. Working Paper 02-02.
- Mayo, S. K., Malpezzi, S. & Gross, D. J. 1986. Shelter strategies for the urban poor in developing countries. *The World Bank Research Observer*. 1:183-203.
- McCarthy, M. & Watson,V. 1997. Low-income rental housing .*Environment & Urbanization* 9:133-148.
- McCrone, G. & Stephens, M. 2017. *Housing policy in Britain and Europe*. London: Routledge.
- Mchardy, P. & Donovan, M. G. 2016. *The state of social housing in six caribbean countries*. Washington D C: Inter-American Development Bank.

- Mckenzie, H., Fiona, M. & Rowley, S 2013. Housing Market Failure in a Booming Economy *Housing Studies*. 28:373-388.
- Meier, P. 2016. *Swahili Port Cities: The Architecture of Elsewhere*. Bloomington: Indiana University.
- Melzer, I. & Moothilal, R. 2008. *Supply and Demand of Rental Housing in South Africa*. Houthon: Social Housing Foundation.
- Menard, C. 2001. Methodological issues in new institutional economics. *Economic Methodology*. 8:85-92.
- Michael, O. 2004. *Economics, Planning & Housing*. London: Palgrave.
- Milligan, V. & Pinnegar, S. 2010. The comeback of national housing policy in Australia: first reflections. *International journal of housing policy*.10:325-344.
- Ministry of Lands and Physical Planning. 2018. *VMS (Valuation Management System: Valuation for Stamp Duty Schedule Report Mombasa (June 2017-March 2019)) [Online data file]. Version 1*.
- Moko, S. K., & Olima, W. H. (2014). Determinants of house construction cost in Kenya: a case of Nairobi County. *International Journal of Business and Commerce*. 4(1):19- 36.
- Mooya, M. M. 2009. Market value without a market: Perspectives from transaction cost theory. *Urban Studies*. 46:687-701.
- Mooya, M. M., & Cloete, C.E. 2007. Informal Urban Property Markets and Poverty Alleviation: A Conceptual Framework. *Urban Studies*. 44:147-165.
- Sanguinetti, J. S. 2010. The effect of institutions on European housing markets: an economic analysis. *Estudios económicos/Banco de España*, 77. November.
- Mouton, J. 1996. *Understanding social research*. Pretoria: Van Schaik Publishers.
- Mutero, J. G. 2007. *Access to housing finance in Africa: exploring the issues*. Finmark Trust.
- Mwangi, K. I. 1997. The nature of rental housing in Kenya *Environment & Urbanization*. 9:141-160.
- Mwaruvie, J. 2010. *A Political History of Kenya*. (Unpublished Presentation to Visiting Students in Kenya): Moi University, Eldoret Kenya.
- National Environment Management Authority 2010. *Kenya State of the Environment and Outlook 2010. Supporting the delivery of Vision 2030*. National Environment Management Authority.
- Niebanck, P. 1968. Rent Control and the Rental Housing Market in New York City. New York: *Housing and Development Administration, Department of Rent and Housing Maintenance*.

- North, D. C. 1971. *Institutional Change and American Economic Growth*. Cambridge: Cambridge University Press.
- North, D. C. 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.
- North, D. C. 1994. Economic Performance Through Time. *The American Economic Review*. 84:359-368.
- North, D. C. 1995. *The new institutional economics and third world development. The new institutional economics and third world development*. London: Routledge.
- North, D. C. 1997. *The Frontiers of the New Institutional Economics*. San Diego: Academic Press.
- Ochieng' W. R. 1989. *A Modern History of Kenya, 1895-1980 (ed.)*. Nairobi: Evans Brothers.
- O'Gorman, K. & Macintosh, R. 2015. Mapping research methods. In book: *Research methods for business and management: A guide to writing your dissertation 2nd ed*, 4:50-74. Oxford: Goodfellow Publishers
- O'sullivan, E. & De Decker, P. 2007. Regulating the private rental housing market in Europe. *European Journal of Homelessness*. 1(1): 95–117.
- Ogot, B.A. & Ochieng, W.R. (ed.),1995 *Decolonization and Independence in Kenya 1940-93*. Nairobi: East African Education Publisher.
- Okonkwo, O. 1998. Housing Finance & Housing Delivery Systems in Kenya: Bottlenecks, Recent Developments & the Way Forward. *Housing Finance International*.
- Ommeren, V., J 2008. *Transaction Costs in Housing Markets*. Amsterdam: VU University
- Ostrom, E. 1990. *Governing the commons: The evolution of institutions for collective action*> Cambridge:Cambridge University Press.
- Ostrom, E. 1995. Self organization & social capital *Industrial & corporate change* 4, 135-159.
- Ostrom, E. 1999. Institutional rational process. *Theories of the policy process*.
- Ostrom, E. 2005. *Doing institutional analysis: Digging deeper than markets and hierarchies*, Springer.
- Ostrom, E. 2007. *Institutional rational choice: an assessment of the institutional analysis and development framework*, Westview press.
- Ostrom, E. 2009. A general framework for analyzing sustainability of social ecological systems. *Science*. 325:419-422.

- Ostrom, E. 2011. Background on the institutional analysis and development framework. *Policy Studies Journal*. 39:7-27.
- Owens, K. E., Gulyani, S., & Rizvi, A. 2018. Success when we deemed it failure? Revisiting sites and services projects in Mumbai and Chennai 20 years later. *World development*, 106, 260- 272
- Oxley, M. 1996. Housing investment & social housing: A European comparison Netherlands: ENHR-CECODHAS Workshop 'changing social rented housing in Europe' Nunspeet 8-9.
- Oxley, M., Brown, T., Haffner, M., Hoekstra, J. & Lishman, R. 2011. Using the private rented sector as a form of social housing. *OTB Working papers 2011-03*.
- Passer, M. 2017. *Research methods: concepts & connections*, 2nd ed. Worth Publishers;
- Patten, M. L. & Newhart, M. 2018. *Understanding research methods : An overview of the essentials*. New York, NY:Routledge.
- Pearce, D. 2007. David Pearce and the Economic Valuation of Biodiversity. *Environmental & Resource Economics*. 37:91-109.
- Pejovich, S. 1990. *The economics of property rights: Towards a theory of comparative systems*: Springer Science & Business Media.
- Peppercorn, I. G. & Taffin, C. 2013. *Rental housing: Lessons from international experience and policies for emerging markets*. Washington DC: The World Bank.
- Pervez, G. 2005. *Research Methods In Business Studies: A Practical Guide*, 3rd ed. Pearson Education India.
- Polski, M. M. & Ostrom, E. 1999. An institutional framework for policy analysis and design. 1999.
- Pomeroy, S. & Godbout, M. 2011. Development of the Rental Housing Market in Latin America and the Caribbean. *Inter-American Development Bank, IDB-Dp-173*.
- Pryor, F. L. 1972. Property institutions and economic development: some empirical tests. *Economic Development and Cultural Change*, 20, 406-437.
- Quigley, J. M. 2002. Transaction costs and housing markets. *In: O'sullivan, E. (ed.) Housing Markets and Public Policy*. Blackwell Publishing.
- Republic of Kenya 2012a *Public Health Act Chapter 242*. Nairobi: The Government Printer.
- Republic of Kenya 2012b *The County Governments Act, 2012. Kenya Gazette Supplement No. 82 (Acts No. 17)* Nairobi: The Government Printer.
- Republic of Kenya 2012c *The Land Act, 2012 No. 6 of 2012* .Nairobi: The Government Printer.

- Republic of Kenya (2012d) Vision 2030 Development Strategy for Northern Kenya and other Arid Lands. Final Report, March 2012
- Republic of Kenya. 2015. *Draft National Irrigation Policy 2015*. Ministry of Agriculture, Livestock and Fisheries.
- Republic of Kenya 2016 The Mombasa County Finance Act, 2016 Mombasa *County Gazette Supplement No. 19 (Acts No. 12)*. Nairobi: The Government Printer.
- Republic of Kenya 2019a *The Physical and Land Use Planning Act, 2019*, Kenya Gazette Supplement No. 129 (Acts No. 13). Nairobi: The Government Printer.
- Republic of Kenya 2019b *The Urban Areas and Cities (Amendment) Act, 2019 369*, Kenya Gazette Supplement No. 31 (Acts No. 3). Nairobi: The Government Printer.
- Roberts, B. & Kanaley, T. 2006. *Urbanization and sustainability in Asia: Case studies of good practice*, Asian Development Bank.
- Rojack, R. 2007. "Does the ownership and management of public land matter to land market outcomes?". Washington DC.: paper presented at World Bank Urban Research Symposium.
- Ronald, R. 2004. Home ownership, ideology & diversity: Reevaluating concepts of housing ideology in the case of Japan. *Housing, Theory and Society* 21:49-64.
- Rothgeb, J. M. 2008. Pilot testing. In: Lavrakas, P. J. (ed.) *Encyclopedia of Survey Research Methods*. Thousand Oaks, CA: SAGE Publishers Inc.
- Rubin, R., Rubin, A., Haridakis, P., Piele, L. 2010. *Research methods: Strategies and sources*. Boston, MA: Wadsworth Cengage Learning.
- Rudd, M. A. 2004. An institutional framework for designing and monitoring ecosystem-based fisheries management policy experiments. *Ecological Economics*, 48, 109-124.
- Ruel, E., Wagner, W. E. & Gillespie, B. J. 2016. *The Practice of Survey Research : Theory and application*, Thousand Oaks, California, SAGE Publications, Inc.
- Rugg, J. & Rhodes, D. 2008. The private rented sector: its contribution and potential.
- Sabatini, F. 2012. housing, housing policy, households and families characteristics. *Characteristics of settlements*. Santiago.
- Sani, K. S. & Gbadegesin, J. T. 2015. A study of private rental housing market in Kaduna Metropolis, Nigeria. *International Journal of Humanities and Social Science*. 5:173-183.
- Satterthwaite, D. 2009. What role for mayors in good city governance? *Environment & Urbanization*. 21:3-17.

- Saunders M, 2009. *Research methods for business students* :Pearson Education.
- Sayer, A. 2000. *Realism & social science*. London:Sage publications.
- Scanlon K. & Kochan, B. 2011. *Towards a sustainable private rented sector: lessons from other countries*. London: LSE
- Schuetz, J. V. 2007. *The effects of inclusionary zoning on local housing markets: lessons from San Francisco, Washington DC & suburban Boston areas* Furman Center for real estate & urban policy, Working paper, 07-05,2007
- Schwartz, A. F. 2010. *Housing Policy in the United States*. New York: Routledge.
- Shlay, A. B. 2006. Low income home ownership: American dream or delusion? *Urban Studies*, 43:511.
- Shlomo, A. 2000. *Housing Policy Matters: A global analysis*. Oxford: Oxford University Press.
- Skinner, D.,Tagg,C.,Holloway,J 2000. Managers and research: the pros and cons of qualitative approaches. *Management learning*. 31:163-179.
- Stephens, M. 2017. *Housing regimes twenty years after Kemeny*. UK:Heriot-Watt University.
- Stone, M. 2006. What is housing affordability?: The case for the residual income approach. *Housing Policy Debate*, 17.
- The Constitution of Kenya [Kenya]*, 2010, 27 August 2010, available at: <https://www.refworld.org/docid/4c8508822.html> [accessed 9 March 2019]
- Tiwari, P. & Hasegawa, H. 2000. House price dynamics in Mumbai, 1989–1995. *Review of Urban & Regional Development Studies*. 12:150-163.
- Toye, J. 1995. *The New Institutional Economics and its implications for Development Theory. The New Institutional Economics and Third World Development*. London: Routledge.
- UN-Habitat 2001. *Cities in a Globalizing World: Global Report on Human Settlements*.Nairobi: UN-HABITAT.
- UN-Habitat 2008. *The State of African Cities 2008: A framework for addressing urban challenges in Africa*.Nairobi:UN-HABITAT.
- UN-Habitat 2011. *Rental Housing: A Much Neglected Housing Option for the Poor*. Nairobi:UN-HABITAT.
- United Nations. 2014. *World Urbanization Prospects: The 2014 Revision, Highlights*. New York: United Nations.

- United Nations 2019. Department of Economic and Social Affairs, Population Division. *World Urbanization Prospects: The 2018 Revision (ST/ESA/SER.A/420)*. New York: United Nations.
- United Nations Centre for Human Settlement 1993. *Support measures to promote rental housing for low-income groups*. Nairobi: UNCHS.
- Van Der Heijden, H. M. H. 2002. Social rented housing in Western Europe: Developments & Expectations. *Urban Studies*.39:327-340.
- Van Kooten, C. G & Bulte, E. 2000. *The Economics of Nature: Managing biological assets*: Blackwell Publishers.
- Walley, S. C 2011. Developing Kenya's Mortgage Market Worldbank. Washington D C: World Bank
- Walliman, N. 2016. *Social Research Methods : The Essentials*. London, UK: SAGE publications.
- Water Management Authority. 2017 Water Resources Impact Report: A Report to the Public from the Water Resources Authority, Kenya 2016/2017. December 2017
- Watson, V. & McCarthy, M. 1998. Rental housing policy and the role of the household rental sector: Evidence from South Africa. *Habitat International*.22:49-56.
- Weru, J. 2004. Community Federations And City Upgrading. The work of Pamaoja Trust And Muungano in Kenya. *Environment and Urbanization*. 16(1) April: 47-62.
- Whitehead, C. M. 2012. The neo-liberal legacy to housing research. *The sage handbook of housing studies*
- Whitehead, C. M. & Scanlon, K. 2007. *Social housing in Europe*. London: London School of Economics and Political Sciences.
- Whitehead, C. M. 2007. Social housing in England. In: Scanlon, K. (ed.) *Social housing in Europe* London: LSE.
- Williamson, O.E., 1975. *Markets and hierarchies: antitrust analysis and implications*. New York: The Free Press.
- Williamson, O. E. 1985. *The Economic Institutions of Capitalism*. New York: The Free Press.
- Williamson, O. E. 1993. Transaction Cost Economics and Organization Theory. *Industrial and Corporate Change*. 2:107-156.
- Williamson, O. E. 1998. The institutions of governance. *The American Economic Review*. 88:75-79.
- Williamson, O. E. 2000. The new institutional economics: taking stock, looking ahead. *Journal of economic literature*. 38:595-613.

- Williamson, O., E. 1996. *The Mechanism of Governance*. New York: Oxford University Press.
- Wilson, W. 2017. Private rented housing: the rent control debate. *House of Commons Library*, Briefing paper No. 6760.
- World Bank Group. 1993. *Housing Enabling Markets to work*. Washington D.C. World Bank
- World Bank Group. 2014, *Feature Story, Kenya: A Bigger, Better Economy*. September 30, 2014. <https://www.worldbank.org/en/news/feature/2014/09/30/kenya-a-bigger-better-economy>
- World Bank Group. 2017. *Kenya Economic Update, April 2017, No. 15: Housing - Unavailable and Unaffordable*. World Bank, Washington, DC. © World Bank.
- Zhu, H. 2003. The importance of property markets for monetary policy and financial stability. *BIS Papers*, 21.

APPENDICES

Appendix 1:0 Questionnaires, Interviews and Checklists

Appendix 1.1: Questionnaire (Targeting Tenants Households)

Dear Respondent,

The aim of this questionnaire is to collect data related to affordable rental housing delivery in Kenya for the lower-middle income group towards the awards of the Doctor of Philosophy (Ph.D) Degree in the Department of Construction Economics and Management, University of Cape Town. Therefore, the information provided is specifically meant for the academic purposes only and will be treated with the utmost level of confidentiality.

Kindly answer the following questions as per the instructions given:

SECTION I : INFORMATION OF THE RESPONDENT

Please tick adjacent to your response

1. Name area of your residence area

Mikindani	<input type="checkbox"/>	Miritini	<input type="checkbox"/>
Bamburi	<input type="checkbox"/>	Bombululu	<input type="checkbox"/>
Kiambeni	<input type="checkbox"/>	Others (specify)...	<input type="checkbox"/>

2. (a) State your gender

Male	<input type="checkbox"/>	Female	<input type="checkbox"/>
------	--------------------------	--------	--------------------------

- (b) What is your age?

Below 25 yrs Between 25 – 30yrs Between 35 – 40yrs Between 45-50yrs
 55-60 yrs Over 60

- (c) State your education level

Primary Secondary Certificate Diploma Bachelors Postgraduate

- (d) What is your marital status?

Single Married Divorced Widow

- (e) What is the size of your household?

2-4 5-6 7-9 10 and above

3. In a scale of 1-5, to what extent do you agree with the availability of the resources below in your area of residence? Where 1= do not agree, 2= little extent, 3 = moderate extent, 4 = great extent and 5 = very great extent

Item	1	2	3	4	5
Clean water					
Waste drainage					

Clean toilets					
Good access road					
Electricity					
Gabbage collection and management					
Others (specify).....					

4. House construction standards
 Good Fair Poor

SECTION II: EFFECTIVE DEMAND FOR AFFORDABLE RENTAL HOUSING

5. What is the size for your housing unit?
 1 room 2 rooms 1B/R
 2 B/R 3 B/R Others (specify).....
6. What is your reason for renting?
 Choice Limitation/Constraint
7. If renting by choice, are you planning to buy/build your own house in the near future?
 Yes No
8. For how long have you been renting this house?
 1yr and below 2-3 yrs. 4- 5 yrs. 6-7 yrs. 8-9 yrs. Over 10yrs
9. Are you planning to vacate any time soon?
 Yes No.
10. If yes, select the reasons applicable
 High rent Poor quality Expired contract Moving to owner-occupied
 Any other reason.....
11. What is your income level in Kshs?
 20,000 – 40, 000 40, 000 - 60,000 60, 000 – 80, 000 80,000 – 100,000
 above 100,000
12. (a) Does your tenancy has a lease agreement?
 Yes No
- (12b) If yes, for how long?.....
13. What is your house rent per month in Kshs?
 Below 10,000 10,000-15,000 15,000- 20,000 20,000-25,000
 25,000 –30,000 above 35,000

14. Kindly tick in the appropriate box on the following statements in a Likert scale to show your level of agreement with the statements where 1 = strongly disagree 2= Disagreed 3 = Neutral 4 = Agree and 5 = strongly Agree

Item	1	2	3	4	5
The house which I occupy is adequate for my family needs					
I have only rented this space due to unavailability of decent rental housing					

15. Kindly tick in the appropriate box on the following statements in a Likert scale to show your level of agreement with the statements where 1 = strongly disagree 2= Disagreed 3 = Neutral 4 = Agree and 5 = strongly Agree

Item	1	2	3	4	5
The rent I pay for the house is proportionate to my income					
I strain to pay rent					
Can afford rent but not mortgage					

16. Kindly tick in the appropriate box on your considerations on deciding a unit to rent in a scale of 1-5 where 1 = strongly disagree 2= Disagreed 3 = Neutral 4 = Agree and 5 = strongly Agree

Consideration	1	2	3	4	5
Location of the unit					
The amenities such as water, access to road, electricity e.t.c					
Rent compared to the similar unit in the area					
Stability of tenure					
Building quality					
Adequate in terms of space					
Any other (specify)					

Appendix 1.2: Questionnaire (Targeting Existing Landlords)

Dear Respondent,

The aim of this questionnaire is to collect data related to affordable rental housing delivery in Kenya for the lower-middle income group towards the awards of the Doctor of Philosophy (Ph.D) Degree in the Department of Construction Economics and Management, University of Cape Town. Therefore, the information provided is specifically meant for the academic purposes only, and will be treated with the utmost level of confidentiality.

Kindly answer the following questions as per the instructions given:

SECTION I : INFORMATION OF THE RESPONDENT

Please tick adjacent to your response

1. (a) State your gender

Male Female

2. What category of developer are you?

Individual Institutional/organization

3. Name location of your rental house (s)

Mikindani Miritini
 Bamburi Bombolulu
 Migadini Kiembeni

SECTION II: ASSESS THE EFFECTIVE DEMAND FOR AFFORDABLE RENTAL HOUSING STOCK IN KENYA

4. How do you rate the demand for the rental housing units that you offer?

Low Moderate High

5. Kindly tick the box in a Likert scale of 1-5 to show your level of agreement with the statements where 1 = strongly disagree 2= Disagreed 3 = Neutral 4 = Agree and 5 = strongly Agree

Criteria	1	2	3	4	5
My rental units are fully let before completion of construction					
Most of my tenants pay rent within the agreed timeframe					
My rental units have low vacancy rates					
I have a waiting list even after my units are fully occupied					

SECTION III: INSTITUTIONAL REGULATORY FRAMEWORK AND INFLUENCE ON RENTAL HOUSING PROVISIONS IN KENYA

6. To what extent can you consider the institutional regulatory framework to have an impact on the returns from rental housing market

1 = no extent 2 = less extent 3 = neutral 4= greater extent
 No extent [] Less extent [] Neutral [] Greater Extent []

7. Kindly tick the box in a Likert scale of 1-5 to show your level of agreement with the statements where 1 = strongly disagree 2= Disagreed 3 = Neutral 4 = Agree and 5 = strongly Agree

Criteria	1	2	3	4	5
The general form of contract relationship with my tenants is favorable to me					
The termination clause of the contracts with my tenants gives me more powers					
I do not face any challenges in adjusting the existing contracts with tenants					
The cost and speed of litigation do not affect my desire to continue supplying rental housing					
There is no properly laid down landlord-tenant conflict resolution mechanism within the legal framework					

8. Kindly rank the following regulatory framework in a scale of 1-5 where 1 = not significant, 2 = less significant, 3 = neutral, 4= significant and 5 = very significant on how they impact on your decision to supply more rental housing.

Framework	1	2	3	4	5
Well-defined contracts between landlord and tenant in the legal framework					
Rental control					
Land use and zoning laws					
Building approval process					
Tax treatment on rental income					
Others (specify).....					

9. What incentives can be provided by the government so as to encourage you supply more rental housing into the market

Incentive	Tick appropriately
Formulate policies aimed at encouraging rental housing development	
Relax zoning and land-use rules	
Favourable taxation laws for rental housing	
Streamline the process of planning and approval for buildings	

Low rental levels of makes mortgage repayment a challenge					
The financial institutions prefer lending to housing development for sale than rental housing development.					
The risk associated with uncertainties due to lack of well-defined rental housing contracts make them unattractive for financing					
Others (specify).....					

14. Kindly tick in the appropriate box in a Likert scale of 1-5 on the solutions to addressing mortgage constraints on provision of adequate rental housing units in the market where 1 = strongly disagree 2= Disagreed 3 = Neutral 4 = Agree and 5 = strongly Agree

Solution	1	2	3	4	5
Relax the stringent lending conditions					
Subsidize the mortgage rates					
Expand the mortgage market to support rental housing					
Others (specify).....					

Appendix 1.3 Interview Schedule to the Respondents

PART A DEVELOPERS

Mainly cover research objective 3 and partly 4

Nature of the developers

1. Do you carry out property developments as an individual or as organization?
2. What types of development do you deliver? Low- density/ high density.
3. What motivates you to deliver this category?
4. Do you develop single houses at a time or mass housing projects?
5. Do you develop your houses with the intention to sell or rent? (What informs this decision?)
6. If you develop to sell, have you ever invested in rental housing?
7. Do you still own the rental development? How do the two markets compare?
8. If you do not invest in rental housing, what incentives would encourage you to venture in rental housing?

Decision Making

9. Do you carry out a feasibility study for the development projects you undertake?
10. If yes what parameters do you use to evaluate the feasibility of the developments?
11. What non-financial factors do you consider when making the decision to develop housing?
12. Are there any rule of thumb considerations that influence your decisions?
13. Do available skills/ technology influence your decision?

Development process

14. What stages do you go through when carrying out housing development?
15. Which institutions do you interact with at each stage of the development process?
16. What are the challenges faced with the institutions especially when developing multi-dwelling units?
17. What extra costs do you incur as a result of the challenges?
18. Do the challenges have any bearing on the type of development you undertake?
i.e. rental and sale
19. What is your experience with the following? Building approvals process, zoning regulations., What aspects of taxation influence your decision?
20. How do you acquire land for housing development? Landbank, government grant, joint venture/outright purchase
21. What is/are the source(s) of funds for your developments? If it is from loans, what is your experience with lending institutions/ preference for development type?
22. On average, how long does the construction process take?
23. In case of sale, how long does it take to dispose the units?
24. Do you have any off-plan/ preconstruction sale?

Performance (Covers research objective 4)

25. How do you assess the profitability of your development projects?
26. From your experience, what is the likely average markup/profit when you sell?
27. What improvements will help you expand housing delivery?

PART B STATE ACTORS /STATE DEPARTMENT OF HOUSING AND COUNTY GOVERNMENT

Mainly cover research objective 2

1. What is the policy framework for affordable housing provision in Kenya? Any specific policies, strategic plans etc
2. What considerations are put in place when formulating /reviewing housing policy in Kenya?
3. What challenges do you attribute to the housing policy framework in Kenya?
4. What tools do you use to quantify the housing problem?
5. Do you have the capacity to diagnose the problems?
6. How is rental housing provided for in the policy framework? How does the policy enable/constrain provision of rental housing?
7. Have any specific programs or policies been implemented for the purpose of stimulating rental construction or investment?
8. Does the framework include social housing?
9. What gaps can you identify with regard to affordable rental housing?
10. What strategies are you putting in place to bridge the gaps?
11. What institutional challenges do the developers face especially in rental housing delivery?
12. What are the potential measures that could help increase institutional investment in rental housing?

PART C: KENYA REVENUE AUTHORITY

Objective 3: Evaluate the institutional regulatory framework for affordable rental housing delivery in Kenya?

- What are the various tax systems that Kenya Revenue Authority have on housing?
- How does the taxation system relate with rental housing income? Are there any incentives for rental housing development?
- How does the taxation system relate with housing development for sale?
- What differences exist in treatment with regards to home-ownership and rental housing developers?

PART D: LENDING INSTITUTIONS/MORTGAGE PROVIDERS

Objective 5: To investigate how the housing finance systems relates to rental housing market.

1. For how long have you been involved on matters related to housing mortgage?
2. Is there any policy provision that guides your engagement in the housing market?
3. What is your policy for mortgage lending?
4. Who are your main targets for mortgage lending? (high, middle, or low income)
5. If yes, how does it treat rental housing?

6. Do you have any mortgage product for affordable rental housing development?
7. What are the lending conditions that your organization have formulated for long term loan lending? What conditions do you require in order to advance financing for acquisition of development of rental housing?
8. What are the challenges that you have faced while processing mortgage finance for housing developers – rental and owner occupiers?
9. Is there any preference in relations to rental or owner-occupier market?
10. Do you have different conditions for rental and housing development for sale lending?

PART E: HOUSING EXPERTS

Objective 2: Evaluate the extent to which policy provisions influence rental housing supply in Kenya.

- Comment on the policy framework with regard to rental housing development
- What strategies have the government put in place to boost supply of affordable rental housing?

Objective 3: Evaluate the institutional regulatory framework for affordable rental housing delivery in Kenya?

- What are the main challenges with the institutional regulatory framework with regard to rental housing development?
- What specific areas of the institutional framework have a significant impact on the rental housing development?
- How can the institutional bottlenecks in rental housing development be alleviated?

Objective 4: To assess the performance of rental housing as an investment as compared to owner-occupier development.

- There is a perception that development for sale is more profitable than rental housing. Comment.

Objective 5: To investigate how the housing finance systems relates to rental housing market.

- Comment on the housing finance systems in relation to rental housing development.
- What reasons make the financial institutions prefer development for sale rather than for rent?
- How can rental housing be made attractive for external financing?

Appendix 1.4: Observation Checklist

1. HOUSING SCHEME PARTICULARS

Name of residential area

Location.....

Housing Category

Average Number of Units per block.....

Density of Units.....

Average Floor Area of Units

Number of Storeys

Unit cost

2. MATERIALS FOR CONSTRUCTION OF THE BUILDING ELEMENTS

a. **Roof:** Pitched or flat

Roof trusses

Roof cover.....

b. **Floor:**

Floor slab.....

Floor finish.....

c. **Walls:**

Structural walls.....

Internal wall finish.....

External wall finish

d. **Ceiling:**

Branding.....

Ceil finish.....

e. **Foundation**

Type of foundation: Strip foundation or column Pad foundation

Others (Specify)

f. **Structural support:** RC frame or load bearing walls

Others (specify).....

g. **Openings**

External doors

Internal doors

Windows.....

3. SUPPLY OF WATER (Please tick)

Borehole [] Piped water [] Roof catchment []

Others (specify).....

4. SUPPLY OF ELECTRICITY / POWER (Please tick)

Generator [] Solar [] KP&L Co. Ltd []

Appendix 2.0 Market Data for Performance of Housing Typologies

Appendix 2.1: Data for Multi-dwelling housing units comprising one-bedroom

Transaction	APT NO	Location	No of Bedrooms	Monthly rent	Cost	Annual RY1	Annual RY2	Annual RY3	Annual RY4	Y5 +Residual	Annual RY5	Residual Value	Cost	Sale CFY1	Sale CF Y2	Rent IRR	Sale IRR	Rent NPV	Sale NPV	Rent Initial Yield
1	APT 2B	Bamburi	1	15,000	(1,700,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(1,700,000)	-	3,500,000	22%	43%	795,181	1,179,412	10.59%
2	APT 5	Bamburi	1	15,000	(1,700,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(1,700,000)	-	3,000,000	22%	33%	795,181	813,816	10.59%
3	APT 14	Bamburi	1	15,000	(1,700,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(1,700,000)	-	3,500,000	22%	43%	795,181	1,179,412	10.59%
4	APT 15	Bamburi	1	15,000	(1,700,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(1,700,000)	-	1,750,000	22%	1%	795,181	(100,173)	10.59%
5	APT 16	Bamburi	1	15,000	(1,700,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(1,700,000)	-	3,500,000	22%	43%	795,181	1,179,412	10.59%
6	APT 5	Bamburi	1	15,000	(1,700,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(1,700,000)	-	3,500,000	22%	43%	795,181	1,179,412	10.59%
7	APT 8	Bamburi	1	15,000	(1,700,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(1,700,000)	-	2,700,000	22%	26%	795,181	594,459	10.59%
8	APT 9	Bamburi	1	15,000	(1,700,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(1,700,000)	-	2,700,000	22%	26%	795,181	594,459	10.59%
9	APT C1	Bamburi	1	16,000	(1,700,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(1,700,000)	-	3,500,000	24%	43%	950,295	1,179,412	11.29%
10	APT C4	Bamburi	1	16,000	(1,700,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(1,700,000)	-	3,500,000	24%	43%	950,295	1,179,412	11.29%
11	APT B1	Bamburi	1	16,000	(1,700,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(1,700,000)	-	3,500,000	24%	43%	950,295	1,179,412	11.29%
12	APT D4	Bamburi	1	16,000	(1,700,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(1,700,000)	-	3,500,000	24%	43%	950,295	1,179,412	11.29%
13	APT B2	Bamburi	1	16,000	(1,700,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(1,700,000)	-	3,500,000	24%	43%	950,295	1,179,412	11.29%
14	APT C2	Bamburi	1	16,000	(1,700,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(1,700,000)	-	3,500,000	24%	43%	950,295	1,179,412	11.29%
15	APT D2	Bamburi	1	16,000	(1,700,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(1,700,000)	-	3,500,000	24%	43%	950,295	1,179,412	11.29%
16	APT2	Bamburi	1	15,000	(1,700,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(1,700,000)	-	3,500,000	22%	43%	795,181	1,179,412	10.59%
17	APT4	Bamburi	1	15,000	(1,700,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(1,700,000)	-	3,500,000	22%	43%	795,181	1,179,412	10.59%
18	APT 8B	Bamburi	1	15,000	(1,700,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(1,700,000)	-	3,500,000	22%	43%	795,181	1,179,412	10.59%
19	APT 1B	Bamburi	1	15,000	(1,700,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(1,700,000)	-	3,600,000	22%	46%	795,181	1,252,531	10.59%
20	APT 4	Bamburi	1	16,000	(1,700,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(1,700,000)	-	4,000,000	24%	53%	950,295	1,545,007	11.29%
21	APT A2	Bamburi	1	12,500	(1,700,000)	150,000	157,500	165,375	173,644	2,786,982	182,326	2,604,656	(1,700,000)	-	2,500,000	17%	21%	407,396	448,220	8.82%
22	APT G1	Bamburi	1	12,500	(1,700,000)	150,000	157,500	165,375	173,644	2,786,982	182,326	2,604,656	(1,700,000)	-	3,600,000	17%	46%	407,396	1,252,531	8.82%
23	APT3D	Bamburi	1	14,500	(1,700,000)	174,000	182,700	191,835	201,427	3,232,899	211,498	3,021,401	(1,700,000)	-	3,150,000	21%	36%	717,624	923,495	10.24%
24	APT 17	Bamburi	1	14,500	(1,700,000)	174,000	182,700	191,835	201,427	3,232,899	211,498	3,021,401	(1,700,000)	-	2,500,000	21%	21%	717,624	448,220	10.24%
25	APT 11	Bamburi	1	14,500	(1,700,000)	174,000	182,700	191,835	201,427	3,232,899	211,498	3,021,401	(1,700,000)	-	3,000,000	21%	33%	717,624	813,816	10.24%
26	APT 322	Bombolulu	1	15,000	(1,700,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(1,700,000)	-	3,600,000	22%	46%	795,181	1,252,531	10.59%
27	APT 300	Bombolulu	1	15,000	(1,700,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(1,700,000)	-	3,600,000	22%	46%	795,181	1,252,531	10.59%
28	APT 131	Bombolulu	1	15,000	(1,700,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(1,700,000)	-	2,000,000	22%	8%	795,181	82,625	10.59%
29	APT 424	Bombolulu	1	15,000	(1,700,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(1,700,000)	-	3,600,000	22%	46%	795,181	1,252,531	10.59%
30	APT 523	Bombolulu	1	15,000	(1,700,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(1,700,000)	-	3,600,000	22%	46%	795,181	1,252,531	10.59%
31	APT 520	Bombolulu	1	15,000	(1,700,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(1,700,000)	-	3,600,000	22%	46%	795,181	1,252,531	10.59%
																22%	38%	802,687	1,014,304	11%

Appendix 2.2: Data for Multi-dwelling housing units comprising two-bedroom

Transaction	APT NO	Location	No of Bedrooms	Monthly rent	Cost	Annual RY1	Annual RY2	Annual RY3	Annual RY4	Y5 +Residual	Annual RY5	Residual Valu	Cost	Sale CF Y1	Sale CF Y2	Rent IRR	Sale IRR	Rent NPV	Sale NPV	Rent Initial Yield
1	APT A22	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	4,200,000	21%	33%	958,139	926,860	10.08%
2	APT A23	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	4,200,000	21%	33%	958,139	926,860	10.08%
3	APT 123	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	3,600,000	21%	23%	958,139	488,145	10.08%
4	APT6D	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	4,000,000	21%	30%	958,139	780,621	10.08%
5	APT 4A	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	4,000,000	21%	30%	958,139	780,621	10.08%
6	APT 5F	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	4,500,000	21%	38%	958,139	1,146,217	10.08%
7	APT 1S	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	5,100,000	21%	46%	958,139	1,584,932	10.08%
8	APT A3	Bamburi	2	17,500	(2,380,000)	210,000	220,500	231,525	243,101	3,901,775	255,256	3,646,519	(2,380,000)	-	4,000,000	17%	30%	570,354	780,621	8.82%
9	APT A4	Bamburi	2	17,500	(2,380,000)	210,000	220,500	231,525	243,101	3,901,775	255,256	3,646,519	(2,380,000)	-	4,000,000	17%	30%	570,354	780,621	8.82%
10	APT C1	Bamburi	2	17,500	(2,380,000)	210,000	220,500	231,525	243,101	3,901,775	255,256	3,646,519	(2,380,000)	-	4,000,000	17%	30%	570,354	780,621	8.82%
11	APT 103	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	4,000,000	21%	30%	958,139	780,621	10.08%
12	APT 105	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	4,000,000	21%	30%	958,139	780,621	10.08%
13	APT 205	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	4,000,000	21%	30%	958,139	780,621	10.08%
14	APT 2D	Bamburi	2	22,500	(2,380,000)	270,000	283,500	297,675	312,559	5,016,568	328,187	4,688,381	(2,380,000)	-	4,500,000	24%	38%	1,345,925	1,146,217	11.34%
15	APT 14	Bamburi	2	14,500	(2,380,000)	174,000	182,700	191,835	201,427	3,232,899	211,498	3,021,401	(2,380,000)	-	4,000,000	12%	30%	105,011	780,621	7.31%
16	APT 364	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	3,600,000	21%	23%	958,139	488,145	10.08%
17	APT 43	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	3,600,000	21%	23%	958,139	488,145	10.08%
18	APT 170	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	3,600,000	21%	23%	958,139	488,145	10.08%
19	APT 103	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	3,600,000	21%	23%	958,139	488,145	10.08%
20	APT 356	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	3,600,000	21%	23%	958,139	488,145	10.08%
21	APT 371	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	3,600,000	21%	23%	958,139	488,145	10.08%
22	APT 71	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	3,600,000	21%	23%	958,139	488,145	10.08%
23	APT 91	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	3,600,000	21%	23%	958,139	488,145	10.08%
24	APT 327	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	3,600,000	21%	23%	958,139	488,145	10.08%
25	APT 375	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	3,600,000	21%	23%	958,139	488,145	10.08%
26	APT 340	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	3,600,000	21%	23%	958,139	488,145	10.08%
27	APT 109	Bamburi	2	20,000	(2,380,000)	240,000	252,000	264,600	277,830	4,459,172	291,722	4,167,450	(2,380,000)	-	4,000,000	21%	30%	958,139	780,621	10.08%
28	APT D2	Bombolulu	2	22,500	(2,380,000)	270,000	283,500	297,675	312,559	5,016,568	328,187	4,688,381	(2,380,000)	-	5,000,000	24%	45%	1,345,925	1,511,813	11.34%
29	APT D6	Bombolulu	2	22,500	(2,380,000)	270,000	283,500	297,675	312,559	5,016,568	328,187	4,688,381	(2,380,000)	-	5,000,000	24%	45%	1,345,925	1,511,813	11.34%
30	APT 233	Bombolulu	2	22,000	(2,380,000)	264,000	277,200	291,060	305,613	4,905,089	320,894	4,584,195	(2,380,000)	-	4,600,000	24%	39%	1,268,368	1,219,336	11.09%
31	APT 231	Bombolulu	2	22,000	(2,380,000)	264,000	277,200	291,060	305,613	4,905,089	320,894	4,584,195	(2,380,000)	-	4,600,000	24%	39%	1,268,368	1,219,336	11.09%
32	APT 232	Bombolulu	2	22,000	(2,380,000)	264,000	277,200	291,060	305,613	4,905,089	320,894	4,584,195	(2,380,000)	-	4,600,000	24%	39%	1,268,368	1,219,336	11.09%
33	APT 533	Bombolulu	2	22,500	(2,380,000)	270,000	283,500	297,675	312,559	5,016,568	328,187	4,688,381	(2,380,000)	-	4,600,000	24%	39%	1,345,925	1,219,336	11.34%
34	APT 536	Bombolulu	2	22,000	(2,380,000)	264,000	277,200	291,060	305,613	4,905,089	320,894	4,584,195	(2,380,000)	-	4,600,000	24%	39%	1,268,368	1,219,336	11.09%
35	APT 433	Bombolulu	2	22,500	(2,380,000)	270,000	283,500	297,675	312,559	5,016,568	328,187	4,688,381	(2,380,000)	-	4,600,000	24%	39%	1,345,925	1,219,336	11.34%
36	APT 131	Bombolulu	2	22,500	(2,380,000)	270,000	283,500	297,675	312,559	5,016,568	328,187	4,688,381	(2,380,000)	-	4,600,000	24%	39%	1,345,925	1,219,336	11.34%
37	APT 333	Bombolulu	2	22,500	(2,380,000)	270,000	283,500	297,675	312,559	5,016,568	328,187	4,688,381	(2,380,000)	-	4,600,000	24%	39%	1,345,925	1,219,336	11.34%
38	APT 434	Bombolulu	2	22,000	(2,380,000)	264,000	277,200	291,060	305,613	4,905,089	320,894	4,584,195	(2,380,000)	-	4,600,000	24%	39%	1,268,368	1,219,336	11.09%
																21%	32%	1,017,328	878,755	10%

Appendix 2.3: Data for Multi-dwelling housing units comprising three-bedroom

Transaction	APT NO	Location	No of Bedrooms	Monthly rent	Cost	Annual RY1	Annual RY2	Annual RY3	Annual RY4	Y5 +Residual	Annual RY5	Residual Valu	Cost	Sale CFY1	Sale CF Y2	Rent IRR	Sale IRR	Rent NPV	Sale NPV	Rent Initial Yield
1	APT A47	Bamburi	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	7,000,000	17%	43%	814,791	2,055,277	8.82%
2	APT 151	Bamburi	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	5,500,000	17%	27%	814,791	958,490	8.82%
3	APT 288	Bamburi	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	6,000,000	17%	33%	814,791	1,324,085	8.82%
4	APT 292	Bamburi	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	5,000,000	17%	21%	814,791	592,894	8.82%
5	APT 2	Bamburi	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	6,000,000	17%	33%	814,791	1,324,085	8.82%
6	APT A2	Bamburi	3	22,000	(3,400,000)	264,000	277,200	291,060	305,613	4,905,089	320,894	4,584,195	(3,400,000)	-	5,740,000	14%	30%	349,449	1,133,975	7.76%
7	APT 276	Bamburi	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	5,750,000	17%	30%	814,791	1,141,287	8.82%
8	APT 222	Bamburi	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	5,500,000	17%	27%	814,791	958,490	8.82%
9	APT 281	Bamburi	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	5,200,000	17%	24%	814,791	739,132	8.82%
10	APT 361	Bamburi	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	6,100,000	17%	34%	814,791	1,397,204	8.82%
11	APT 292	Bamburi	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	5,000,000	17%	21%	814,791	592,894	8.82%
12	APT 288	Bamburi	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	5,000,000	17%	21%	814,791	592,894	8.82%
13	APT C13	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	6,500,000	17%	38%	814,791	1,689,681	8.82%
14	APT C12	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	6,500,000	17%	38%	814,791	1,689,681	8.82%
15	APT C5	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	6,500,000	17%	38%	814,791	1,689,681	8.82%
16	APT C4	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	6,500,000	17%	38%	814,791	1,689,681	8.82%
17	APT C11	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	7,000,000	17%	43%	814,791	2,055,277	8.82%
18	APT 223	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	5,700,000	17%	29%	814,791	1,104,728	8.82%
19	APT C3	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	5,500,000	17%	27%	814,791	958,490	8.82%
20	APT D7	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	6,500,000	17%	38%	814,791	1,689,681	8.82%
21	APT D5	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	5,500,000	17%	27%	814,791	958,490	8.82%
22	APT C14	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	6,000,000	17%	33%	814,791	1,324,085	8.82%
23	APT D10	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	6,000,000	17%	33%	814,791	1,324,085	8.82%
24	APT B5	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	6,000,000	17%	33%	814,791	1,324,085	8.82%
25	APT D3	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	6,000,000	17%	33%	814,791	1,324,085	8.82%
26	APT 12	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	6,000,000	17%	33%	814,791	1,324,085	8.82%
27	APT D8	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	6,000,000	17%	33%	814,791	1,324,085	8.82%
28	APT D11	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	6,000,000	17%	33%	814,791	1,324,085	8.82%
29	APT D9	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	6,500,000	17%	38%	814,791	1,689,681	8.82%
30	APT D13	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	6,500,000	17%	38%	814,791	1,689,681	8.82%
31	APT D4	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	6,500,000	17%	38%	814,791	1,689,681	8.82%
32	APT C9	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	5,800,000	17%	31%	814,791	1,177,847	8.82%
33	APT B3	Bombolulu	3	25,000	(3,400,000)	300,000	315,000	330,750	347,288	5,573,964	364,652	5,209,313	(3,400,000)	-	6,000,000	17%	33%	814,791	1,324,085	8.82%
																17%	32%	800,690	1,308,354	9%

Appendix 2.5: Data for Single-dwelling housing units comprising two-bedroom

Transaction	Plot size (sqm)	Location	No of Bedrooms	Monthly Rental	Cost	Annual R Y1	Annual R Y2	Annual R Y3	Annual R Y4	Y5 + Residual Value	Annual R Y5	Residual Value	Cost	Sale CF Y1	Sale CF Y2	Rent IRR	Sale IRR	Rent NPV	Sale NPV	Rent Initial Yield
1	162	KIEMBENI	2	16,000	(2,380,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(2,380,000)	-	4,300,000	15%	34%	337,683	999,979	4.47%
2	162	KIEMBENI	2	16,000	(2,380,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(2,380,000)	-	4,700,000	15%	41%	337,683	1,292,455	4.09%
3	162	KIEMBENI	2	17,000	(2,380,000)	204,000	214,200	224,910	236,156	3,790,296	247,963	3,542,333	(2,380,000)	-	4,500,000	16%	38%	492,797	1,146,217	4.53%
4	162	KIEMBENI	2	16,000	(2,380,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(2,380,000)	-	4,000,000	15%	30%	337,683	780,621	4.80%
5	162	KIEMBENI	2	18,000	(2,380,000)	216,000	226,800	238,140	250,047	4,013,254	262,549	3,750,705	(2,380,000)	-	4,600,000	18%	39%	647,911	1,219,336	4.70%
6	158	KIEMBENI	2	18,000	(2,380,000)	216,000	226,800	238,140	250,047	4,013,254	262,549	3,750,705	(2,380,000)	-	4,250,000	18%	34%	647,911	963,419	5.08%
7	162	KIEMBENI	2	16,000	(2,380,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(2,380,000)	-	4,300,000	15%	34%	337,683	999,979	4.47%
8	162	KIEMBENI	2	17,000	(2,380,000)	204,000	214,200	224,910	236,156	3,790,296	247,963	3,542,333	(2,380,000)	-	4,500,000	16%	38%	492,797	1,146,217	4.53%
9	612	KIEMBENI	2	16,000	(2,380,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(2,380,000)	-	4,200,000	15%	33%	337,683	926,860	4.57%
10	162	KIEMBENI	2	18,000	(2,380,000)	216,000	226,800	238,140	250,047	4,013,254	262,549	3,750,705	(2,380,000)	-	4,000,000	18%	30%	647,911	780,621	5.40%
11	162	KIEMBENI	2	18,000	(2,380,000)	216,000	226,800	238,140	250,047	4,013,254	262,549	3,750,705	(2,380,000)	-	4,200,000	18%	33%	647,911	926,860	5.14%
12	162	KIEMBENI	2	16,000	(2,380,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(2,380,000)	-	3,400,000	15%	20%	337,683	341,907	5.65%
13	162	KIEMBENI	2	16,000	(2,380,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(2,380,000)	-	3,400,000	15%	20%	337,683	341,907	8.07%
14	162	KIEMBENI	2	17,000	(2,380,000)	204,000	214,200	224,910	236,156	3,790,296	247,963	3,542,333	(2,380,000)	-	3,400,000	16%	20%	492,797	341,907	8.57%
15	162	KIEMBENI	2	16,000	(2,380,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(2,380,000)	-	3,400,000	15%	20%	337,683	341,907	8.07%
16	162	KIEMBENI	2	17,000	(2,380,000)	204,000	214,200	224,910	236,156	3,790,296	247,963	3,542,333	(2,380,000)	-	4,200,000	16%	33%	492,797	926,860	8.57%
17	17,000	(2,380,000)	204,000	214,200	224,910	236,156	3,790,296	247,963	3,542,333	(2,380,000)	-	4,200,000	16%	33%	492,797	926,860	8.57%			
18	162	KIEMBENI	2	16,000	(2,380,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(2,380,000)	-	4,200,000	15%	33%	337,683	926,860	8.07%
19	162	KIEMBENI	2	17,000	(2,380,000)	204,000	214,200	224,910	236,156	3,790,296	247,963	3,542,333	(2,380,000)	-	4,500,000	16%	38%	492,797	1,146,217	8.57%
20	162	KIEMBENI	2	17,000	(2,380,000)	204,000	214,200	224,910	236,156	3,790,296	247,963	3,542,333	(2,380,000)	-	4,500,000	16%	38%	492,797	1,146,217	8.57%
21	162	KIEMBENI	2	18,000	(2,380,000)	216,000	226,800	238,140	250,047	4,013,254	262,549	3,750,705	(2,380,000)	-	4,000,000	18%	30%	647,911	780,621	9.08%
22	162	KIEMBENI	2	17,000	(2,380,000)	204,000	214,200	224,910	236,156	3,790,296	247,963	3,542,333	(2,380,000)	-	4,200,000	16%	33%	492,797	926,860	8.57%
23	162	KIEMBENI	2	18,000	(2,380,000)	216,000	226,800	238,140	250,047	4,013,254	262,549	3,750,705	(2,380,000)	-	4,100,000	18%	31%	647,911	853,741	9.08%
24	162	KIEMBENI	2	17,000	(2,380,000)	204,000	214,200	224,910	236,156	3,790,296	247,963	3,542,333	(2,380,000)	-	4,000,000	16%	30%	492,797	780,621	8.57%
25	162	KIEMBENI	2	16,000	(2,380,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(2,380,000)	-	4,200,000	15%	33%	337,683	926,860	8.07%
26	162	KIEMBENI	2	17,000	(2,380,000)	204,000	214,200	224,910	236,156	3,790,296	247,963	3,542,333	(2,380,000)	-	4,000,000	16%	30%	492,797	780,621	8.57%
27	162	KIEMBENI	2	15,000	(2,380,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(2,380,000)	-	3,000,000	13%	12%	182,569	49,430	7.56%
28	162	KIEMBENI	2	15,000	(2,380,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(2,380,000)	-	3,200,000	13%	16%	182,569	195,668	7.56%
29	162	KIEMBENI	2	17,000	(2,380,000)	204,000	214,200	224,910	236,156	3,790,296	247,963	3,542,333	(2,380,000)	-	4,000,000	16%	30%	492,797	780,621	8.57%
30	162	KIEMBENI	2	17,000	(2,380,000)	204,000	214,200	224,910	236,156	3,790,296	247,963	3,542,333	(2,380,000)	-	3,950,000	16%	29%	492,797	744,062	8.57%
31	162	KIEMBENI	2	15,000	(2,380,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(2,380,000)	-	3,000,000	13%	12%	182,569	49,430	7.56%
32	162	KIEMBENI	2	18,000	(2,380,000)	216,000	226,800	238,140	250,047	4,013,254	262,549	3,750,705	(2,380,000)	-	4,275,000	18%	34%	647,911	981,699	9.08%
33	162	KIEMBENI	2	16,000	(2,380,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(2,380,000)	-	4,100,000	15%	31%	337,683	853,741	8.07%
34	162	KIEMBENI	2	16,000	(2,380,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(2,380,000)	-	4,000,000	15%	30%	337,683	780,621	8.07%
35	162	KIEMBENI	2	17,000	(2,380,000)	204,000	214,200	224,910	236,156	3,790,296	247,963	3,542,333	(2,380,000)	-	4,000,000	16%	30%	492,797	780,621	8.57%
36	162	KIEMBENI	2	17,000	(2,380,000)	204,000	214,200	224,910	236,156	3,790,296	247,963	3,542,333	(2,380,000)	-	4,500,000	16%	38%	492,797	1,146,217	8.57%
37	162	KIEMBENI	2	17,000	(2,380,000)	204,000	214,200	224,910	236,156	3,790,296	247,963	3,542,333	(2,380,000)	-	4,000,000	16%	30%	492,797	780,621	8.57%
38	162	KIEMBENI	2	17,000	(2,380,000)	204,000	214,200	224,910	236,156	3,790,296	247,963	3,542,333	(2,380,000)	-	4,000,000	16%	30%	492,797	780,621	8.57%
39	162	KIEMBENI	2	16,000	(2,380,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(2,380,000)	-	4,000,000	15%	30%	337,683	780,621	8.07%
40	162	KIEMBENI	2	16,000	(2,380,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(2,380,000)	-	4,200,000	15%	33%	337,683	926,860	8.07%
41	162	KIEMBENI	2	17,000	(2,380,000)	204,000	214,200	224,910	236,156	3,790,296	247,963	3,542,333	(2,380,000)	-	4,200,000	16%	33%	492,797	926,860	8.57%
42	162	KIEMBENI	2	16,000	(2,380,000)	192,000	201,600	211,680	222,264	3,567,337	233,377	3,333,960	(2,380,000)	-	3,200,000	15%	16%	337,683	195,668	8.07%
43	162	KIEMBENI	2	15,000	(2,380,000)	180,000	189,000	198,450	208,373	3,344,379	218,791	3,125,588	(2,380,000)	-	3,000,000	13%	12%	182,569	49,430	7.56%
44	162	KIEMBENI	2	18,000	(2,380,000)	216,000	226,800	238,140	250,047	4,013,254	262,549	3,750,705	(2,380,000)	-	4,000,000	18%	30%	647,911	780,621	9.08%
																16%	28%	420,410	711,906	7%

Appendix 3:0 Research Approvals and Permits

Appendix 3.1 Ethics Approval from the Faculty

Application for Approval of Ethics in Research (EiR) Projects
Faculty of Engineering and the Built Environment, University of Cape Town

APPLICATION FORM

Please Note:
Any person planning to undertake research in the Faculty of Engineering and the Built Environment (EBE) at the University of Cape Town is required to complete this form **before** collecting or analyzing data. The objective of submitting this application *prior* to embarking on research is to ensure that the highest ethical standards in research, conducted under the auspices of the EBE Faculty, are met. Please ensure that you have read, and understood the **EBE Ethics in Research Handbook** (available from the UCT EBE, Research Ethics website) prior to completing this application form: <http://www.ebe.uct.ac.za/usrf/ebe/research/ethics.pdf>

APPLICANT'S DETAILS	
Name of principal researcher, student or external applicant	VICTOR OTIENO OLOONDE
Department	CONSTRUCTION ECONOMICS AND MANAGEMENT
Preferred email address of applicant:	OLNVIC002@myuct.ac.za
If a Student	Your Degree: e.g., MSc, PhD, etc.,
	Name of Supervisor (if supervised):
If this is a research contract, indicate the source of funding/sponsorship	SELF-SPONSORED
Project Title	AFFORDABLE RENTAL HOUSING DELIVERY IN KENYA

I hereby undertake to carry out my research in such a way that:

- there is no apparent legal objection to the nature or the method of research; and
- the research will not compromise staff or students or the other responsibilities of the University;
- the stated objective will be achieved, and the findings will have a high degree of validity;
- limitations and alternative interpretations will be considered;
- the findings could be subject to peer review and publicly available; and
- I will comply with the conventions of copyright and avoid any practice that would constitute plagiarism.

SIGNED BY	Full name	Signature	Date
Principal Researcher/ Student/External applicant	VICTOR OTIENO OLOONDE		02 Jun 2017

APPLICATION APPROVED BY	Full name	Signature	Date
Supervisor (where applicable)	MANYA MOOYA Click here to enter text. Kanshukan Rajaratnam		2/08/2017 Click here to enter a date. 7/8/2017
HOD (or delegated nominee) Final authority for all applicants who have answered NO to all questions in Section 1; and for all Undergraduate research (Including Honours).	Click here to enter text.		Click here to enter a date.
Chair : Faculty EIR Committee For applicants other than undergraduate students who have answered YES to any of the above questions.	G SITHOLE Click here to enter text.		23/7/2017 Click here to enter a date.

Signatures Removed

Page 1 of 1

Appendix 3.2 National Commission for Science and Technology



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,
2241349, 3310571, 2219420
Fax: +254-20-318245, 318249
Email: dg@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

9th Floor, Utalii House
Uhuru Highway
P. O. Box 30623-00100
NAIROBI-KENYA

Ref. No. **NACOSTI/P/17/81546/18728**

Date: **22nd August, 2017**

Victor Otieno Olonde
University of Cape Town
SOUTH AFRICA.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *“Affordable rental housing delivery in Kenya,”* I am pleased to inform you that you have been authorized to undertake research in **Mombasa County** for the period ending **21st August, 2018.**

You are advised to report to **the County Commissioner and the County Director of Education, Mombasa County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a **copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Mombasa County.

The County Director of Education
Mombasa County.

National Commission for Science, Technology and Innovation is ISO9001:2008 Certified

Signatures Removed

Appendix 4:0 Consent to Participate in Research

CONSENT FORM_ UNIVERSITY OF CAPE TOWN CONSENT TO PARTICIPATE IN A RESEARCH

Dear participant.

You are hereby invited to participate in a research by **Victor Otieno Olonde**, a PhD Candidate at the University of Cape Town, South Africa. The title of the research is ***Affordable Rental Housing Delivery in Kenya***, and is being supervised by **Professor Manya Mooya and Professor Kanshukan Rajaratnam** of the University of Cape Town. The main objective of the research is to critically evaluate the rental housing market system in Kenya to determine why despite the high demand for affordable rental housing, there has not been corresponding supply of adequate good quality housing units. The research is expected to identify policy transformation areas to ensure adequate supply of affordable rental housing. The results of the research will be presented in the Department of Construction Economics and Management in fulfilment of the requirement for the award of a **Doctor of Philosophy**.

The aim of this questionnaire is to collect data related to affordable rental housing delivery in Kenya. Therefore, the information provided is purely meant for academic purposes only and will be treated with the utmost level of confidentiality. All information gathered through the interview process will be solely used for the purpose of this research. Only persons directly related to the supervision and assessment of this dissertation will see the raw data of the interview.

The participation in this research is voluntary. Upon volunteering to participate in the research, we would ask you for a suitable time when we can have a semi-structured face-to-face interview with you. The interview will take about 30 minutes to one (1) hour.

You are free to withdraw your consent and discontinue participation without offering any reasons. This research has been reviewed and received the ethics clearance of the Faculty of Engineering and Built Environment Research Ethics Committee.

If you have any questions about the research or what is involved, please contact me, **Victor Otieno Olonde** on volonde@yahoo.com and phone number +254722772379. You can also contact my supervisors who are Professor Manya Mooya on manya.mooya@uct.ac.za and Professor Kanshukan Rajaratnam on kanshukan.rajaratnam@uct.ac.za.

Signature of Research Participant/Legal Representative

I have read the information provided by Mr. Victor Olonde and understand the kind of information he is seeking from me. I agree to answer the questions posed in this study and provide accurate information to the best of my ability. I understand that my participation is voluntary and that I am free to withdraw at any time without offering reasons. I agree to take part in this study.

Name of participant (please print) -----

Organization of participant-----

Signature of participant-----Date-----