

**ANGLIA RUSKIN UNIVERSITY**

**FACULTY OF BUSINESS AND LAW**

**HOUSING FINANCE AND DELIVERY CONSTRAINTS IN**

**GHANA: THE CASE OF NEW JUABEN MUNICIPALITY**

*A thesis in partial fulfilment of the requirements of Anglia Ruskin University for the  
degree of*

**DOCTOR OF PHILOSOPHY**

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## **ABSTRACT**

Housing has been considered as one of the basic needs of households. However, statistics indicates that households in Ghana are experiencing acute housing problems. The study sought to investigate the activities of four main stakeholders of households, mortgage institutions, estate developers, and government land sector agencies, in the housing industry to present a sustainable recommendation to mitigate the problem.

The case study methodology was adopted, and the New Juaben Municipality of Ghana was used as the study area. Data from face-to-face interviews, focus group discussions and archival records (secondary data) were obtained from the stakeholders and analysed to identify the findings of the study. It was realised that prices of houses sold by estate developers were high, households did not have adequate income to access and sustain payment of mortgages, financial institutions experienced high interest and foreign exchange rate risks, credit risk, and long foreclosure period. The concerns from real estate developers were unavailability and high cost of inputs like land, labour, capital, and building materials. On the side of the government, land sector agency services were not automated and this caused delays in land registration and planning approvals.

It was therefore recommended that estate developers should construct houses with different finishes and prices so that households can choose what they can afford. Additionally, households' incomes should be enhanced by the provision of subsidies from their employers as well as the government. The beneficiaries should be allowed to access benefits of tier 2 pension funds. The government should stabilise the policy and exchange rate rates to reduce mortgage financial risks encountered by banks and reduce the foreclosure period. Furthermore, estate developers should have land banks, engage trained specific building workforce, and use locally produced quality building materials whilst government land sector agencies should automate their services.

**Key Words:** Housing, Households, Mortgage, Estate developers, Ghana.

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## **LIST OF ABBREVIATIONS**

ACCOSCA	Africa Confederation of Co-operation Savings and Credit Association
BHC	Bank for Housing and Construction
BHOME	Build and Own a Home
BOQ	Bill of Quantities
BRRI	Building and Road Research Institute
BRT	Bus Rapid Transport
CBD	Central Business District
CPD	Continuous Professional Development
CPP	Convention Peoples Party
CSAU	Client Service and Access Unit
CRA	Credit Rating Organisations
CUA	Co-operative Unions Association
DPHS	Disposed Persons' Housing Scheme
EOQ	Economic Order Quantity
ERISA	Employee Retirement Income Security Act
ERP	Economic Recovery Programme
FGBS	First Ghana Building Society
FTB	First Time Buyers
FOVI	Fondo de Operacio'n Y Financiamiento Bancario A La Vivienda
GNA	Ghana News Agency

GOG	Government of Ghana
GPS	Geographical Positioning System
GREDA	Ghana Real Estate Developers Association
GSE	Ghana Stock Exchange
GSEC	Ghana Securities and Exchange Commission
GHAMFIN	Ghana Micro Finance Institutions Network
HDC	Housing Demand Constraints
HFC	Home Finance Company
HIPC	Heavily Indebted Poor Countries
HML	Home Mortgage Loans
IFC	International Federation Corporation
IMF	International Monetary Fund
IPO	Initial Public Offer
ISA	Independent Savings Account
LAP	Land Administration Project
LPS	Land Policy System
LPRP	Land Pooling and Readjustment Programme
LRD	Land Registry Division
LTV	Loan to Value
LUSPA	Land Use and Spatial Planning Authority
LVD	Land Valuation Division



MoWH	Ministry of Works and Housing
MPT	Modern Portfolio Theory
NPP	New Patriotic Party
NRC	National Redemption Council
NLC	National Liberation Council
NRCD	National Redemption Council Decree
OECD	Organisation for Economic Co-operation and Development
PNC	People's National Party
PNDC	People's National Defence Council
PP	Progress Party
PPP	Public-Private Partnership
PPP	Purchase Power Parity
PVLMD	Public and Vested Land Management Division
REIT	Real Estate Investment Trust
RFHL	Republic Financial Holdings
SAP	Structural Adjustment Programme
SEC	Security Exchange Commission
SHC	State Housing Company
SMD	Survey and Mapping Division
SSI	Semi-Structured Interview
SSNIT	Social Security and National Insurance Trust

SPSS	Statistical Package of Social Sciences
TCPD	Town and Country Planning Department
TDC	Tema Development Corporation
UN	United Nations
UNOPS	United Nations Office of Programme Services
USA	United States of America
USD	United States Dollar
WOCCU	World Council Institutions Network

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## **CHAPTER 1**

### **INTRODUCTION OF THE STUDY**

#### **1.1 Introduction to the housing problem in Ghana.**

A shelter was stated as one of the basic needs of life under Maslow's concept of a hierarchy of needs (McLeod, 2016); however, it has been unaffordable by several people in Ghana creating an overcrowding situation in most parts of the country. Tibaijuka (2009) states that high population growth and urbanization, especially in countries in Africa have created several problems including substandard housing conditions and overcrowding of households. Furthermore, the Ghana News Agency (2017) reported that there was a 1.7million housing deficit in the country and emphasised that it was one of the worse in the world. This indicates the nature of overcrowding and its attendant health issues in the housing units.

This chapter seeks to discuss a brief account of the housing industry to identify the challenges that have caused the current acute accommodation problem in Ghana. It starts by discussing the activities of the colonial government in mitigating the challenges of the accommodation problem. Most of the activities of the government concentrated on researching housing in the then Gold Coast (currently called Ghana) but did not involve itself in the direct construction of houses. Most of the research findings were not implemented by the government after gaining independence on 6<sup>th</sup> March 1957. The government of Ghana however embarked on a mass social housing project which was not sustainable and therefore invited real estate developers to partake in the housing industry. Due to the high cost of construction, the prices of the properties were high, and most households could not acquire the houses. The research problem was presented under the chapter and the research gap was identified as the lack of comprehensive analysis on the activities of the stakeholders (households, financial institutions, housing developers, and relevant government institutions) to mitigate the accommodation challenges in the study area. Based on the gap the research questions, objectives, and methodology were developed to address the problem in the chapter. The Chapter ended up with the limitation of the study.

## **1.2 Brief background of housing development in Ghana.**

A study which traced the background of the housing industry in Ghana to identify and discuss the main causes of the acute housing problem in the country revealed that the colonial government did not involve itself in the direct construction of houses, rather, that government engaged in research on housing in the country. Some of the main research findings as well as recommendations were presented by a team of visiting experts from the United Nations. Notable among the recommendations was that the government should not directly participate in the construction of houses but should rather provide the enabling environment needed to attract the private sector to invest in housing construction. When Ghana gained independence on 6<sup>th</sup> March 1957 however, the first government under the Convention Peoples Party (CPP) did not implement the technical advice of the United Nations technical team.

Ansah and Ametepey (2013) have observed that, after Ghana gained independence in 1957, the then first government under the first republic, the Convention People's Party (CPP), controlled the housing industry in terms of introducing social housing policies. The policy mainly entailed the construction of mass social housing owner-occupied and rented premises. According to the State Housing Company (2010), the Company was financed by the government to be able to construct houses at subsidised prices and rent same to households in Ghana. This form of housing policy reflects the practice in the transitional economies of central and eastern European countries like Poland, Bulgaria, and Hungary, where governments had considerable influence on the development and finance of residential properties (Stephens, 2003). Government institutions that were established to implement most of the housing projects in Ghana were the State Housing Company (formally State Housing Corporation), Tema Development Corporation (TDC), and First Ghana Building Society (Public Mortgage Financial Institution). The State Housing Corporation was established in 1956 and a total of 6,000 housing units were developed under the 1959 -64 development plan of the CPP government in all the then nine (9) regional capitals in Ghana. Tema Development Corporation (TDC) also developed 2,255 housing units in Tema near Accra for the workers in the Tema Harbour in Ghana.

The National Liberation Council (NLC), the military government that overthrew the government of the CPP and ruled for 3 years (1966 to 1969) adopted the social housing policy which enabled the government to construct 1,000 housing units. The democratically elected government of the Progress Party (PP) that succeeded the NLC ruled the country for 3 years (1969 and 1999) and continued the social housing project. The PP government was able to construct a total of 1,776 housing units. Furthermore, the National Redemption Council (NRC) made some contributions to housing development by introducing a 'Low Cost' housing policy in the country. About 5,466 low-cost houses were developed within 7 years (1972-1978) for low-income earners in urban centres. The subsequent government was the PNC which ruled Ghana for 2 years (1979 – 1981) and adopted the social housing policy to construct 2,218 houses in the country. The next government was the People's National Defence Council (PNDC) which was initially a military government (from 4<sup>th</sup> June 1979 to 24<sup>th</sup> September 1979 and 31<sup>st</sup> December 1981 to 7<sup>th</sup> January 1993,) but was converted to a civilian government (under The National Democratic Congress (NDC)), after its leader had resigned from the military and won a general election to continue as the Head of State of the government (between 7<sup>th</sup> January 1993 to 7<sup>th</sup> January 2001). Though the NDC introduced adhoc policies like the National Shelter Strategy, Vision 2020, and structural adjustment programmes (details of the policies have been presented under Chapter 2), it could not make any significant impact in terms of housing construction (Agyemang, 2001; Ansah & Ametepey, 2013).

The Social Security and National Insurance Trust (SSNIT), a quasi-government institution used workers' pension funds to construct 7,168 housing units from the 1980s to the 1990s in all the regions in the country to compliment developments made by the government.

In the late 1990s, the Ghana government could not continue its social housing projects due to lack of funds and policy restrictions from the International Monetary Fund (IMF) based on the World Bank changes in housing policies for its members. The World Bank (1993: 53) stated that: *The role of governments from 1992 should change from direct provision of land, building and housing financing to policymaking, coordination, and regulatory responsibility of enabling role to facilitate the provision of land and housing*

*by the private sector; improved coordination of sector and macroeconomic policy.* The government, therefore, focused on developing housing policies for implementation by the private sector.

Considering the enormity of the housing problem especially with regards to the fact that the private sector could not develop adequate houses since the government changed its policy of social housing development in the late 1990s, the New Patriotic Party (NPP) which ruled for 8 years (01/2001 – 01/2009) introduced a certain housing intervention which was daubed the Affordable Housing Project. The project intended to develop houses at subsidized prices for low- and middle-income earners in varied regions of Ghana. The project intended to develop 20,000 housing units at varied locations in the country. However, by the end of the NPP administration it was only able to develop 4,000 uncompleted structures at varying levels of completion. These uncompleted structures were constructed in towns like Tamale and Wa in the Northern part of Ghana, Asokore Mampong in the Ashanti Region, and the Borteyman in the Greater Accra region. The uncompleted structures have been abandoned in the bush (Agyemang, 2001 and Ansah and Ametepey, 2013).

According to Ghana News Agency (2019), the subsequent NDC government that ruled between 7<sup>th</sup> January 2009 and 7<sup>th</sup> January 2016 did not complete the uncompleted structures constructed under the Affordable Housing Project of the previous government but initiated a Public-Private Partnership (PPP) project between the Government of Ghana and STX Korea Construction Company. This project however could not be implemented due to the lack of effective collaboration among the parties. The current government of the New Patriotic Party (NPP) which ruled from 2016 has adopted both the PPP introduced by the NDC and the affordable housing provision practiced by the former administration of NPP in 2004 (Ghana News Agency, 2019).

Furthermore, due to inadequate support from the government to the private sector in terms of the provision of reliable housing policies, the accommodation challenges have been aggravated. It has therefore been a practice in Ghana where adhoc housing policies are

developed by governments to win votes and win elections only for the projects to be abandoned after the elections due to lack of funds.

The drivers of the housing policies provided above have been ideological (Socialism) and redistribution of income especially among the political parties to the grassroots to make the government popular to win elections (MacLennan and Miao, 2017).

The table below summarises the statistics of houses developed by various regimes described above.

**Table 1.1: Summary of the number of houses developed by various regimes.**

<b>Government regimes with dates</b>	<b>The number of housing units constructed.</b>
Convention People's Party (CPP) – (1957 to 1966).	8,255
National Liberation Council (NLC) – (1966 to 1969).	1,000
Progress Party (PP) – (1969 to 1972).	1,776
National Redemption Council II (NRC) – (1972 -1978).	5,466
People's National Convention (PNC) – (1979 to 1981).	2,218
People's National Defence Council (PNDC)/ National Democratic Congress (NDC)- (1979, 1981 – 1993, 1993 to 2001).	SSNIT constructed 7,168 housing units between 1980 and the 1990s.
New Patriotic Party (NPP) – (2001- 2009).	4,500 uncompleted housing units
People's National Convention (NDC)- (2009 to 2016).	1, 500 housing units
New Patriotic Party (NPP) – 2016 to 2019	Initiated construction of 6,500 housing units under the UNOPS housing project.

**Source: Ansah and Ametepey (2013) and Ghana News Agency (2019)**

According to Ansah and Ametepey (2013), in the late 1990s due to inter alia, the deteriorating economic situation in the country, coupled with the directive from the World



Bank, both the government and SSNIT could not finance the social housing projects. The Government commercialized the State Housing Corporation to State Housing Company whilst SSNIT virtually halted its residential developments. Karley (2008) confirmed this and stated that the government realized that its social housing policy was not sustainable hence it commercialized the state estate agencies and encouraged private real estate developers to get onboard and help to develop the housing industry. The contributions of real estate developers have been presented below.

### **1.2.1 Contribution and constraints encountered by housing developers.**

The mode of operation of the developers includes the acquisition of land, registration, obtaining planning permits, and building of high-class houses for sale. UN Habitat (2006) discusses that housing delivery consists of the availability of land, provision of infrastructure, planning schemes, and actual construction. Real estate developers which consist of both quasi-government institutions such as SSNIT and private developers like Trasaco, usually acquire relatively large track of stool lands, family lands, and government leases. Mahama and Dixon (2006) and Karley (2008) emphasized that interests held by these landowners are the allodial title, freehold (common law and customary), and leasehold. The allodial title is considered the highest title that can be held in Ghana. In areas where the traditional authority is symbolised by a stool or skin like the Ashanti Region, the allodial title is held by the head of the stool in trust for the subjects. However, in areas like the Akwapims in the Eastern Region, the allodial title is not held by the traditional authorities but in clans or family heads. Furthermore, the freehold title is a perpetual interest that is subject only to the allodial title and can be granted under common or customary law. The leasehold title is however a terminable interest of a maximum of 99 years. There is however a combination of stool lands, family lands, and government lands in Ghana (Mahama & Dixon, 2006; Ghebru & Lambrecht, 2017).

Additionally, it is apparent from the above that the tenure systems in Ghana are complex and not well organized, as compared to some Africa countries like Tanzania, Kenya, and Uganda where all the lands are held in the Government in trust for the citizens (Kasanga & Kotei, 2001; Asumadu, 2003). Due to the nationalization of the lands in the said African

countries, they are well managed by the professionals in government institutions thereby reducing the numerous challenges associated with land administration. The inconsistencies associated with the tenure system in Ghana make property transactions unreliable and associated with disputes. According to Asumadu (2003), the land tenure arrangements in Ghana make it difficult for property developers to get access to land for development.

After the acquisition of land and the relevant documents obtained, the interest held in the land is registered at the Lands Commission before applying for development permits from the local Assembly under the Local Government Act, 1993. There are two forms of registration in Ghana: the deeds registration under the Land Registry Act 1962 (Act 122) and the Land Title Registration under the Land Title Registration Law 1986 (PNDCL 152) (Karley, 2009).

The registration process has evolved from its implementation under four (4) different departments under the Ministry of Land and Natural resources to one department with 4 divisions (under Lands Commission Act 2008) under the Land administration project (LAP) implemented in the country from 2002 to 2015 (LAP-2 News, 2014).

Furthermore, the collaboration of the divisions (Land Valuation, Public Vested, and Land Management, Survey and Mapping and Land Registry) helped in the introduction of the Client Service and Access Unit (CSAU) in the land management system. Under the CSAU, most of the land registration processes are undertaken in one office that accommodates representatives from relevant divisions instead of having them done at varying locations of the divisions. Though this system simplifies the land registration process, the divisions are not well-coordinated, and the registration system is also not automated. The process therefore, is still fraught with delays, and it takes about eight (8) months to complete registration before development activities can commence. In addition to land as a factor of production real estate developers also obtain construction materials for the development of landed properties (Baye, 2009).

Real estate developers usually import foreign construction materials like porcelain floor and wall tiles and Plastic Tongue and Groove (T&G) ceiling which are expensive and

increase the cost of construction and price of houses. They develop high-class buildings to attract mostly Ghanaians living abroad at the expense of households residing in Ghana. Karley (2009) stated that the percentage distribution of private real estate developers' clients consisted of residents (27%), foreign residents (8%), and Ghanaians living abroad (65%). Additionally, the government does not encourage technical education making it difficult for housing developers to engage well-trained artisans to construct houses in their construction sites. According to the Oxford Business Group (2017), the labour force in the construction industry in Ghana has suffered from a growing gap. The World Bank estimated that there was a shortage of 60,000 skilled artisans and tradesmen in Ghana. There have been several complaints about the poor condition of houses constructed by estate developers resulting in increased cost of maintenance of households who acquire those houses. Whilst Karley (2009) maintains that buildings sold by real estate developers are affordable by middle- and high-income earners in Ghana, Asare, and Whitehead (2006) argue that it is only affordable to only high-income earners in Ghana. The later assertion appears to prevail since with the current daily minimum wage of GHC 9.68 (\$2.1, £1.6) it is difficult for middle-income earners to afford about 20-50% deposits of about GHC 230,000.00 average price of houses (detail price list provided under Appendix IV). Sarfoh (2007: 5) emphasises that "The cost of housing has soared out of control, to the point that a senior government employee would have trouble finding an affordable house. Only very wealthy Ghanaians and international diplomats in Ghana can afford to buy a house". Due to low levels of income compared to house prices, households apply for loans from financial institutions.

### **1.2.2 Households property acquisition challenges.**

The development of housing is capital intensive and mortgage financing serves as a widespread mechanism to bridge the gap between households' incomes and the cost of residential buildings (Gibb, 2009). Due to the volatile economic situation (high interest, credit, and exchange rate risks) in Ghana, financial institutions offer loans at higher interest rates than other parts of the world like South Africa and England. For instance, whilst the average mortgage interest rate in 2017 was 36.6% in Ghana it was lower in South Africa (10%) and in the United Kingdom (3.99%) (Bank of Ghana, 2018). It

indicates that the mortgage interest rate in Ghana is about 3 times that of South Africa and 10 times that of England.

Housing Affordability has been described as the relationship between housing expenditure and household income. Households can meet the monthly mortgage or rent payments which are recommended as one-third (33%) of household income (Freeman and Whitehead et al, 1997; Karley, 2008). Akuffu (2009) estimates that over 75% of Ghanaians cannot afford mortgage loans. Affordability has therefore become an issue for most households in Ghana. Housing affordability has been discussed in detail under Chapter 3.

Mortgage loans in Ghana are unattractive to banks due to the difficult terms of loans for borrowers. For example, the Republic Bank (formally Home Finance Company) terms for Buy, Build and Own a Home (BHOM) in 2018 consist of payment of 30% deposit of the price of the property, up to 50% monthly mortgage, and 20 years loan term. Most financial institutions in Ghana are not attracted to the housing industry due to high interest rate and exchange rate risks associated with the high volatility of the rates (Asare and Whitehead, 2006). Interest rate risk relates to the likelihood that the policy interest rate would change during the long period of mortgages. When this happens, the value of the loan or capital of the financial institution falls especially when the policy interest rate rises during the period of the loan. Furthermore, the foreign exchange risk relates to the likelihood that the exchange rate of Ghana cedi against the main foreign currencies like the USD and pound sterling would rise during the long period of the loan. These uncertainties associated with the policy rates and foreign exchange rates as stated above resulted in only three main financial institutions namely Ecobank, GHL Bank, and Republic Bank that provide mortgage loans in Ghana. In addition to mortgage loans, some households rely on funds of families living outside the country, short-term loans from the banks and microfinance institutions as well as monthly income to engage contractors to develop properties for them. This form of housing financing is what Karley (2002) and Bondinuba and Jones et al (2020) discussed as alternative housing financing in Ghana.

The background information about housing discussed above reveals that social housing provision by the government dominated immediately after independence. This affected the housing market and crowded out private investment in the sector. Private investments in housing construction mainly cropped up after the government could not continue with its social housing project. Private housing construction encountered a high cost of construction and unavailability of adequate construction inputs. This high cost of construction results in high prices of houses which are usually unaffordable to most households. As stated, the above households' income is low, and unable to acquire the houses. Most households, therefore, contacted financial institutions for mortgage loans. However, due to the high-interest rate and other requirements like payment of deposit, creditworthiness, and payment of the monthly mortgage, most households were unable to access the loans to acquire houses in the community. The high interest rate charged by financial institutions is based on the policy rate, hence as the policy rate increases the banks also increase the interest rates. As stated above this action of the banks is to avoid interest rate risk which was described as the likelihood that the loan given for the long mortgage loan period would change. It has also been discussed in previous sections that the foreign exchange rate of the cedi to the main foreign currencies like the USD and pound sterling also fluctuates consistently posing foreign exchange risk to financial institutions. It could be realised that the government's role in creating an enabling environment has not been implemented to help households, financial institutions and housing developers. Regarding households, the government could not provide subsidies such as exemption of payments of stamp duty for low-income earners in order to reduce their expenditure and enable them to afford the payment of a monthly mortgage. Again, the government has not been able to reduce and stabilise the policy interest rate to make it attractive to more banks to partake in the provision of mortgage loans in the country. Furthermore, land acquisition and registration processes remain a herculean task for housing developers, coupled with an inadequate and inefficient labour force for housing. These challenges have made availability of houses a near-difficulty in most communities in the country. The above challenges resulted in acute accommodation challenges in Ghana in general and the study area in particular. The housing problem in Ghana was evident in the housing and population census carried out by the Statistical Service of

Ghana (2010) which revealed that the average number of persons living in a housing unit in the study area was 8.1 which was higher than the national average of 7.1. Again, there was an average of 2.18 households living in a housing unit in the study area compared to a national average of 1.6.

### **Gaps Identified**

Research on housing in Ghana has concentrated mainly on Accra and Kumasi, the two main cities in Ghana which suggests that housing challenges are only prevalent in the cities. The Ghana 2010 population census however indicated that the housing challenge is prevalent in other parts of the country including the New Juaben Municipality. However, there is inadequate research on housing in the area to present an in-depth literature on housing in the Municipality. This lack of in-depth literature on housing in the study area constitutes a problem.

Furthermore, research on housing focused on individual stakeholders in isolation, without considering other stakeholders and their interrelationships. This resulted in the provision of ad-hoc recommendations which was not sustainable hence the housing challenges in Ghana could not be mitigated. For instance, Asare and Whitehead (2006) and Karley (2008) studies were on housing finance in Ghana with emphasis on Accra. This research, therefore, fills the gap by focusing on the main stakeholders of households, financial institutions, estate developers, and relevant government land agencies and their interrelationships to identify their challenges in the New Juaben Municipality. The recommendations will present sustainable mitigation of the housing challenges since all the stakeholders are involved in the research activity. Akuffu (2007) has argued that most governments of Ghana tried to resolve the housing problems, but without partnership among the stakeholders, it is not possible.

It has been revealed from previous sections that the government of Ghana since independence has not been able to introduce effective housing policies neither has the government created the enabling environment to aid the stakeholders in the housing industry to make affordable houses available in Ghana in general and the study area in particular. Housing developers encounter challenges in gaining access to adequate

housing construction inputs at reasonable costs to be able to provide reasonable prices to households. Furthermore, the high risks associated with granting loans to households have not been attractive to most financial institutions in the housing industry. The high prices of houses and difficult loan requirements made it difficult for households to afford the acquisition of houses in the study area. The thesis, therefore, seeks to investigate the stated challenges, analyse the findings and make recommendations aimed at mitigating the mentioned challenges associated with households, financial institutions, and housing developers in Ghana based on the following research questions:

### **1.3 The research questions**

Based on section 1.2 the key research questions on housing in Ghana are as follows:

- What are the causes of the household's unaffordability?
- Why are financial institutions hesitant to provide funds to households?
- What are the housing development challenges?
- How can the challenges be mitigated?

The research questions presented above serve as a guide to identify the main issues related to the activities of relevant stakeholders to fill the gap in housing finance and development. The first question seeks to discuss and understand households' housing unaffordability to be able to investigate the causes in the study area.

The second research question relates to the fact that financial institutions are risk-averse and would always like to reduce the risk of losing their capital especially in areas where default rates are very high (Mishkin and Eakins, 2012). Institutions are guided by requirements that would protect their investments, but these requirements are difficult to meet especially by low-income earners. This makes it difficult for households to access and acquire properties to mitigate the acute accommodation problem. This study seeks to provoke a subject for discussion among the main stakeholders as to how the mortgage loan requirements could be made manageable to especially low-income earners so that they can also access the loans to achieve their housing aspirations.

The third research question relates to challenges encountered by real estate developers. It seeks to investigate the challenges that housing developers experience in the study area which prevents them from constructing affordable houses. Objectives are set based on the questions and relevant factors, concepts, and theories that underline operations considered and discussed especially among the stakeholders.

The question of how the challenges presented above could be mitigated relates to the recommendation of the thesis and would be based on the outcome of the analysis of both primary and secondary data gathered under the study. It discusses suggestions to mitigate the challenges experienced by households to enable them to access mortgage loans to finance their houses. Again, it aids housing developers to gain easy access to housing inputs at reasonable prices to be able to construct houses that would be affordable to households. The research question also discusses how financial institutions could reduce the risk associated with granting loans to enable them to grant more loans to households. Lastly, it discusses strategies that would help government agencies like the Lands Commission and Land Use and Spatial Planning Authority to expedite the processing of deeds registration and planning permits to developers.

### **1.3.1 The aims and objectives of the study**

The broad aim of this study is to investigate the activities of the main stakeholders in the housing industry in the study area to identify their challenges and discuss recommendations to mitigate them. The associated objectives are as follows:

- 1) Provide an understanding of the nature of the housing problem in Ghana.
- 2) Investigate the affordability constraints in Ghana.
- 3) To establish the nature of housing finance constraints and how this is dealt with.
- 4) To assess the nature of constraints encountered by housing developers.
- 5) Recommend strategies to enhance housing affordability, finance, and delivery in Ghana.



#### **1.4 Research design**

This refers to the processes involved in addressing the research questions and objectives. It provides the philosophical position, sources of data and how they are going to be collected and analysed as well as ethical considerations (Saunders and Lewis et al, 2012).

The Interpretive philosophy (other than positivism) has been adopted for the study since the study relates to the social life of households. Saunders and Lewis et al (2012) opine that interpretivism relates to researching people as ‘social actors’ based on their background. It has however been criticized that since it is subjective, the researcher can be biased in terms of real-life situations (Creswell, 2003). Researchers require knowledge or methods that would aid them to obtain and interpret the views and actions of participants to help in the presentation of answers to the research questions. The main methods that researchers have often employed to obtain and analyse data are either qualitative or quantitative approaches (Saunders & Lewis et al, 2012; Myers, 2013; Yen, 2018). The quantitative method relates to the collection and analysis of usually numeric data. The qualitative method relates to the collection of data that relates to the social life of human beings based on the cultural background of the participants. Data collected can also be quantified under the qualitative methodology (Saunders & Lewis et al, 2012; Myers, 2013; Yen, 2018).

The housing problem in the study area relates directly to the social life of households and thereby the qualitative method was adopted to investigate the challenges and provide a recommendation as to how it could be mitigated. The comprehensive analysis of activities of households and the other stakeholders in the housing industry (financial institutions, real estate developers, and the government agencies) to mitigate the housing deficit makes it more imperative to adopt the qualitative method since they are represented by human beings with different socio-cultural backgrounds. The context within which each stakeholder operates could easily be identified (since they are all human beings) with the qualitative method than with the quantitative method (Myers, 2013).

Furthermore, housing is a contemporary phenomenon (information changes frequently) and associated with numerous stakeholders (households, financial institutions, real estate

developers, and the government), which calls for the use of relevant varying sources of data associated with the stakeholders: archival records, focus groups, and interviews thereby making it appropriate to adopt the case study other than the other qualitative strategies (ethnography and the grounded theory). This form of combining sources of data collection is referred to as triangulation and is synonymous with the case study strategy. Additionally, the study is also related to a specific geographic location, the New Juaben Municipality which is one of the attributes of the case study strategy (Yin, 2018).

The New Juaben Municipality is adopted as the case study since the researcher worked as an estate officer in the municipality for 7 years and had observed the low number of housing and overcrowding situation in most houses. A case study is described by Payne and Payne (2004) as a detailed study of people living within a single unit or clear physical boundaries.

The use of varying sources of data under the case study strategy helped to corroborate or negate data obtained in the study. As stated above the main sources of data used in this research were, face-to-face semi-structured interviews, focus group discussions, and archival records (secondary data). Semi-structured interviews (face to face) were held with households and professionals from land sector agencies, real estate developers, and financial institutions. This form of interviews involve the use of interview guides and probing questions that came up during the interview. Interviews focused on accommodation problems of households and challenges that they had with other stakeholders. Participants were free to provide further information besides the specific questions based on their cultural background.

Archival records in the form of population census information were also obtained from the Ghana Statistical Service whilst topographical maps and planning schemes were obtained from the Lands Commission and some of the estate developers in the study area. Additionally, secondary data in the form of policy interest rates, foreign exchange rates, and mortgage rates were obtained from the Bank of Ghana and mortgage financial institutions.

Furthermore, focus group discussions were undertaken with the stakeholders in the study area to be able to garner a broader and deeper understanding of relevant issues. The researcher moderated the discussions.

The purposive (judgmental sampling) non-probability sampling was adopted to select relevant professionals from government agencies such as Lands Commission and Town and Country Planning Department, financial institutions, real estate developers, and households. Furthermore, twenty-seven (27) face-to-face interviews and one (1) focus group discussion were held with respondents. These selected respondents included all levels of income earners (low, middle, and high) and gender-sensitive to avoid biases. Neumann (2005) discussed that the purposive sampling method is appropriate when working with small samples as in case study research.

Concerning the sample size adopted, Saunders and Lewis et al (2012) discussed that the final sample size adopted by a researcher is a matter of judgment based on the confidence that one has in the respondents. The sample size of informants that provided data was based on data collected reaching a saturation point where no new significant data or information needed to be added to existing ones.

The empirical data was analysed by coding and categorizing data manually. Miles and Huberman (1994:56) stressed that “*Codes are tags or labels for assigning units of meaning to the descriptive inferential information compiled during a study*”. Codes are attached to “chunks” of varying size –words, phrases, sentences, or whole paragraphs, connected or unconnected to a specific setting. Relationships among the codes are established if possible, to provide the findings of the study (Saunders & Lewis et al, 2012; Houghton & Murphy et al, 2015).

Secondly data obtained were presented and analysed. Interest rates and foreign exchange rates were presented in the form of graphs and histograms and analysed quantitatively. Saunders et al (2012) discuss that, there may be reasons why the researcher decides to quantify some of the qualitative data. These data can be displayed using a table or diagram.

Ethics approval was obtained from the relevant departments of the university before commencing the fieldwork. Issues concerning honesty, objectivity, and confidentiality are applied in all the facets of the study as indicated under Chapter 5. Detailed description of the methodology has been provided under chapter five (5) of the study.

### **1.5 Structure of the work**

Chapter 1 is the introduction to the study. It presents the motivations for the research and sets out the nature of the housing problem in the study area as well as the background information that led to the housing problem. This chapter sets out the research questions, aims, and objectives of the research. Subsequently, a brief methodology of the research and the structure of work is outlined. Chapter 2 analyses the historical background of housing finance and delivery in Ghana. It shows that the housing history of Ghana parallels that of Eastern and Central Europe. Housing investment was dominated by the government of Ghana with the development and finance of mass social housing that crowded out private investment in housing. However, at a point, when the government could not sustain the affordable housing projects, the private sector was invited to partake in the housing industry. But lack of relevant government housing policies to manage the activities of the main stakeholders brought a stalemate of development of residential buildings in the country. The historical background helps to identify the main causes of some of the housing challenges.

Chapter three considered further literature review and presented theories, concepts, and literature on housing that helped to discuss the challenges of housing finance and delivery presented under Chapter 1, and historical background under Chapter 2. The outcome of the discussions under Chapter 3 form the basis of developing the conceptual framework under Chapter 4. The conceptual framework of the study guided the adoption of the methodology of the study.

Chapter 5 sets out the planning of the empirical study which is mainly guided by the conceptual framework under Chapter 4. It contains the methodology of the study which consists of the adoption of the case study strategy for the data collected. A sample of 27 participants was selected based on purposive sampling. Face-to-face interviews and focus

group discussions were designed and undertaken to collect primary data from the field. Additionally, archival records in the form of population census, maps, regulations, and economic indicators were obtained from the field. Qualitative data was analysed by categorisation of data units under codes. A relationship among codes was established to present the outcome of the analysis. Secondary data that were obtained in figures were analysed quantitatively. The outcome of both qualitative and quantitative data analysis helped to present key findings of the study.

Chapter 6 presented data, mainly obtained from the fieldwork which related to responses from the face-to-face interviews, focus group, and archival information. The fieldwork was undertaken between September and December 2019. It identified the challenges experienced by the demand side of the housing market. This consists of households and the requirement of financial institutions to access loans for housing finance. It also identified the risks that financial institutions experience in providing mortgage loans to households. Furthermore, it revealed the relationship among the stakeholders and what they can do to mitigate the challenges of each other since their activities are complementary. The field data was related to the theory of demand and supply and a comprehensive analysis was undertaken to identify current challenges experienced by households and financial institutions which resulted in the housing challenges in the study area.

Furthermore, Chapter 7 considered the supply side of the housing market. It also focused on obtaining primary data and secondary information on the availability and cost of construction inputs and how housing developers construct houses to be able to sell at competitive prices. The performance and relationships of the roles of relevant government agencies and their impact on the other stakeholders in the housing industry were also identified.

A comprehensive analysis of the data obtained on the field and secondary data was undertaken to identify current challenges prevailing in the study area.

Chapter 8, the final Chapter, summarises the key findings of the study and provides recommendations for the housing challenges. It also provides the contributions to the study, limitations, conclusion as well as areas for future research.

### **1.6 Limitations of the study**

The study considered the main source of housing finance to be mortgage loans, though there existed alternative sources of finance like microloans, joint ventures, and loans from cooperative unions in Ghana. This was because mortgage loans are recognised internationally to be the main source of housing financing to households. Since some of the households in the study area relied on alternative sources of housing financing, it creates an opportunity for further research in the study area.

The use of the case study strategy led to the focus on the study area, however, the recommendations presented can be applied to other communities in Ghana and developing countries since they share similar characteristics.

### **1.7 Conclusion**

The brief background of the housing industry in Ghana revealed that the government of Ghana controlled the housing industry right after independence by the introduction of the mass social housing project. The project provided subsidies and made available public financial institutions to provide mortgages to acquire the properties. The project was however not sustainable, and the government privatised the industry. This was done by privatising some government institutions and invited the private sector to participate. The main stakeholders of the housing industry encountered some challenges which aggravated the housing deficit in Ghana. Additionally, the study area encountered high housing density beyond the national average leading to overcrowding situation in the community. To investigate the housing challenges in the study area, the research question to guide the study and the related research objectives were developed. Again, the process of researching to answer the research questions and provide adequate accommodation in the study area was also presented. The case study strategy of the qualitative method was adopted to collect and analyse data for the study.

The next chapter presents a detailed historical background of the housing industry in Ghana to identify the basis or causes of the housing challenges in the study area.

## **CHAPTER 2**

### **HISTORICAL BACKGROUND OF HOUSING INDUSTRY IN GHANA**

#### **2.1 Introduction**

This chapter is presented based on the first research objective and relates to the background information on activities of the stakeholders namely households, financial institutions, housing developers, and the government. These stakeholders have different backgrounds, but their activities are interrelated and require regulations and policies to streamline their operations to ensure reliable outcomes.

The purpose of this chapter is to discuss the challenges associated with the housing policies that were applied during the pre-independent and post-independent periods to be able to understand the nature of the housing problem in Ghana. It commences with the housing policies introduced in the pre-independent era by the colonial government in the then Gold Coast. It was reported by Arko (2009) that the colonial government's motivation for the development of houses was mainly improvement of sanitation and political reasons. However, the colonial government explained that it was also for economic reasons (Agyeman, 2001). Since there were limited private participation, budgets, and pilot housing developments, the economic impact could not be felt by the residents during the colonial era. During the colonial era, several budgets and development plans were presented to develop houses in the country. Implementation of the programmes was not done due to the lack of commitment of the government to provide adequate funds for them. The colonial government piloted most of the projects across the country, but they were not fully implemented. Their activities were more of research rather than a housing development. For instance, the invitation of UN experts into the country immediately before independence did not yield many benefits to the country since their recommendations were not implemented (Ansah & Ametepey, 2013).

Furthermore, the post-independent era was evaluated. After Ghana gained independence, the first government of the Convention Peoples Party (CPP) realised the acute housing problem in the country but did not rely on the recommendation presented by the colonial



government to provide a supervisory role rather than direct provision of houses. The government applied the socialist policy of provision of mass social housing comparable to the transitional economies of Central Europe such as Poland and Croatia. The government introduced 3 main institutions namely the State Housing Company, Tema Development Corporation, and First Ghana Building Society to implement the policy. Several houses were developed throughout the then nine regions of the country at subsidised rent and prices. Though subsequent governments (both military and constitutionally elected) continued the social housing project at comparably lower commitments, it could not be sustained during the late 1990s. The government could not continue its development activities due to lack of funds and invited the real estate developers to partake in the housing industry (Agyeman, 2001; Arko, 2009; Ansah & Ametepey, 2013).

The private sector activities which were crowded out during both the colonial era and the early part of Ghana by the government are gradually gaining ground in the country. However, the government could not create an adequate enabling environment in the housing industry to entice more investors to reduce the housing deficit in the country.

This ends up with an analysis of the emerging issues associated with the pre-and post-independence housing policies implemented by the government and served as a guide to further discussions. The details of the chapter have been discussed below.

## **2.2 The Disposed Persons' Housing Scheme in 1923**

Arko (2009) discusses that one of the housing policies introduced by the colonial government was the Disposed Persons' Housing Scheme. These involved loans that were given to resettle natives whose structures were demolished to improve sanitation in urban centres like Accra and Kumasi. It was stated that there was an outbreak of Bubonic Plaque in Accra, which claimed hundreds of lives and this became worse throughout the 1920s. The Governor at the time Gordon Guggisberg during the inauguration of the scheme stressed that the scheme was needed not only on humanitarian grounds but also for economic. The project was to provide building materials in the form of loans to affected persons to develop their own houses. A total of one hundred and eighteen loans were

granted from 1923 to 1933. However, the scheme was abandoned because it was expensive. Since the demolishing of the houses was made in the interest of the public the affected persons should have been compensated to develop similar houses elsewhere. The provision of loans to reconstruct their houses was not compensation for the loss of the houses of the affected households. According to Gierke (1900) and the Universal Declaration of Human Rights of 1948, every person has the right to own a house and no one should arbitrarily be deprived of property. However, where it becomes necessary for the household to lose private property for the interest of the public, the affected person is entitled to adequate and prompt compensation. Section 20 of The Ghana 1992 Constitution also cement the position and presented that compulsory acquisition should be followed by adequate and prompt payment of compensation to affected persons.

After the compulsory demolition practice of the colonial government to ensure good neighbourhood characteristics and avoid an outbreak of diseases, the first development act was enacted in 1929. The act attracted external assistance to support the housing construction activities of the colonial government.

### **2.2.1 The Colonial Development Act (CDA) 1929 and 1943 Development plan**

Arku (2009) stated that this was the first development act that was enacted in the Gold Coast and it allowed the colony to receive external assistance to balance their budget. Before the passage of the act, the colony was supposed to balance its budgets. This act enabled the promulgation of the Colonial Development and Welfare Fund Act (CDWA). The primary motive of the CDWA was an investment in housing to ensure economic growth in the Gold Coast. In the 1940s housing accounted for 2.5% of funds released under the CDWA. This increased to about 5.6% by the early 1950s (Kwofie and Adinyira et al, 2011).

Furthermore, Agyeman (2001) stated that Governor Allen Burns introduced housing in the general development scheme in the 1943 Development plan and stated that housing is *a potential agent of economic development*. The plan focused primarily on *the expansion of the basic economy of the Gold Coast* which can be established through investments in communication facilities and social infrastructure, including housing. Housing was

allocated 6% of the total planned expenditure. The plan proposed to construct estate houses for low-income earners who lived in large urban centres. Housing continued to be a prominent part of programmes and development plans in the country. It was considered very relevant in subsequent development plans and the 1951 – 1958 plan, housing gained its prominence as discussed below.

### **2.2.2 The 1951 – 1958 Development plan**

The next relevant development plan stated by Ansah and Ametepey (2013) was the the 1951 – 1958 Development Plan which has been considered as the most comprehensive plan ever made in the country. The housing policy provided in the plan aimed to provide the following:

- Stabilize rents
- present security of tenure for tenants
- encourage homeownership
- the need to reduce the cost of building materials
- train skilled labour in the housing industry
- promote mechanization in the building industry

The general impression about the project was that adequate housing provision and efficient building industry are relevant for economic development. Adequate funding was allocated to the housing component of the plan and was the 4<sup>th</sup> rated project.

Table 2.1 shows detailed budget allocations among various departments under the project. The budget was in pounds since before independence it was the official currency in Ghana.

**Table 2.1: Financial allocation under the 1951 – 58 Development Plan**

Sector	Allocation (£)'000	%	Ranking
Agricultural & Natural Resources	7,616	6.5	5
Industry & trade	5,548	4.7	7
Electricity	4,440	3.8	8
Communication	35,955	33.06	1
Local & Reg. govt.	6,000	5.1	6
Education	1,7390	14.8	2
Info. & Broadcast	1,176	1	10
Housing	7,862	6.7	4
Health & water	15,033	12. 8	3
Police & Prison	2,953	2.5	9
Miscellaneous	13,549	11.5	
Total	117,522	100	

**Source: Ansah and Ametepey (2013).**

Table 2.1 indicates that an amount of £ 7,862,000 out of a total budget of £117,522,000 was allocated to housing, under the 1951-58 Development Plan. It further revealed that it was the 4<sup>th</sup> highest rated component after communication (1<sup>st</sup>), education (2<sup>nd</sup>), health, and water (3<sup>rd</sup>) and constituted about 6.7% of the budget. Furthermore, it also indicated an increase in budget allocations from 5.6% under the budget provided under the Colonial Development and Welfare Fund Act (CDWA). This indicates that the colonial government recognised the positive impact that housing had on the growth of the country especially at the later part of the colonial rule.

Under the project, the colonial government piloted housing schemes like subsidizing housing and granting loans to households. Additionally, £2.5million was budgeted for estate housing projects in Accra, Kumasi, and Sekondi Takoradi. Again, the plans made provision for the low-income earners. For instance, a loan scheme of a maximum of £1,600 was made available for those who want to develop their own homes. The main

reason for considering these schemes was to make money available to households to develop their own homes to abate the prevailing housing problem in the country. Furthermore, a United Nations (UN) technical team was invited to the country to assess the housing situation in the country (Ansah & Ametepey, 2013; Boamah, 2014)

In 1948, George Atkinson was appointed as the colonial office housing Advisor. He visited the Gold Coast in 1952 to arrange the visit of the UN technical team to assess the housing situation in Ghana and to provide recommendations. He was a prominent supporter of housing investment, particularly concerning homeownership. He stressed the need for research into challenges associated with homeownership to resolve the acute housing problem of the country and to provide social harmony, safety, and security.

The United Nations technical assistance experts were invited to investigate the housing challenges in the country and to make a recommendation on appropriate housing policies for Ghana. The recommendations presented by the UN housing experts were mainly, to suspend slum clearance that was underway, to use the £2million grant from the UN to support mortgage bank and the “roof loan Scheme” (subsidies given to households who have developed self-help buildings to roof level, to roof their buildings). Furthermore, the housing experts recommended reforms in land tenure systems (laws and regulations concerning property acquisition and sale), creating a national housing authority, and encouraging indigenous style and technology. The UN mission wanted the government to play a role of a *facilitator* and leave the direct housing construction and finance to the private sector. This is generally called *aided self-help* program which is usually recommended by the United Nations and other international bodies (World Bank, 1993; Agyemang, 2001; Boamah, 2014)

The government of Ghana, however, did not adopt all the recommendations but decided to embark upon passing several ordinances like Gold Coast Housing Corporation Ordinance (1955), the Building Society Ordinance (First Ghana Building Society) (1956), and other legislation relating to roof loan scheme, Town and Country Planning, and registration of title Deeds.

Though the colonial government had various programmes toward improving the deplorable housing situation in the country they did not engage in the direct development of houses. They partially provided the enabling environment like infrastructure, loan facilities, and technical advice to facilitate self-help housing development in the country.

When Ghana became independent, most of the technical advice was not taken since the government realised that households' incomes were very low and unable to afford the construction of houses. Relevant policies introduced in the country to improve the housing situation in the country have been presented below.

### **2.3 Housing policies and developments in Ghana after independence.**

The government of Ghana did not continue most of the self-help policies and recommendations introduced by the colonial government because of the initial policy of the state to control most of the sectors of the country. The government therefore directly engaged in the provision of social and affordable housing for the residents as follows.

#### **2.3.1 Introduction of Mass Social Housing Project by the Government of Ghana**

The Government of Ghana led by its first political party, the Convention People's Party (CPP) (6<sup>th</sup> March 1957 – 24<sup>th</sup> February 1966) was believed to have been dominated by the socialist ideology, where the government dominates in direct production and distribution of goods and services.

The Government of Ghana's policies was based on state control of most of the sectors of the economy, including housing with the private sector virtually inactive. Based on the ideology of the government, three government institutions were established to finance and construct mass residential accommodation for the people of Ghana. These institutions are the State Housing Corporation (currently State Housing Company), the Tema Development Corporation (TDC), and the First Ghana Building Society (FGBS). UN Habitat (2010) stated that to satisfy the political motivations and to achieve socialist government agenda, several state housing units were developed in the cities and towns of Ghana. The mass social housing was akin to the mass construction of Post World War II European governments that recovered from the destruction from the war (Safoh, 2007).

Institutions were established under the First 5 years of the Development Plan (1951 – 1956) to achieve their objectives (Kwofie and Adenyina et al, 2011).

### **2.3.2 The establishment of the State Housing Corporation (SHC)**

The SHC was established in 1956, to supply housing for the workers in the public service and to provide long-term housing finance. Branches and developments were established in all the then nine (9) regions in the country. The SHC was under the Ministry of Works and Housing (MoWH) and it was funded directly by the central government. UN Habitat (2010) stressed that many state housing buildings were developed in the cities and towns. For instance, under the 1959 -64 development plan, 6,000 housing units were completed at £44.5million. Furthermore, state housing agencies constituted at least two-thirds of the annual development plan.

However, in the 1990s due to some financial constraints in the economy, the government could not finance the activities of the corporation. Statutory Corporation Act 1993 (Act 461) was passed to allow State Housing Corporation to be registered as a limited liability company.

On July 10<sup>th</sup>, 1995, the State Housing Corporation was registered as a limited liability company under the company name of State Housing Company. The company, therefore, weans itself from direct financing and control by the government. The company adopted a scheme that enabled prospective developers to finance their projects according to stages of building development. Households must make an initial deposit of 20-25% of the cost of the houses and are supposed to release other funds till completion of the development. Due to the low-income levels of most households and the high cost of construction, the scheme was not attractive to households, and those who participated found it very difficult to complete their houses. This resulted in a large amount of capital locked up in uncompleted structures (SHC, 2010).

Due to the company's inactive operations, it has reduced its main offices to 5 zones to cover the 10 regions in Ghana as of 2018. Ghana News Agency (2013) stressed that the main problem confronting the company is the payment of compensation to owners of land

acquired by the government for the company. Most of these lands were acquired in the 1960s but no compensation was paid to the owners. It was further stated that the company is involved in about 400 legal suits which could extinguish the company. Figure 2.1 shows a pictorial view of a State Housing Corporation residential building in the New Juaben Municipality.

**Figure 2.1: Two-bedroom self-contained social housing building at Adweso.**



**Source: Field Work (2019)**

Figure 2.1 above was developed on land compulsorily acquired by the government for State Housing Corporation in the 1960s from the Adweso family landholders. Most of the affected landowners were not paid compensation but the land was developed, and buildings sold out to members of the community.

Additionally, the government acquired land at Worakese, Ashanti Region for the development of housing units for sale without paying compensation to the Worakese



stool. A suit resulted in the payment of GHC 27.0 million (GHC 5.4 to £1) instead of GHC 49.00 million after negotiations with the Attorney General Department of Ghana. Due to the poor financial state of the company, it was unattractive to investors when it was put on divestiture (SHC, 2010).

The government of Ghana initially provided social and affordable mass social housing which was heavily subsidized. Since the market price was not paid for the buildings, the project finance was not sustainable, and the government had to shed its responsibility to the corporation. The government privatized it, but the company has not been able to operate efficiently to provide more residential buildings to the residents of the country.

Globally the privatisation of state resources due to financial crises in an economy and the inability of the government to provide social houses can be related to what some academics refer to as the *East European model of housing* (Tosics and Hegedus, 1998). The Marketisation of state properties took various forms. For instance, it encouraged housing cooperatives in Czechoslovakia, East Germany, and Poland, the introduction of self-build owner-occupied housing in Hungary, and subsidies for owner-occupation in more rural governments such as Yugoslavia, Bulgaria, and Romania (Donnison and Ungerson, 1982; Stephens 2003). Stephens (2003) discusses that *the most common theme in housing reform in the transition economies has been the privatisation of state housing, normally sold to existing tenants at below-market prices*. In Albania for instance more than 90% of the social housing stock was sold to sitting tenants in 1990; in Romania about 85%. Contrarily, it was lower in Czech Republic (6%), Slovakia, and Poland (Hegedus et al 1996).

Stephen (2003) further discussed that after the privatisation of social housing, access to housing can improve access to finance. This requires the development of mortgage finance systems to encourage high loan to value loans with relatively long repayment periods. However, there should be robust valuation systems and effective foreclosure laws. Similarly, State Housing Company could encourage households in SHC estates to use their houses as security to access loans to acquire new houses that they are developing. This would increase access to houses by households to reduce the acute accommodation

problem in communities in Ghana. Furthermore, it was realised that the central and eastern European countries did not sell all the social houses as was done by SHC. The remaining properties could have been used as security by SHC to access loans to continue the housing construction activities and rents generated from the houses could also have increased their internally generated fund to augment their capital for further housing development.

### **2.3.3 Activities of Tema Development Corporation (TDC)**

Tema Development Corporation was established to supply houses to employees of the newly built Tema Harbour at Tema near Accra the capital town of Ghana.

The developmental projects of the corporation are based in Tema, a port city in Ghana. Tema is located in the southern part of Ghana and abuts the Gulf of Guinea (a bay of the Atlantic Ocean). It is about 29km east of Accra, the capital city of Ghana.

It was stated by Bhutia (2015) that, in 1950 due to Ghana's rise in international trade there was the need to construct another deep-water harbour to supplement the work provided by the Takoradi Harbour. Tema was selected in 1951 for its nearness to the Volta River offshore waters to minimize dredging. The harbour which is about 416 acres was commissioned in 1962 and is Africa's largest man-made harbour. A fishing harbour was also constructed in the area.

Due to the developmental activities in Tema, a lot of allied companies were also attracted to the area. Tema, therefore, became the hub of industrialization in Ghana. Tema created a lot of employment avenues for residents of Ghana. There was therefore an influx of population to Tema.

Tema Development Corporation (TDC) was established in 1952 to provide affordable housing for the low-income workers, near Tema Port. The government acquired 64 square miles (166 square km) of land north of the harbour and entrusted it to the Tema Development Corporation in 1952 for development (Bhatia, 2015). A town that contains industries and residential apartments was initially built in the form of communities by the government for the workers of the harbour. The programme provided 2,255 units of

houses and the creation of communities 1-8 in Tema. According to TDC (2010), a lease term of 125 years was granted to TDC called Tema development area. Currently, the corporation operates under Act 1468 of 1989: to plan, to prepare layout and to develop Tema acquisitions. The Tema Development Corporation (TDC) with the prior approval of Tema Municipal Assembly, constructs infrastructural facilities like roads, streets, sewerage, and carry out other activities to ensure attainment of the objectives of the corporation.

After 1991, due to a shortage of funds, the corporation shifted its attention from the construction of houses under the House Ownership Scheme and the management of rental units to the sale of serviced plots. Under the new system, TDC prepared site and service schemes under which lands were provided with utility services for residential, commercial, and industrial use. Serviced lands that were free from all encumbrances were made available to households and companies to develop.

TDC in addition to providing serviced plots to the public undertakes pre-finance developments for households under the following conditions.

- It is a pre-finance project and takes an average of six to eight months to complete.
- A minimum deposit of 50% of the prevailing price is required to be paid before the land would be earmarked for development. The applicant is expected to continue payment by instalment till the completion of the development.
- The final price would be determined after the completion of the development and the applicant would be expected to pay the remaining balance if any within one calendar month. This practice of developers is usually done to protect them from the rise of the price of properties especially due to inflation. It also pushes households to pay the remaining amount early to avoid a price increase. The households are therefore at the mercy of developers due to a lack of competition among developers.
- Applicants who are unable to pay the final selling price would be charged interest on the remaining amount till the final payment.

- A six-month warranty is provided under the scheme and all physical damages that would occur in the building would be repaired by TDC.

The TDC though remains a corporation, has been professionally well managed, and has developed several houses in Tema (TDC, 2016).

#### **2.3.4 Housing finance by the First Ghana Building Society (FGBS)**

The government of Ghana established the First Ghana Building Society to enable households to obtain financial assistance to acquire the affordable housing provided by the then State Housing Corporation (currently State Housing Company) and Tema Development Corporation. The First Ghana Building Society (Currently First Ghana Savings and Loans Limited) was established in 1956 under the Building Societies Ordinance of 1955. It was established to provide financial assistance to prospective homeowners to be able to obtain mortgage loans to acquire or develop buildings especially the affordable houses provided by SHC and TDC. According to Ghana News Agency (2006), the bank was able to provide 12,000 mortgage loans for 50 years since its establishment. However, in 2006 the government approved its conversion to a limited liability company to be able to issue over the counter shares to access more capital for its operations. The bank was therefore converted to a non-banking financial institution with the new name of Ghana Savings and Loans Limited, under the Banking Act of 2004 (Act 673). The bank has not been attractive to investors and due to its poor performance, the bank of Ghana intends to extinguish the institution due to insolvency (GNA, 2019).

#### **2.3.5 The second development plan (from 1959 -1964)**

The second development plan that was made by the CPP government was a five-year plan (1959 – 1964). The focus of this plan inter alia was to encourage individuals to develop their own houses. UN Habitat (2010) emphasized that the second development plan made provision for Self-Help Housing and Roof Loan Scheme. Under the housing scheme, the government was expected to make large tracks of serviced lands available for development by households whilst employers were encouraged to provide loans to

employees to develop their houses (Nelson & Ayeh, 2009; UN Habitat, 2010). The programme is examined below.

### **The Roof Loan Scheme**

The Roof Loan Housing Policy was introduced in 1955 to grant loans and assistance to public sector workers under United Nations \$2million fund programme. It was introduced to grant loans to the beneficiaries in the form of building materials including nails, roofing sheets, and timber by the government. It was implemented by the Department of Social Welfare and Community Development and beneficiaries had to develop their houses to plate (about lintel) level to qualify for the fund. The maximum loan was 800.00 cedis (1 pesewa: 1 penny) payable within 5 years with a 10% interest rate and about 13,726 people benefited from the programme. However, the scheme suffered from a low loan repayment rate and was discontinued in the early 1960s (Nelson & Ayeh, 2009; UN Habitat, 2010).

### **Other programs**

Arku (2009) discusses that the relevant budgetary allocation on housing favoured public housing. So meagre funding was made available for the other programs which rendered them ineffective. The action of the government was to gain political advantage over its rivals and achieve its socialist agenda. The state, for example, built 6,000 houses under the second development plan at the cost of £44.5 million. This affected the implementation of the actual programmes which formed the focus of the second development plan. The reason is that a greater portion of the budget was devoted to social housing. Under the development plan about 6,700 houses were to be developed under the Self – Help Housing Scheme but only 2,517 were built.

### **2.3.6 The Third Development Plan (from 1963/64 – 1969/70)**

The third development plan under the first government of the Convention Peoples Party was the 7-Year Plan (1963/64 – 1969/70). The housing policy under this plan was to encourage the productive sectors of the economy to invest in housing to reduce or clear slums in urban centres (UN Habitat 2010).

This development plan could not be completed when the leaders of the National Liberation Council (NLC) overthrew the CPP Government.

The NLC continued with the social housing project and resourced the TDC and SHC to provide residential developments in major cities such as Accra, Kumasi, Secondi - Takoradi. The government developed 1,000 instead of 2,000 units targeted. The National Liberation Council ruled for about three years, from 24<sup>th</sup> February 1966 to 3<sup>rd</sup> April 1969, and handed over power to a democratically elected government under the Progress Party.

The Progressive Party (PP) took over the administration of the government through the general election and ruled for three years (1<sup>st</sup> October 1969 – 13<sup>th</sup> January 1972). The PP also continued the mass social housing project and introduced a one-year development plan. The SHC and TDC were resourced to develop 1,776 houses out of the 8,000 units targeted. That is, only about 25% of the target was developed. This was mainly due to a lack of funds (Nelson and Ayeh, 2009).

The Progress Party Government could not exhaust its four-year term and was overthrown by a military government, the National Redemption Council (NRC). The NRC ruled for about 3 years (13<sup>th</sup> January 1972 – 9<sup>th</sup> October 1975) and introduced the Low-Cost Housing Scheme through the Ministry of Works and Housing as discussed below.

### **Low-Cost Housing**

It was introduced for low-income households in urban areas across the regions. A low-cost housing committee was set up in the government under the Ministry of Works and Housing. The government's initial funding for the program was 10 million cedis (about \$9.8 million) in 1970. The building is a one-bedroom self-contained semi-detached structure (contains one-bedroom and a hall, toilet, and bath) which is partially fenced at the frontage. Furthermore, the program intended to provide 2,300 units annually at a unit price of between 2,000 and 4,000 cedis (dependent on the size of the buildings). However, as of the year 1975, the government had developed 5,466 low-cost houses at 47,602,678 Ghana cedis giving a housing unit price of about 8,708 cedis (Agyeman, 2001).

Due to the lack of funds, the programme was extended to the private sector which developed the houses at a higher unit price of 10,000.00 (\$9,803.92). Nelson and Ayeh (2009) stated that in 1976 the scheme was abandoned since the unit price was so high that the target group could not afford to acquire the houses.

### **2.3.7 The Vision 2020 Housing Policy of Ghana**

The subsequent governments, however, did not have adequate funding to continue the mass social housing projects and based on the World Bank (1982) amended policy of enabling governments to provide policy guidelines for housing development, (instead of direct development and housing finance) quasi-government institutions and private developers were invited by the government to participate in the housing industry. One of the policies introduced under the new initiative was the Vision 2020 housing policy of the Ghana Government. It was a three-year development plan introduced by the National Democratic Congress (NDC) government in 1996 under which the government collaborated with the Social Security and National Insurance Trust (SSNIT) to abate the housing problem in the country. It was introduced to provide low-income housing for the poor to improve their living conditions. Ministry of Works and Housing (2001) and Bank of Ghana (2007) further stated that the plan provided a new provision under the Social Security Scheme which allowed contributors to withdraw part of their contributions to purchase a house. However, due to lack of funds and political will, none of the housing strategies under the plan were implemented (Bank of Ghana, 2007).

SSNIT however, as part of its investment activities decided to collaborate with the government to invest in affordable housing as discussed below.

### **SSNIT contribution to housing development in Ghana**

The Social Security and National Insurance Trust (SSNIT) was officially established as a corporate body in November 1972 under the National Redemption Council (NRC) Decree 127 to administer the social security scheme of employees. The Act provided for compulsory coverage for workers in institutions employing more than five workers including the self-employed. Institutions that are made of less than five workers were

considered not well established. The Scheme however covered officers in the civil service, workers in the emerging para-statal, multinational corporations, and a few established private companies. Furthermore, contributions towards the scheme under the NRCD 127 were 5% from the worker and 12.5% from the employer which total 17.5%.

A major amendment to the initial Act was the National Pensions Act, 2008 (Act 766) which introduced three forms of pensions dubbed Tier 1, Tier 2, and Tier 3 and changed workers' contribution to SSNIT. Tier 1 and 2 are mandatory contributions whilst tier 3 is voluntary that can be made by any employee with a pension fund institution like an insurance company. According to the National Pension Act, 2008 S (3) the employer contributes 13% of the employee's income whilst the employee contributes 5.5% of the salary making a total contribution of 18.5% of the employee's salary. Furthermore, 13.5% of the contribution is deducted for tier 1 and managed by SSNIT, whilst the remainder of 5% goes to Tier 2 which is managed by trustees who are approved by the board of the pension fund. The Tier 2 fund could be released to contributors to pay a deposit of house prices to be able to access loans from the banks based on section 103 (2) of the National Pensions Act 2008 (Act 766). Lack of political will to implement the section has made it difficult for contributors to gain access to the funds to access loans to acquire or develop houses (Ayitey and Gavu, 2013).

### **SSNIT housing developments**

The government of Ghana collaborated with the Social Security and National Insurance Trust (SSNIT) to construct houses towards the end of the decade, the 1980s-90s. The project initially targeted contributors of the fund but later extended to the public at 'social' and not 'market prices'. SSNIT could not however attain its objectives of providing houses to the low-income earners. The houses became affordable to only the middle and upper class (Agyeman, 2001; Benjamin, 2007). According to SSNIT (2016), the vision was to provide a long-term investment to form one of the main pillars for supporting the pension scheme. Moreover, the SSNIT aimed to ensure that a portion of the investment fund was geared towards providing social benefits to workers while they were still in



active service. It was also to ensure that workers get decent and affordable houses to live in.

The houses that were constructed by SSNIT consisted of bedsitters, one-bedroom, and two-bedroom flats. Later, SSNIT added two and three-bedroom detached and semidetached houses. Allocations of the flats were done by the allocation committee to employees or the beneficiaries. The committee comprised SSNIT workers and employers. This system was employed to ensure that rents were paid in full and promptly (Ahadzie, 2008; SSNIT, 2016).

The project provided 7,168 housing units at Sakumono near Tema, before extending the development to suburbs called Dansoman, Adenta, and Ashongman in Accra. Developments were also made across the regions to Anaji – Takoradi, Adweso, and Effiduase in Koforidua, Asuoyeboa in Kumasi. The others are Sunyani, Fuo, and Lamashegu in Tamale, Bolgatanga, Wa, Ho, Elmina in Cape Coast, and Tema Communities 3 and 5. The developments have opened remote areas with infrastructural access. Amenities provided in the residential estates are roads, drains electricity streetlights, water, recreational centres, markets, shops, and lorry parks (Ahadzie, 2008; SSNIT, 2017).

In late 1999, the financial crises of the economy reached its peak with high inflation, exchange rate and high cost of building materials and SSNIT could not continue the development of its affordable houses (Agyeman, 2001; Benjamin, 2007). Again, the institution could not manage its high cost of maintenance and operational costs and decided to dispose of its buildings. It gave the tenants the first option to buy at agreed instalments. More than 92% of the buildings were sold (Benjamin, 2007). Due to SSNIT's easy access to long-term funds, they could have formed a partnership with estate developers to construct the houses instead of solely engaging directly with housing development. This is because they did not have adequate professionals to construct and manage the houses since their main function was pension fund managers and not property developers.

Due to Ghana's financial crises in the early 1980s, the World Bank and the International Money Fund (IMF) recommended Economic recovery programs for the country as follows.

### **2.3.8 Structural Adjustment Programme (SAP) and economic recovery**

The Structural Adjustment Programme (SAP) was introduced in 1980 by the PNDC government per the advice of the World Bank and the International Monetary Fund (IMF) due to Ghana's financial crises. The programme was sponsored by the World Bank and International Monetary Fund (IMF) with conditions of trade liberalization initiative which opened its market to import building materials and introduced rent controls in the country (Benjamin, 2007). The conditionality of the IMF had the following effects in the country: high inflation and high prices of buildings, high rents, and loss of control of the housing market by the government (Sarfoh, 2007).

Additionally, to encourage financial institutions to participate in the housing industry by providing mortgage facilities, the World Bank initiated secondary mortgages in Ghana under World Bank Urban II Project. HFC (2001) and Keneath (2003) discussed that in 1987 the World Bank and SSNIT under the World Bank Urban II project financed the Home Finance Company (HFC) (changed to HFC Bank) now Republic Bank to operate as a secondary lender. The World Bank contributed US\$ 8.2 million while SSNIT, US\$16.2 million. The main reasons for the introduction of the project were that the government of Ghana would support Home Finance Company (HFC) to help resolve the acute housing problem in the country. The establishment of HFC would attract primary mortgage lending by commercial banks after they have been reimbursed with the mortgage loans provided under the secondary mortgage programme. The relevant commercial banks would be insulated from significant risk. Under the project, the primary lenders would bear 10% of default risk whilst the Government of Ghana bears 90%. HFC would therefore not bear any default risk.

The project was not successful mainly because the commercial banks did not have the interest to initiate the primary mortgage since the 15% commission offered to them was

not attractive: it was lower than the government treasury bills with less risk but a higher rate of 28.2% per annum in 1999. Since the treasury bill rate was high the commercial banks invested in the treasury bills more than in mortgage loans. To resolve this challenge the mortgage interest rate was indexed to the policy rate so that as the policy rate increases the mortgage interest rate would increase and more commission could be given to the commercial banks to attract them to invest in mortgage loans. However, over the years the indexation of the mortgage loans interest rate has discouraged households to access loans to acquire houses in the communities. This is because though interest rates were indexed or tied to inflation, wages were not. Though the project failed, the Republic Bank ended up as a primary lender and controlled the market till other financial institutions and banks such as Ghana Home Loans (currently GHL Bank) and Fidelity Bank joined.

In 1988, in line with the government-private participation in the national development efforts under the Economic Recovery Programme (ERP) I and II especially relating to housing development, the Ministry of Works and Housing invited real estate developers to several meetings. The outcome of the meetings resulted in the formation of the Ghana Real Estate Developers Association (GREDA).

### **2.3.9 Ghana Real Estate Development Association (GREDA) activities**

The Ghana Real Estate Development Association (GREDA) was formed in 1988 with the main aim of advising the government on ways of promoting real estate development by seeking solutions to the practical problems in the property market, encouraging the development of residential estates, and increasing the stock of housing units thereby ensuring adequate provision of affordable housing for all classes of the population.

The Association also has the responsibility of ensuring that developments by its members are done according to building standards and planning laws. It would also finance research into the development of local materials, encourage the application of appropriate technology, and use of local inputs. Furthermore, the institution will collaborate effectively with relevant stakeholders like financial institutions, property developers, and households both home and abroad (Gyabaah, 2009; Ahadzie et al, 2010).

The members allow households to acquire houses through a mortgage or outright purchase. Despite various efforts and research outcomes to encourage the private sector to adopt efficient and innovative practices to be able to construct affordable units for all levels of income earners, it has not been successful. It was discussed by Akuffo (2017) that 8% of Ghana can afford to buy a house in cash without a mortgage and 15% can access a mortgage. It was further stressed by Gyabaah (2009) that the sector targets the affluent in society and neglects the average and low-income earners.

The contribution of GREDA to the housing stock in Ghana is about 2,500 per annum. This constitutes only about 10% of the total annual housing delivery nationwide by residents. The actual annual delivery is estimated to be between 25,000 to 30,000 units and is mostly through the efforts of individual households or homeowners. According to Building and Road Research Institute (BRRI), in 2004 out of the 40,000 housing units developed, private individuals contributed 38,200 which was about 95.5%. The annual housing requirement in Ghana was 199,000. (Akuffu, 2006 & Kwofie and Adinyira, 2011).

After the end of the term of the NDC government, the New Patriotic Party (NPP) took over the administration of Ghana in 2000 and introduced the Affordable Housing Project discussed below.

#### **2.4 The Affordable Housing Project**

The New Patriotic Party (NPP) introduced the Affordable Housing Project in 2002. According to GNA (2014), the programme was introduced to reduce the housing deficit since there was no public housing provision from 1985 to 2000. The project was financed by the government of Ghana and was implemented through the Ministry of Works and Housing (MoWH). Furthermore, the government intended to provide 20,000 housing units for at least 12,000 families or 60,000 persons under the programme. Applicants were to get assistance from the banks to obtain mortgages to acquire houses.

An initial amount of \$10 million was made available to HFC Bank Limited as a revolving fund for the scheme. Under the scheme, public sector workers could access funds up to

GHC 25,000.00 (1\$: GHC1.18, 2005) to complete or acquire their houses. Prospective homeowners would be expected to pay a deposit of GHC 4,000.00 out of the GHC 25,000 for a two-bedroom house and the rest of the payment spread over 16 years. Ghana News Agency (2014) discussed that in 2007 an initial 4,500 units bedsitter, single- and two-bedrooms apartment started at Borteyman and Kpone in Accra, Asokore Mampong in Kumasi in the Ashanti Region and Akwadum site at Koforidua in the Eastern Region commenced and were supposed to be completed by June 2009. Unfortunately, the project could not be completed since funds were not available and not released to contractors according to the construction contract (GNA, 2014; Ampofo & Tutu et al 2014). A pictorial view of some of the abandoned uncompleted housing structures in Effiduase, Koforidua is shown in Figure 2.2.

**Figure 2.2: Uncompleted (abandoned) Affordable Housing Project site in Effiduase, Koforidua.**



**Source: Field Work (2019)**

Figure 2.2 indicates some of the uncompleted structures constructed under the government affordable housing programme. The buildings could not be completed due to inadequate funds.

The initial plan was to raise part of the funds from the Heavily Indebted Poor Countries (HIPC) initiative which did not materialize (GNA, 2014; Kuma, 2015). Security on the site was a problem as some of the materials on site were stolen. Again, there were undue delays in the supply of resources. For instance, in Borteyman, the Chief Supervisor of Habitat Ghana Limited expressed much concern over the delay in having access to cement blocks. As a result, 200 bags of cement were wasted. Project management and risk management were poor. Project managers were not given room to operate as they were controlled by the politicians. Most of the projects were allocated to infant companies that did not have the resources and expertise to operate. After receiving mobilization fees most of the contractors could not be traced (GNA, 2014; Kuma, 2015; Lundin & Tryggested et al, 2015). Though the affordable housing project introduced by the government was laudable since the price was reasonable to low-income earners and available sources of finance made available by the government, it was generally politicised. Most of the

contracts were given to political party sympathisers whose construction companies were infant companies without much experience in housing construction. The infant companies did not have adequate funds to pre-finance the construction works since it was capital intensive. The government could have partnered with existing estate developers and financial institutions within the relevant communities to undertake the project. Further discussion on the affordable housing project was presented under key challenges to housing delivery in Ghana under Section 2.5.

The NPP Government could not complete one single unit before they transferred the administration of the country to the National Democratic Congress (NDC) after they lost the subsequent election.

### **The state of the Affordable Project**

The NDC government did not continue the developments of the housing units under the Affordable Housing Project when they gained power from the NPP in 2008. All the projects were abandoned till 2014 when the project sites were re-allocated. GNA (2014) stated that under the new arrangement, SSNIT is expected to complete five out of the six projects located nationwide in towns like Tamale, Wa, Koforidua, Asokore Mampong, and Borteyman within eight to eighteen months. The sixth affordable housing project at Kpone is being handled by the TDC. Similarly, 72 housing units have been allocated to State Housing Company and 40 to the Ghana Armed Forces. GNA (2014) further stated that the Borteyman project consists of 104 blocks and each block has four stories. Furthermore, there are 1,536 housing units made up of 744 one-bedroom and 792 two-bedroom apartments. An amount of GHC195 million has been estimated by SSNIT to be required to complete the 1,536 housing units under the Borteyman project in Accra.

After the completion of the project, it was stated by GNA (2014) that the two-bedroom apartments of 84 square meters would now cost US\$ 29,000.00 whilst the three-bedroom unit of 120 square meters would also cost US\$57,000.00. These constitute about a 40% increase of the original prices of the housing units and could be unaffordable to most middle and low-income earners.

#### **2.4.1 The Public-Private Partnership (PPP) Housing Programme**

The NDC government administration (7<sup>th</sup> January 2009 to 2013) did not complete the Affordable Housing Project but introduced the Public-Private Partnership (PPP) in Ghana infrastructural developments.

Most governments have the responsibility of providing to residents social and community infrastructures such as education, health facilities, public housing, and buildings. These facilities are required for the development of communities. However, due to lack of sustainable funds, the NDC government initiated policy and legal reforms to introduce private sector participation in the provision of public infrastructure services through PPP arrangements (Kwofie and Afram et al, 2011; Twumasi and Osei, 2014).

Under the above PPP arrangements, the NDC government introduced the STX – Government of Ghana (GOG) Public-Private Partnership (PPP) housing programme. It was a \$10 million housing project that was supposed to be financed by the government of Ghana, STX Korea, and GKA Airports Company Limited (STX Ghana). The project was supposed to provide 200,000 housing units between April 2010 and April 2015. It was an affordable housing project, and 30,000 housing units were allocated to the security services. However, due to some boardroom wrangling between STX Korea and GKA Airports (Ghana branch of STX Korea), the programme was not implemented and was abandoned by the government. All the 15 sites made available by the government for the project were repossessed (GOG, 2012). In 2014 however, the NDC government constructed 1,500 housing units at Seglemini in Accra, which was dubbed the Seglemini Housing Project (Bopke, 2018).

The above reveals that there is no sustainable housing policy adopted by the government since independence to manage the housing sector of the economy. There have been many ad-hoc housing programmes but without the political will to implement them to ensure that households can obtain adequate accommodation. Sarfoh (2007) stated that “Housing development has never been considered a critical area in Ghana’s development framework, and that the history of housing in this nation is a series of fragmented policies than a holistic, comprehensive vision to deal with the complexities of housing a nation”.



The current New Patriotic Party (NPP) government took over the administration of Ghana in 2016 and has been in power to date. It is the policy of the government to continue with the Affordable Housing Project and the PPP (Ghana News Agency, 2020). The government received a United Nations Office of Programs Services (UNOPS) to construct 6,500 housing units which have been initiated in Accra. Furthermore, GREDA reported that the government engaged the housing association to present a proposal on the construction of 20,000 affordable houses. They further stated that the proposal has been presented and awaiting a response from the government (Property Trends, 2020). Emerging issues from the housing policies discussed in the section have been presented below.

## **2.5 Key challenges to housing delivery in Ghana**

As discussed in the preceding sections, the challenges confronting the housing industry are enormous and require dedicated efforts by all the industry players with the government playing a leading role to resolve them. These challenges revealed by literature on the pre- and post-independent era are summarised below.

### **2.5.1 Inadequate development of the housing sector by the colonial government**

Some of the challenges that the nation is experiencing now have been traced from the activities of the colonial government in the pre-independent era of the country Ghana. Literature on the development of the housing sector presented in previous sections in the pre-independent era indicated that the motive of the colonial government for housing development was sanitation and prevention of citizens' agitations and not to assist households financially to acquire or develop their own houses (Agyeman, 2001; Arku, 2009). They were not therefore committed to the development of houses. Areas that did not have many sanitation problems or associated with labour unrest were not considered for housing development. For instance, the outbreak of the Bubonic disease in 1907 in places in Accra due to unsanitary conditions led to the passage of the "Disposed Person's Housing Scheme" in 1923. About 118 persons whose buildings were demolished mainly to the improvement of the sanitary conditions in the country were given a £9,280 loan as compensation. The scheme was even discontinued after a decade of its implementation

since it was considered too expensive. Since the houses of the affected persons were demolished, they should have been paid compensation. The compensation could equal the value of their houses and inconveniences that they experienced or be resettled at a different location. Instead, building material loans were given to them and those who could not access the loans due to their low incomes, could not develop new houses. These challenges aggravated the overcrowding situation in the country.

Furthermore, very low budgetary allocations were devoted to housing development. For example, Arku (2009) states that only 2.5% of funds were budgeted for housing under the Colonial Development and Welfare Fund Act in 1940. Additionally, housing programmes presented in development plans and budgets were not fully implemented. For instance, under the 1951 – 58 development, plan the policy of subsidizing housing and housing loans was only experimented with and not implemented fully. When house costs are subsidized the price is lowered and households are assisted financially to be able to acquire residential buildings.

Though the colonial government mainly acted as a ‘facilitator’ and did not actively involve itself in the direct development of residential buildings, it did not create the enabling environment to attract the private sector like real estate developers and financial institutions to assist households to develop their own houses.

Additionally, relevant mortgage laws were not enacted to attract the private sector like real estate developers and financial institutions to augment the efforts made by the government. Effective mortgage laws protect financial institutions against loan defaults. Hence when they are not available, financial institutions are reluctant to provide financial assistance to households to develop their buildings.

There was an inadequate provision of laws to streamline land tenure and land registration systems in the country. The UN assistant experts on housing recommended in 1952 that the land tenure system should be reformed under section 2.2.3. This indicates that the tenure system was not reliable. However, nothing was done to improve it as most of the tenure systems especially the family lands were not regularized.

Again, the main housing policy introduced in the colonial era was the ‘Self Help Project’ example was the roof loan scheme. This policy did not develop the mortgage system in the country as most people were encouraged to undertake incremental development without adequate funds to complete the houses. The practice of self-help projects has continued to the current era where most people prefer to undertake incremental development instead of accessing mortgage loans from the bank which is the most reliable source of housing finance. The incremental development also encourages the development of informal residential houses leaving most communities unplanned with inadequate provision of infrastructural developments like tarred roads, electricity, and pipe-borne water supplies.

Most of the problems encountered in the pre-independent era are still prevalent in the post-independent era. Challenges in the post-independent era are as follows.

### **2.5.2 Post independent challenges in the housing sector**

Due to the lukewarm attitude towards housing in the colonial era, the first government intended to devote many resources to the sector to develop the same. However, the efforts made by the government regimes were associated with several challenges as discussed below.

Recommendations made by the UN team immediately before independence provided under previous sections appeared to be reliable, however, the first government after independence did not implement all. The government did not implement the advice that it should act as a facilitator but could provide subsidies to low-income groups. Again, the government did not provide land tenure reforms and developed indigenous housing styles and technology. None of the above recommendations were implemented by the government. Contrarily, the government directly involved itself in housing development and finance which was not sustainable. If the tenure system is reformed like was done by other African countries like Tanzania where lands have been nationalized, interest in land would be held in the government in trust for the people. When the government manages the lands, access to lands and registration would be relatively easier than when it is managed by family heads, clans, and chiefs as their knowledge in land management are

relatively limited. Reforms in land rights and tenure systems are therefore required to promote the development of economic activities (Amanor, 1999) especially in the development of residential properties in Ghana.

In the post-independent era as stated in previous sections the first government of the Convention Peoples Party (CPP), did not act as a facilitator in the housing industry as recommended by the UN technical team. The CPP government involved itself directly in housing development and finance by establishing the State Housing Company, Tema Development Corporation, and the then Building Society of Ghana. However, in the late 1990s due to the economic crisis of the Ghana government, it could not continue the social housing project and privatized both the State Housing Corporation and the Building Society. Karley (2008) states that the government realized that its social housing policy was not sustainable hence it commercialized the state agencies and encouraged the private sector to participate to develop the housing market. Furthermore, (Sarfoh, 2007) and (Akuffu, 2009) emphasise that in 1988, SSNIT began a significant investment in housing at *social* and not market prices. In 1999 due to high interest rates, exchange rate, and inflation, it could not continue with its social interventions in the housing sector. Additionally, the affordable housing project initiated by the government could not be completed due to the government's inability to provide further funds.

Subsequently, the government of Ghana does not have a legitimate national housing policy to be implemented by all ruling governments of the state. The housing policy forms the basis of preparing a long-term national development plan as to how households could be assisted in the finance and delivery of houses to resolve the accommodation problem in the country.

What prevails in the country is the introduction of several ad-hoc housing programmes to aid various ruling governments since independence to gain votes and win elections. Due to the varying interests of the governments, the ruling governments did not pursue uncompleted programs initiated by their predecessors leaving housing programmes always uncompleted and abandoned. For example, as stated in previous sections, about 4,500 uncompleted housing units developed by the NPP under the Affordable Housing Project in 2007 were not completed by the NDC government which succeeded them. If

the buildings had been completed by the NDC government, financial institutions could have assisted households to acquire the housing units to reduce the accommodation problems in the country. Instead, the NDC Government during 2008 and 2016 initiated a Public-Private Partnership housing project which did not see the light of day due to internal wrangles among the parties discussed under previous sections.

### **2.5.3 Inadequate sources of capital for the development and acquisition of residential properties.**

During the era of the development of mass social housing buildings by the government (through State Housing Company) and the Social Security and National Insurance Trust (SSNIT) from 1957 to the late 1990s, property development was financed mainly by the government of Ghana and SSNIT. While the government used government funds, SSNIT used a pension fund. Again, the two bodies contributed to establishing the then Home Finance Company (now Republic Bank) through the issue of bonds. However, when the private sector under the umbrella of the Ghana Real Estate Development Association (GREDA) was invited by the government, no reliable source of capital was made available by the government for the private sector to access for development of houses.

The World Bank (1993) as presented in previous sections discusses that the government should provide enabling environment to attract private investment into the sector, however, the policy has not been implemented leaving developers with challenges in accessing capital for the construction of properties. The capital market that operates under the Securities and Exchange Commission (SEC) is unable to generate adequate capital for real estate development. For instance Comet real estate developers attempt to float shares on the capital market in 2010 was not successful and has to be withdrawn from the market as the public did not invest in the Initial Public Offer (IPO) that was issued to raise an amount of 61,823,968 (\$1: GHC 1.4) (Ghana Stock Exchange, 2011). Again, the government has not been able to improve upon its microeconomic performance resulting in high and fluctuating policy rates making developers borrow from financial institutions at high-interest rates usually between 25- 35%. Interest and exchange rates obtained from the Bank of Ghana from 2014 to 2018 have been illustrated under Chapter 6. These high

interest rates have resulted in high cost of development of houses resulting in high property prices that are unaffordable to most households in the study area and Ghana (Asare and Whitehead, 2006; Karley, 2009).

On the part of households, the main challenges to the acquisition of properties have been the low level of income compared to the high prices of residential properties. Further, the low level of income makes it difficult for households to access mortgage loans.

### **Land acquisition and registration challenges**

Since independence, there have not been many efforts to develop or streamline the acquisition and registration processes in Ghana. The recommendation of the United Nations technical committee research in housing included: streamlining of the land tenure system and development of indigenous building style and technology. However, as stated in previous sections the government has not done much to improve upon the tenure systems in Ghana. The complex tenure systems that existed since the pre-independence era are currently being practiced in the country. There are two forms of land, namely public lands, and private lands. The public lands are state lands and vested lands. The former is owned and managed by the government whiles the latter are managed on behalf of stools and skins. The private lands are owned and managed by stools, families, clans, and individuals. Most of the laws and regulations concerning land acquisitions and transfers are varied depending on the location or tribe of the transferors and they are contradictory. This results in disputes over lands and makes land inaccessible for development. Kasanga (2003) states that there were 60,000 outstanding land cases in the courts of Accra in 2003. These complex and conflicting tenure systems make the registration process cumbersome and unreliable. There are lots of challenges concerning title registration in the country. The registration process is cumbersome and very expensive. This does not attract homeowners or households to register their landed properties to be able to use them as collateral to obtain mortgage loans from financial institutions. Asumadu (2003) discusses that the different land tenure arrangements, combined with some inconsistencies in the processes for deed and title registration make it difficult for potential developers to get access to land for development in Ghana.

The Government lands which were used by the State Housing Company were compulsorily acquired by the government from private landowners. Compensation was not paid to most of the former landowners hence homeowners who acquired the buildings could not register their lands.

### **Availability and high cost of building materials**

As stated in previous sections, the government did not implement the recommendation of the UN technical committee on encouraging indigenous housing style and technology. Instead of developing the 'compound house' system (small housing units provided on a compound with shared facilities) which could accommodate a greater number of households on a compound, the government introduced only the exotic housing style where only one household could be accommodated in for instance a three-bedroom self-contained house as shown under the previous section. Even if the two housing styles had been developed by the government after independence, it would have allowed most households to choose the housing styles they could afford based on their level of income. Again, as stated above, the government of Ghana did not develop the local technology of production of local building inputs like burnt bricks and use of locally produced cement from the large deposits of clay in the central region and clinker in the eastern region. The government however imported foreign materials like cement which though was more reliable, was very expensive beyond the reach of most households. Furthermore, as was discussed in previous sections, the introduction of the Structural Adjustment Programme (SAP) in 1980 encouraged trade liberalisation which promoted foreign trading and allowed most developers to import more foreign building materials at high prices due to the high exchange rate into the country. Aliyu and Martin (2011) and Nwachukwu (2011) discussed that scarcity and the high cost of imported building materials have been major causes of housing problems in Ghana. They further stated that the use of imported building materials has contributed to the low level of residential housing units in Ghana.

The practice of the earlier governments has made most households and developers developed taste for foreign goods in the country. Most of the construction materials are imported into the country. Foreign exchange rates, therefore, have an immense impact on

the cost of construction and the price of houses. Most Mortgage loans and prices of houses are provided in foreign currencies usually the USD since banks and developers would like to maintain the value of their capitals. The Ghana News Agency (2019) and BBC (2019) presented that the Ghana cedi depreciated by 25% between January and March 2019 and that it was the cheapest currency in Africa. As the cedi depreciated by 25% it presupposed that averagely cedi equivalent dollar loans and prices of houses increased by at least 25% within the said period. The poor performance of the cedi against the major foreign currencies, therefore, makes prices of houses and loans unaffordable for households. Contrary to the views expressed above that it is only imported expensive materials, Danso and Manu (2013) argued that the cost of materials produced in the country is also high due to the high manufacturing cost in the country. The government of Ghana should therefore implement the new policy of the World Bank (1993) to provide the enabling environment for building materials to be acquired at a lower cost to make houses affordable to households.

#### **2.5.4 Lack of housing policy to coordinate the activities of the stakeholders.**

The stakeholders in the housing industry are mainly the government, financial institutions, real estate developers, and households. The activities of these stakeholders are interdependent, and it is the responsibility of the government to create an enabling environment for them to operate efficiently. Since they render services to each other in the housing industry, their efficient operation would result in making adequate houses in the communities. The government's financial, fiscal and land policies can be promulgated to support the activities of the stakeholders for them to perform their activities efficiently. For instance, the granting of subsidies to households would enable them to meet the requirement of mortgage loans to access loans from financial institutions to acquire houses from housing developers. Furthermore, the government has not been able to implement policies that could attract more investments in the housing industry. The inability of the government to introduce secondary mortgages did not attract more financial institutions to grant loans to households to acquire houses. Furthermore, the government could not implement the government of Ghana and the STX Korea (Private Real Estate Construction firm) contract under the Public-Private Partnership programme



which intended to construct 200,000 housing units. The programme could not be implemented due to misunderstandings among the parties. Effective interaction among the stakeholders based on effective housing policy could mitigate most of the housing challenges in Ghana.

## **2.6 Conclusion**

The chapter identified housing policies and programmes prepared and implemented by various ruling governments since the colonial era. It was realised that the colonial government did not actively involve itself in the construction of houses for households. It however encouraged self-help housing development by households, research in housing, and devotion of part of budget allocation to housing. Most of the housing programmes under the budgets were however piloted and not fully implemented due to lack of funds. The post-independent era however commenced with the adoption of mass social housing by the first elected government of the Convention People's Party (CPP). The social housing project was undertaken due to the low-income levels of the citizens. The housing project could not be sustained after 33 years of its implementation. Subsequently, the government of Ghana based on World Bank directives resulted in providing enabling environment to encourage the private sector to participate in the housing industry. The government of Ghana, therefore, invited private housing developers under the umbrella of GREDA which had been crowded from the colonial era to the late 1990s. Though the private housing developers accepted the challenge, they encountered challenges mainly with the supply and cost of housing inputs like land, labour, and capital. This resulted in the construction of few houses at high cost and price which was unaffordable to households.

Some of the policies that were introduced after the involvement of the private sector in the housing industry were Vision 2020 and the Structural Adjustment Programme. These programmes are intended to provide support to households to be able to acquire houses and to provide easy access to housing inputs to developers. For instance, vision 2020 was intended to help households gain access to some of the benefits of the pension fund to pay a deposit for mortgage loans. However, the programme could not be implemented due to

a lack of political will. Since the private developers could not construct adequate houses, the NPP government introduced the Affordable Housing Project which intended to subsidise the prices of the houses and make them affordable to households in 2004. The project could not be completed before they lost power to the NDC. The NDC government abandoned the Affordable Housing Project and introduced the Public-Private Partnership (PPP) policy which enabled the government to partner with private institutions either in Ghana or abroad to construct houses. Under this policy, the NDC government initiated the construction of the Segleml Housing Project which consisted of 5,000 housing units. The current NPP government which took over the administration of Ghana in 2016 has adopted the Affordable Housing Project and the PPP policies introduced by the previous governments. Though the housing projects under the said governments have not been completed, the current government in collaboration with the United Nations Office of Project Services (UNOPS) has cut the sod for the construction of 6,500 housing units in Accra. The current government is yet to construct houses within its first term of 4 years in governance. It could be realised that housing in Ghana is dependent on political parties or government regimes rather than on a sustainable housing policy that intends to solve current housing challenges and make houses affordable in the country. The literature review presented in the next chapter discusses the challenges associated with Ghana's housing policies with relevant theories and practices in the global world to present the basis for solving the acute accommodation challenges in Ghana.

## **CHAPTER 3**

### **REVIEW OF THE HOUSING SECTOR AS A MARKET**

#### **3.1 Introduction**

This chapter focuses on reviewing the literature on housing as a product on the market. The housing sector has been considered as a market where housing consumption is determined by household income, housing finance, and government policies whilst housing supply is dependent on the other hand by the availability of housing inputs like serviced residential land, labour, capital, and construction materials.

The chapter discusses the literature on the principles of demand and supply and their impact on price mechanism in the housing industry. It, therefore, starts with the definition of the principles of demand and supply and its relation to the determination of equilibrium price and quantity referred to as price mechanism. The review undertakes a comprehensive analysis of the factors of demand and supply that affect the housing industry.

The application of the principle of demand and supply was made with a caveat that attributes of landed properties are different from general goods and services on the market. One of the attributes is heterogeneous which means that all houses are different in terms of location, type, and interests or rights held in them. Furthermore, houses are durable and can last longer than most products on the market. Due to its durability prices are high and the current earnings of households are usually inadequate to acquire it. Most households, therefore, access mortgage loans to acquire houses. Due to the special attributes of houses, most of the factors of demand and supply for them are different from other general goods and services.

It also considers the main factors of demand of houses namely price of goods, price of other goods, the income of households, and taste and preferences. The chapter ends up with a discussion on housing supply factors. Some of the factors considered were the location of the property, the cost of provision of infrastructural services. Other factors that were discussed were availability and cost of construction inputs like land, labour capital,

building materials, and efficiency of construction site managers. Discussions of the factors of demand and supply have been presented as follows.

### **3.2 Principles of Demand and Supply**

Dutta (2006) described demand as the desire to have a commodity supported by enough money to pay for the good demanded, on the other hand, supply is defined as the quantity of good offered for sale on the market at a given price and within a specific period. It, therefore, means that a mere desire or want of a commodity without adequate funds to purchase or acquire it cannot be considered as demand. Again, the production of a commodity cannot be classified as supply unless it has been made available for sale on the market at a given price. A large population's desire for houses in a community cannot be classified as demand unless they have the resources or funds to acquire them. Buyers must therefore convert their wish to possess a property into the act of buying it (McGuigan and Moyer et al, 2004; Shapiro and Mackmin et al, 2019). Estate developers cannot also claim to have supplied houses on the market after development unless they make them available for sale at a given price (McGuigan & Moyer et al, 2004; Shapiro & Mackmin et al, 2019).

The law of demand shows the functional relationship between price and quantity demanded of a commodity. The law indicates that if other determinants of demand such as income, prices of other products, and taste are held constant, a rise in the price of a commodity will result in a fall in quantity demanded. On the other hand, if the price falls, quantity demanded will increase. Baye (2009) emphasises that other relevant factors that determine the level of demand in the market as stated above are the income of customers, prices of other related products, taste, and fashion of consumers. These factors are explained in detail under section 3.3.

On the other hand, supply indicates that holding other factors like prices of related goods, cost of construction, and technology constant, if the price of a commodity increases, its supply also increases. The quantity supply, however, reduces when its price falls. Other factors that influence supply levels on the market are prices of other related goods, cost

of construction, and technology. The price and quantity that eventually prevails on the market reflect the price mechanism in the housing market.

### **3.2.1 Price Mechanism to determine equilibrium price and quantity in the housing market**

The interplay of demand and supply factors determines market price (or affordability) and quantity at equilibrium. At the equilibrium price, there is no shortage or surplus of the good (Baye, 2009). Any other price (below or under the equilibrium price) would either cause a shortage (deficit), that is, there is not enough of the good to buy by households or surplus, which means that developers are supplying more buildings than they can sell.

If the price is below the equilibrium, then demand would be higher because of the low price and the good would not be enough to satisfy all the consumers who are ready to buy the commodity at that price. As the shortage prevails, there is the natural tendency for the price to rise which attracts producers to supply more up to the equilibrium quantity.

On the other hand, however, if the price gets above the equilibrium level, producers would be enticed to supply more of the goods whilst consumers would demand less than what has been supplied on the market and there would be a surplus. Whenever a surplus exists, there is a natural tendency that the price would fall to a point where the quantity demanded would equate to the quantity supplied.

When the price falls, there is the likelihood that suppliers would reduce quantity supplied whilst quantity demanded would be increased by consumers, and eventually quantity demanded would be equated to quantity supplied at equilibrium. Once the equilibrium price and equilibrium quantity are attained, the market forces of supply and demand are said to be equal and there is no incentive for each to change.

The principle of Price Mechanism applies to the housing situation in communities. In communities where there are frequent challenges relating to cost and availability of construction inputs like land, labour, and capital housing developers are unable to construct more houses. At the low level of supply below the equilibrium price and demand, there would be a shortage of houses in the community. As more households

demand the few houses available prices of houses would increase to establish a new level of equilibrium price which would be higher and unaffordable to households. On the other hand, if at equilibrium there is improved technology and more houses are constructed by housing developers there would be a surplus of houses to acquire on the market and the price of houses would reduce. To avoid housing deficit and surplus on the housing market efficient operation of the stakeholders on the market would result in the construction of adequate houses on the market which would be acquired by households as discussed under Chapter 4.

### **3.2.2 Attributes of landed properties**

Houses are products that are traded on the market and hence the theory of demand applies to its provision in communities. It however possesses special attributes that impact the demand and supply determinants and make the factors different from that of other general goods like vehicles and groceries referred to as movable goods (Geltner & Miller, 2001; Shapiro & Mackmin et al 2019).

Residential properties are heterogeneous products where no two houses are identical. Buildings can vary in terms of type (detached, terraced) or location and these have an influence on prices. A household may assess a general description of an orange; however, it may be difficult to assess the structural stability of a building or the likely rate of price appreciation. The household may therefore have to engage a professional to provide information about the structure which may influence the taste and preference of the building (Shapiro and Mackmin, 2019).

Housing is durable and can last for several years, depending usually on the construction materials used. In Britain, most of the existing buildings were developed before the Second World War in 1945. Baum and Mackmin et al (2018) therefore discussed that in deciding on income to acquire houses households should not consider current incomes but should rely on an average of former level of incomes and predicted earnings.

Furthermore, housing as an asset is usually associated with high prices due to its inherent qualities like durability. As a result, most households cannot only rely on their incomes

but must access loans from financial institutions to acquire houses. The demand for houses would therefore not depend on household income alone but also on meeting the requirement of loans given by financial institutions to be able to obtain a loan to acquire houses.

Additionally, a landed property (like a house) usually has several rights or interests like leasehold, freehold, legal interest, and beneficial interest. All these interests could be owned by different persons with different levels of demand and supply. The determination of prices of houses is, therefore, complex as compared to general goods like cars and television.

The total supply of land and buildings is fixed. Again, the use of land for a particular purpose is also limited based on planning permission. However, the physical limitation and use of land and buildings could be influenced by the grant of building permit where buildings could be demolished for redevelopment to increase the number of housing units and land use could be changed or extended for more development activities.

Government intervention in the housing market is common. Due to the complex nature of real estate development, there is a need for government interventions and regulations like planning permits and registration to sanitize the market to attract investors.

The above-stated real estate characteristics are evident that residential properties are unique and possible to have little variations in the determinants of demand and supply for ordinary goods which are normally movable.

### **3.3 Factors of demand for owner-occupied houses**

The housing sector is driven by a variety of market forces of supply and demand. These forces exert powerful influences throughout all parts of the sector. Though demand and supply factors are applied to explain the operation of the housing market, there are other stakeholders in the housing industry which operate under additional concepts, conventions, and legislation. These other stakeholders as stated in previous chapters are mainly the financial institutions, building contractors, and the government. For instance, the operation of financial institutions are influenced by financial risk and the availability

of land as a factor of production is determined by land laws or legislation. The additional concepts helped to analyse the activities of the stakeholders more appropriately. Under the application of demand and supply factors to the housing industry, the demand-side mainly relates to households who acquire properties, and the supply side consists of residential developers who construct houses for sale. Gibb and Munro et al (1999; 26) states that *the housing market is represented as an interplay of demand and supply*. The level of demand for houses is determined by demand factors discussed below.

### **3.3.1 Price of the property**

The price of property influences the number of goods a customer can buy. All other factors (income, prices of other related goods, fashion, and taste) remains the same, an increase in the price of a commodity would cause customers to reduce the quantity of the commodity that they purchase on the other hand a decrease would cause them to increase the demand. As the price of houses goes up demand is generally low. This practice of consumers relates to the law of demand which states that the higher the price of the product the lower the demand whilst the lower the price the higher the quantity demanded. This is because as the price of say two-bedroom house with a total floor area of 280 square metres reduces from GHC500, 000 to GHC250, 000 due to government subsidies on affordable houses the same household income, which was able to buy the house at GHC500, 000 could buy two number of two-bedroom houses which would give a total floor area of 560 square metres. Hence as the price of the two-bedroom house decreased from GHC500,000 to GHC250,000, households were able to increase the demand for a two-bedroom house from one two-bedroom house of 280 square metres to 2 number two-bedroom houses with a total floor area of 560 square metres. This is referred to as the income effect. Furthermore, as the price of a three-bedroom house reduces compared to a four-bedroom house, households could shift more income to acquire more three-bedroom houses. This is also referred to as the substitution effect (McGuigan & Moyer et al, 2004).

The price mechanism discussed in the previous sections determines the prices of houses at various levels of demand and supply. It was discussed under previous sections that at equilibrium, the price would increase when demand increases or supply falls. On the other



hand, at equilibrium, the price would fall when demand reduces or supply increases. Guided by these principles, governments develop policies that can influence the demand and supply of houses in the country. In Ghana due to the complex nature of land acquisition and registration (Asumadu, 2003), developers do not get easy access to land for development. This restricts the supply of houses and leads to an increase in the prices of houses in the country.

Easy access to land can influence the development of more houses in the community so that at a given level of supply, prices of properties would be lowered for households to be able to acquire more houses to mitigate the acute accommodation problem in a community. In Africa countries like Tanzania, lands have been nationalised and lands can easily be accessed by developers to increase housing construction to reduce the prices of properties. Relevant legislation could be promulgated in Ghana to nationalise land ownership in the country for developers to get easy access to land to construct more houses and potentially increase the supply of houses in the country and reduce the prices of houses.

The changes in the number of houses demanded due to the price change could be analysed based on the elasticity of demand of the property. Elasticity was described by (Baye, 2009) as the responsiveness of demand based on price changes. Baye (2009) further discussed that the impact that changes in the price of the property would have on demand is dependent on the type or characteristics of the property. Shapiro and Mackmin et al (2019) argued that the elasticity of demand for any commodity or service is dependent on whether the product is a necessity or the existence of a close substitute. They further stated that houses as part of landed properties are inelastic since houses are a necessity and there are no close substitutes: a fall in the price of houses would result in a less than proportionate increase in demand such that demand would not increase by a wider margin. The influence of a household's income on the acquisition of properties has been discussed below.

### **3.3.2 Household income and affordability measures**

Demand for property is greatly dependent on household income. Households require adequate and reliable income to be able to afford the payment of high prices associated with houses (Geltner & Miller et al 2001). Due to the influence that income has on the acquisition of houses, changes in the income of households can therefore affect their ability to afford the acquisition of houses. An increase in the income of households, with prices remaining the same, would increase the affordability of households to acquire more properties, whilst a decrease in the income of households would make it very difficult for them to afford to acquire houses. Bayer (2009) states that changes in income can have an immense impact on durable goods. Since houses are durable and command high prices, changes in income of households would influence their affordability to acquire houses. Affordability was described by Stone (2006) as “an expression of subjective social and material experiences of people, constituted as households concerning their housing situations”. It thus relates to the ability of households to pay for expenses related to housing.

Whitehead and Monk (2011) discuss that whiles there are varying approaches to the provision of affordable houses most governments’ interventions are implemented for many reasons.

Expenditure on housing takes a significant proportion of a household’s income and any increases affect the living standard of households. Again, incomes are not evenly distributed, but all households compete for the same house prices on the market. Lastly, the government sees housing as a social good that improves the welfare of human beings hence if it is made available, every household would enjoy minimum welfare standard. Whitehead and Monk (2011) therefore proposed the following affordability policy measures.

Practical measures should be taken to cure the misdistribution of income in the form of provision of subsidies and raising limits of taxable income. The others are target price reduction which may lead to price differentiation or the government should promulgate laws that would introduce a different segment of houses where all income levels can

afford. Attention should be given to low-income earners in the form of providing adequate lands for them to reduce the price of properties in their area.

Additionally, most households' income is inadequate when compared to high house prices. Households, therefore, access mortgage loans from financial institutions to acquire houses (Mishkin and Eakins, 2012). In return, households make monthly payments of the loan (principal and interest) which constitutes a portion of their income (affordability ratio) during the loan term which is generally recommended to be 35% (Whitehead, 2007; Karley, 2009). The affordability ratio however, varies according to countries. In India for instance the affordability rate is between 30-40% (Goplan, 2015) and 35% in England according to the Federal Statistical office (2018). The use of affordability ratios to determine affordable housing (Lau and Li, 2006; Haffner and Boumeester, 2010) has however been criticized since it does not indicate variations in the quality of houses, costs of houses, and income levels of households (Chaplain & Freeman, 1999; Thalmann, 2003). Linneman and Megbolugbe (1992) and Thalmann (2003) emphasise that the ratio measure of affordable housing does not consider the quality and cost of the houses. This is because high standard houses in good environments command high prices and raise the ratio compared to low standard houses. This does not mean that the low standard houses are affordable than the high standard more quality houses. Kutty (2005) therefore states that a higher cost-to-income ratio does not always indicate housing unaffordability: it may be that high-income earners may demand larger houses or higher-quality houses.

To overcome the challenges associated with the use of the affordability ratio, Stone (2006) discussed that affordability should not only be restricted to a percentage of income but, whether the expenditure would not pose a constraint to living cost. Hence, it is not a matter of devoting a proportion of income to finance monthly mortgage but whether the remaining income can adequately take care of other household expenditures (Heylen & Haffner, 2013; Williamson, 2011; Yang & Shen, 2008; Thalmann, 2003). This was considered as residual affordability. According to Jing Li (2014), most researchers relate to the ratio affordability than the residual approach since it is difficult to estimate other households' costs. Bramley (2012) however discusses that the ratio affordability could be used with the residual approach serving as supporting evidence. Karley (2009) and Ansah

and Whitehead (2006) also argue that most banks do not only consider monthly mortgage (affordability ratio) when accessing mortgage loans affordability but additional requirements like character (creditworthiness), collateral (security), deposit (which is usually 20-25% of the value of the property) before granting mortgage loans to households to acquire houses.

A composite approach was therefore discussed by Gan and Hill (2009) and Goplan and Venkataraman (2015) which consider meeting the requirement of the loans and ability to pay the monthly mortgage without affecting other households' expenditures referred to as purchase affordability and sustainability affordability.

Mortgage loans will therefore be affordable to households if they can meet the loan requirement of mortgage loans (payment of deposit, affordability ratio, provision of collateral, and creditworthiness) and have adequate funds to service the loan throughout the loan to avoid defaults.

According to (Goplan & Venkataraman, 2015) for households to be able to sustain the payment of monthly mortgage throughout the loan period, houses that are supplied in communities should have adequate facilities and services that would save the household from spending many funds. This will enable households to pay their monthly mortgage and have residual funds for other household expenditures. These housing facilities and services were classified under liveability affordability, location affordability, and total cost affordability (Gan & Hill 2009; Lalwani & Venkatachalam, 2010 and Goplan & Venkataraman, 2012).

Liveability affordability was described to consists of the provision of services like accessible roads, pipe-borne water, electricity, telephone, communication gadgets, schools, and markets. Where communities do not have access to these facilities more funds are spent to access them privately by households and leave them with inadequate funds to pay their monthly mortgage. In Ghana for instance according to the 2010 population census, 42.1% of the population have access to pipe-borne water or tanker services, while 33.0% use a well or borehole. The remaining 24.9% of households depended on natural water sources such as rainwater, river, and pond (Ghana Statistical

Service, 2010). The tanker service is more expensive than the public pipe-borne water supply. According to World Bank (1993) and Bracero and Estache et al (2004), water charges in most urban centres of developing countries constitute high proportions of household income; it was 18% in Onitsha, Nigeria, and 20% in Port-au-Prince, Haiti. These unsanitary conditions create a further cost to the households.

Another challenge that impacts households' affordability is income spent on the cost of commuting from communities that are far from the city centres where most jobs are situated. New communities are usually located at fringes of city centres since areas that have easy access to the Central Business District (CBD) are usually fully developed. World Bank (1993) was of the view that the poor are usually pushed to the fringes of towns due to lack of adequate infrastructure.

In Ghana, incomes are low as Karley (2009) discusses that households' incomes finish before the end of the month and have nothing to save. Again, Akuffo (2007) states that only 5% of Ghanaians can buy houses without a mortgage and about 75% of Ghanaians cannot meet the mortgage requirements to access it to acquire houses. As suggested by Whitehead and Monk (2011), the government of Ghana could implement policies that would boost the income of households by raising the minimum tax level to protect low-income earners so that they can have enough income to access mortgage loans. In the United Kingdom, for instance, the government waived the payment of stamp duty to First Time Buyers (FTB) and this reduced their expenditure and enabled many low-income earners to acquire houses.

Additional measure undertaken by the UK government to aid households to access mortgage loans and pay a monthly mortgage is the introduction of Help- To- Buy Schemes. According to UK.GOV, the schemes which were introduced in 2013 are the help- to buy- equity loans, help- to -buy independent savings account (ISA), and buying through shared ownership. Under the help to buy equity loan scheme, households get a low-interest loan towards the payment of deposit. The main requirements are that the house should be a new one and the applicant should be a First Time Buyer (FTB). The price of the house should be up to £600,000. Under the scheme, the government provides

a 20% loan (40% in London) towards the payment of a deposit, and the applicant adds 5% which makes it affordable to him or her. The mortgage will therefore be 75% of the price of the property (up to 55% in London). This reduces the monthly payment and helps the household sustain the payment of the monthly mortgage. Payment of the equity loan fees is payable after 5 years of the loan. In the 6<sup>th</sup> year, applicants pay 1.7% interest. The interest rates increase based on the policy interest rate. The Help-to-Buy loan should however be paid by 25 years after its provision or when the house is sold.

In the case of the Independent Savings Account (ISA), the government adds 25% of funds deposited under the ISA to acquire a house. The maximum amount that the government provides is £3,000. This means that the maximum amount to obtain all the £3,000 from the government is £12,000. The applicant should be FTB. This does not require repayment.

The next help-to-buy scheme is the acquisition through shared ownership. Applicants can own a minimum of 25% of the property and pay rent on the rest. The applicant can buy more shares till all the property is bought. If you own a share and want to sell, the housing association has the right to buy first (first refusal). If you are 100% owner, you can sell it yourself.

The help-to-buy schemes encouraged more households to acquire houses thereby spiking demand for houses. However, there was no immediate increase in the supply of houses causing an increase in the prices of the houses (Borland, 2019; Maunder, 2020). The high prices made the scheme beneficial to high-income earners more than the low-income earners who were the target of the scheme. For instance, according to Borland (2019) buyers who benefitted from the scheme paid 1% more than the households who did not use the scheme.

Furthermore, though more households were attracted to access, there was no equivalent increase in the provision of loans by the financial institutions to support the programme. This made it difficult for most households to acquire houses in their communities (Boreland, 2019; Maunder, 2020).

Since the activities of the stakeholders (households, financial institutions, estate developers, government) are interdependent any housing policy that does not consider the activities of the stakeholders will not enhance adequate houses in the community.

Considering the hikes in prices due to the introduction of the HTB scheme, the UK government intends to end the current scheme in 2020 and introduce restrictions in the new one which commences in April 2021. The new scheme limits the scheme to FTB and restricts prices for houses sold under the scheme up to 600,000 with varied prices for specified regions. According to (Maunder, 2020) the new ceiling introduced by the government may discourage developers to construct more houses which will reduce supply and increase prices more than what happened in the previous schemes. The government of Ghana could introduce policies that would examine and introduce relevant HTB schemes in the country to encourage low-income earners to acquire houses.

### **3.3.3 Prices of related products**

Furthermore, demand for a commodity is influenced by the prices of related products (Baye, 2009). The related products are in the form of substitutes or complements. Baye (2009) describes substitutes as a good which when the price increases lead to an increase in the demand for the commodity. On the other hand, when the price of the substitute falls, the demand for the good falls. He further stated that the good and its substitute don't need to have the same use. Based on his description he stated that automobiles and houses are substitutes since the cost of each to the household is high and cannot acquire the two at the same time. Hence, if the price of one increases the household would fall on the substitute. Contrarily, Shapiro and Mackmin et al (2019) argued that houses are generally considered as necessities and have no close substitutes. They further stated that caravans and tents cannot be classified as a close substitute to houses. In the context of households' accommodation, however, houses are necessities to households, as a household cannot exist without a house. Hence, houses become a necessity which cannot be replaced by automobile as suggested by Baye (2009). Substitutes can however exist in terms of replacing one housing unit like a two-bedroom for a three-bedroom house.

Again, a household may choose between renting a house and acquiring owner-occupied property. Gibb and Munro (1999) and Gibb (2009) discussed that privately rented premises are substitutes for owner-occupied houses. As rental values become relatively unaffordable to households, they would access mortgage facilities to acquire houses instead of renting. Peel (2018) revealed that the average monthly rent in the UK in 2018 was £912 per household, compared to the average monthly mortgage repayment for first buyer households of just £723– a saving of £189 a month. First Time Buyers (FTB) are therefore attracted to demand owner-occupied properties than renting.

Additionally, goods are complements when an increase in the price of one leads to the fall in the demand of the other. On the other hand, a fall in the price of one would result in a rise in the demand of the other. This concept is very relevant in the housing industry since the price of the fixtures and fittings like water closets and wash-hand basins can influence the price of houses in the country. For instance, in Ghana where estate contractors import foreign materials, prices are high due to the high exchange rates between the Ghana cedi and foreign currencies like the dollar. This results in high prices of houses constructed by the estate developers. However, where locally manufactured fittings are used prices tend to be lower which leads to lower prices of houses.

#### **3.3.4 Challenges of financial institutions in granting mortgage loans.**

As discussed in previous sections one of the attributes of a house is that it is durable and associated with a high price such that household wages are usually not adequate to acquire. Households therefore must access mortgage loans from mortgage financial institutions to enable them to acquire houses. Mortgage financial institutions, however, have some loan requirements that must be met before the loans are given out. If households are unable to meet the requirements, then limited loans would be made available to acquire houses in the community which might create accommodation challenges in the area. On the other hand, the quantum of mortgage loans that would be made available on the market depends on the level of financial risk associated with the mortgage market. This is because financial institutions are risk-averse and would provide more loans when the risks are low. The financial risks and other determinants of the



provision of mortgage loans are mainly credit risk, interest rates risk, exchange rates risk, and foreclosure laws of the country (Asare & Whitehead, 2006; Mishkin & Eakins, 2012).

The probability that the loan that was given out could not be paid with interest is referred to as credit risk. However, where most of the loans are paid the risk is low and high when most borrowers do not pay the loans (Geltner & Miller et al, 2001). Mishkin and Eakins (2012) discussed that credit risk is managed well where there are effective land titling and registration, and the selection of the rightful persons who are not likely to misuse the loan to avoid defaults. It is better to put measures in place to prevent households from loan defaults to enable them have access to adequate houses in the community. In Ghana where land registration and titling are unreliable, credit risk is very high. Financial institutions would have challenges in disposing of collateral properties when there are defaults. However, if the registration process is streamlined by the Land Commission the challenge would be resolved to encourage more mortgage institutions to grant more loans. Additionally, in Ghana credit risk is very high since it is difficult to access the credit worthiness of households due to ineffective credit bureaus in the country (Karley, 2008). In the United Kingdom for instance where there is an effective credit rating system by the credit rating institutions, more loans are available for households at relatively low-interest rates (Property Wire, 2017).

Another challenge that affects the provision of mortgage loans is the foreign exchange risk. Foreign exchange risk is the likelihood that the value of the dollar loan given would decrease during the long period of the mortgage due to a change in the exchange rate. For instance, in Ghana where dollar loans are given, a reduction in the exchange rate say from GHC5.4: US\$ 1 to GHC 5.3: 1 US\$ within the period of the loan would reduce the value of the loan that is given since the banks would receive fewer cedis when the loan is converted to cedis which is the official currency use in Ghana. On the other hand, if the exchange rate rises from, for example GHC5.4: US\$ 1 to GHC5.7: \$1 the banks would receive more cedis when the loan is paid. The uncertainty of the exchange rates discourages financial institutions from granting loans to households to acquire houses in Ghana.

The theory of the Purchasing Power Parity (PPP) determines exchange rates between countries and associated foreign exchange risk (Mishkin and Eakins, 2012). The theory simply explains that, if the price of a product (that is traded internationally) increases in a country against the country of origin, the currency of the receiving country would depreciate against the country of origin's currency. For example, if the equivalent price (price in cedis) of imported porcelain tiles from the UK is increased due to inflation in Ghana, the cedi would depreciate against the pound sterling by the same percentage. In international trade, it is expected that equivalent prices of international goods remain the same in both the country of origin and receiving country. In Ghana since most households demand more foreign building materials like floor tiles, prices of the products increase. Once the equivalent price of tiles increases, the cedi would depreciate against the pound sterling by the same percentage of increase. To reduce the high and fluctuating foreign exchange rate, therefore, the government of Ghana should create the enabling environment to produce more and quality building materials in the country so that households would demand more locally produced ones against foreign ones.

Furthermore, financial institutions experience interest rate risk. Interest rate risk relates to the fall in the value of the mortgage loan granted to the household due to the rise in interest rate (Brealey & Myers, 1996; Geltner & Miller, 2001). This usually occurs when the financial institution provides fixed-rate mortgages to the households. As paying the lower value of the loan the lender losses its capital invested in the loan. Providing fixed-rate mortgage, therefore, exposes financial institutions to interest rate risk, the riskiness of earnings and returns that is associated with changes in interest rate (Brealey & Myers, 1996; Mishkin & Eakins, 2012). To maintain the value of their capital, financial institutions usually grant variable loans to protect them from the interest rate risk (Asare & whitehead, 2006; Karley, 2008). The interest rate charged on the loan is usually indexed to the policy rate so as the policy rate increases the interest rate of the loan also increases.

In Ghana, the interest rate fluctuates considerably as indicated under Chapter 6, thereby resulting in high-interest rate risk. The interest rate that is charged by lenders is indexed to the policy rate which is determined quarterly in the year. The variations either increase or decrease in the year. When the policy rates increase, the financial institutions adjust

their rates upwards, and when it decreases interest rates are lowered. These fluctuations affect households significantly since their incomes are stable for the greater part of the year and the increases in the monthly mortgage become unaffordable to them causing most households to default payments. When there are high default rates the banks experience high default risk which discourages most banks from granting mortgage loans in Ghana (Geltner & Miller et al, 2001; Asare & whitehead, 2006). The fluctuations of the policy interest, therefore, discourage provision and access to mortgage loans and the onus lie on the government to improve on the governance of the economy to stabilise the policy interest rate. This will encourage the provision of mortgage loans in the country so that households can access loans to acquire more houses to mitigate the acute accommodation challenges in the country.

In Mexico, the interest rate volatility is mitigated under the FOVI system: interest rates ranged from about 50% to 15% between 1989 and 1994. To reduce the impact of the high-interest rate on the mortgage interest rate, they introduced the dual index rate system where the mortgage rate was based on changes in wages rather than on inflationary rates. Furthermore, most of the banks had a maximum affordability rate that constitutes the percentage of incomes deducted from the source for the monthly mortgage. Hence, as the wages of the client increase over the years the monthly deduction also increases to cover the increase of monthly payment due to the interest rate upwards adjustment. However, in the period when the required monthly payment exceeded the maximum percentage of household income it is capitalized, and the term of the mortgage extended beyond its original 15 years period. The government however put an upper limit of the extension period to 20 years beyond which it agreed to pay as a subsidy to households (World Bank, 1993; Mishkin & Eakins, 2012).

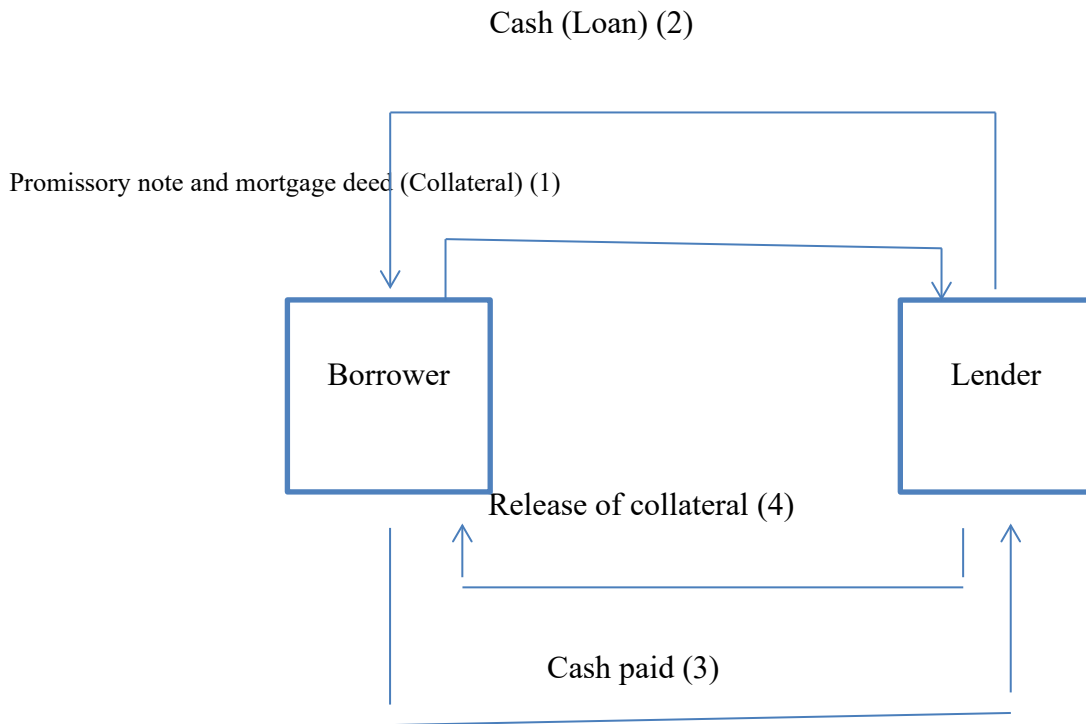
Furthermore, foreclosure laws have been a disincentive to attract more financial institutions to provide loans to households. When a borrower accesses a mortgage loan from a financial institution the borrower secures the loan with a collateral property. A promissory note and a mortgage deed are prepared and executed by both parties. The promissory note declares a promise by the borrower to pay the loan while the mortgage deed transfers the collateral property from the borrower so that if the borrower is unable

to pay the loan the lender goes to court to secure a court order to dispose of the property to defray the Loan (Geltner & Miller, 2001; Asare & Whitehead, 2006; Mishkin & Eakins, 2012). The process of accessing and paying of the loan has been provided under Figure 3.1. While Diamond and Lea (1995) could not express an alternative means of avoiding the court to foreclose mortgage transactions, Geltner and Miller (2001) expressed that the court procedure is avoided in some states in the United States of America to foreclose mortgage transaction by collectively appointing a trustee who would legally keep the collateral in trust for the mortgagor and the mortgagee so that after the payment of the mortgage loan by the mortgagor the property is transferred to the borrower. However, where the mortgagor defaults payment of the loan, the property is sold by the trustee, and the proceeds are used to pay the loan (Geltner & Miller, 2001).

In countries where the property right is not well established and registered it is difficult to enforce foreclosure laws as the properties may be encumbered. Again, foreclosure thrives well in environments where the property market is vibrant so that the properties could be easily disposed of for the proceeds to be used by financial institutions to defray unpaid loans (Diamond and Lea, 1995; Mishkin and Eakins, 2012).

The delays in undertaking foreclosure procedures at the courts lock up banks' capital in the collateral property for a considerable period. Furthermore, the value of the collateral property sometimes falls during the period of processing the foreclosure order, and the proceeds are unable to take care of the outstanding loan. In Ghana for instance the Mortgage Act 1972 (NRCD 96) allows 30 days after a court order for the auction of the collateral property. The period of processing court orders for auctioning is averagely up to 1 year, and the value of the property can fall below the unpaid loan, thereby making it difficult for the financial institutions to use the proceeds of the sale of the collateral to take care of the loan (Geltner and Miller, 2001). Financial institutions would be attracted to provide more mortgage loans at competitive interest rates or mortgage requirements to attract more households to access more loans to acquire houses if foreclosure laws and procedures are streamlined. Mortgage provision processes have been illustrated in Figure 3.1.

**Figure 3.1: Mortgage provision process**



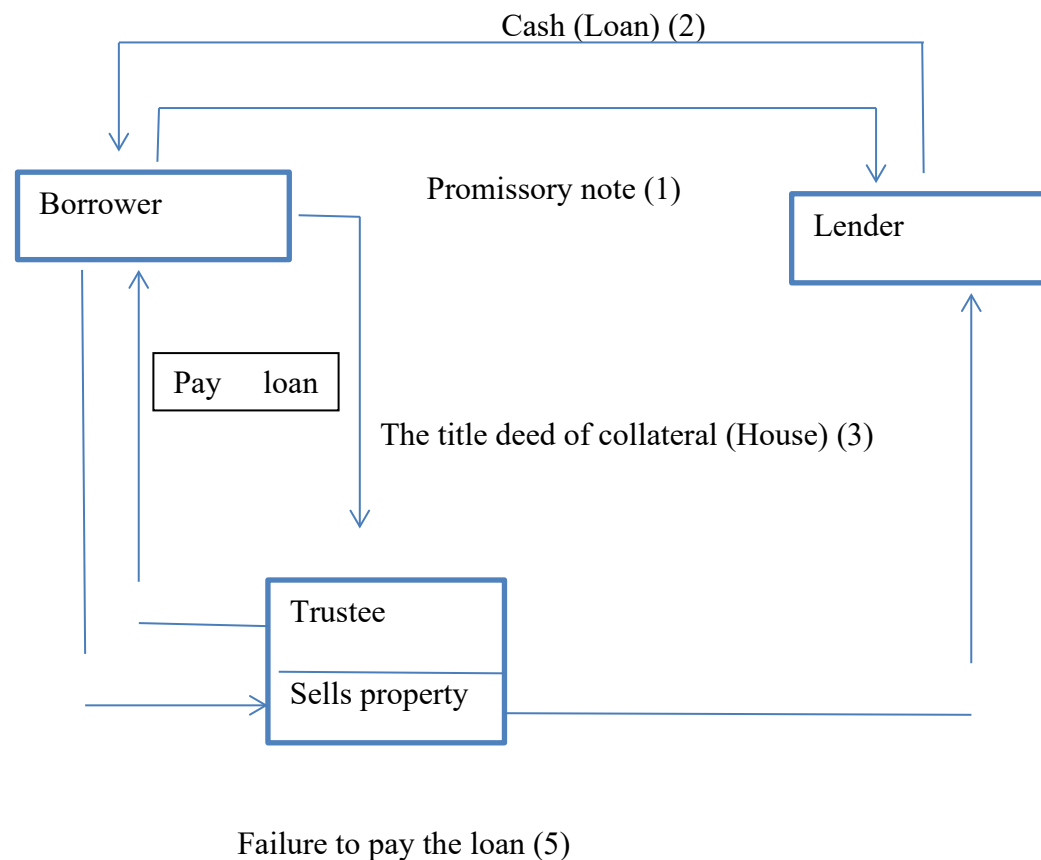
**Source: Geltner and Miller (2001)**

As stated above, Figure 3.1 relates to a borrower or household accessing mortgage loans or cash from a lender. A mortgage deed is prepared to transfer the property as a security to the lender while the promissory note is prepared to assure the payment of the loan. Once the loan or cash is paid, the collateral is released to the borrower. However, if the household or borrower defaults in the payment of the loan, the lender goes through the court of law for an order to dispose of the property. Usually, since there is a backlog of cases handled at the courts, it takes a considerable period for the order of sale of the property to be given. These delays sometimes cause the value of the property to fall and the proceeds of the sale are unable to pay the remaining loan to the disadvantage of the lenders.

As stated in previous sections, an alternative system is practiced in countries like the United States of America where the forfeiture process does not go through the court

system, but a trustee is collectively appointed by the borrower and lender to manage the mortgage process as illustrated in Figure 3.2.

**Figure 3.2: Process of enforcement of mortgage by a trustee (Not court process)**



**Source: Geltner and Miller (2001)**

Figure 3.2 relates to the mortgage forfeiture process that is not executed through the courts but is done by a trustee as indicated above. Under this system, the collateral property is given to the trustee to keep on behalf of both the lender and the borrower. So that when the mortgage loan is paid to the lender by the end of the mortgage term the trustee releases the collateral property to the borrower. However, if the borrower defaults in the payment of the loan the trustee would sell the collateral property and the amount is used to pay the loan which consists of the principal and interest (Geltner and Miller, 2001). This process

reduces the time and cost spent at the court for an order to auction the property and hence the government of Ghana can pass relevant legislation to amend the current Mortgage Act to allow the introduction and practice of the appointment of trustees to solve the challenges that the courts encounter to foreclose mortgage loans.

### **3.3.5 Taste and fashion of households**

MacLennan (1982) and Baye (2009) discuss that demand for goods and services by households is influenced by their taste and fashion. According to Baye (2009), advertisement by suppliers attracts households to like their products. MacLennan (1982) on the other hand discussed that factors that attract households to acquire products are household size and the life cycle of households. The views expressed on how households are influenced to acquire products appear to be different. It could, however, be discussed that whilst households are influenced by advertisement to acquire general goods and services, it could be different for houses. Most general goods and services especially movable products have the same characteristics wherever they are sold. However, in the case of houses, they have unique characteristics and cannot be generally advertised to attract households. Households are interested in inspecting every property to consider the characteristics in terms of size (space), location, and legal interest held in it. Sometimes households as discussed in previous sections require the assistance of professionals to decide on what property to acquire. It, therefore, appears that households require detailed information more than what is advertised. This is because households will like to acquire houses that could accommodate the family members. Furthermore, the household choice will be based on the life cycle since the aged will be interested to acquire single-story houses than storey buildings for easy access to facilities in the house. The youth and energetic may focus on the modern design of the houses due to their aesthetic beauty. They will also be interested in the transportation cost that will be associated with the location of the house.

The taste and fashion of households, therefore, needs to be assessed by developers before construction of houses in communities so that they can meet their demand characteristics which include the size of houses and life cycle. This will increase the demand for the

houses and prevent developers to lock up capital in residential properties for a considerable period due to unsold houses as discussed further under Section 3.4.

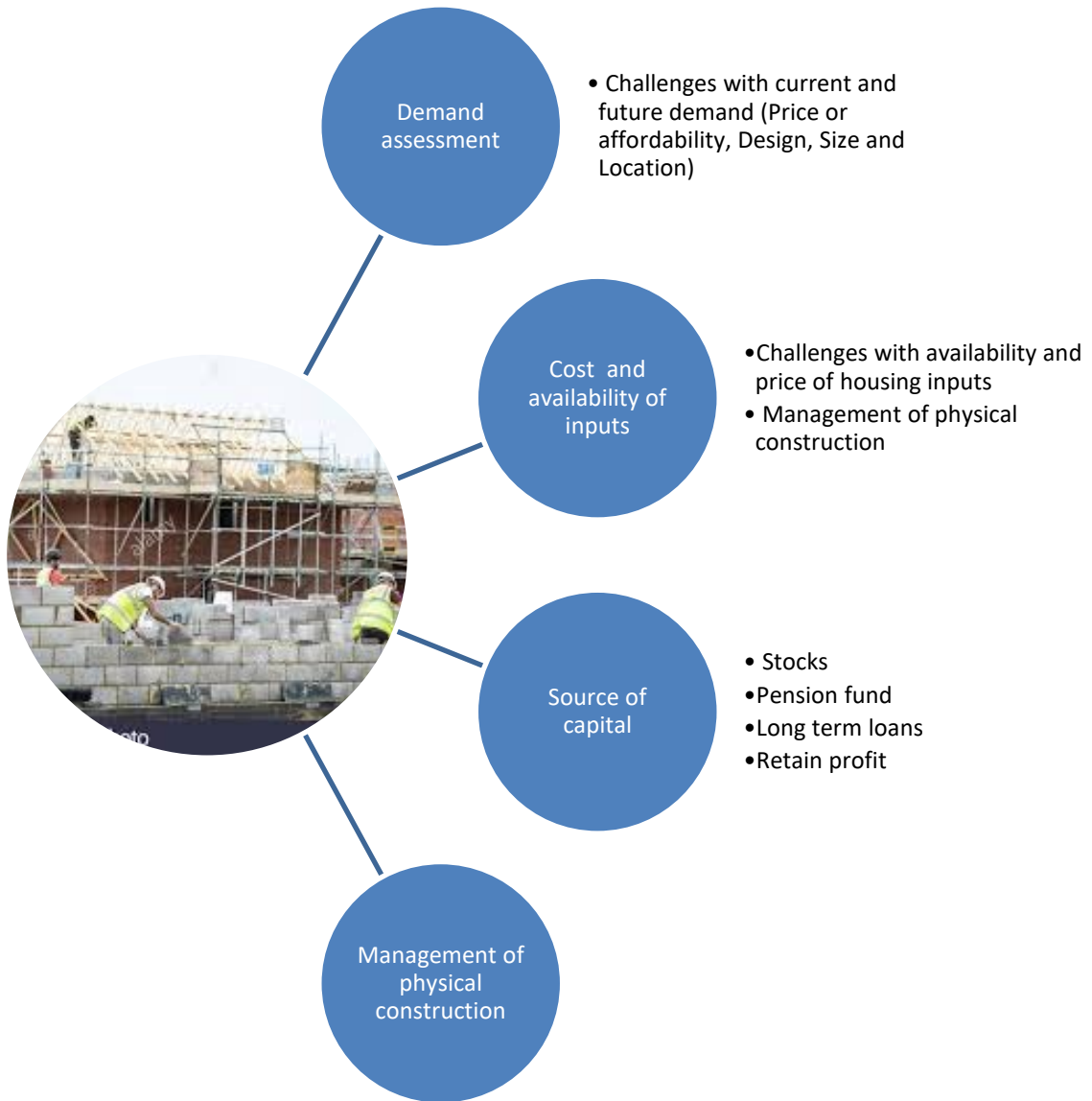
Availability of residential buildings on the property market would also be dependent on the following development constraints.

### **3.4 Supply side determinants of housing**

The operations of real estate developers and associated challenges have been discussed according to the general processes of developing houses. This process consists of demand assessment, identification of the sources and costs of construction inputs, and physical construction of the houses (MacLennan, 1982; Osawuru and Akanya et al, 2018). The process of housing development is illustrated in Figure 3.3.



**Figure 3.3: Housing supply factors**



**Source: Insight from MacLennan (1982) and Osawuru & Akanya et al (2018)**

### **3.4.1 Demand assessment**

Before commencement of industrial estate development, the onus lies on the developer to know the demand characteristics of the area in terms of price of the property, size of the property, design, and location (MacLennan, 1982; Fernando & Kaluthanthri, 2015). Though an estimate can be done based on existing documentary and field data the exact

nature and characteristics of demand are difficult to attain. The level of income of the community to a large extent should be considered before developing the properties unless the targeted market is outside the community. However, Fernando and Kaluthanthri (2015) discussed that most of the housing demand usually emanates from the immediate neighbourhood. Prices of properties are sensitive to both buyers and sellers. Though buyers prefer reasonable prices or affordable houses, the sector should also be attractive to developers to increase the supply of houses (Bayer, 2009). Most developers apply the accounting principle of Job costing to price their properties. The costing method contains profit, cost of construction, administrative cost, and land. Efficient management of the components could reduce the price of the properties and make the property affordable to households (Branson & Elshernnway et al, 1990; Jang & Kim et al, 2012). Furthermore, the provision of houses with varying prices can also meet the current and future varying income levels of households so that developers would always have demand for their houses. Developers who do not assess the market well and develop their properties are likely to encounter low patronage of their properties and would lock up a huge amount of capital in unsold properties.

In Ghana, the main housing developers like SSNIT and State Housing Company outsource their development activities by engaging contractors to develop the estate houses (Proverbs & Olomolaiye, 2004; Ahadzie & Mensah, 2010). This form of business operation is associated with the charging of supernormal profit which consists of both profits of the real estate company and that of the construction company. The supernormal profit generates high prices of houses which become unaffordable to households. For instance, prices of properties developed at Borteyman in Accra by SSNIT were very expensive which did not attract demand for a long period. SSNIT locked up capital in the houses for a considerable period before granting discounts to attract buyers. The prices of the properties and discounts provided have been stated in Table 3.1.

**Table 3.1: Prices of housing units at Boteyman housing estates in Accra by SSNIT**

Type of House	Price GHC	Discount (%)	Current Price
1 bedroom self-contained (Regular)	117,000.00	25	87,000.00
1 bedroom self - contained (Special)	168,000.00	29%	119,900.00
2 bedroom-self contained	220,000	32	149,900.00

**Source: Ghana News Agency (2017). (£1: GHC5.3, 2017)**

Table 3.1 revealed that though the housing units developed by SSNIT at the Boteyman industrial estates presented three varieties of houses with varying prices to allow households to acquire based on sizes of households, the prices were so high that they could not afford. This made SSNIT provide an average discount of 29% to attract demand for the property.

Another factor that requires consideration by developers is the sizes of houses to be developed. Since residential properties are fixed in supply, they cannot be easily converted to meet present or future demand (Geltner and Miller, 2001; Jang and Kim et al, 2012) hence it is appropriate to provide houses of varied sizes to meet especially the demand of varying family sizes from single to large family size. It would also enable people who would downsize (re-mortgage existing property for a smaller one) and can also help singles who become families get access to larger houses to the occupier in their old communities (Property wire, 2017). In Ghana, price lists of most developers revealed that estate developers do not leave land spaces for extension of houses and this results in unauthorised extension to the original houses due to the growth of family sizes thereby distorting the original planning scheme of the area, resulting in slums and its attendant challenges.

The design and aesthetic beauty of the property are not only focused on the houses but also on the immediate neighbourhood characteristics of the communities. These attract

households to acquire houses. The design should not be exaggerated as it increases the prices of properties which may be unattractive to households. The provision of infrastructural services like tarred roads and streets, pipe-borne water, and electricity also entice households to acquire houses. However, the real estate developers cannot provide those facilities alone since they are capital intensive and require a large outlay of funds to develop (Fernando & Kaluthanthri, 2015). In Ghana, the provision and maintenance of infrastructural facilities constitute a large proportion of the price of land or buildings hence if the Ghana government implements its policy of the Public-Private Partnership, and bear part of the cost of infrastructural services provided in most communities, prices of properties would be affordable to households (Osei, 2013; Owusu & Edwards et al, 2015).

The location of residential buildings is very relevant in considering households demand assessment since it has bearing on property values and transportation cost. This is relevant usually when a new product is being introduced at a new location. Developers would like to assess the patronage of households since there would be uncertainty about levels of demand. To overcome this risk or uncertainty developers engage in advance payment before the development of the property. Again, properties are developed up to a level so that when a customer shows up to acquire, it would be completed for him or her. Furthermore, based on the level of income of the target market, residential properties would be sited either close or far from the city centre. For instance, if most of the households are low-income earners it would be appropriate to develop properties relatively far from the Central Business District (CBD) so that they can commute to the city easily especially if there is reliable public transport that plies the route (Geltner & Miller, 2001). In most cities in the world, there is reliable public transport that helps city dwellers to commute from the fringes of the towns to the CBD to work (Poku, 2018). The Bus Rapid Transit Systems are of low cost compared to rail transportation which has been unaffordable to most developing countries. In Ghana, the informal transport system where many mini-buses transport dwellers of suburban settlements to city centres have been found to dominate. Settlements that are far from the city centre have therefore not been

attractive to most households, hence most developers concentrate on areas that are close to the city centres.

Additionally, developers do not target demand characteristics of the community but rather rely on the taste and preferences of Ghanaians living abroad which are different from that of the local community. According to Karley (2008), the distribution of local developer's preferences in terms of percentages are residents, 27%, foreign residents 8%, and 65% Ghanaians living abroad. Since local developers focus on satisfying foreign demand rather than local demand, they rely more on the taste and preference of foreign demand which are usually associated with high prices, development of large sizes of houses, and location of properties at city centres which are usually unaffordable to residents. Most developers, therefore, have stocks of houses that have not been sold since it meets the target of foreign demand and not household's resident in Ghana.

### **3.4.2 Availability and cost of housing inputs**

The main factor that determines the construction of houses is the cost of construction (McGuigan & Moyer et al 2014). The World Bank (1993: 79) stated that *Housing production costs depend largely on the cost and availability of inputs – land, labour, building materials, construction equipment, infrastructure, and entrepreneurial resources.*

#### **Availability and cost of land for housing development**

In urban economic analysis, the land is considered as very relevant in a housing development (Geltner & Miller, 2001; Baum & Mackmin, 2018). It was however considered to play an important and complex role in the socio-economic process over space and time. Furthermore, it is a “property” on which development takes place (Shapiro and Mackmin et al, 2019). It is a property since it consists of several rights that can be owned by individuals, companies, and the government.

Though several rights can be held in the land, the most important ones when it comes to property development and houses in Ghana are the freehold and the leasehold (Shapiro and Mackmin et al, 2019). Freehold lands or properties are held in perpetuity thus it has

no limit, and the freehold owner is usually not responsible to pay any ground rent. The freehold owner can however grant leasehold interest to cover part of his or her freehold interest. The leasehold interest is however for a term of years usually up to 99 years with renewable option and a lessee is subject to pay annual ground rent to the freehold owner. When estate developers, therefore, develop houses on leasehold lands, they assign the remaining interest of the lease to the household who would continue to pay the annual ground rent to the freehold owner after paying the price of the building to the property developer (Shapiro and Mackmin et al, 2019). This form of land ownership system is usually common with the developed economies like the United Kingdom and the United States of America. However, in most parts of the centrally planned economies and most parts of Africa like Tanzania and Northern Nigeria interest in land has been nationalized (World Bank, 1993; Udoekanem and Adoga et al, 2014). Citizens have land-use rights, but the legal interest is held by the government in trust for the citizens. Furthermore, in the southern part of Nigeria and some parts of Africa customary rights have been created and recognised under the relevant laws in the countries.

In Ghana, the land tenure is not nationalised but comparable to that of the United Kingdom where there are state lands and private lands. However, the main difference between the interest held in the UK and that of Ghana is the existence of customary interests in Ghana. The types of lands held in Ghana are therefore state lands and private lands. State lands consist of lands acquired by the state and vested lands (lands held by the state in trust for stools). Private lands are however the stool or skin lands, family or clan lands, and land owned by individuals. The state lands are owned and controlled by the state under respective acts and constitution whilst the private lands except stool lands are managed by the families and individuals. The constitution, however, entrusts the management of the stool lands with the aid of the government institutions like the Lands Commission and the Office of the Administrator of Stool Lands which mainly collects revenue of stool lands on behalf of the stool. Interests held in the land are the allodial title (Customary interest), which is the head of all the titles, customary freehold, common law freehold, leasehold interest, licenses, and other lesser interests. The Conveyancing Decree, 1973 (NRCD 175) stipulates that transfers of all lands should be put in writing except for

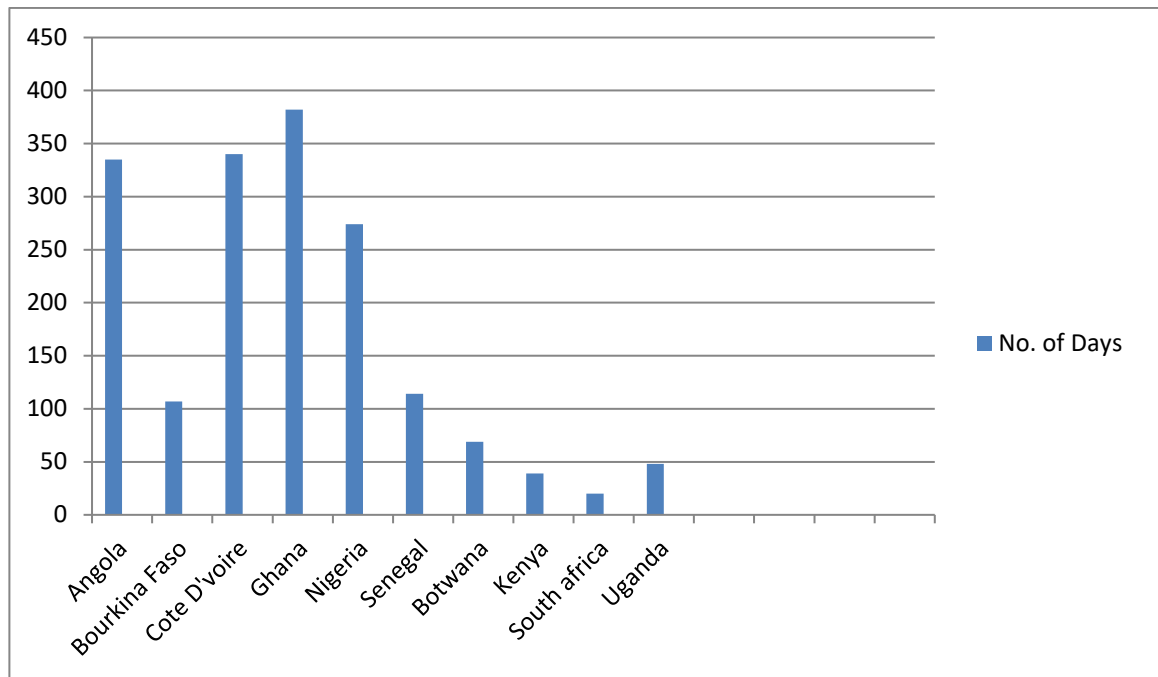
customary lands which do not need to be written. The varying laws associated with the various lands, various modes of transfers of lands, varying locations, and the types of interest that can be transferred from land make it difficult to identify the rightful owners of properties, especially with the customary lands. It is common to find developers buying one property twice since they could not engage the rightful person for the transfer of the land. The challenges associated with land transfer make it unreliable and risky thereby deters developers from building more houses in a community. Furthermore, due to the complexities of land transfers, developers usually consult solicitors or relevant professionals which increases the cost of development and prices of houses (Catalano and Massey, 1978; Shapiro and Mackmin et al, 2019). It has therefore been the concern of most stakeholders that a review of numerous laws concerning land is needed. Under the Land Administration Project (LAP), a review and compilation of all laws concerning land under one law was initiated but has still not seen the light of day.

The land registration process is another challenge that is encountered by developers in most transitional and developing countries due to land disputes, delays in land registration, and high processing charges which eventually increase the cost of construction. Excessive land regulations cause a delay in the development of residential properties. Unrealistically, numerous regulations can affect the cost of buildings and responsiveness of housing provision to changes in demand. Bureaucratic procedures and formal and informal charges (including bribes) associated with property registration and granting permits cause delay and increase the end cost of residential properties (World Bank, 1993; UN Habitat, 2008).

The World Bank (1993) indicates that in Egypt obtaining and legally registering a plot of land on a state-owned vacant land involves at least 77 bureaucratic procedures among 31 public and private agencies. In Peru, building a house on government land requires 207 procedures within 52 government offices. Furthermore, in the Philippines, registering land takes 168 steps and between 13 and 25 years to complete. Again, in Haiti, it takes 65 steps to obtain leases of lands on state lands. In Ghana, it took an average of 360 days (about one year) to register lands for development which was the worst among other

African countries like Nigeria, Cote de Ivoire, and South Africa, as indicated under Figure 3.4.

**Figure 3.4: No of days of registration**

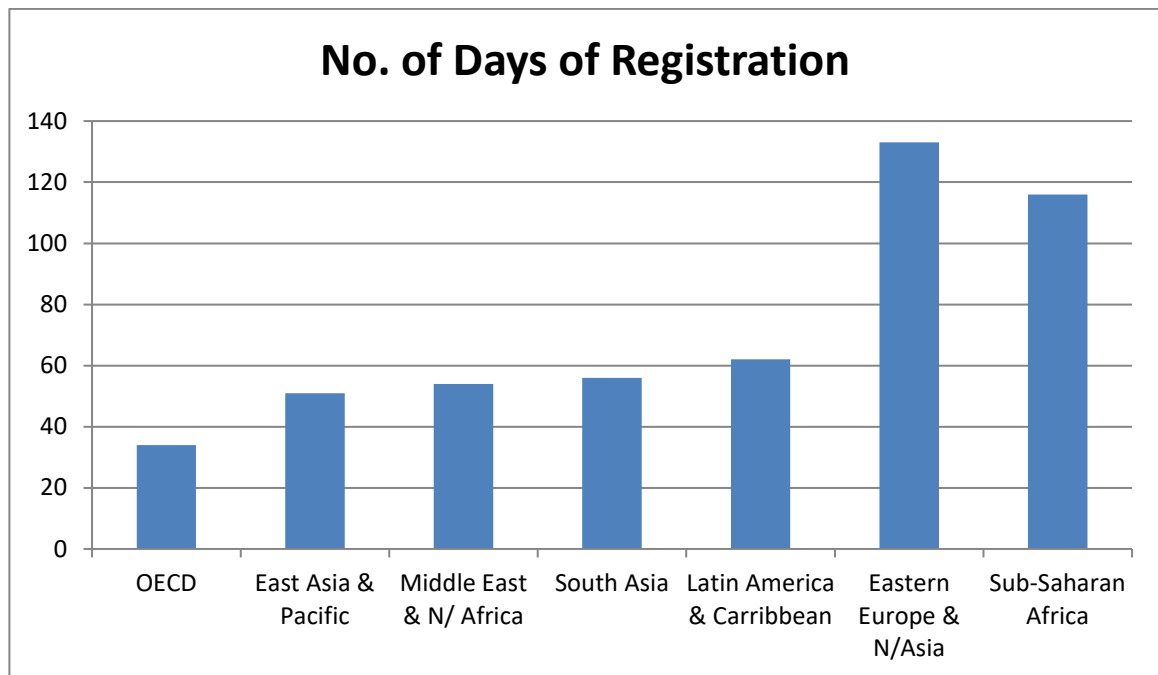


**Source: World Bank (2005)**

Figure 3.4 indicates that Ghana records the highest number of days of registration in most parts of the world. The Land Administration Project which was introduced could mitigate the challenges associated with registration in the country. The lowest no of days was recorded by South Africa.



**Figure 3.5: Number of days of registration**



**Source: World Bank (2005)**

Figure 3.5 also indicates that the number of days for registration was high in Eastern Europe and North Asia as well as in Sub-Saharan Africa where Ghana is located. On the other hand, it was low in the OECD, East Asia, and Pacific countries.

Cotula and Toulmin et al (2004) discuss that registration of land should be simplified at a much lower cost and time. This can be done by streamlining procedures, computerization of land records, and use of the Geographical Positioning Systems (GPS) to automate land surveys. They further stated that the costs and techniques of land administration must correspond with the value of land so that lands with low values would attract a low level of cost and fees of registration. For instance, residents in spontaneous and informal settlements in Port of Spain acquire affordable shelter close to urban amenities through the 'Certificate of Comfort' under Act 25 of 1998. The essence of the act was to enable households to gain access to enough tenure security to develop their houses. The certificate is different from the formal land registration system which was very expensive and normally obtained by people who lived in the urban centres. Though the act provides

initial security for life of the transferee, the government could subsidize the formal acquisition and registration of the property to enable them to use the property as collateral to access funds to maintain the houses (World Bank, 1993).

After the land registration, but before housing construction by developers, a building permit from the local physical planning authority must be obtained. The main benefits for providing land use planning in cities especially in Sub-Saharan Africa are to contain urban sprawl (urban containment and protecting the rural areas from urban development), supply of public goods or infrastructure, obtaining orderly urban development, ensuring proper sanitation conditions and conveniences, and lastly ensuring modernisation of the urban economy (Briceno and Estache et al, 2004; Huchzermeyer, 2004). The mechanism for development control intends to group complementary land uses and separate them from those that are not compatible. The process is that developers must obtain a planning permit from a local planning authority.

Despite the benefits of the planning and development controls in a community provided above, it has been criticised for the high cost and delays associated with the building permits. The delays prevent developers from constructing houses to meet the demands of households thereby making supply unresponsive to demand, this is referred to as inelastic supply. This characteristic of housing supply aggravates the acute accommodation challenges in Ghana. Additionally, the high cost of processing permits (both official and bribes) increases the cost of construction and prices of houses which becomes unbearable to households (Mahama and Dixon, 2006). Permits are granted based on the development or the planning scheme of the area (Egbu and Antwi et al, 2006). Courtney (1983) and Whitehead (2007) discussed that the three most common forms of land use regulations are zoning, subdivision, and building regulations: the first relates to the general structure of the entire community and is usually the least detailed, the second considers the immediate relationship between adjoining plots of land in greater detail while the last is the most detail and covers the type of structure permitted on the individual building sites.

The impact of the provision of planning controls on housing development activities is summarised in Table 3.2.

**Table 3.2: Effects of land use planning on housing provision**

Effects	Land use controls
Increase in land cost	Zoning, density controls, procedures in obtaining a development permit
Increase in plot preparation cost	Sub-division requirements on water, wastewater, and sewerage.
Administrative and delay cost	All land use controls
Facilitating monopoly power	Regulations act as barriers to market entry
Market orientation	Restrictions force property developers to reorient their developments

**Source: Insight from Courtney (1983) and Whitehead (2007)**

Table 3.2 indicates that land-use planning affects property development directly and indirectly: developers pay direct fees to the local authorities for zoning and controlling developments in the communities. This cost forms part of the land cost that developers consider when pricing buildings for sale. Again, when the building codes (quality of materials and services required to be provided by law) are restrictive and expensive to provide, developers pass on the cost to households in the form of high prices which are unbearable to households. Furthermore, implementing all the land use controls, most of which are complex and require a long period to accomplish delays the development process. This causes developers to lock up capital in the houses. Additionally, delays that are usually associated with granting planning permits serve as a deterrent to most investors from investing in the real estate business and thereby create monopoly powers for the existing developers. Lastly, zoning regulations in most countries of Africa officially set aside particular areas for land uses like commercial, residential, industrial, and recreational. Setting aside particular areas means that land uses are determined by laws and regulations and not by the forces of demand and supply. Housing developers can therefore be refused to develop houses at locations that could have helped to reduce the housing deficit in the community (World Bank, 2013).

In the United Kingdom, though the planning Act 1990 controls most of the planning activities, the local dwellers contribute to the development planning of their neighbourhood under the Neighbourhood Planning Act 2017. Under the Act, the communities are expected to draw up a “neighbourhood plan” through the guidance of a town council, parish council, or neighbourhood forum but which must be approved in a local referendum. The plan must however be under national planning policy and the strategic vision of the local authority. When this is done the residents participate in the development of the neighbourhood plan and would also help in its implementation to reduce the burden of developers to ensure that the community becomes attractive to most households to acquire houses in the area (Egbu and Antwi et al, 2006). The government of Ghana could therefore amend the Local Government Act, 1993 (Act 462) to involve the local community in zoning lands in the community so that their needs could be met, to attract more households to acquire properties in the area.

After developers have sorted out the challenges with the land factor and made it available for developments, the labour force for the construction of houses is considered as follows.

### **Availability and cost of labour inputs**

The labour market under the construction industry consists of a complex mix of skills and labour inputs (Soares, 2013). Some of the skills and trade groups have been presented under Table 3.3.

**Table 3.3: Employment of site operatives for new work**

Trade	Skill
Structure and services	Bricklayer, Roofer, Steel Erector, Glazier, Carpenter, Plumber, Heating, Electrician
Finishes and others	Plasterer, Painter, Floor layer and Others- General labourer, Plant operator, Scaffolder

**Source: Soares (2013)**

The mixed skills and labour units usually fit into the concept of divisibility of work where activities are allocated to specific departments which encourages miscommunication, fragmentation of teams, segregate knowledge, individuality, and lack of trust among workers (Miller, 2009). While MacLennan and Miao (2017) presented that the complex mix skills associated with building construction could be solved by efficient management, Soares (2013) stated that the concept of integration is the key to resolve this challenge. The concept entails perfect symbiosis which generates clear communication, integrated teams, the contribution of knowledge, collectively, and trusts (Teicholz, 2013). Though the general management of the resources by the leaders is needed, a collaboration of the stakeholders is required. Since the jobs provided under Table 3.3 relate to each other they could corporate to provide good services under little supervision.

The impact that labour force has on the cost of construction consists of low productivity due to low technology, inefficiency due to lack of training, and wastage of resources due to lack of strong intermediaries between the owner and contractors. The building sector is generally experiencing low productivity growth in most countries in the world (MacLennan, 1982; MacLennan & Miao, 2017). According to the Baumol model of sectoral unbalance growth, if an industry is already experiencing low growth, further allocation of resources to the sector would continue to experience low growth (MacLennan and Miao, 2017). Lepatner (2007) discusses that the low fundamental growth of the construction industry is due to the traditional rudimentary process of production based on the concept of divisibility. On the contrary Stegman (1970) attributed the low production to the

labour-intensive nature of the construction industry. Stegman (1970; 108) states that *industries do not choose to be low technology but that low productivity growth over the long run is only possible in industries where labour is primary an incidental requisite for the attainment of the final product.*

It could however be expressed that the building industry has not developed in terms of technology as compared with other industries like information which has generated easy communication in the world. Teicholz (2013) argues that the main challenges of the labour sector in the construction industry are well known to practitioners but they are conservative and resistant to change. Poor productivity is due to lack of design and construction, poor collaboration among team members, and high reliance on poor data produced by the fragmented team. The National Institute of Standard and Technology in the United States of America revealed an average loss of \$ 1.2 billion a year in productivity due to the inability of the sector to electronically manage and communicate data. Furthermore, the USA Department of Commerce, Bureau of Labour statistics in the construction industry (2013) revealed that as there was a continuous decrease in productivity in the construction industry, productivity in the nonfarm industry at the same time doubles its productivity from 1964 to 2012. The linear trend shows a -0.32% per decline for construction with one accumulated value of -15.34%, as the trend for the nonfarm industry shows a positive 4.06% annually (Soares, 2013).

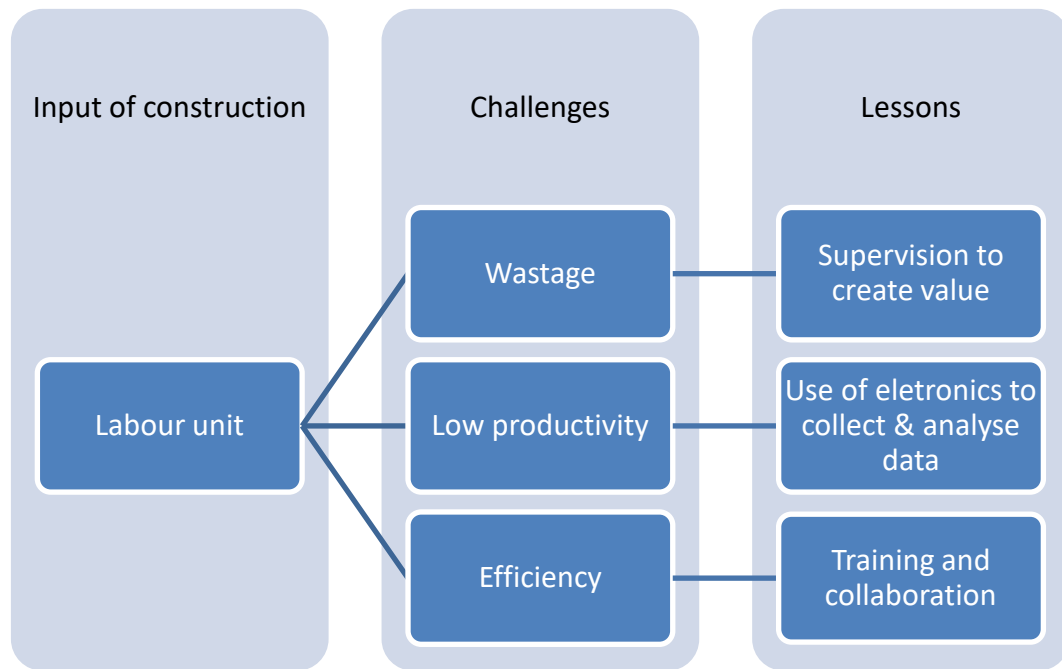
Another impact of the labour market on the housing industry is the inefficient labour force, as most of the artisans do not upgrade their skills through Continuous Professional Development (CPD) to increase the performance of their duties. (Stegman, 1970; Lapatner, 2007). The challenge becomes more evident especially when at low productivity there is wage inflation during labour union bargaining. This undoubtedly increases the cost of construction which is usually shifted to households in terms of high prices. The technological improvement as stated above can improve the efficiency of labour and reduce the cost of construction.

In Ghana, there has been little research in building construction as the government has not shown interest in investing in it. For instance, the technical schools and the polytechnics

that were established to train and do research have relegated technical education to the background. The institutions have rather been flooded with management programmes and little attention given to the development of technical education and skills. Due to the low development of skills, most tradesmen do not perform efficiently in construction firms. Hence as wages increase annually especially based on ranks of officers, their efficiency remains the same. Production does not increase with cost leading to the high cost of construction to developers and decreasing their ability to construct more houses in the community.

Furthermore, there is a high level of waste associated with the labour sector partly due to the inefficiency of labour making households bear undeserved high prices of houses (Soares, 2013). Smart Alliances Limited estimated that more than 50% of the cost of construction is attributed to waste. Again, the Engineering News Report estimates that of the \$1.288 trillion of construction volume in the USA 50% of the cost is due to waste (Miller, 2009). According to Lapatner (2007), the cause of the high percentage of the waste is partly due to lack of integration and strong intermediaries between the owner and contractors and therefore forces the households to accept the overvalued prices of properties. The above challenges have been presented below under Figure 3.6.

**Figure 3.6: Labour challenges and suggested corrective measures**



**Source: Insight from Soares (2013)**

As the traditional methods of performing roles have outlived their usefulness due to the current high demand for houses in the world, modern methods must be adopted. These include automation of the processes, training, and collaboration of the various artisans to create value. The resultant effect would be a reduction of waste, construction of high standard houses, lower cost of construction, and lower prices of houses which will be affordable to most households. The labour force requires materials to perform their duties as discussed below.

#### **Availability and cost of building materials**

Building material is one of the inputs that developers require before they can construct more buildings to provide adequate housing stock in the community. The availability and cost of the materials would influence the number of houses that they can develop. If there are adequate materials at competitive prices then housing developers can construct more houses, however, if there are inadequate materials at high prices then fewer houses could be developed in a community (Geltner & Miller, 2001; Baye, 2009).



Building materials required in property development are of various types and qualities. Building materials constitute about 40% of the cost of construction and hence demands careful consideration if management would like to reduce cost (Kwofie & Adinyira et al, 2011). The type, cost, and quantity of materials required for any project are presented in a Bill of Quantities (BOQ). Materials supplied on the construction site are dependent on the cost accounting concept of the Economic Order Quantity (EOQ). The EOQ is a decision tool that is used to estimate the number of materials that are required on-site for development activities. It thereby manages cost associated with a material supply like storage cost, high prices of materials due to shortage, and capital that is held in stock (Amran, 2018; Danso & Obeng- Ahenkora, 2018)

In most developing countries like Ghana and Nigeria, due to high inflationary rates, monopoly granted to most building material industries, and high exchange rates, developers acquire materials at high cost and are unable to maintain adequate stock for their construction activities (Kwofie & Adinyira et al, 2011; Danso & Obeng- Ahenkora, 2018). For instance, in Ghana, due to monopoly power given to a company that produces cement, the company usually creates an artificial shortage to increase prices for them to earn super profits. This shortage increases the prices of materials, cost of construction, and high prices of houses. Additionally, high inflationary rates in Ghana increase the prices of building materials. Most developers, therefore, stock a high quantity of materials in anticipation of an increase in the prices of materials. This results in high storage costs and locks up their capital in materials for long periods. Furthermore, the high exchange rates in the country increase prices of building materials in the country.

Households in most developing countries have developed a high taste for imported building materials hence most developers usually import building materials at high prices due to high exchange rates and import taxes. This also increases the cost of construction and prices of properties in the country (Oladipo & Oni, 2012; Danso & Obeng- Ahenkora, 2018).

According to Kwofie and Adinyira et al (2011) and Danso & Obeng – Mensah (2018) the main factors that determine the production cost of building materials in Ghana is the cost

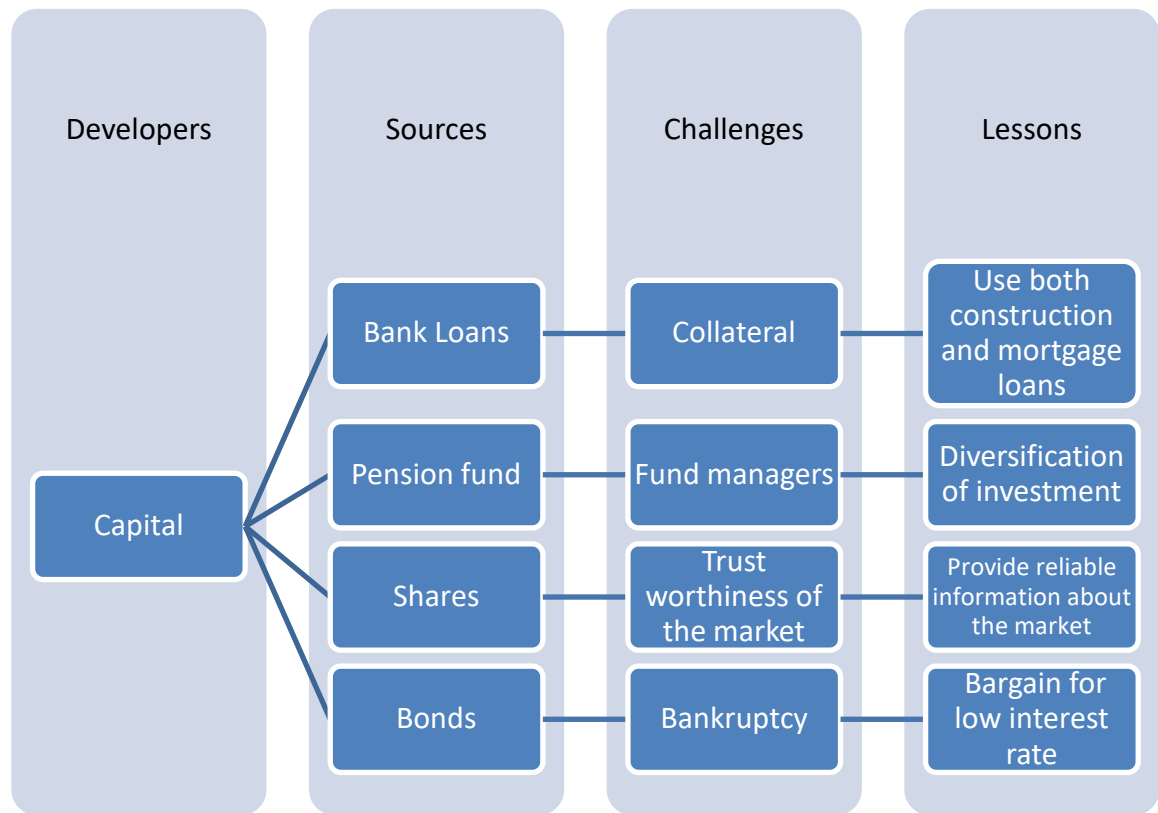
of transportation, high cost of labour, crude oil prices, energy cost, and local taxes. Hence the ability of producers to minimise these costs will result in low production costs, lower prices of materials, high market share, and increased profit (Kasim, 2013). One of the main challenges of developers is access to capital for development and this has been presented.

### **Potential sources of capital for real estate developers**

As stated in previous chapters, housing construction requires large capital since it is a property (accommodates several interests or rights) and durable. The developer who constructs industrial estates, therefore, requires much capital at a reasonable cost to be able to construct more buildings in the community. The cost of capital is part of the construction cost incurred by developers in the construction of houses. The higher the cost of capital the lower the ability of developers to access capital to develop more buildings in the community. Most developers, therefore, access the available capital with less cost to be able to develop more houses in the community (Geltner & Miller 2001; Mishkin & Eakins, 2012). This section seeks to analyse the various sources of funding real estate development and associated challenges.

The sources of capital for most developers are stocks, bonds, retained earnings, pension funds, and bank loans. Characteristics of the sources of capital have been presented below under Figure 3.7.

**Figure 3.7: Sources of capital for a real estate development**



**Source: Geltner and Miller (2001).**

As stated above, most small developers do not have assets for reinvestment, they therefore usually rely on bank loans which consist of permanent loans and construction loans (Geltner & Miller 2001; MacLennan & Miao, 2017). Furthermore, in developing countries like Ghana where the stock exchange is not well developed, most firms rely on loans from banks. Due to the large nature of capital required for estate development, most developers are not able to raise adequate collateral to access large long-term loans for residential property development (MacLennan and Miao, 2017). Most developers access short-term loans (Construction loans) to supplement their limited long-term loans that they access (Geltner and Miller, 2001). Again, most banks in developing countries rely on deposits (short-term liabilities) for their investments. They are therefore not able to grant long-term loans. Real estate developers encounter challenges with accessing large capital for real estate development. The short-term loans are between 1-3 years and the loan is given gradually during the construction period. Payment of the loan is however made

immediately after the completion of the development. Further, though short-term loans are associated with low-interest rate and interest rate risk (loss of capital due to increase in policy rates) it has high default risk and can lead to bankruptcy (Geltner & Miller 2001; Mishkin & Eakins, 2012).

According to Nkyi and Ainye (2013), the main source of financing estate development in Ghana is mortgage loans. However, most developers are unable to access adequate loans due to lack of collateral, inability to present business plans, unable to pay deposits, high default rates, and inadequate financial and managerial skills of developers. They however discussed that if the government could provide the enabling environment to encourage real estate financial assessment and investment in Real Estate Investment Trust (REIT) more financial institutions would be attracted to the mortgage industry to provide adequate mortgages in Ghana.

In developed countries where long-term loans are readily available, developers can access bank loans for the development of residential buildings. It lasts longer, about 20-30 years, and all the funds are given at a go, but payment (interest and capital) is made gradually throughout the term of the loan. It, however, has high-interest rate risk (due to the volatility of bond and policy rates) (Geltner & Miller 2001; Mishkin & Eakins, 2012).

Though Mishkin and Eakins (2012) did not indicate the distinction between long and short bank loans (treated all as bank loans) it was done by Geltner and Miller (2001). It is relevant that the distinction is made clear to provide the varying risks associated with them so that the developer could manage it to avoid bankruptcy (Geltner and Miller, 2001). To avoid bank loans and associated financial risk, developers can use pension funds or enter a partnership with pension fund managers to finance the development of residential buildings as indicated below.

Another source of financing real estate development is the use of pension funds. The use of pension funds for investment in real estate is based on the Modern Portfolio Theory (MPT). The theory suggests that investors should diversify the investment broadly to minimize risk and maximize return. United States of America (USA) for instance enacted the Employee Retirement Income Security Act (ERISA) by congress in 1974 based on

the MPT, to diversify the investment of the pension fund. ERISA, therefore, prepared a programme to diversify its investments from the traditional bonds and stock by investing in real estate. This directed a large sum of funds into real estate development. Real estate investment matches with pension funds since they are all long-term investments (Diamond and Lea, 1995). Investment in real estate can release monthly payments in the form of rents to pay monthly pension allowance and properties can be sold to pay bulk sum payment of pension. The USA investment strategy (ERISA) paid off since the risks associated with real estate investment are relatively lower than that of bonds and shares; real estate investment is not affected by interest rate risk and default rate as compared with bonds. Again, incomes from real estate are assured compared to shares. Lastly, real estate is a hedge against inflation as inflationary levels do not affect income (as it does to bond interest and capital which is relatively fixed) as rent could be increasing during inflationary periods. Again, property values could appreciate usually above inflationary levels. For example, in the USA during the period of 1970s and 1980s the effect of the high inflationary levels, revealed that real estate provides better protection against inflation (Geltner and Miller, 2001). The challenges with real estate development are that the rent and capital real values may remain fixed or fall on the property market though it rarely happens as compared to shares and bonds (Lam and Chiang et al, 2011).

Though pension fund is a potential source of real estate finance especially in developing countries, it has not substantially been invested in real estate development, resulting in over-reliance on bank loans which is associated with high-interest rates causing prices to rise beyond the reach of households. Pension fund managers could diversify the investment of pension funds in housing development and due to the relatively low cost of capital can develop houses at a lower cost of construction and prices (Ayitey and Gavu et al, 2013). In Kenya for example, 20% of the pension fund was invested in the housing industry and 2% in mortgage securities in 2010. In Ghana as stated under previous sections, though the Social Security and National Investment Trust (SSNIT) invested massively in housing development in the late 1990s, it has reduced drastically current investment in houses. SSNIT (2017) stated that pension fund was used initially to develop 7,168 housing units in Sakumono near Tema before it was extended to communities like

Dansoman, Adenta, Ashongman all in Accra as well as other parts of the country. The opportunity created by the introduction of the National Pension Act 2008 (Act 766) which allows for the use of Tier 2 to pay deposit and access mortgage loans by contributors should be implemented by the government. Relevant government policy should be made to encourage contributors to benefit from the opportunity (Ayitey & Gavu et al, 2013; Agblobi, 2011).

Furthermore, real estate developers issue shares to receive cash flows from investors to finance the development of residential properties. Capital that is obtained is without interest rate, however, investors receive their returns or compensation through receiving dividends based on the profitability of the company. Again, shareholders gain additional compensation or returns when their shares increase in value on the stock exchange. Since developers obtain capital at relatively low or no cost, the cost of construction could be low, and houses could be constructed at low prices for households to buy to reduce accommodation challenges in the community. In Ghana, however, there are very few real estate developers who are enlisted on the Ghana Securities and Exchange Commission to access capital for investment. The Ghana capital market is not well developed in terms of the provision of adequate and reliable information about listed companies to the public and this has not attracted most investors to invest in the capital market. As stated in previous sections, in 2010 for example one of the prominent estate developers floated the Initial Public Offer (IPO) on Ghana Stock Exchange to raise an amount of GHC61,823,968 (\$1: GHC1.1, 2010) to develop houses on a large tract of land in the eastern region of Ghana. However, investors did not patronise and buy most of the shares forcing the developers to withdraw their offer on the capital market. Contrarily, in the United States of America, billions of shares of stocks are traded each business day (Geltner and Miller, 2001; Mishkin & Eakins, 2012). According to Lam and Chiang et al (2011), to attract investors to contribute their funds they should be well convinced that their investments will yield adequate returns.

Real estate developers can raise funds from the stock market to finance the development of houses. However, for investors to buy shares on the stock market, they must be able to trust information that is released about the firms they intend to invest in. Any form of

mistrust can lead to the collapse of the market (Reilly & Brown, 1997; Mishkin & Eakins, 2012). For instance, in The United States of America (USA), during the 1920s, about \$50 billion new securities were offered for sale however by 1932, half had been worthless (Mishkin & Eakins, 2012). Public interest in the capital market diminished. Investigations resulted that public trust should be restored in the stock market hence the Securities Act 1933 was passed. The main reasons for the passage of the Act were to demand firms to tell the public the truth about their businesses and require brokers, and exchanges to treat investors fairly. Geltner and Miller (2001; 133) stated that “the stocks and bonds have been the main-stay of corporate finance and investment industry in the United States since the 19<sup>th</sup> century”. To encourage more investments in the capital market of Ghana, relevant laws should be made to ensure that adequate and reliable information about companies enlisted on the stock market is provided to attract more investors.

The shares can be issued to the public usually at the stock exchange or by private placement (over the counter of the issuer) to shareholders without contractual guarantee of the amount the shareholders will receive as dividends. The stock issued would represent equity in the issuer’s accounts whilst there would be perpetual claims of dividends by the shareholders from the company that issued the shares. Issuing of bonds is one of the avenues that developers explore to obtain capital for development as follows.

### **Issuing of bonds to finance real estate development**

Additionally, bonds are issued to finance real estate development in both developing and developed countries (Geltner and Miller, 2001). Bonds are like mortgage loans since they are all long-term debts, fixed obligation to pay periodic interest rates and payment of principal, and fixed time of the payment of the loan. However, as borrowers pay monthly mortgages dependent on the type of mortgage, interest on bonds (at coupon rate) are paid every six months (Reilly & Brown, 1997; Mishkin & Eakins, 2012). In developed countries bonds are issued on the capital market and as stated above it should be attractive for investors to invest in bonds for real estate developers to obtain flows in cash to develop more residential buildings. Comparatively, bonds are usually more attractive to investors than shares since bonds impose fixed financial obligations on issuers. Again, bonds are

given priority to stocks in terms of settlements of claims after bankruptcies, referred to as senior claims.

In Ghana, however, issuing bonds on the Ghana capital market has not been a practice of most developers. Most Ghanaians have a taste in investing in short-term investments than in long-term securities. This is due to high inflation in the country. The high and fluctuating interest rate results in a fall in the value of long-term investments than in the short-term securities. This taste for short-term securities by the investors in Ghana has affected the performance of the Ghana stock exchange and the ability of the corporate body to access capital for the production of goods and services. For instance, the latest report in November 2019 revealed that the GSE-CE, which measures the performance of the companies listed on the stock market, fell by 340 points or 13.52% during the first quarter of 2019 (Ghana Stock Exchange Report, 2019).

The above discussions mainly considered only the interests of suppliers of funds without considering the demand side of the capital market since the two must work to establish equilibrium to attract both lenders and borrowers on the market. The demand side of the market like the real estate developers would also assess the prospects or risks associated with the flow of cash to the company and how the developer could manage it efficiently to be able to meet the contractual agreement of the payment associated with the capital accessed. The general challenges associated with the borrowers and the lessons to overcome them have been presented in Figure 3.7.

### **3.5 Conclusion**

The chapter discussed the theory of demand and supply concerning the attributes of landed properties and identified relevant determinant factors of demand and supply of houses that are different from other general goods and services. The discussion on the price mechanism demonstrated how the factors of demand and supply could be applied to manage the prices of houses such that they could be affordable to households. This is because at equilibrium any influence on the levels of demand and supply would either increase or decrease prices.



It was also discussed that a households' income is very essential in the acquisition of houses. Additionally, it was discussed that housing affordability should not only be based on a percentage of a household's income spent on housing expenditure but on the ability to access a mortgage loan and pay a monthly mortgage throughout the loan period. It was realised that since most households in Ghana are usually low-income earners, there is the need to support them to access mortgage loans to acquire houses in their communities.

Furthermore, the activities of the financial institutions are influenced by the risk levels of their investments. Where the risks especially that of interest rates, foreign exchange, and default are moderate and bearable by the financial institutions, more mortgage funds would be made available for households to access loans to acquire more houses in the community. Concerning developers of residential buildings, the performance of their roles is mainly dependent on the availability and cost of inputs like land, labour, capital, and building materials. Where these are readily available at reasonable cost and efficiency, they can perform their role in the construction of houses in the community at reasonable prices. It is the responsibility of every government to provide enabling environment to the other stakeholders in the housing industry to perform their activities efficiently to make adequate houses available in the communities. The roles of the government, therefore, consist of promulgation of relevant laws and policies concerning subsidies to households to access loans to acquire houses. The government is also expected to improve on economic indicators like policy rates, inflation, interest rates, exchange rates to attract more financial institutions to provide more loans to households to acquire houses in their communities. Estate developers also require easy access to housing inputs at competitive prices to construct houses that will be affordable to households.

The activities of the main stakeholders of households, financial institutions real estate developers, and the interrelationship among them have been demonstrated in the conceptual framework provided in the next chapter.

## **CHAPTER 4**

### **CONCEPTUAL FRAMEWORK OF THE STUDY**

#### **4.1 Introduction**

The relevant theories, concepts, and information discussed under Chapters 2 and 3 on housing demand, housing supply, and government land and financial policies formed the basis of the study. The principle of price mechanism was applied to discuss the equilibrium position of the housing market. This helped to discuss the equilibrium price where demand equals supply and adequate houses made available as against housing deficit where houses provided in a community are inadequate.

The chapter describes the conceptual framework as the main things to be studied and their interrelationship to present an outcome. The main issues under discussion were identified as the roles that are performed by the main stakeholders identified under chapters 2 and 3 which are housing affordability and activities of financial institutions. These were discussed under the demand side of the housing market, activities of real estate developers which was considered at the supply side of the housing industry and the role of the government in preparing housing policies to manage the housing industry. The interrelationship of the roles of the stakeholders helped in the construction of a framework which when effectively managed could yield an outcome of the adequate acquisition of affordable houses in a community.

The interrelationship among the stakeholders is presented in the form of a diagram referred to as a concept map to demonstrate a visual impression of the relationship among the stakeholders. Comprehensive analysis among the stakeholders reveals that the activities of the stakeholders as explained in previous sections are complementary and interdependent (dependent on each other) hence as they perform their activities effectively, they help each other to solve their challenges to be able to make adequate houses available in communities. On the other hand, the inability of the stakeholders to perform their activities efficiently would result in a housing deficit.

## 4.2 The framework

A conceptual framework relates to a theoretical design of relevant concepts and their interrelationships to provide an outcome.

Miles and Huberman (2014) describe conceptual framework as a *visual or written document, that explains, either graphically or in narrative form, the main things to be studied – the key factors, concepts, or variables – and the presumed relationships among them.*

The concepts and theories on housing provision in communities discussed under Chapters 2 and 3, therefore, form the basis of the study to mitigate the acute accommodation challenges in the study area. Based on the operations of the housing market and activities of the stakeholders namely households, financial institutions, housing developers, and the government, a conceptual framework has been developed under four main segments:

- 1) Housing demand constraints,
- 2) Housing delivery constraints,
- 3) Policies developed by the Government to resolve or abate the constraints and
- 4) Possible outcomes developed from the interactions among the stakeholders

It was realised from previous sections that the provision of houses in a community to reduce accommodation challenges is based on the demand of the houses, supply of the houses by estate developers with the government performing its legal, social, economic, and financial roles to enhance the activities of both sides. Since houses are durable and prices are high households' incomes are inadequate (Gibb and Munro et al, 2009) to acquire houses. They usually access loans from financial institutions to acquire houses in the community. The loans however should be affordable to the households before they could access to acquire the houses. Furthermore, estate developers require housing inputs like land, labour, capital, and building materials to be able to supply houses in the communities to be acquired by households. The government has the responsibility of introducing enabling environment in terms of relevant legislation, social interventions,

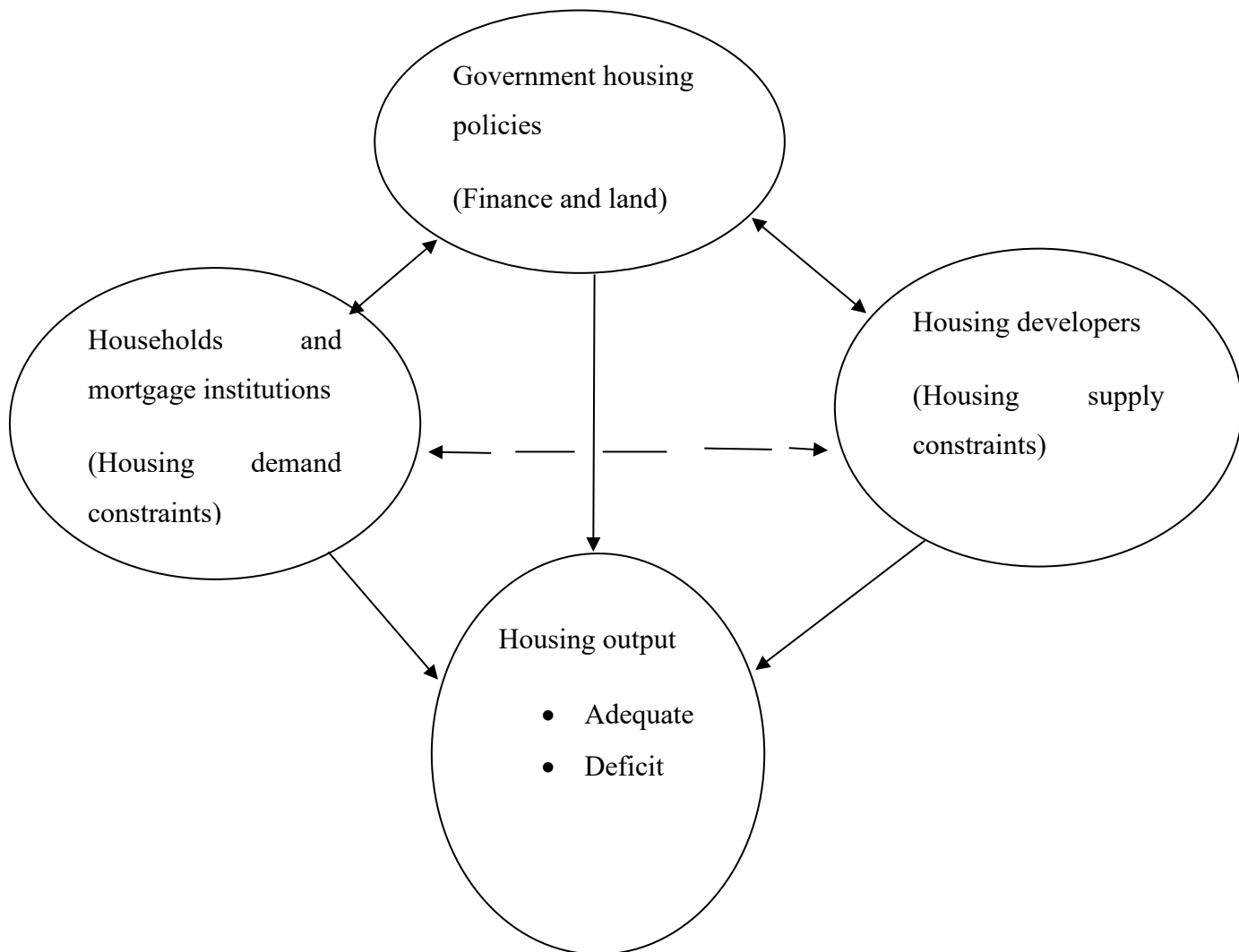
finance, and economic activities to aid the other stakeholders to make adequate houses in the community to mitigate accommodation challenges. The activities of the stakeholders presented above have been illustrated in the concept map below.

### **4.3 Concept map**

A concept map as described by Novac and Gowin (1984) refers to a visual display of the concepts in a study and their interrelationship.

The concept map is based on the discussions presented on the factors that determine demand and supply and the price mechanism. The concept map of the study has therefore been presented under Figure 4.1.

**Figure 4.1: Concept map of housing**



**Source: Author's Construct (2019)**

### **Housing Demand Constraints (HDC)**

HDC relates to the determinants of housing demand in a community discussed in previous sections. Households can acquire houses from real estate developers based on house prices, the income of households, mortgage loan requirements and financial risks of financial institutions, prices of other related commodities, and taste and fashion. If the price of houses constructed by housing developers is high demand for houses will be low and when the price is low demand will be high as explained in previous sections. This is

due to income and substitution effects described under Chapter 3. It was described under Chapter 3 that when the price of houses decreases, households could use the same income to acquire more houses. However, when prices increase the same income could buy fewer houses. This was referred to as the income effect. Subsequently, it was described that when the price of houses falls households could shift more income to acquire houses instead of other competing households' needs. However, when the price of houses increases households could spend more of their incomes on other household needs thereby reduce the demand for houses. This is referred to as the substitution effect.

Furthermore, households could be able to acquire houses based on their income levels. If households' incomes are high, they can acquire houses than when they are low. Due to high prices associated with houses households' incomes alone cannot acquire the houses and they need to access loans from the banks. They can however access the loans when they meet the requirement of the loans and sustain the payment of monthly mortgages throughout the loan period. As discussed under chapter 3 the mortgage loan requirements are payment of deposits which are between 20 to 30% of the price of the house. Additional requirements are the provision of collateral and creditworthiness of households. After accessing the loan households should be able to pay the monthly mortgage throughout the loan term which is usually between 20 to 30 years.

Additionally, factors that influence the provision of mortgage loans by financial institutions to households to acquire houses are interest rates risk, foreign exchange risk, credit risk, and foreclosure period. Interest rate risk was described to be the likelihood that the mortgage interest rate will fluctuate to the disadvantage of the financial institutions. If the mortgage interest rate of the loan increases within the period of the loan, the value of the loan decreases which reduces the capital of the financial institutions. Furthermore, it was described that foreign exchange risk is the likelihood that the foreign exchange between the local currency and major foreign currencies will fall within the period of the loan. If this happens within the period of the loan the financial institutions lose the value of their capital and are not attracted to grant more loans to households to acquire more loans to acquire houses in the community. Additionally, credit risk was described to be the likelihood that the loan granted to households and interest thereon could not be paid

by the households. If credit risk is high financial institutions would not be attracted to give more loans to households to acquire more houses in the community. Lastly, the foreclosure period was described under chapter 3 as the period that the court process court orders for collateral properties to be sold when there is a foreclosure. Where it takes a long time to process the court order financial institutions are not attracted to grant loans to households. This is because the value of the houses used to secure the loans falls and are not able to pay the outstanding loan. It was discussed under chapter 3 that financial institutions are risk-averse and would not like to lose their capital hence if the risks of giving out loans are high; they will not be attracted to give loans to households to acquire houses. On the other hand, if the risks are low, they will grant adequate loans to households to acquire more houses in the community.

Another factor that influences demand discussed under Chapter 3 is the prices of related goods. Related goods can be either substitutes or complements. It was discussed that goods are substitutes when an increase in the price of one increases the demand of the other. On the other hand, complementary goods are goods that an increase in the price of one results in a fall in the demand of the other. It was realised that houses have no close substitutes hence an increase in the price results in less than proportionate decrease in demand. However, households can choose to rent a house instead of acquiring a house when the prices of houses are high.

Furthermore, households' demand for houses is influenced by the taste and fashion of households. It was discussed under Chapter 3 that households acquire houses based on their demand characteristics of sizes of houses and life cycle. The size of houses (space) that will be acquired will be dependent on the size of households. Provision of a variety of sizes will give the opportunity of households in the community to acquire houses to suit the size of households and thereby increase demand in the community to mitigate accommodation challenges. The construction of limited sizes of houses will not attract households to acquire many houses in the community. Additionally, households are attracted to acquire houses based on age differences. As the aged will prefer to acquire single-story houses due to easy accessibility to various rooms in the house the youth will

be attracted by the aesthetic beauty of the houses based on fashion. Constructing a variety of houses will therefore attract most households to acquire houses in the community.

### **Housing Supply Constraints (HSC)**

HSC relates to housing provision or supply factors discussed in previous sections. The factors that influence the construction of houses by real estate developers are the cost and availability of inputs like land, labour, capital, construction materials, and sale of houses in a community (MacLennan, 1982; Baye 2009). Real estate developers seek to gain easy access to land for development at competitive prices so that they can supply houses at competitive prices in communities. Land availability for development is based on the land tenure system in a community, cost and period of land registration, and granting of building permits explained under Chapter 3. The availability of an adequate and efficient labour force is one of the challenges encountered by developers in most communities. Most artisans do not undertake regular professional development courses to upgrade their skills. The use of inefficient labour force in communities where labour inflation is high increase cost of constructing houses and increase prices of houses which become unaffordable to low-income households (MacLennan 1982). The high cost of building materials especially the imported one influences the prices of houses in most developing countries. This is usually due to high foreign exchange rates and import duties on the building materials. If the government is unable to implement policies that would stabilise the foreign exchange rates and reduce import duties, then houses that would be constructed in the communities would be high and unaffordable to most households in the community. Additionally, monopoly powers granted to some local building material producers and high inflationary rates tend to increase the prices of the materials. Furthermore, access to capital for housing construction is a major challenge to estate developers. If developers can get easy access to a pension fund, capital from the stock exchange, and loans from banks at a reasonable cost, then adequate houses could be constructed at competitive prices. On the other hand, if capital is unavailable and at high cost limited houses could be constructed and at high prices which would be unaffordable to households. Additionally, the ability of developers to sell the houses that they construct attracts more developers into the industry to construct more houses at competitive prices.



It was discussed under Chapter 3 that developers should assess the demand characteristics of households before they construct the houses in the communities. These characteristics are the location of the houses, sizes (space and number of bedrooms), design including neighbourhood characteristics, income levels, and pricing. If the characteristics are attractive to the households in the community most of the houses would be acquired and developers will not keep their capitals in unsold houses for a long period.

### **Government Housing Policies (GHP)**

This refers to effective government housing policies and regulations to create enabling environment for the private sector (financial institutions, estate developers) and households to make houses available in the communities. It entails government land management regulations (land tenure, registration, planning permits), financial and economic indicators (interest rate, foreign exchange, mortgage loans) as well as social interventions including subsidies to households.

The government is expected to streamline land acquisition and sale of land by enacting appropriate land laws and policies to enable developers to acquire lands without many disputes. Furthermore, the land registration system and provision of building permits should be automated to facilitate the registration and permit granting process at a lower cost for developers. The government could manage the economy well to improve on the economic indicators like policy rates and foreign exchange rates. Appropriate foreclosure laws should also be enacted to facilitate the foreclosure period to attract more financial institutions into the mortgage industry. Furthermore, the provision of subsidies to households in the form of tax exemptions and access to short-term loans at lower cost will help them to meet loan requirements to access mortgage loans to acquire adequate houses in the community.

### **Housing Output**

This relates to the availability of houses in the community. It could be realised that the activities of the stakeholders discussed in previous sections are complementary and interdependent, hence as they perform their activities efficiently, they help the others to

perform their roles efficiently and make adequate houses available in the community. Thus, if the government provides enabling environment (financial, social, economic, regulations), estate developers will gain easy access to housing inputs at competitive cost and prices, households will be able to access mortgage loans from financial institutions to acquire adequate houses in the community.

On the other hand, the poor performance of the stakeholders will create challenges for each other, and they would not be able to make adequate houses in the community and there will be a housing deficit. Thus, if the government is unable to provide enabling environment (social, economic, financial, land policies and regulations), estate developers will not have easy access to housing inputs (land, labour, capital, and building materials), and houses would be sold at high prices which will be unaffordable to households. Financial institutions will experience high-interest rate risk, foreign exchange risk, and long foreclosure periods and will not be attracted to provide loans to households. Households would not obtain subsidies from the government to boost their income to meet mortgage loans requirement from financial institutions to acquire houses in the community and there will be a housing deficit in the community (4.1).

#### **4.4 Conclusion**

The discussions under the demand and supply of houses and the price mechanism helped to develop a conceptual framework for the study. A conceptual framework was described as the main things to be studied and their interrelationship to present an outcome. It was presented under the chapter that the main things to be studied were the activities of households concerning the acquisition of houses in a community considered under housing demand constraints. It was realised that the activities of households are influenced by the price of the houses, their income levels, and affordability, loan requirements by financial institutions, and the existence of substitutes and complementary goods for housing. Additionally, activities of real estate developers in the construction and sale of houses were also considered under housing supply constraints. The housing supply of developers was discussed to be dependent on the cost and availability of housing inputs like land, labour, capital building materials, and sale of the houses. The role of the

government in the provision of enabling environment (financial, social, and economic policies) to enhance the activities of the other stakeholders to make adequate houses in the communities were also considered. It is the responsibility of the government to provide subsidies for households to be able to meet loan requirements and access loans to acquire houses in the community. Again, the government is expected to improve on the economic indicators like policy interest rate, foreign exchange rates, and inflation to reduce lending risks and encourage financial institutions to grant more loans to households to acquire houses. Moreover, the government is responsible to provide adequate regulations and policies to make housing inputs like land, labour, capital, and building materials available at competitive prices to attract more housing developers to supply houses in the community.

It was discussed that the activities of the stakeholders are interdependent, hence if they perform their roles efficiently, they help other stakeholders to mitigate their challenges and make adequate houses in the community. However, if they are unable to perform their activities efficiently, they create challenges for the others and they are unable to present adequate houses and there will be a housing deficit in the communities. The issues discussed under the framework form the focus of the field investigation. The methodology of the field investigation has been presented in the next chapter.

## **CHAPTER 5**

### **DESIGN OF RESEARCH METHODOLOGY**

#### **5.1 Introduction**

This chapter considers the research methodology for the study. It discusses the research design which is the processes and procedures that were undertaken to collect and analyse data from the field. The purpose of this chapter is to discuss the methods that were used to collect data from the field and how the data were analysed. The chapter starts by presenting the research philosophy of the study which is the way researchers see the world and data from it obtained.

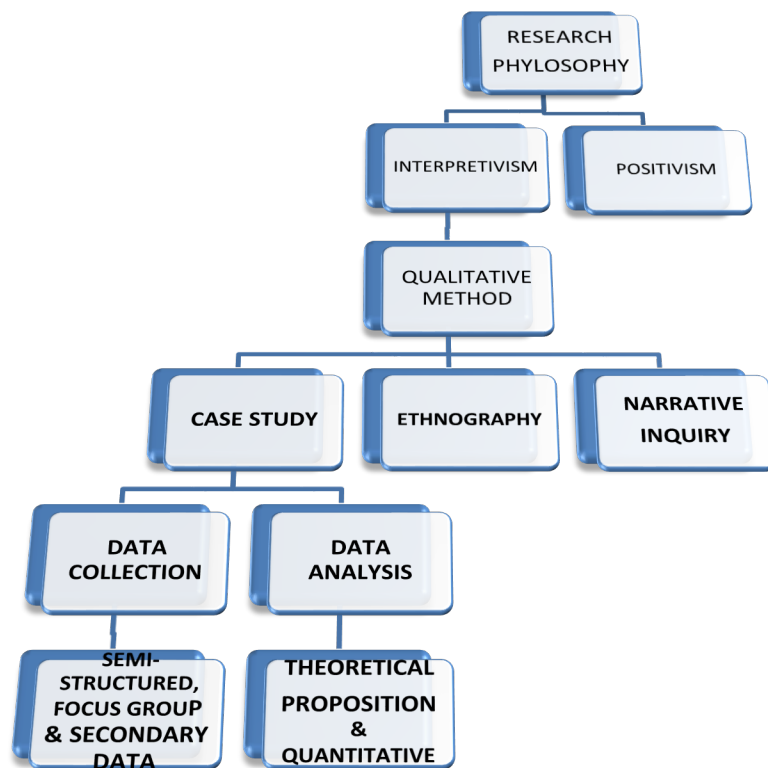
The interpretivism philosophy relates to obtaining data and information based on the socio-cultural background of respondents in the study area. Since the stakeholders in the housing industry consist of households, financial institutions, housing developers, and the government with varying backgrounds, it was appropriate to adopt the interpretivism philosophy.

Furthermore, the chapter considers the research strategy that was adopted for the study. Since the interpretivism philosophy relates to social actors based on their varied backgrounds the research strategy adopted for the study was the qualitative method. It relates to research techniques that obtain and analyses data based on the background of the respondents. The appropriate qualitative strategy adopted for the study was the case study method since the study was contemporary, consider interrelationships with stakeholders in the housing industry, and is related to households in a clear physical boundary (Payne & Payne, 2004; Zaidah, 2007). Based on the conceptual framework presented under Chapter 4, themes were developed to collect data from the field. These were in the form of interviews, focus group discussions, and archival records. Data that were obtained were analysed qualitatively and quantitatively and helped to identify the findings of the study based on the research questions. The chapter also discussed the study area, ethical considerations, fieldwork experience, and challenges, and ended up with strategies adopted to ensure the reliability, validity, and generalisability of the study.

## 5.2 Research design and philosophy

A research design has been prepared under Figure 5.1 to guide the research process. A research design is a framework for the collection and analysis of data to answer the research questions providing reasoned justification for the choice of data sources, collection methods, analysis techniques, approach to writing up, and discussion of ethical issues. It is a plan of how a researcher would go about answering the research questions (Saunders and Lewis et al, 2012).

**Figure 5.1: The research design**



Source: Author's Construct (2019)

Research philosophy relates to how researchers view the world and how knowledge about it can be obtained and understood to form the basis of resolving challenges associated with it. Philosophical assumptions have been described to consist of mainly Positivist and Interpretivist (Geoff, 2006; Saunders and Lewis et al, 2012; Ismail & Zainuddin, 2016). Positivism relates to physical resources which are external to social actors, measurable and testing of hypothesis (Myers, 2013; Saunders & Lewis et al, 2019) whilst interpretivism considers the understanding of human beings based on their varying cultural backgrounds (Myers, 2013; Saunders and Lewis et al, 2019). These positive and interpretive philosophical paradigms see the reality of phenomenon in the world differently. Interpretivist relate to activities practiced by social actors that can be influenced by them based on their varying cultural backgrounds, perceptions, and by their interactions with others (Maxwell, 2006; Bogdan and Biken, 2007; Saunders and Lewis et al, 2019). There is therefore the need to study the detail of situations if one wants to understand a phenomenon related to social actors. This paradigm, therefore, presents the qualities that are required for investigating household accommodation challenges with activities of other stakeholders other than the positivism philosophy which is of the view that the phenomenon of social actors is external and cannot be influenced by them. Again, the interpretivism philosophy is appropriate for the study that investigates the relationships among the main stakeholders in the housing industry namely households, financial institutions, developers, and relevant government agencies based on their varied cultural backgrounds to mitigate (influence) the accommodation problem in a community.

The activities of these stakeholders are interdependent in the housing industry from the acquisition of land by developers, registration and obtaining permits for development from government agencies (according to government policies), and selling the final product of houses to households who finance the acquisition with loans from financial institutions.

Since the process is undertaken by households and professionals in the institutions, effective interaction among them can help to mitigate (influence) challenges in the housing industry. The Interpretivism philosophy has however been discredited as being subjective since information gathering from the stakeholders can be influenced greatly by

the attitude of the researcher (Creswell, 2003). Consideration was therefore made of the challenge to ensure that it was avoided. Researchers require knowledge or methods that would aid them to obtain and interpret the views and actions of participants to answer the research questions as indicated below.

### **5.3 Research method**

This refers to the technique that researchers apply to collect and analyse data relating to a phenomenon to be able to answer the research question(s). Myers (2013) and Saunders and Lewis et al (2019) classified research methods into quantitative and qualitative. Furthermore, both researchers associated numeric data collection technique or data analysis procedure of how a phenomenon works with the quantitative method. The qualitative method, however, relates to data collection technique or data analysis procedure to study the social and cultural phenomenon.

The Interpretivism philosophy that was adopted for the study explained under previous sections relates to obtaining detailed information about social actors to be able to understand their activities personally and with others. The study, therefore, aligns with the qualitative method which relates to data collection and analysis techniques on activities of households, financial institutions, developers, and relevant government agencies based on their cultural backgrounds. Qualitative research is in the form of ethnography, inquiry, or case study research. Ethnography research focuses on the in-depth study of the culture of institutions and communities hence considerable time is required on the field to be able to come out with both documented and undocumented (hidden) cultures of an institution (Myers, 2013; Yin, 2018; Saunders & Lewis et al, 2019). Narrative inquiry is usually a story that provides personal accounts and interpretations of sequent of events. It would therefore be beneficial if the story is told by a participant to be able to identify the sequence of events and their interpretations rather than the story being told by different participants. The case study however considers contemporarily (present or recent past) sets of events. Since accommodation challenges in the study area are a contemporary issue and the study also deals with varied institutions

in the housing industry the case study strategy which has been explained in detail below was applied to the study.

### **5.3.1 The case study strategy**

As stated above, the case study strategy is one of the forms of qualitative strategies associated with in-depth investigative tools of gathering and analysing databases on participant's backgrounds and related issues to address phenomena in a community.

According to Zucker (2009) and Yin (2018), the case study relates to the empirical method that investigates a contemporary phenomenon (the 'Case') within its real-world context, considers various facets of the case in detail, and relies on multiple sources and theoretical propositions to guide design, data collection, and analysis. It was described by Payne and Payne (2004) as a detailed study of people living within a single unit or clear physical boundaries. A comprehensive description of the case study was also made by Zaidah (2007) as a study that analyses real-life contemporary events and their interrelationships.

In line with the description of the case study, since the study is associated with housing challenges which are contemporary issues in the real-world contest and related to people living in a single unit or clear physical boundary of the New Juaben Municipality it becomes applicable to the study.

According to Yin (2018) case study strategy is applied in two forms namely the single case study and the double case study. A single case study was applied in the study area due to the unique tenure system practiced in the communities. The land tenure system was based on the traditional setup of the New Juaben Traditional area thereby making the tenure system unique in the area. These unique attributes of the land tenure system in the area did not create an appropriate background for the application of the double case study approach which required similar characteristics of the tenure system in the neighbourhood to allow effective comparison of the cases to be able to generalize for the cases. However, since sample areas in the suburbs of the municipality were considered as subunits the embedded single case approach (focused on subunits within the single case) was applied.



Based on the varying nature of the tenure systems (stool land, vested land, and government land) in the municipality samples were carefully selected to make the sample possibly representative to help obtain reliable data for the study.

Furthermore, both descriptive and explanative case study was adopted to discuss the various facet of the research. The descriptive study helps to identify or clearly describe the various activities, events, and personalities associated with a study while the explanatory study helped to explain the relationship among the events to provide an outcome (Hancock & Algozzine, 2006; Yin, 2018). The descriptive study was applied in the study to identify the main stakeholders in the study based on their varied roles in the housing industry discussed under the literature review. The explanatory case study was also employed to explain the interrelationship among the stakeholders in terms of the performance of services to each other and how they can operate efficiently to solve each other's challenges and make houses available in the study area.

The main disadvantages of the case study strategy despite its numerous benefits are that it can create discomfort for participants due to the publicity of their internal affairs, it takes longer time to finish and the challenge of using only one single case to generalise for several issues (Yin, 2018; Saunders & Lewis et al, 2019).

### **5.3.2 The study area**

The study area is the New Juaben Municipality in the Eastern Region of Ghana, situated in Western Africa. The capital of New Juaben Municipality is Koforidua which is also the capital of the Eastern Region of the country. The Municipality performs the main socio-economic and political functions in the region, this causes an influx of population from the other parts of the region and thereby causing expansion and merged with some of the surrounding towns and villages (Attua & Fisher, 2011). Since 1984, the population density (average number of persons per Kilometre Square) of the municipality has consistently increased tremendously over the years. That is from 1984 to 2019 (projected), the average number of persons per kilometre square increased from 840 to 2,068 persons (about 150% increase) (Attua and Fisher, 2019). The rapid increase in population density has put immense pressure on land and buildings, physical infrastructure, amenities and

causes intense overcrowding in most communities. Detail description of the New Juaben municipality has been presented below.

### **5.3.3 The size and description of the study area**

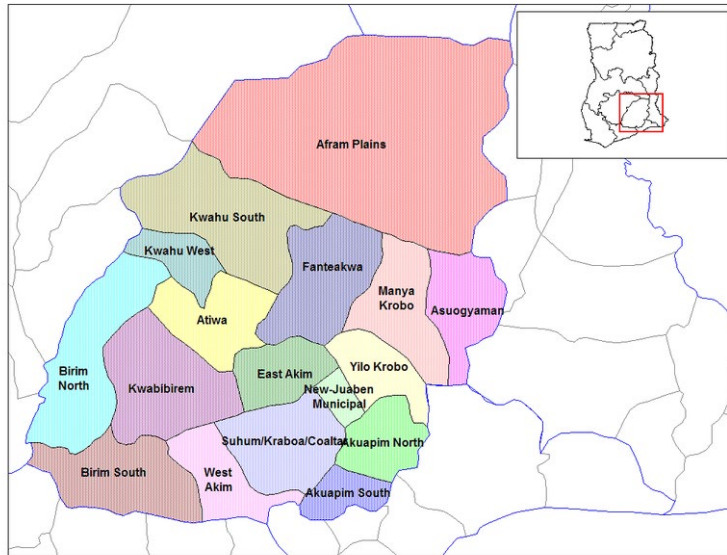
New Juaben Municipality, the study area is situated in the Eastern Region of Ghana. It is located between 5.55 degrees and 6.15 degrees North longitude and 0.10 to 0.24 degrees West latitudes. It has a total size of about 110km<sup>2</sup> (40 square miles) constituting 0.57% of the total land area of the Eastern Region of Ghana. It is one of the 26 municipalities and districts in the Eastern Region and shares boundaries with East-Akim municipality to the northeast, Akwapim North district to the east and south, and Suhum Kraboa Coaltar district to the west. The capital of New Juaben in Koforidua, which is also the capital of the Eastern Region. The Ghana map, Eastern Region map, New Juaben topographical map have been shown below under Figures 5.2, 5.3, and 5.4.

**Figure 5.2: Map of Ghana showing the location of Koforidua in the Eastern Region of Ghana.**



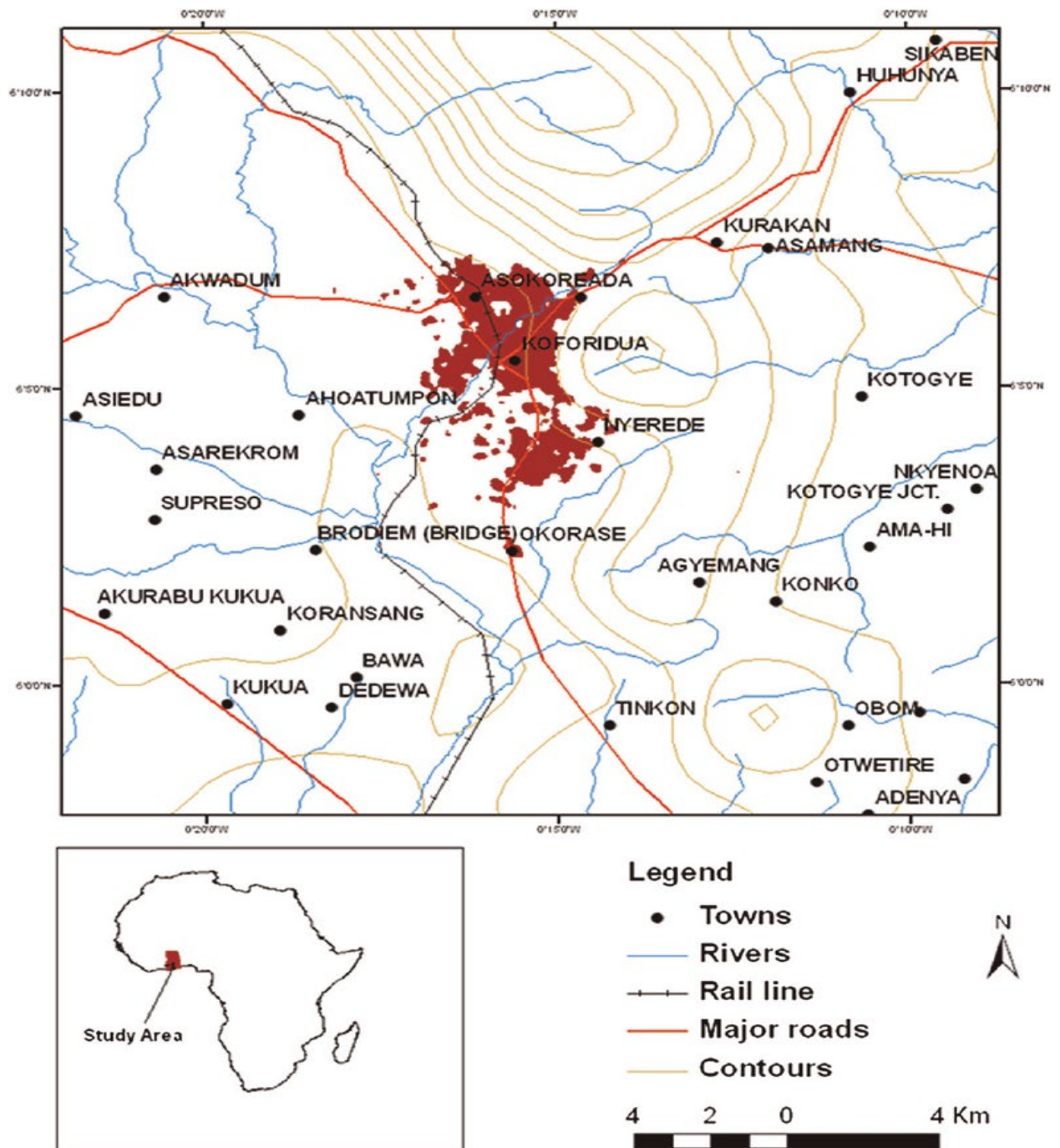
**Source: Duncan (2019)**

**Figure 5.3: Map showing districts and municipalities in the Eastern Region of Ghana.**



**Source: Attua and Fisher (2019)**

**Figure 5.4: Topographical map of the New Juaben Municipality and Africa map.**



Source: Attua and Fisher (2019)

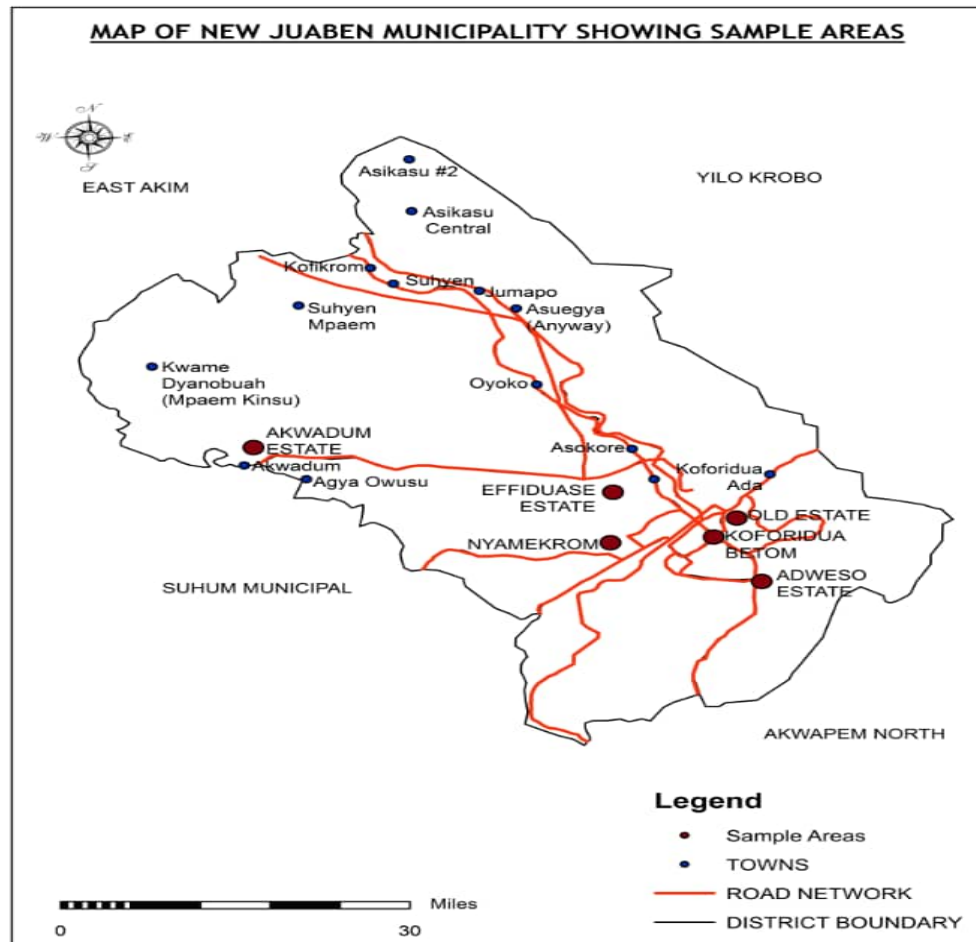
### **The case study settlements**

As stated in previous sections, a single case study was adopted for the study. This was because the tenure system of the New Juaben municipality was unique from other communities in the neighbourhood. However, the embedded single case strategy which relates to the selection of sections or suburbs of the study area for data collection was employed. The sample areas were selected based on 1) methods of housing financing by households and 2) methods of housing financing and supply by housing developers in the study area.

### **Main sample residential communities in the New Juaben Municipality**

Field data were collected from industrial estates and settlements which are representative of communities especially in the urban centres where the accommodation problem is paramount. These settlements consist of relatively first- and second-class industrial estates, developing residential communities, and slum areas. The sample areas are namely 1) Effiduase estate, 2) Adweso Estate, 3) Old estate 4) Akwadum estate 5) Betom settlement, and 6) Nyamekrom have been indicated under Figure 5.5.

**Figure 5.5: Map of New Juaben showing sample communities.**



**Source: Ghana Statistical Service (2010)**

Figure 5.5 indicates the location of the sample settlements in the study area. The suburbs were chosen since both tenants and owner-occupiers could provide data on challenges associated with accessing and payment of mortgage loans on the housing demand side. Furthermore, the estate developers associated with the settlements could help with the provision of data on the supply of houses. There are also formal settlements where data can easily be accessed from relevant institutions like the Lands Commission, Land Use

and Spatial Planning Authority (LUSPA), and the archives. A detailed description of the settlements has been presented as follows.

Effiduase estate was constructed by the Social Security and National Insurance Trust (SSNIT) at Effiduase in the New Juaben municipality. SSNIT as stated under Chapter 2 was established by the government of Ghana to administer the social security scheme (pension fund) of employees. It has a good planning scheme and infrastructural services like tarred roads and streets, pipe-borne water, electricity, and telephone have been provided. The buildings are high-rise structures that contained two-bedroom semi-detached houses. The site is easily accessible to the city centre and is a vested stool land area for the New Juaben Stool. However, no commercial and recreational areas were provided for the community. It was chosen because it is one of the finest areas with very good neighbourhood characteristics that represent the first-class areas in the municipality. Furthermore, some of the residents are owner-occupiers who are mortgagees and provided data about the mortgage loans that they were paying.

Old Estate is an Industrial Estate at Nsukwao developed by the State Housing Company (SHC). State Housing Company as stated under Chapter 2 was established by the government in 1956 to introduce the social housing project. Social houses were constructed in all the then 9 regional capitals including Koforidua which is also the regional capital of the New Juaben municipality. However, in the late 1990s, the government could not sustain the construction of the social housing project, so it converted the then State Housing Corporation to State Housing Company, a public company. The company continues the construction of houses to households without government subventions and the houses are sold at market values. The site has a good layout or planning scheme indicated under the Appendix attached. Infrastructural services like tarred roads and streets, pipe-borne water, electricity, and telephone have been provided. It is easily accessible to the city centre and is a vested stool land area for State Housing Company. However, the roads are in a bad condition and complementary land uses like markets and schools were not provided in the industrial estate. It is located near the city centre.



The next sample area is the Adweso estate. Adweso estate is owned by SSNIT and State Housing Company which share common boundaries. The estate contains two-bedroom semidetached houses for the SSNIT area. The State Housing area has a combination of semidetached two-bedroom houses and detached three-bedroom houses. The area has a good planning scheme showing most of the land uses in the area. Infrastructure services like tarred roads and streets, electricity, pipe-borne water, and telephone are provided. This is a well-planned area and can be considered as a second-class residential settlement in the study area. It is a government compulsorily acquired area for State Housing Company and part was released to SSNIT to develop. The challenges are that its location is far from the city centre where settlers commute to work and most of the roads and streets are currently in a very bad condition.

Akwadum estate is a privately owned housing developer site developed according to the planning scheme of the area. Infrastructural services provided are lateritic main roads and electricity in most areas. Pipe-borne water is yet to be extended to the area from the public mains. The site is very remote from the city centre though it is located close to a trunk road. The site is a representation of privately-owned real estate developers in the New Juaben municipality.

Furthermore, “Nyamekrom” (means God’s town) is a vested land settlement located at Nyamekrom. Lands in this area are allocated by the Lands Commission. Though there is a planning scheme covering the area only lateritic (untarred roads) main roads have been provided in the area. Utility services like Pipe-born water, Electricity and Telephone are not available. Bare lands were leased for 99 years to households to find means of financing and developing their own houses. Households acquire leases from stools or the government and obtain loans for developers to build according to their building designs and finishes.

Additionally, the Betom settlement area is close to the Central Business District (CBD) of the municipality. There are few main roads and streets in the immediate neighbourhood. Most households stay in temporal buildings and there is no adequate supply of pipe-borne water. The area is government vested land that has been occupied by households who

have no title to the land. Most portions of the area are slums and represent several locations in the municipality where slum dwellers are found.

Primary data on the phenomenon of household accommodation challenges was collected from participants in the case study area using data collection procedures or techniques described in previous sections.

#### **5.3.4 Target population**

The target population consists of professionals in the housing industry and households in the study area. The professionals were 4 main institutions namely mortgage financial institutions, real estate developers, staff of relevant government agencies like Lands Commission, Land Use and Spatial Planning Authority, and utility institutions like Ghana Water Company. The roles that these stakeholders mainly play in the housing industry and the reasons for their inclusion in the study have been discussed below. The selection of representatives of the institutions and reasons of selection has however been discussed under section 5.3.5.

#### **Financial institutions**

Housing requires a huge sum of money for its acquisition and household income alone is inadequate to finance it. Households usually access funds in the form of mortgage loans from financial institutions to acquire houses and pay them over a long time between 20 to 30 years. The literature review revealed that it was difficult to access mortgage loans from the banks by households due to mortgage requirements provided by the banks. These requirements were the provision of collateral, payment of a monthly mortgage, creditworthiness, and interest rates. The fact that these requirements are usually unaffordable by households makes the financial institutions relevant for the study.

#### **Housing developers**

Housing developers were also relevant to the study that is associated with housing construction. They were interviewed due to their important role in developing houses to be acquired by households. The literature review revealed that due to some challenges

that developers experience especially with the availability and high price of building inputs developers are unable to develop adequate buildings in the community which makes the accommodation problem more problematic.

Interviews and focus group discussions were held with representatives of housing developers to identify the main challenges that they encounter in developing houses and were also asked to provide suggestions for its solution. Their challenges were also presented at focus group discussions for suggested solutions to be discussed.

### **Households**

Households were interviewed due to their important role in accessing loans from financial institutions to acquire houses from developers. The literature review revealed that due to some challenges that households experience especially with housing affordability they are unable to access loans from financial institutions to acquire houses from developers thereby contributing to the acute accommodation challenges in the area.

Interview and focus group discussions were held with representatives of households to identify the main challenges that they encounter in accessing loans from financial institutions and were also asked to provide suggested solutions. Their challenges were also presented at focus group discussions for recommended solutions by stakeholders.

### **Relevant government agencies**

The government agencies like Lands Commission and Land Use and Spatial Planning Authority (LUPSA) play major roles in terms of the supply of secured land for housing development. Whilst the Lands Commission supply or allocate vested and government lands to developers and register lands, the LUSPA usually grants development permits to developers to develop houses. The literature review revealed that the main challenge associated with registration and granting of a permit is that the processes delay considerably making it difficult for developers to get easy access to lands for development resulting in a reduction of housing development in the study area. Provision of infrastructural services like roads, pipe-borne water, electricity, and communication is controlled by the government. These facilities are managed by government agencies like

Water Company, Electricity Company, and Urban Roads in the municipality. It was discussed in the literature review that some communities lack the provision of basic infrastructural services like good roads, pipe-borne water, and electricity. Since these facilities are complementary to houses, a representative from the utility companies was interviewed to obtain challenges that they encounter in the provision of the services in the study area and how it could be mitigated.

### **5.3.5 Sample size and technique adopted.**

The target population in the study area is relevant professionals in both the public and private sectors and the households in the study area. However, due to a lack of resources and time, all of them could not be interviewed.

The purposive non-probability sampling method was applied to select relevant participants for the study. The selection of the categories of participants was guided by the theoretical base of the study and participants who could provide data for the study (Mill et al., 2010; Saunders et al, 2012). The application of the sampling method is in line with the case study strategy as it allows the selection of participants who could provide detailed information about the study. Furthermore, probability sampling is not required since the application of the case study method does not aim at random selection to be able to apply the results of the study elsewhere apart from the study area (Yin, 2018). Based on the purposive sampling technique, the researcher who is an estate officer and worked in the municipality for about 7 years was able to identify participants and institutions who could deliver detailed primary data for the study. Biases associated with data collection were however avoided as presented under ethical consideration in section 5.5. Professionals from government land agencies like the Lands Commission and LUSPA, financial institutions, real estate developers, and households were identified and interviewed as indicated under Table 5.1.

**Table 5.1: Number of participants**

<b>Participants</b>	<b>Sample size</b>
<b>Government institutions</b>	
1) Lands Commission	3
2) Land Use and Spatial Planning Authority (LUSPA)	1
3) Water Company	1
<b>Financial institutions</b>	
1) Ghana Home Loans	2
2) Ecobank	2
3) Republic Bank	2
<b>Housing developers</b>	
1) SSNIT, SHC, Akwadum estate developers, Lands Commission	4
<b>Households</b>	
Representatives in sample areas and neighbourhoods	12
<b>TOTAL</b>	<b>27</b>

**Source: Author's construct (2019)**

Professionals in the government land and utility agencies consist of staffs in Lands Commission, LUSPA, and utility agencies like Ghana Water Company. The Lands Commission as stated above under previous sections consists of the Survey and Mapping Division (SMD) which mainly prepares site plans and approves all site plans prepared for the development of houses in the region, the Public and Vested Land Management Division (PVLMD) which mainly grants government lands, Vested Lands, and plots lands for registration. The other divisions are the Land Valuation Division (LVD) that assesses, and charges stamp duties on the acquisition of houses and mortgages, and the Land Registry Division (LRD) that completes the land registration process by recording the transaction in the lands register. Based on the roles of the divisions under the Lands

Commission, the divisional head of the PVLMD was interviewed on the process of property registration. This was due to the information provided in the literature review that the process of registration in Ghana was complex and cumbersome. Furthermore, the head of the LVD was also interviewed to provide data on the charging of stamp duty since it also came up in the literature review. Again, the head of the SMD was also interviewed since they prepare base maps which form the basis of preparing planning schemes for the settlements in the study area. They also prepare and approve site plans of lands used for preparing architectural drawings (building plans). The Heads of the institutions were selected since they had adequate information about the divisions. In all, 3 representatives were selected from the Lands Commission. Furthermore, the New Juaben Municipal Director of LUPSA was also selected to provide data on the process of granting development and building permit since the office is associated with the granting of building permits discussed in the literature review.

In addition to the land sector agencies of the government, a representative (Distribution Officer of Water Company of Ghana) of the utility companies was interviewed to provide information concerning the supply of utilities like pipe-borne water to new settlement areas since it was discussed that some households spend a high percentage of their income on water supply by water tankers in settlements that have no access to the public water supply.

Furthermore, 2 representatives of each of the banks namely Ecobank, Ghana Home Loans, and Republic Bank were selected. The informants were the credit officers in their respective banks who have worked in their financial institutions for more than 5 years. Such officers have adequate information concerning challenges associated with granting mortgage loans to households in the study area. Mortgage loans were extensively discussed in the literature review and they were selected to provide data concerning their management in the study area. The three financial institutions are the main mortgage banks that grant Home Mortgage Loans (HML) to households in the country. They were selected due to their commitment and efficient operations in granting mortgage loans to their customers. The profiles of the banks have been presented below.

Ecobank Ghana was founded in 1990 as a subsidiary of the Pan – Africa Ecobank, which operates in 32 countries. The Bank’s stock is traded on the Ghana Stock Exchange. It has 77 branches in Ghana and operates in all the regions in Ghana. It acquired the Trust Bank another commercial bank in Ghana with a total asset valuation of US\$ 119 million. Its main products are mortgage loans, savings, investment, and debit cards.

The Republic Bank (Ghana) Limited is a subsidiary of Republic Financial Holdings Limited (RFHL) of Trinidad and Tobago. The parent company is the largest independent bank in the English-speaking Caribbean and has operated in the region for over 180 years. The total asset of the group stood at US\$ 68.9 billion and has a credit rating of BBB+ assessed by Standard and Poor. In 2015 it acquired a majority share in HFC Bank, and the name was changed to Republic Bank (Ghana) Limited. RFHL invested US\$200 million in the Bank. HFC Bank was initially established in Ghana in July 1993 as an investment company. It evolved over the years as HFC Investment Services Limited in 2001 and a non-bank financial institution in August 1994. It was then listed on the Ghana Stock Exchange (GSE) in March 1995 and became a deposit-taking financial institution in July 2001. It however became a Universal Bank in November 2003 before the majority shares were acquired by RFHL in 2015.

Furthermore, GHIL Bank Limited was initially incorporated as a Ghana Home Loans non – banking mortgage financial institution in 2006. It obtained a banking license to operate as a bank in 2017. The bank was able to source US\$ 170 million in long-term funding from reputable financial institutions such as International Finance Corporation (IFC), Propaco, Ghana International Bank, Abraaj, and Shelter Afrique. Additionally, the financial institution was listed on the Ghana Stock Exchange with the issue of USD 100 million mortgage-linked medium note. Its products are mainly mortgage loans, money transfers, and remittances. The company also assists customers with property sales, lettings, and registration of properties.

Though the sample communities were 6 the communities were developed by 4 institutions. The institutions are SSNIT, SHC, Akwadum estates, and Lands Commission. A total of 4 representatives were selected from the housing institutions to provide

information about their respective communities. The representatives were estate officers for SSNIT, SHC, and Lands Commission while a contractor represented the Akwadum estate. The literature review discussed the factors associated with housing supply and they were selected to present challenges associated with housing construction in the study area. The representatives were selected by the managers and heads of the institutions who believed they could provide adequate data on the activities of the institutions.

As stated in previous sections, households access loans from financial institutions to acquire houses. The literature review revealed that they encounter challenges when accessing loans to finance their houses. They were therefore included in the target participants to obtain first-hand challenges that they encounter and to provide suggestions as to how the problem could be mitigated. This will enable them to access funds to acquire buildings in the study area to mitigate the acute accommodation problems. The households which consist of low, middle- and high-income groups were reached for interviews in the real estate apartments and slums. The low-income earners were usually found in the slum areas, middle-income earners in the semi-detached buildings, and high-income earners in the detached and bungalows within the sample areas.

Myers (2013) states that in social research the researcher is the research instrument and should avoid biases like prejudgment and interviewing only elites. Representatives from low, middle- and high-income earners were therefore approached for data. Activities among the stakeholders are complementary hence challenges of the stakeholders that were identified during a face-to-face interviews were discussed during focus group discussions to reach a consensus (Carson et al, 2001; Kruoger & Carsey, 2009).

Concerning the sample size adopted Saunders and Lewis et al (2019) stated that the final sample size adopted by a researcher is a matter of judgment based on the confidence that one has in the respondents. The activities of the individual stakeholders are similar usually controlled by rules, regulations, requirements, and laws. Hence, the number selected or obtained helped to reach a saturation point where no new or different data were being added on by increasing the number of individual participants. For example, developers were by law supposed to obtain a building permit before development. Hence data obtain



concerning granting of a permit would be similar from LUPSA (Government agency that grants permit) offices and one or two offices could be relied upon for data. Again, the sample size is appropriate for the study since the case study is not about numbers but to obtain in-depth and broad knowledge about participants to answer ‘how’ and ‘why’ related research questions (Neuman, 2005; Myers, 2013).

### **5.3.6 Data sources**

The case study strategy is characteristic of the use of more than one source of obtaining data referred to as triangulation (Saunders et al, 2012; Myers, 2013; Yen, 2018). This enabled detailed information to be obtained to help analyse the challenges associated with household accommodation and answer the research questions. The 4 main sources of data/information for the study were face - to face interviews, focus group discussions, archival records (including secondary data), and documents.

#### **Face to face interview**

In undertaking the face-to-face semi-structured interviews research instruments were prepared. These research instruments were in the form of interview guides. Since the operations and activities of the stakeholders were different, separate interview guides were prepared for each of them. There were interview guides for government land agencies namely Lands Commission and LUPSA, financial institutions, housing developers, and households as presented in the appendix. The interview guide was flexible as it allowed the researcher to probe the answers by asking further improvised questions that cropped up during the interview. It had sections for relevant personal details of the informant, the activities of the stakeholder in the housing industry, their main challenges especially with other stakeholders, and what can be done to mitigate the acute accommodation challenges in the study area and answer the research questions. The interviews lasted for about 45 minutes in order to obtain detailed data from the participants. The challenge with this source of obtaining data was the long time it took in transcribing and analysing the data.

### **Focus group discussion**

This relates to a group form of discussions where a small group of people (usually from 5 to 10) are interviewed in the same place at the same time. In conducting the focus group discussions, the research instrument was prepared in the form of an interview guide. One representative of each of the main stakeholders namely Lands Commission, LUPSA, utility institutions, financial institutions, housing developers, and households attended the focus group discussions.

The purpose of the focus group discussion was to obtain a broader explanation of the relative activities of the stakeholders in the housing industry. The focus group discussion covered the related activities of stakeholders in the housing industry and enabled stakeholders to discuss their challenges both within and across institutions more deeply and broadly. The discussion was done to come up with suggestions as to how the stakeholders could operate efficiently and by doing that solve the challenges of others since their activities are interdependent and complementary.

### **Archival records**

Archival records obtained from respondents were planning schemes, compulsory acquisition plans, and topographical sheets. These records were obtained from the Lands Commission and Land Use Planning Authority (formally Town and Country Planning Department) and some of the estate developers. Other records obtained were outcomes of Ghana housing and population census (taken every 10 years since 2000) from the Statistical Service Department of Ghana, price list of houses from real estate developers, and relevant property laws and regulations. Mortgage interest and foreign exchange rates were also obtained from financial institutions and the Bank of Ghana for the study.

### **Documentary evidence**

Documents in the form of mortgage application forms were also obtained from the financial institutions. Information was also obtained from local magazines and articles on the stakeholders. The challenges associated with this source of data were the difficulty in accessing it from the institutions. Additionally, pictures of the neighbourhood characteristics of the sample communities were presented to indicate evidence of respondents' views on types of houses and provision of infrastructural facilities. Table 5.2 summarises the main sources of data for the study and associated challenges.

**Table 5.2: Data sources of the study**

<b>Data sources</b>	<b>Application to the study</b>	<b>Challenges</b>
Interviews (semi-structured and focus group interviews)	Used to identify the roles of the stakeholders namely, households, financial institutions, housing developers, and government institutions, and how their activities are related. Questions were flexible since apart from the question guide probing questions were asked to obtain justifications for some of the interview answers.	The use of the sources of data was time-consuming in terms of time used for the interviews and discussions, transcribing, and the analyses of data.
Archival records	This was in the form of records on 1) Maps and planning schemes on the study area 2) Statistical data on population census, Ghana policy rates, Dollar -Cedi exchange rates Mortgage interest rates, and 3) Relevant laws and regulations like the Mortgage Act and land laws.	Most of these records were difficult to access since one must undergo bureaucratic procedures to access them. The maps were usually in large sizes and reduction to A – 4 sizes reduced its eligibility and quality. Again, due to poor storage and filling, retrieving the records was difficult.
Documentary evidence	This consists of mortgage loan forms from financial institutions and annual reports. The others are articles and magazines relating to the stakeholders.	Most of these documents were difficult to access since one must undergo bureaucratic procedures.

**Source: Author's Construct (2019)**

The Semi-structured interview (SSI) guide or instrument as stated in previous sections was prepared for each of the stakeholders namely households, financial institutions, housing developers, and government agencies like Lands Commission and Land Use and Spatial Planning Authority (LUSPA). The household SSI instrument (see Appendix I)

was in three parts. These were general information, mortgage requirements, and sustainability of the mortgage loan. The instrument for financial institutions was in five parts: general information, interest rate risk, exchange rate risk, default risk, and foreclosure period. Furthermore, the SSI guide (see Appendix I) on the housing estate was in three parts namely general information, housing construction inputs, and sale of houses. Lastly, the SSI guide (Appendix I) prepared for government agencies like Lands Commission, LUSPA, and utility agencies had four sections. These were general information, land registration, granting of building permits, and provision of utilities. The focus group instruments (Appendix II) however had two sections namely general information and relationship among the stakeholders, challenges encountered, and how the challenges could be mitigated to provide adequate houses in the community.

The focus group discussions and SSI were executed in a quiet environment to avoid disturbances. Questions were posed neutrally to avoid biases. Participants for the focus group discussions were encouraged to contribute to the discussion to ensure effective deliberations to resolve challenges in the housing industry. The sitting arrangement was circularly so that discussants could be heard clearly and be recorded. The group was made up of six discussants. The focus group interviews and SSI were audio-recorded with tape recorders. Photographs were taken during the fieldwork to either corroborate or negate data presented by participants on neighbourhood characteristics of sample areas. The sources of data and research instruments used have been presented in Table 5.3.

**Table 5.3 Data collection Instruments**

<b>Research Instrument</b>	<b>Households / Institution</b>
Semi-structured interview guide	12 households' interviews, 15 institutional interviews.
Focus group discussion guide	1 focus group interview
Archival records / documents requests.	Population census information, Interest rates, and exchange rates trends, and annual reports from institutions.

**Source: Author's construct (2019)**

### **5.3.7 Data collection experience**

The data collection period was a total of four (4) months. It commenced from September to December 2019. The first month was focused on an interview with households to know their concerns since they are the focus of the research. Separate interview guides were prepared for prospective home buyers and mortgagors (those who have already secured a mortgage facility) to know their varying challenges. The households interviewed were mostly undertaken in the evenings when most of the residents have returned from work and during the weekends mainly at the sample areas.

The following month focused on interviews with financial institutions (both mortgage providers and non-mortgage providers) generally on how to manage the interest rate risks, foreign exchange risks, credit risks, and long foreclosure period discussed under the literature review. The following month was mainly focused on activities of government agencies like the Lands Commission who are responsible for the registration of properties and managing government lands, the Land Use and Spatial Planning Authority that approves and grants planning schemes, and the Water Company that supplies water to the communities from the public mains.

Furthermore, the last month was concentrated on the real estate developers and the focus group discussion. Respondents from the sample estate developers were also contacted for face-to-face interviews. Representatives of the main stakeholders of the real estate

developers, mortgage financial institutions, households, and land sector agencies of the government were also met for focus group discussion where I became the moderator.

Additionally, relevant secondary information was obtained from respondents after the face-to-face interviews and focus group discussions. Some of the secondary information was also obtained from the Statistical Department of Ghana and the National Archives of Ghana. Pictures were also taken to show evidence of the issues described during the interviews.

### **5.3.8 Challenges in the field**

Data collection problems were mainly, frequent changes in dates and times of face-to-face interviews. Most households were however reached in their homes between 6:30 pm and 9:00 pm when they have arrived from work during the weekdays and in the morning between 9:00 am to 12:00 noon during weekends for the face-to-face interviews. In a community where people are reluctant to provide data about themselves due to insecurity, I had to rely on some neighbours and friends to convince households for the interview.

It was difficult to get consent for interviews at most of the financial institutions and it appeared that they were unwilling to allow the interview to be conducted. Even where consent had been granted, the officers to be interviewed were busy and I had to wait for long hours before they became available for the interviews. Sometimes I had to spend the night in a hotel at the city centre at a high cost to be able to reach their relevant offices before the commencement of work at 7:30 am and wait till 8:00 am to meet them immediately they arrive for work to be able to conduct the interview. The hiring of the hotel became necessary since the motor traffic was congested especially in the morning and very difficult to commute to the city centre where most of the offices were sited. Another challenge I had was with the real estate developers. Most of the developers did not have research departments, however, the managers selected staff who could present data on all the departments. Some of the participants would change scheduled times due to emergency meetings in their organizations. However, I rescheduled the meeting times and met some of them after one of their routine Monday morning meetings that are held to plan for the week's activities and access their performance for the previous week.

Obtaining secondary data was similarly difficult especially with the financial institutions. Data requests and introductory letters must undergo long procedures before consents are given. It took approximately one month to obtain secondary information from most of the banks. The most challenging was the focus group discussions among the stakeholders. Though the venue chosen was convenient to all the participants it was difficult to get all of them for the interview. We postponed the meeting till the third time before we were able to assemble all the participants for the discussion.

#### **5.4 Methods of data analysis**

This was both qualitative and quantitative as described below.

##### **5.4.1 Qualitative data analysis**

The study applied the theoretical proposition strategy discussed by Leedy and Ormrod (2005) and Yin (2018). Under the strategy, data were categorised under themes derived from the theoretical background of the study and based on the research question and objectives. The process commenced from transcribing the data obtained from semi-structured interviews and focus group discussions. Codes were created based on the segments of the conceptual framework: households and mortgage financial institutions on the housing demand side, housing estates on the housing supply side, and the role of government in terms of policies and regulations. The themes under the codes were identified and data obtained were categorised under them. The general trends or patterns of the data were identified and related to theoretical views. It ended up with the integration of the findings from the interviews with the other data collection sources (Archival and documentation) to come out with the key findings of housing provision and finance in the study area.



### **5.4.2 Quantitative data analysis**

Quantitative data analysis was undertaken on secondary data obtained on Ghana policy interest rate, dollar – cedi exchange rate, and default rate of GHL Bank. The data was presented in the form of a line graph and bar chart with the aid of an excel spreadsheet. Analysis was based on the description of the periodic variations of the rates and their impact on mortgage lending in the study area.

### **5.5 Ethical considerations**

The study applied Anglia Ruskin's ethical code of practice for research to mainly protect research participants from any risk or harm. Before conducting the research, the due process was followed to obtain ethics approval from the Anglia Ruskin University review panel. This gave official permission to commence the fieldwork at the New Juaben municipal assembly. Within the New Juaben municipality, written permission was obtained from the Municipal Chief Executive Officer and from all the traditional leaders of the suburbs that I collected data.

In addition to securing administrative and legal consent from the administrative and traditional authorities, ethical principles of informed consent, anonymity, and confidentiality were applied to collect data from the study area. In terms of informed consent, participants were made to understand that they were free to decide whether to grant the interview or refused to do so. To officially implement this ethical principle, a participant information sheet that contained the aims and objectives of the study and the consent form was given to the participants to sign to indicate their decision on the consent form. This indicated that the data collection process was voluntary.

The other ethical principle was anonymity, which relates to keeping personal data or identification of respondents anonymous. Personal data or identification which could be used to trace respondents including names, telephone numbers were not collected.

The next ethical principle that was practiced in the study area was to keep data confidential. Data and information obtained were kept confidential and used in a way that

no one could connect to any of the respondents. Data or information was used purposely for this study without giving it to other people for other reasons.

### **Data collection as an internal researcher**

Insider researchers are those who choose to study groups that are within their discipline or profession (Breen, 2007; Unluer, 2012). As an estate officer who served in the New Juaben Municipality for about 7 years, I assumed the role of the internal researcher in the research on housing finance and development. Being an internal researcher, I had both advantages and disadvantages to the research work. The researcher must take advantage of the benefits and overcome the constraints to be able to present credible research (Unluer, 2012). The internal researcher understands the culture (how the group works) of the group under study, has natural social interaction with respondents, and has greater intimacy that guides the provision of correct and accurate data. Furthermore, they know how to approach respondents and have greater knowledge of the discipline which takes the outsider a long time to attain (Bonner & Tolhurst, 2002).

Despite the advantages that accrue to the internal researcher described above he or she encounters some challenges. The internal researcher encounters the challenge of being subjective due to its relation with the respondents. Furthermore, unconscious presumptions about the research could be considered as bias in the research process (Delyser, 2001). However, Porteli (2008) stressed that research that relates to human beings requires the views of the stakeholders as well as the researcher to present a more balanced means of answering the research question. The researcher should also not judge data presented by respondents but should be able to separate their roles as professionals from that of a researcher to avoid being biased (Gerrish, 1997). Since respondents have confidence in the researcher, they usually provide sensitive information about the institutions. However, it is the responsibility of the internal researcher to apply for his or her role as a researcher in the field and adhere to relevant ethics of confidentiality, anonymity to protect the institution and respondents as described under previous sections. This relates to obtaining data from the field and not being judgmental of data obtained from the field.

As presented in previous sections the research involved households and their interrelationships with 4 main stakeholders to mitigate accommodation challenges in the New Juaben Municipality. These stakeholders are financial institutions, real estate developers, and relevant government agencies like Lands Commission, Land Use and Spatial Planning Authorities (LUSPA). Though, I worked in the New Juaben Municipality am currently not working in the municipality. I was however able to identify institutions that could provide adequate data for the research and had some colleague professionals who helped me gain easy access to their institutions for data. In the case of Lands Commission, LUSPA, and real estate developers which are directly related to the estate profession the staff that I knew had all been transferred and replaced with new staff. Though, I did not have social relations with them we related professionally. They, therefore, had confidence in me and granted me consent for interviews and the provision of relevant documents for the research. Since they knew I was a professional, they presented detailed data for the study. Additionally, since I had background knowledge about the profession, based on the themes developed from the literature review I was able to ask relevant interview questions that could help answer the research questions. I however had challenges with the financial institutions since the research only related to the mortgage section of their institution and did not meet professional colleagues in the banks. It, therefore, took a considerable time before they consented to give me access to interviews and made available the archival records that I requested for. Since I was no longer working within the municipality there was no influence on the selection of the respondents for the interview as the heads of the institutions appointed relevant staff for the interviews.

To repose the confidence that the respondents had in me as stated under the ethics consideration section, I kept the respondents unanimous and sensitive information gathered confidential to protect both the respondents and the institutions. Sensitive data obtained were discussed with only my supervisors. In the case of focus group discussions, data were shared among the respondents and members were asked to keep data confidential.

I separated my role as a professional from that of a researcher and considered the exercise of data collection as being on the field to collect data for research work and not to undertake a professional assignment. Data collection was not judgmental as the respondents could express their views based on their cultural background.

The case study methods adopted were face-to-face interviews (Qualitative), focus group discussions (Qualitative), and archival records (Quantitative). Data obtained from the various sources were corroborated or negated under the analysis to avoid bias and presented findings for the study.

Additionally, strategies that were adopted to enhance the validity, reliability, and external validity of the study were based on what Rowley (2002) and Yin (2018) discussed. This has been presented in Table 5.4.

**Table 5.4: Strategies adopted to ensure reliability, validity, and generalisability of the study.**

<b>Assessment</b>	<b>Strategy</b>
Reliability: Ensuring that the process of the study can be replicated to get the same results.	Used case study research instruments to develop a case study database.
Construct validity: Ability of a process used in a study to present the result of reality. It relates to using the research question and research objectives as the basis for preparing the research instruments like interview guides and documentary evidence.	Relied on multiple sources of data. Applied chain of evidence. Presented a draft case study database to key respondents and fellow researchers for accuracy.
External validity: Identified a basis for generalisation of study findings.	Identified a theory that could be applied in other communities.

**Source: Yin (2018)**

## **5.6 Conclusion**

The chapter identified that the study relates to the household accommodation problem which is associated with the social life of human beings. Furthermore, the stakeholders (households, financial institutions, housing developers, and relevant government institutions) investigated were of varied socio-cultural backgrounds. The interpretivism philosophy which relates to investigating social phenomena based on the cultural background of participants was therefore adopted for the study. Additionally, it was identified that the case study strategy which is one of the qualitative methods was appropriate for the study since the study which relates to the household's accommodation challenges is a contemporary issue. The case study strategy was also adopted since the study is restricted to a community with a defined geographic boundary (Payne and Payne, 2004). The case study tools for field investigation were many and appropriate for the varied stakeholders of the study. The methods of field investigation that were applied to access data for the study were face-to-face interviews, focus group discussions, documents, and archival records (secondary information). The application of these methods in the study area helped to obtain relevant data from sample communities and institutions. The data obtained were analysed qualitatively and quantitatively to provide answers to the research questions. The next chapter considers the main fieldwork and data obtained for the study.

## **CHAPTER 6**

### **HOUSING AFFORDABILITY IN NEW JUABEN MUNICIPAL ASSEMBLY**

#### **6.1 Introduction**

The previous chapter discussed the case study strategy for the collection of both primary data and secondary information in the study area. The relevant sources of data (face-to-face interview, focus group, and secondary information) helped to collect evidence of the housing challenges in the New Juaben municipality. This chapter seeks to discuss the views of respondents on household affordability challenges in terms of their ability to access mortgage loans from financial institutions and how the payment of the loan is sustained. Additionally, the chapter discusses the views of respondents on the constraints of financial institutions in the supply of mortgage loans in the study area. The chapter, therefore, aims to answer the two research questions namely,

“What are the causes of housing unaffordability?” and

“Why are financial institutions hesitant to grant loans to households?”

The discussions of the views of the respondents were based on the theory of demand and supply, and the role of government as presented in the conceptual framework developed in Chapter 4. Themes were developed to present field data, information, and discussions under the chapter. The discussions were also related to household’s affordability and housing finance in other parts of the world to guide policymakers when addressing the challenges. At the end of the chapter factors that determined the household’s affordability and mortgage provision constraints in the study area would be identified.

Concerning household affordability, the themes that were developed were purchase affordability which consists of the main requirements for accessing mortgage loans, and sustainability of the payment of the loans referred to as repayment affordability. The supply side of mortgages related to constraints of mortgage institutions in providing loans to households and they are interest rate risk, foreign exchange risk, credit risk, and a long period of forfeiture.

## **6.2 Housing affordability in New Juaben Municipality**

In investigating household affordability challenges in the study area, three main groups of households were identified. These were those who applied for loans but were not successful, those who were successful, and households who had never applied for mortgage loans. These groups of households experienced varied challenges though they were not mutually exclusive. Their views were presented and analysed based on housing affordability themes developed by whitehead (2007), Karley (2008), Lalwani and Venkatachalam (2010), and Gopalan and Venkataraman (2015). These themes are purchase affordability and repayment affordability. The purchase affordability relates to the requirements of accessing housing mortgages and consists of payment of deposits, creditworthiness, payment of a monthly mortgage, and provision of collateral. The repayment affordability however is dependent on the location of the property, fluctuations in the interest rates and exchange rates, liveability, and total cost affordability. Though these affordability measures appear to be different they are not mutually exclusive.

The study revealed that there were two forms of financing houses in the sample areas. The first group of households is those who acquired the houses directly from the developers. Most of these respondents were those who acquired houses at SSNIT estates at Effiduase estates, Adweso estate, and the Old Estate.

The second group of households is those who acquired serviced lands and self-financed the construction of their houses using mortgage loans or other means of financing. These households had houses in Nyamekrom, Betom, and Akwadum estates. The study revealed that out of those who acquired houses or financed the construction of their own houses 80% used their means of financing through short-term loans, support from family members from abroad, and part of their monthly incomes. Those who used mortgage loans constitute 20% of the respondents. Those who could not access mortgage loans consist of those who did not apply for the loans and those who applied but were not successful since their application was declined. To be able to identify the challenges experienced by all the groups of households, the field data presentation as stated above was based on

households who applied or inquired about the loan but were not successful, those who were able to access mortgage loans, and those who did not apply for mortgage loans.

### 6.2.1 Households who failed to qualify for the loans

These respondents expressed their views that the main challenges they encountered were how to meet the requirements of the mortgage loans provided by the financial institutions. They stated that the main requirement was the assessment of the use of their current income to determine their ability to pay the monthly mortgage and the price of the property which they use to access deposit payments. Additional requirements were their creditworthiness dependent on their transactions with the bank and credit records as well as provision of collateral. The study revealed the following requirements of mortgage loans of three sample banks in the New Juaben municipality presented in Table 6.1.

**Table 6.1 Requirements of mortgage loans by main mortgage financial institutions in Ghana**

Banks	Deposits	Average interest rates (cedi/dollar loans)	Affordability ratio	Loan Term cedi/dollar
Ecobank GH LTD	20%	24% / 13%	50%	15 years
Republic Bank (Formally HFC Bank)	20%	25%	50%	15 years
Ghana Home Loans	20-30 %	25%/15%	40%	10/15 years

**Source: Fieldwork (2019)**

Table 6.1 indicates the various requirements by financial institutions provided by the sample financial institutions from respondents. Households expressed their challenges on the various requirements of the financial institutions as follows.



### Unaffordable payment of deposits

The payment of deposits came up in both semi-structured interviews and focus group discussions as one of the main challenges confronting households from accessing mortgage loans. Households stressed that due to their low incomes in the country it was difficult and almost impossible for them to pay 20% of the prices of houses in the country.

One of the respondents in the Old estate discussed that he visited the offices of the Ghana Home Loans, one of the financial institutions stated above to inquire about the possibility of acquiring a two-bedroom detached house at Old estate which was being sold at GHC 350,000. Given the salary amount of GHC2, 500 and based on the bank's terms above he could not afford to acquire the house. Table 6.2 indicates the terms of the loan by the financial institution.

**Table 6.2: Terms of loan by Ghana Home Loans (GHL Bank)**

Price GHC	Deposit (20%)	Interest rate (%)	Monthly payment	Loan period
350,000	70,000	24	7,400	15 years

**Source: Fieldwork (2019) (USD: GHC5.4, 2019)**

The respondent stated that the terms of the loan as indicated in Table 6.2 revealed that he was supposed to pay a GHC 70,000 deposit of the price of the house, monthly payment of GHC7,400 within a loan period of 15 years. The respondent was also told that the interest rate of 24% could vary within the period of the loan based on the prevailing interest rate of the bank. In terms of the payment of the deposit, the respondent stated that he has not been able to save the amount of money that would enable him to pay that amount of money since he was a government worker and could not afford to pay the deposit. The study revealed that the 20 percent of the price of the houses charged by the mortgage institutions as deposits was high due to the high prices of buildings developed by developers and low incomes of workers especially public sector workers and low-

income earners. Since he could not meet the requirements of the loan, he was told to look for another property with a lower price.

Another respondent in the Effiduase estate revealed that:

*I sent the price list of one of the developers to one of the financial institutions and showed them the price of the property on the list that I wanted to buy. When they calculated the deposit that I must pay I realised that I did not have that amount in my accounts hence could not acquire the property (Household, Effiduase Estate, SSI: 11/11/19)*

Respondents mentioned that the developers construct only one type of houses at the industrial estates hence once you are disqualified to acquire the property due to the price it becomes difficult to change the property unless you go to another industrial estate where the price is lower at a different location where you may not like. The Effiduase estate and Adweso estates are all two-bedroom houses giving no option for those who could not afford to acquire them. If one-bedroom houses have been constructed low-income earners could afford to pay a deposit to acquire them.

During a face-to-face interview with financial institutions, they stressed that the payment of deposits is relevant in the provision of mortgage loans since it serves as the contribution of the households toward the financing of the house. This enables households to be committed to the mortgage contract. They, therefore, ensure that the households have paid the real estate developers and presented the receipts to them before they initiate the mortgage process. They presented that households must choose the properties that they could afford so that the payment of the deposit would be affordable to them. Additionally, the payment of a large deposit reduces the monthly mortgage that households pay within the period of the loan.

The payroll of public servants in a regional office in Koforidua, prepared by the Controller and Accountant General's Department (Agency that pays government employees) revealed effective January 2019 that, the average monthly salary of the staff of 20 was GHC 2,500 with the highest and lowest being GHC3600 and GHC1500 (1\$: GHC 5.41,

2019) respectively. According to the data presented under Table 6.2 applicants for loans are required to pay a 20% deposit which is about GHC 70,000. It would therefore be difficult for most salary earners to access mortgage loans from financial institutions to acquire houses.

The payment of deposits is not relatively difficult in some countries like the United Kingdom where most mortgage financial institutions allow households to use their family members' property as collateral to access another loan in the same financial institution to pay the deposit. Hence 100% loans are provided to acquire the properties (Scanlon & Whitehead et al 2019). This however, places a huge burden on households since the monthly payment would be high (based on the entire price of the property) and the possibility of forfeiture would be high. Where there is forfeiture both collateral properties (collateral for the mortgage loan and that of the deposit) would be sold. Additionally, the United Kingdom government subsidises the payment of the deposit for First Time-Buyers (those who have not acquired a house in their lifetime) which reduces the Loan-To-Value of the mortgage and thereby reduces the outstanding loan and the affordable ratio. Additionally, households raised challenges with the interest rates charged by financial institutions as follows.

### **High and variable mortgage interest rates**

The face-to-face interview held with the household revealed a high-interest rate of 24% as indicated under Table 6.2. Households in the study area stated that the interest rate is the most deterrent aspect of mortgage loans. They emphasized that apart from it being high it usually increases during the period of the loan. The mortgage interest rate is high in Ghana compared to its peers in the Sub-saharan countries like neighbouring Nigeria (19%), Uganda (10%) (IMF Report, 2019). Ghana mortgage interest rates are also high compared to other countries like South Africa which has an average of 10 %, the USA is 3.99%, and 3.90% for the UK on 30-year mortgage loans in 2018.

The financial institutions revealed during the focus group discussions that due to the fluctuating nature of the policy rate the mortgage interest rate is indexed to the policy

rates, hence as the policy rates increase the mortgage interest rates automatically increase, this is referred to as the variable mortgage. They further stressed that since the value of the dollar is not affected by the policy rates its interest rate is more stable compared to the interest rate of the cedi loans. However, the frequent changes in the exchange rates can affect the value of the cedi loans.

The variable mortgage is also practiced in Mexico where interest rates are also high and fluctuates frequently (Diamond and Lea 1995). The fear of forfeiture however was absent among households in Mexico when the government introduced the FOVI system. Under the FOVI system households can extend the period of the loan when they are unable to pay the monthly payment to a maximum of 30 years. The extension of the period reduces the monthly payment and makes it affordable to them.

### **High affordability ratios discourage households from accessing mortgages to finance housing.**

The study revealed that one of the main requirements of financial institutions for giving loans to households is their ability to pay monthly mortgages throughout the loan period. This is always determined by the financial institutions when the customer applies for the loan facility. The bank would only give mortgage loans to households if a proportion of their income could cover the monthly mortgage. The proportion of a household's income that can cover the monthly mortgage determines the affordability ratio. It was found that banks that operate in the study area deduct up to 50% of the household's monthly income to pay the monthly mortgage. Respondents argued that the deduction of 50% of their salaries is unbearable. Due to their low incomes and high prices of houses in the study area, 50% of their salaries were not enough to take care of the estimated monthly mortgage. It is generally recommended globally that 35% of a household's income deduction for monthly mortgages is considered affordable, however financial institutions take 50%. During the focus group discussions, representatives of the financial institutions stated that 50% of household's income is taken due to their low incomes. If 35% of the household's income is considered, most households would not qualify for the loans. Karley (2008) stated that incomes are generally low in Ghana as most households spend

all their incomes before the end of each month. Figure 6.3 is an excerpt of data collected in the study area on households who were declined to access loans.

**Table 6.3: Respondents challenges in accessing mortgage due to requirements of mortgage loans.**

<b>Sample area</b>	<b>Income of household GHC</b>	<b>Price of Two - bedroom house. GHC</b>	<b>Deposit (20%)</b>	<b>Loan amount GHC</b>	<b>Monthly payments GHC</b>
Effiduase Estates	2,950	400,000	80,000	320,000	6,849.85
Old Estates	2,650	350,000	70,000	280,000	5,992
Adweso	3,000	400,000	80,000	320,000	6,848
Akwadum Estates	2,600	300,000	60,000	240,000	5,136

**Source: Field work (2019) (£1: GHC6.5, 2019)**

Table 6.3 indicates the monthly incomes of households who could not access mortgage loans due to the high relative monthly mortgages they were expected to pay. For instance, for the monthly mortgage of the respondent in Effiduase to be affordable the monthly mortgage should have been GHC1, 032.5 which constitutes about 35% of the household's income. However, the bank required GHC6, 849 which is about 7 times above the affordable amount.

The mortgage loan period of 10 to 15 years provided by the financial institutions is short resulting in high payments of a monthly mortgage. Adopting the FOVI system practiced by Mexico explained in previous sections, the loan payment period could be increased. This would reduce the monthly mortgage and make it affordable to the households.

## **Creditworthiness of households**

The assessment of creditworthiness became prominent in both face-to-face interviews and focus group discussions as the study revealed that it was one of the main challenges that households encountered for getting access to mortgage loans. The respondent of the financial institutions revealed that they need to access the credit history of households before granting them loans. However, it is difficult to do so since households are reluctant to provide relevant information that would help them to access their creditworthiness. The respondent of Ecobank however revealed that they usually assess the bank statements of their customers and mainly consider their previous loans or debts and how they were paid. Due to the nature of the assessment, they usually give mortgage loans to their customers who have saved with them for 6 months to enable them to analyse their account statements. The respondent of the GHL bank however stated that they rely on the credit records provided by the credit bureaus while the Republic bank relies both on the credit bureaus and analysis of the bank statement of the customer. The financial institutions stressed that the creditworthiness of the households determines the interest rates that they offer to households and whether they qualify for the loans. Hence if it is difficult to identify the creditworthiness of the households, they either decline to grant the loan or charge high-interest rates.

A small proportion of the households interviewed were businessmen and they raised their inability to access mortgage loans from the banks since the banks claimed that their incomes were not reliable, and they could easily default payment of the mortgage loans. The businessmen during the interview argued that they operate several businesses so that their incomes could be reliable. Each business act as security for the other, hence in periods when some are dormant others may be active. They considered it unfair to be treated that way since some of them have enough resources to access the mortgage loans.

During focus group discussion a representative of a financial institution noted that:

*A customer can access a mortgage loan if the household earns a regular monthly income that would be used to access whether the customer qualifies for the loan. If the applicant does not earn regular income the customer cannot pay the monthly*

*mortgage and the loan would not be granted (Representative of Financial institutions, ECOBANK, FGS: 14/11/10).*

In Ghana, small and informal businesses dominate, hence if those in the informal sector who do not have regular incomes are denied mortgage loans then the high population of the study area cannot access loans. The 2010 population census revealed that 67.4 % of the workforce of persons above the age of 15 years works in the informal sector. This confirms the view of Akuffu (2007) that about 75% of Ghanaians cannot access mortgage loans.

### **Provision of collateral properties**

The study also revealed that the provision of collateral properties was necessary for the grant of mortgage loans to households. Households expressed that the provision of collateral was not a major challenge to them as the financial institutions used the houses to be acquired as collateral to access the loans. All the relevant financial institutions used the houses to be acquired as securities hence households who intended to acquire already existing houses did not need to provide collateral security. Since Effiduase estates, Old estates, and Betom had existing houses respondents who intended to acquire houses did not need to provide collateral whilst those in Nyamekrom and Akwadum estates required collateral. The challenge with respondents in Adweso estates however was that though they had existing houses they did not have registered lease documents hence they could not use the houses to secure mortgage loans. Respondent of the Ecobank Limited stated that the collateral property must be registered so that when the mortgage deed is registered it would be a charge on the registered property so that when anybody searches the acquired house it will reveal that the house is encumbered (attached) with a mortgage. Furthermore, the collateral must be registered so that it can be secured without any dispute and easily by auctioned when there is forfeiture.

The respondent of Ecobank stressed that the additional requirement for the loan was that households must have salary accounts with the bank so that they can deduct the monthly mortgage directly from the source. In addition to the collateral security, households are expected to provide two guarantors who are also salaried workers and have salary

accounts with the bank. If the mortgagor defaults in payment of the monthly mortgage for three consecutive times the banks are likely to commence forfeiture proceedings for the mortgaged property to be sold to pay the outstanding loan and accumulated interests.

The respondents in the area argued that in addition to the 50% deduction of their monthly salaries the banks also deduct insurance premiums from their salaries to take care of life assurance and fire insurance. They are therefore left with a small percentage of their salaries for other needs.

It is however not enough to consider only purchase affordability since a household may qualify to access a mortgage loan but cannot sustain the payment of a monthly mortgage (Gan and Hill, 2009). Repayment affordability has also been considered below.

### **Repayment affordability**

Affordability as described by Lalwani and Venkatachalam (2010) and Gopalan and Venkataraman (2015) entails the ability to access mortgage loans and sustain the payment of the monthly mortgage throughout the mortgage period referred to as repayment affordability. This is because when the household is unable to sustain the payment of the loan, the mortgage will be foreclosed and the house would be sold to defray the remaining debt and the household would be homeless, the position he or she was in before the acquisition of the house. This section reveals how successful households were able to access the mortgage loans and associated challenges with repayments.

#### **6.2.2 Households who were successful to access mortgage loans**

The study revealed that successful households were mainly in well-established private institutions in Ghana and Ghanaians living abroad. They were bankers, lawyers, and medical doctors. These professionals earn relatively high incomes and receive short-term loans from their employers. The respondents stated that they obtained short-term loans from their employers at a relatively lower rate of interest to pay the deposit of the price of their houses. A banker in one of the financial institutions during a face-to-face interview stated that their employer offered mortgage loans to staff who have worked in the bank for more than 5 years. The interest rate for the loan was between 3% and 15% based on



the period of the loan. The period of the mortgage loan was between 7 and 15 years. Hence staff that opts for a minimum of 7 years mortgage period will attract a loan interest rate of 3%. Furthermore, the collateral security for the mortgage loan for the staff was their Tier 2 pension scheme, Tier 3 pension scheme, and the house that the staffs intend to acquire. The process for accessing the mortgage is once a staff identifies a house to acquire, he or she must apply officially to the bank management. The house would be inspected by the credit officer to ensure that all relevant title documents are available, and the house is in a good condition. A valuation report would be carried out by a valuer to ascertain the value of the house which will determine the quantum of loan that will be given to the household. A mortgage document would be prepared between the bank and the employee before the money is released directly to the owner of the house after depositing it in the employee's account for a brief period for the amount to reflect in the account. The title deed concerning the house bears the name of the bank and the employee, which means that the house is owned by both the employee and the employer. The house however would be owned by only the employee after the mortgage has been fully paid by the employee. Furthermore, in a situation where the employee decides to leave the bank or the appointment is terminated when the loan has not been fully paid for, the house could be sold and the money that the employee paid refunded to him or her. The house could be given to another interested employee.

The respondent stated that he was able to access the loan since he was not required to pay any deposit for the loan, the interest rate was relatively low compared to what was provided to customers and a reasonable portion of his salary was able to take care of the monthly mortgage. Table 6.4 presents the detail of the loan that he took.

**Table 6.4: Affordable housing provision to a staff of a financial institution**

Sample area	Net income of a household GHC	Period of a loan	Loan amount GHC	Interest rate %	Monthly payment GHC
Nyamekrom	8,200	7 years	230,000	3	3,052

**Source: Field work (2019)**

Table 6.4 indicates details of affordable houses acquired by a respondent in Nyamekrom. The monthly payment is about 37% of the monthly income hence the staff was able to afford it. The respondent further stated that the general monthly gross income of the staff at the bank ranges between GHC 4,000 and GHC10, 000 based on the rank or position of the staff. This relates to the junior staff and the executive directors. This confirms what Asare and Whitehead (2006) stated, that only high-income earners can access mortgage loans. Comparing households' incomes of financial institutions with the government workers revealed that those in the public sector are poorly paid. The salaries paid by the Controller and Accountant's General Department indicated under previous sections revealed that the highest-ranked public servant in a regional office was GHC3,600 while the lowest was GHC 1,500 in 2019. Comparing the incomes of the two institutions reveal that the income levels of financial institutions are twice in most cases compared to their counterparts in the public service. The incomes of public servants and those in the informal sector are low and they are unable to access mortgage loans to acquire their houses. To enable low-income households to access mortgage loans, the government must provide subsidies to households. Whitehead (2007) discusses that the provision of subsidies especially to low-income earners in the public service and the informal sector would not only help households to acquire houses but also help to redistribute income in the country. In the UK for instance as explained under Chapter 3, the government introduced help-to-buy policies like the First Time Buyer Equity, where the government offered soft loans of 20% deposit of the price of houses to low-income households to enable them to access mortgage loans.

Additionally, it was realised from both face-to-face interviews and focus group discussions that mobile network companies like MTN provided loans to their staff to be able to pay the deposits and access mortgage loans. One of the MTN staff stated as follows.

*Since I obtained a loan to pay my mortgage deposit, every month my employers deduct the monthly payment of the loan I took from them from my salary, and the remainder is sent to my accounts at the bank. The bank also deducts the monthly mortgage from my salary and I virtually have nothing to live on. My main worry is the ability to sustain the payment of these loans over the remaining 10 years of the mortgage period (Household, Nyamekrom, SSI: 18/11/19).*

The households who were supported by their employers in the form of soft loans however must make double monthly loan payments which have to be managed well to avoid foreclosure. Ghanaians living in developed countries like the United Kingdom, United States of America were also able to pay their deposits and were successful to access loans to acquire their houses. One of the respondents from abroad stated that:

*I was able to access a mortgage loan from GHL after paying the deposit of the price of the house that I bought from the owner and presented the receipt to the Bank. I took a dollar loan and I transfer my monthly mortgage to the mortgage bank every month to avoid forfeiture (Household, Betom, SSI: 19/11/2019)*

The field data confirmed what Karley (2008) stated some Ghanaians living abroad especially those in the developed countries can acquire houses in Ghana.

Furthermore, respondents who accessed mortgage loans in Ghana presented that after accessing the mortgage loan the greatest task was the ability to pay the monthly mortgage throughout the loan. The study revealed that the challenges that are associated with the payment of the monthly mortgage are the variations in the interest and exchange rates throughout the loan, cost of transportation of households commuting daily to and from city centres where their jobs were mainly located, expenditures on utilities like pipe-borne

water and expenses that are directly associated with housing like stamp duty payment. These factors have been discussed below.

### **The interest and exchange rate variability**

During focus group discussions financial institutions reiterated that the assessment of the households' ability to pay the monthly mortgage throughout the mortgage period is an essential factor especially in developing countries where the interest rate is very volatile and the variable mortgage is mostly provided to prospective applicants. Due to the frequent changes (normally increase in developing countries) in the interest rate the banks usually would like to reduce default risk by assessing the sustainability of the payment of monthly mortgage of the prospective applicant.

Almost all the participants especially First-Time-Buyers in the selected areas namely Adweso estates, Effiduase estates, Nyamekrom, Old estates, and Betom stressed in the face-to-face interviews that their monthly deductions increased frequently without the banks informing them and this affected their budgets for their already low salaries. One of the households in Effiduase estate stated that:

*The interest rate that is charged on the loan that I took from my bankers increases very often without the bank informing me about it. This increment increases my expenditure on housing and reduces the money that I spend on other needs of the family. It creates some doubts in my mind whether the bank is not using the interest rates to unnecessarily increasing my debt. For instance, after paying the loan for about 4 years, I realised that due to the increase of the interest rate the outstanding loan is higher than the loan that I took (Household, Effiduase, SSI: 11/11/19).*

The financial institutions stated that the interest adjustments have been stated in the mortgage deed that, the adjustments would be done when it becomes necessary without recourse to the households.

Those who had dollar mortgage loans mentioned that the monthly deductions from their salaries increased. As the cedi depreciates the cedi equivalent of the dollar loans increased and they turn to pay more from the already low salary. These rapid changes of deductions

especially in developing countries influence the affordability ratio. A ratio that was initially considered affordable may not be anymore after deductions from salaries increase. The study revealed that though the interest rates are low for the dollar loans and are usually stable for a considerable period compared to the interest rates of the cedi loans, the dollar loans were the scariest due to the high exchange rate and the volatility of the rates. One of the households stressed that:

*I accessed the dollar loans from one of the financial institutions and paid my monthly mortgage for 4 years. However, I received a letter that my mortgage loan has been terminated, and am undergoing forfeiture since my income is unable to pay the monthly mortgage due to the rapid rise of the exchange rate against the dollar. My property was sold, and I lost it (Household, Akwadum Estate, SSI: 23/11/19).*

The study revealed that since the policy rate does not affect the interest rate of the foreign currencies, especially the dollar, the interest rate remains fixed for a considerable period of the loan. However, the high and fluctuating exchange rate usually increases the monthly payment of the households and threatens their ability to pay it throughout the mortgage period. This is because most of them receive their incomes in cedis and convert them into dollars before payments are made.

The respondent of Ecobank Ghana Limited however stated during a focus group discussion that the bank gives dollar loans to their customers who earn a salary in dollars so that they are not usually affected by the volatility of the exchange rate. Though the practice is laudable and may reduce the impact of the exchange rate of those who collect their salaries in dollars, they would be in the minority. This is because the Foreign Exchange Act 2006 restricts the payments and receipts of goods and services in foreign exchange. In the study area, none of the respondents resident in Ghana indicated that they received their incomes in any of the foreign currencies.

The Ghana cedi depreciated by 25% between January and March 2019 and was described as the cheapest currency in Africa (Ghana News Agency, 2019; BBC, 2019). As the cedi

depreciated by 25% it presupposed that averagely cedi equivalent dollar loans increased by 25% per annum.

The inability of most residents to access mortgage loans to acquire houses had resulted in engagement in incremental development by households. These houses are usually informal developments and take between 15 to 20 years to complete. The said period is enough to complete the mortgage payment. Additionally, whiles the mortgagor occupies the mortgaged property within the term of the mortgage and thus did not pay rent the household who undertook incremental development could not occupy the property within the period of construction since it was not completed. In addition to paying rent by occupying another property, the incremental developer locks up huge capital in the uncompleted building for long period. Though the value of the uncompleted building may appreciate it could not be enough to cover the cost of payment of rent for leaving in another property. The ability of households to sustain the payment of the monthly mortgage is also dependent on expenditures on utilities indicated below.

### **Affordability and liveability**

The affordability and liveability theme consider the fact that as stated in previous sections, it is not enough to qualify to access the mortgage loan, but the household should be able to sustain the payment of the monthly mortgage throughout the loan period of 30 years. Housing estates should therefore have an adequate supply of infrastructural facilities like piped water and electricity so that households could save adequate income to service the loans (Gopalan and Venkataraman, 2015).

The study revealed that households in the estates that do not have an adequate supply of infrastructural services, spend a considerable portion of their incomes to access those services which reduce their incomes and make the payment of the monthly mortgage unaffordable. Respondents in the sample areas were worried about the difficulties that they experienced for living in communities without an adequate supply of infrastructural services like pipe-borne water and electricity. They explained that these facilities are necessities of life that human beings cannot survive without them. However, they are in limited supply in the communities. Most of the respondents that complained about the

lack of supply of adequate utilities in their communities were those living in sample areas like Nyamekrom, Akwadum, and Betom. The respondents expressed the high amount of funds that they spent on these facilities. A respondent in Nyamekrom stated that:

*Though the price of water that is supplied to me is about 10 times that which is provided from the public mains when a request is made it takes a considerable period for the water supply companies to supply to my house. Lack of adequate water generates serious health issues which also take a chunk of the family income (Household, Nyamekrom, and SSI: (24/11.19).*

Table 6.5 illustrates the provision of infrastructural services in the study area which is based on the views that households expressed concerning the impacts that it had on their incomes.

**Table 6.5 Provision of main infrastructural services in the study area**

<b>Settlements</b>	<b>Pipe borne water</b>	<b>Electricity</b>	<b>Telephone / Internet</b>	<b>Access roads availability and condition</b>	<b>Others (schools, recreational, supermarkets)</b>
<b>Effiduase estates</b>	Good	Fairly good	Fairly good	Good	Fairly good
<b>Akwadum estates</b>	Poor	Fairly good	Poor	Poor	Poor
<b>Old estate</b>	Good	Fairly good	Fairly good	Fairly good	Fairly good
<b>Adweso estates</b>	Good	Fairly good	Fairly good	Good	Fairly good
<b>Nyamekrom settlement</b>	Poor	Fairly good	Poor	Poor	Poor
<b>Betom settlement</b>	Fairly good	Fairly good	Fairly good	Fairly good	Poor

**Source: Fieldwork (2019)**

Table 6.5 indicates the views expressed by households on the provision of infrastructural facilities within their settlements. Qualitative analysis of their views indicated that though areas like Akwadum estate, Nyamekrom, and Betom settlements did not have adequate infrastructural, communities like Effiduase, Adweso, and Old Estates had considerable utilities in their communities.

The respondents during face-to-face interviews argued that the provision of utilities like pipe-borne water, electricity services, and telephone are quite good in Effiduase estate, Adweso estate, and Old Estate. However, other facilities like commercial and recreational centres were not provided causing households to travel to the city centre to buy their household needs. These additional expenses when accumulated monthly increase the



household's expenditure and reduce their ability to pay the monthly mortgage. The respondents in the Effiduase estate were appreciative of the good facilities provided in the area however, they were not happy about the absence of supermarkets or commercial centres in the community. One of the respondents stated that:

*Since there is no commercial centre, I always travel a considerable distance to buy my domestic needs which waste time and money for undertaking the journey. If a commercial centre were provided, time and money spent on my frequent visit to the town could be avoided (Household, Effiduase Estate, SSI: 24/11/1).*

The provision of a commercial centre was absent in the immediate neighbourhood of the estate though there was adequate land to develop it. The Local Government Act 1993 (Act 462) made provision for the preparation of planning schemes before the development of houses in the community. Though the planning scheme was prepared and approved by the Land Use and Spatial Planning office (formally Town and Country Planning office) it was not fully implemented on the ground. Though the planning scheme contained the commercial area it was not developed. One of the respondents was of the view that:

*I have 3 children and do not have a place for them to play since the estate is a high-rise building and they have no place to play upstairs. I must take them to a distant place for them to play on the field which I pay both for the use of the field and the transport cost. The Landlord Association has spoken with the developers to assist to develop a recreational centre, but we have not heard anything from them (Household, Effiduase Estate, SSI: 24/11/19).*

In Nyamekrom settlement and Akwadum estate, the study revealed that apart from electricity provided at some portions of the land, pipe-borne water has not been connected to the site from the public mains. There are also no schools, recreational centres, and commercial centres. The situation in the area is very deplorable and households must spend additional money to extend some of these facilities to their households thereby increasing the cost of the properties and making them unaffordable. One of the respondents presented that:

*The main pipeline is along the main road that is about 500 metres from our community, and we have been told to contact the water company and apply for them to assess the amount that they would charge to connect our houses to the mainline (Household, Nyamekrom, SSI (18/11/19).*

These costs add an extra burden to households and make the payment of the monthly mortgages difficult. Due to the non-supply of the essential services, the properties sold appear to be affordable however when the said costs are added, it becomes unaffordable.

The 2010 population census in the New Juaben Municipality revealed that out of the 49,474 households only 32.5% of households have access to pipe-borne water in their homes while 28.3% have access to pipe-borne water outside their homes. The rest rely on other sources of water like boreholes, protected wells, rainwater, and tanker services (Ghana Statistical Service, 2013). Most of these water sources are not treated and not safe to drink.

Face-to-face interviews with respondents in Betom revealed that a section of the town was one of the first settlement areas of the natives of New Juaben. The first settlement area by observation was not developed according to a planning scheme and most buildings are unauthorized. Most parts of the settlement had turned into slums with the provision of inadequate infrastructural services like roads and pipe-borne water. The study revealed that most of these houses do not have toilets and refuse bins and must rely on public means of disposal. The sanitary situation at these disposal sites and public places of convenience (Public toilets) are not well maintained. This causes diseases and households spend more funds on treating the diseases. The Ghana Statistical Service stated in the 2010 population and housing census report that, more households use public toilets (36.2%) than households that use water closets in their houses (31.5%) in urban centres in New Juaben Municipality.

### **Affordability due to location of a property**

This relates to affordability influenced by the location of the property. Gan and Hill (2009) discuss that prices of houses usually decrease as the distance from the city centre

increases. Hence households could qualify to access loans to acquire properties that are far from the city centre and are of low prices. However, there should be a reliable transport system at a lower cost to enable them to commute to the city centres so that they can save adequate funds to pay their monthly mortgage throughout the mortgage period.

The study revealed that most of the industrial estates and settlements are located quite far from the city centre where most of the residents' jobs are located. They, therefore, commute from the outskirts of the municipality for work in the city centre.

Apart from the Old Estate and Betom settlement which is close to the city centre, the other sample areas are far from the city centre with Nyamekrom and Akwadum estate being the farthest. The study revealed that households spent high transportation costs for commuting daily to and from the city centre where most of their jobs and schools were located. Households commuting from the fringes of the town like Nyamekrom, Akwadum, and Adweso to the city centre spent an average fare of GHC60.00 daily per person. With the minimum daily wage of GHC10.65 in 2019 (£: GHC6.5, 2019) it means that it would be difficult for such households to be able to pay a monthly mortgage. Transportation cost constitutes about 5 times the minimum wage of households in the relevant sample areas. This serves as a disincentive for especially low-income earners who earned the minimum wage to afford to acquire houses. One of the respondents at Akwadum estate emphasised that:

*I commute daily throughout the working week from Akwadum Junction to the city centre. Since no vehicle plies directly from the city centre to the place, I always board taxis and other commercial vehicles to the city centre where I work. I am thinking of relocating to suburbs which are closer to the city centre to reduce the transportation cost (Household, Akwadum Estate SSI (07/12/19).*

The study revealed that the rugged nature of the roads to settlements like Nyamekrom and Akwadum prevents public and commercial busses from plying the routes. Only commercial vehicles like taxis would access those areas when they are hired or chartered, and high transport fares (premium) have been paid. The daily transportation cost for commuting is a burden to households and constitutes a substantial portion of their monthly

salaries. According to Jenks and Jones (2010), the most sustainable transport or travel is by walking, cycling, or public transport, however, due to the long distance the most appropriate for those living at the outskirts is by public transport. Households who engaged contractors to develop their houses complained about the high cost allocated to transportation of building materials to the site. The high transport cost made it difficult to complete the developments for them to occupy. Those who have not even started the development also emphasized that they have not commenced development after acquiring the land since the area is far from the city centre. One of the respondents in the sample area stated that:

*Though I have completed my building in Akwadum estate I have not been able to move to my house due to the distance from the city centre where my job is and where my newly completed house is located. The road at the estate is so bad that anytime I visit the place to inspect my building my car breaks down (Household, Akwadum estate, SSI: 07/12/19).*

Contrarily to the above, those in settlements like Old Estates and Betom did not have many transportation problems in their communities since the road networks (road and streets) were well constructed and close to the city centre.

The location of a property and its associated transportation cost is, therefore, a factor to consider when assessing repayment affordability of houses. Relatively low prices of houses which are far from the city centre may not be affordable if transportation cost of commuting is very high. The study revealed that transportation cost usually increases as the distance from the city centre increases and when added to the monthly mortgage may render the mortgage unaffordable. The low cost of land or houses situate at the outskirts of a community goes with a high cost of transport. There is therefore a trade-off between transportation costs and the values of houses.

In the Greater Accra region, the government of Ghana under the policy of Public-Private Partnership (PPP) engaged the services of a United Kingdom transport manufacturing company to implement the country's Bus Rapid Transport (BRT) in Accra, the capital city of Ghana. The Company has released 245 busses in the capital and helped households

living on the outskirts of Accra commute to the CBD of Accra at a relatively low cost (Poku, 2018). In the case of the New Juaben municipality, though they have public buses, they only ply long distances to other municipalities and regions outside the study area.

During focus group discussions the representative of the service providers (Ghana Water Company) stated that developers should engage the government relevant agencies to help them extend all infrastructural services including roads and streets to new sites before development commences. It could be only lateritic surfaces at the initial stages before providing bitumen surfaces. This is because road construction is more expensive and difficult when development precedes it.

### **Total Holding Cost of Housing.**

Gopalan and Venkataraman (2015) stated that the relevant total cost associated with houses should be considered in accessing household's affordability since it is a drain on household income. The face-to-face interviews and focus group discussions revealed that some of the costs that households incur for owning a property in the study area were regular building maintenance costs and taxes on properties like stamp duty and property rates (or council tax).

Households in the sample areas were worried about the quality of the building materials used in constructing the estate buildings as they carry out maintenance work regularly on the buildings which was a drain on their incomes. These repair works are very expensive and entail both labour costs and the cost of the materials. Another challenge was to get a qualified artisan who could do the maintenance work well and not repeat the poor work that was done by the original contractor. Personal observation revealed some minor and large cracks on the external walls. Some of the households showed me broken handles of door locks and how they changed most of the door locks after staying in the rooms for short periods after acquisition. Sample areas where respondents stressed that they spent a high amount of money on repairs were Adweso estate, Effiduase estate, Old Estate, and Betom whilst it was moderate in Nyamekrom and Akwadum Estate. The repair works were carried both on old and new buildings but were regular on old buildings. A respondent at Adweso estate expressed that:

*The house that I bought started developing cracks 5 months after I occupied it. The repair of cracks in the bathroom caused cracks in the ceramic wall tiles and I had to change all the tiles. I also changed the painted plywood ceiling since it was destroyed by water that passed through the leaked roofing sheets. After staying in the house for 2 years I had changed almost everything in the house. (Household, Adweso estates, SSI: 08/12/19)*

Another respondent in Effiduase was also worried about the challenges that his family experienced with the plumbing works in the Effiduase estate. The respondent expressed that:

*I live on the third floor of block 'C' within the block of flats of the Effiduase estate and my family experience serious plumbing problems in our house. The kitchen and bathroom sinks are usually blocked, and I had to engage plumbers to unblock them several times. Apart from the money that we spent every month on the repairs, it creates an unsanitary and unhealthy condition in the apartment (Household, Effiduase Estates, SSI: 24/11/19).*

The use of substandard building materials and inefficient workmanship has created several challenges in Ghana resulting in the collapse of some buildings which was very fatal. During a face-to-face interview with the respondent of the Effiduase estate, he revealed that they engaged general contractors (outsourced the construction of the houses to contractors) who developed the block of houses with major problems with the plumbing works. These challenges were realised after the contractors had collected their contract sums hence, they could not make them correct the challenges. The respondent further stated that:

*During the period of the contract, the housing estate staff should have supervised the work well and ensured that a qualified workforce and quality building materials were used for the work. However, we did not have adequate staff to supervise the work and ensured that they executed the contract according to the specifications provided in the bill of quantities (Official, SSNIT, SSI: 01/11/19).*

The main cause of poor-quality buildings in Ghana which generates high maintenance cost for households are reliability and quality of specification, leadership, and lack of stakeholder involvement in the development (Djokoto and Dadzie et al, 2012; Lam and Chan, 2010). Developers usually do not adhere to the Ghana Building Codes 2018 that provides standards and specifications of materials that are supposed to be used in housing construction. Again, the building contractors do not have the requisite knowledge to supervise and construct houses.

Respondents in Nyamekrom and Akwadum estates were of the view that their properties were in good condition and did not experience regular maintenance work on their houses since they buy the bare lands and personally engage the contractors to develop the houses for them. They, therefore, supervise the acquisition of the materials based on what has been provided in the Bill of Quantities (BOQ) and engage a professional to supervise the construction work and ensure that the houses are well constructed.

The next expense that influenced household repayment affordability is the stamp duty payment. It is a tax that is imposed on the transfer of landed properties. It is normally a percentage of the total value of the property bought. Both face-to-face interviews and focus group discussions highlighted the payment of stamp duties. Respondents were of the view that though the stamp duty is a source of revenue to the government it is very high, and the mortgage loan provided by the bank does not cover it. An excerpt of what the representative of households said during the focus group discussion was as follows.

*The stamp duty is very high and is charged twice on the same property that is bought; the duty is charged on the title deed of the building that has been bought and charged on the mortgaged document that is prepared. The total stamp duty is very high and since our low monthly income could not take care of it, we had to access another loan with interest to pay it (Household, FGD: 14/11/19)*

During focus group discussion a representative of the Lands Commission emphasized that stamp duty on mortgage properties in Ghana entails the payment of a percentage of the price of the house and another percentage payment on the mortgage loan provided by the bank. The respondent stated further that in Ghana the stamp duty payments on any

mortgage loan are in two forms. One payment is on the value of the house that has been transferred from the housing estate to the household and the other on the mortgage loan provided to buy the house. The assessment on the house is a percentage of the value of the house whilst concerning the mortgage amount it is a percentage of the loan. The stamp duty on the house that has been transferred is up to 1% of the value of the house whilst it is a fixed percentage of 0.5% of the loan. The stamp duty payment of a respondent has been illustrated below.

**Table 6.6 Stamp duty payment of a respondent in the study area.**

Value of house (GHC)	Loan amount after deduction of 20% deposit	Stamp duty of 1% on the value of the house (GHC)	Stamp duty on 0.5% mortgage loans (GHC)	Total stamp duty (GHC)
420,000	336,000	4,200	1,680	5,880

**Source: Field work (2019)**

Table 6.6 indicates the total stamp duty paid by a respondent in the Betom estate. The total stamp duty paid on both the title document (GHC4, 200. 00) which indicates the transfer of the house, and the mortgage deed (GHC1, 680) was GHC 5,880. The respondent further expressed that in addition to the payment of the stamp duty he paid an amount of GHC500 for the registration of both the title deed of the house and the mortgage deed. He stated that since the monthly salary was GHC 3,000 and was not adequate to take care of the monthly mortgage, the stamp duty, and the registration fees of the documents, he took another loan from his employers before he could pay the stamp duty. The respondent expressed that:

*The stamp duty payment on mortgage loans is high and the Lands Commission must reduce the rate if the government wants to encourage more households to acquire estate houses. I took another loan from my employers with a 10% interest rate to enable me to pay the stamp duties otherwise the loan would not be given*



*to me. The banks ensure that both the house and mortgage documents are registered before the loan amount is released (Household, Betom, SSI: 19/11/19).*

In Ghana according to the Stamp Duty Act, 2005 (Act 689) Schedule one (1), the stamp duty assessment is based on the value of the house and the loan amount. The Schedule of the stamp duty payment presented in the Act is as follows.

**Table 6.7: Schedule of stamp duty payable on the transfer of properties and mortgage loans**

<b>Value of the landed property/ loan amount</b>	<b>Stamp duty %</b>
Where the value of the house does not exceed GHC 10,000	0.25
Where the value of the house is between GHC 10,000 and 50,000	0.5%
Where the value of the house is above GHC50, 000.00	1%
All Mortgage Loans	0.5%

**Source: Ghana Stamp Duty Act 2005 (Act 689)**

Table 6.7 indicates an excerpt of the stamp duty schedule presented in the Stamp Duty Act 2005. The stamp duties must be paid on both the house and the mortgage deed before registration can be done. Additionally, section 12 (1) of the Act stipulates that stamp duty payment must be made two months after the execution of the documents otherwise a penalty would be imposed for the applicant to pay additional duty which would be determined by the assessors. The stringent monetary requirements and penalties associated with the payment of stamp duty in the study area and Ghana make it difficult for households to access mortgage loans to finance their houses.

The situation is contrary in the United Kingdom as the government waived the payment of stamp duty for low-income earners (especially First Time Buyers) in 2017 for houses that are below £300,000, saving up to £15,000 (GOV.UK Policy Paper, 2017). The intention according to the policy paper was to encourage low-income earners to acquire their own houses.

The last expense that households spent on their houses are the property rate. It is a property tax that is imposed on buildings by the local assembly and is spent on the development activities of the local community. Respondents during both face-to-face interviews and focus group discussions stressed that though the property tax itself is not much as it is paid annually when added to other expenditures and taxes like the stamp duty it becomes difficult for them to pay their monthly mortgage. The Local Government Act 1993 (Act 462) empowers the local assembly to raise revenue by collecting property tax from households in the community.

### **6.2.3 Households who did not apply for mortgage loans.**

The study revealed that a greater number of respondents were not interested to access mortgage loans. The reasons for lack of interest were not only economic in terms of unaffordability but also for social and cultural reasons. Baye (2006) discussed that the factors of demand for a product are not only economic but also based on the taste and preference of the customer. The lack of interest to access mortgage loans in the study area were low incomes, lack of trust in the financial system, high prices of houses constructed by housing developers, and the psychological stress associated with the payment of the monthly mortgage throughout the mortgage period.

Some of the respondents in the study area appeared to have lost trust in the financial institutions due to the frequent increases of payments of bank loans due to regular increases of the policy rate. One of the respondents stressed that she took a short-term loan from one of the banks and due to frequent increases in the interest rate large amounts of funds beyond what was initially agreed in the loan document were deducted from her monthly income leaving a small amount for her other needs. She, therefore, does not trust the financial system since she believes that if she takes the mortgage with a longer-term

and higher amount, she could not pay within the mortgage period. The respondent stressed that if the houses could be sold to them directly without mortgage loans and deductions made from source by the estate developers over a period it would be affordable to them. This system of housing acquisition was practiced by SSNIT when their rented premises were sold to sitting tenants in the study area.

Furthermore, some of the households were used to the self-help project introduced by some of the pre and post-independent governments discussed under Chapter 2. They prefer to acquire a piece of land and personally engage building contractors to construct their own houses based on the availability of funds. This type of house is financed by varied sources of income referred to as alternative sources of housing finance. The income sources consist of the use of households' income, support from family members abroad, loans from mutual funds, and microfinance institutions. This enables the households to construct the houses in stages referred to as incremental or progressive development. They, however, stated that though they were free from the burden of mortgage it takes about 10 to 15 years to complete the houses. One of the respondents was of the view that:

*The prices of houses constructed by housing developers are very high and I believe they charge supernormal profits. If I acquire a serviced land and engage specific artisans and contractors, they could help me to construct a house at a lower price compared with the houses sold by the housing developers (Household, Adweso estates, SSI: 08/12/19)*

During a face-to-face interview with the respondent of Old Estate, he stated that they outsource their construction activities by engaging a general housing contractor. Since both, the contractor and the housing estate charge profits, it results in the charging of super profit. However, the estate respondent stated that they intend to engage their specific artisans or contractors so that the profit margin would be reduced. This confirms what was stated by the household respondent above.

Additionally, households who did not show interest in accessing mortgage loans were of the view that they were petty traders who want to develop houses to live in. Since their incomes were in bits and not reliable, they decided to use their meagre funds to acquire

lands in instalments and engage specific contractors and artisans to construct their houses for them. The construction activities are done in stages based on the availability of income from their trading activities. They, therefore, rent a house and continue with the development till the house is completed for them to move in. One of the respondents stated that though they could not keep proper records of their incomes from their trading activities they could spend between GHC600 and GHC900 (£1: GHC 6.5, 2019) on the construction of the house every month. It can however be stated that the monthly expenditure on the houses is far below the monthly mortgage of houses stated under previous sections and they could therefore not afford to access a mortgage. Self-help financing was their best choice.

Moreover, households who never applied for mortgage loans were Ghanaians living abroad. The households who were available stated that they did not apply for mortgage loans since they agreed with the housing estates to acquire their houses. One of the respondents stated that:

*I paid a deposit of 20% of the price of the house at Akwadum estate and the housing developer gave me 6 months to complete the remaining payment of 80%. As at the time I inspected the house it was about 85% complete. After I made the payment of the remaining 80% it took them 4 months to complete the house for me (Adweso estates, SSI: 08/12/19).*

The study revealed that most Ghanaians leaving abroad were able to afford the houses sold by the housing developers since the foreign exchange fluctuations favour those living in developed countries like the United Kingdom and the United States of America which use the pounds sterling and the USD respectively. Karley (2008) discusses that 60% of houses constructed by housing estates were acquired by Ghanaians living abroad.

The last group of households did not want to access mortgage loans since they want to avoid mortgage loan stress. They were of the view that though they could afford to access mortgage loans they wanted to avoid the stress of paying a monthly mortgage. They stated that they may be out of work in the future and may not be able to pay the monthly mortgage. When this happens, the financial institutions may foreclose the mortgage

transaction and would lose the house that they had toiled to acquire throughout their working life. The respondent of financial institutions during focus group discussions stated that their interactions with other stakeholders including households over the years revealed that a greater proportion of households in the study area lack detailed knowledge about mortgage loans. Hence, they frequently organise periodic educational workshops and durbars for sections of the communities to sensitise households and the other stakeholders in the housing industry so that they would be familiar with the mortgage loans.

### **6.3 Mortgage financing by financial institutions**

This section presents the outcome of both semi-in-depth and focuses group interviews that were held with relevant respondents relating to the financing of housing in the study area. The section identifies the challenges that financial institutions encountered in providing mortgage loans to households. The challenges do not attract financial institutions to grant loans to households in the study area. This section therefore as stated under section 6.1 answers the research question: Why are financial institutions hesitant to provide mortgage loans to households?

Discussions on this section have been presented under four main challenges identified in the study area. These challenges are associated with interest rate risk, foreign exchange risk, credit risk, and foreclosure period in the New Juaben municipality.

#### **6.3.1 Interest rate risk discourages mortgage lending in the study area**

The study revealed that interest rates are the main determinants of households accessing mortgage loans. All the three mortgage institutions interviewed attested that interest rates influence the number of mortgages that are accessed by households. The representative of Ecobank stated that:

*In 2018 the average policy rate was low which resulted in a low mortgage rate. The low mortgage rate attracted more households to access more loans in the financial institution. Though, I cannot give the exact percentage rise in mortgage*

*applications, the number of applicants in 2018 was relatively higher than in 2017 (Official, Ecobank SSI: 22/10/19).*

The households interviewed were of the view that there were few mortgage institutions in the country making the market non-competitive over interest rate charges. This has resulted in high interest rate charges by the few mortgage financial institutions. The study revealed that apart from the interest rate which is already high, it also fluctuates frequently throughout the year as indicated under Figure 6.1. One household expressed that:

*The rampant fluctuation of the interest rates makes me lose trust in my bankers and makes me scared that based on the current fluctuations I would not be able to service the loan within the mortgage period (Household, Adweso Estate, SSI: 23/10/19).*

The representative of the financial institutions during focus group discussions emphasized that since the level of interest rates mainly determines the accessibility of households to mortgage loans, they are careful in fixing the interest rate to attract more customers. He further explained that the interest rate mainly consists of a risk-free rate (Interest on low-risk investment like treasury bills rate) and a risk premium (interest associated with the particular transaction or applicant). Hence the rate is dependent on the risk associated with the households applying for the loan. The higher the risk, the more interest that the mortgagor would pay on the loan.

All the three respondents of the banks namely Ecobank, Republic Bank, and GHL Bank who were interviewed stated that they operated the variable mortgage due to high and fluctuating government policy rates and inflationary rates. They expressed further that since a mortgage is a long-term loan, interest rates could not be fixed at a rate otherwise the banks would lose when it increases within the term of the loan. To avoid the banks from losing their capital and becoming bankrupt their interest rates especially for the cedi loans are indexed to the policy rate.

According to Mishkin and Eakins (2012), financial institutions are risk-averse which means that they mostly protect themselves from losing the value of their capital. Financial institutions operating in the study area, therefore, protect themselves from losing the value

of the loans given to households hence, they index the interest rate of the loans to the policy rate. The policy rate of Ghana is reviewed quarterly in a year and can either increase or decrease. If the interest rate increases the banks lose the value of their capital however, if it decreases, they gain. To avoid the fluctuations of the value of the loan that they give to households throughout the mortgage term they index the loan to the policy rate. This helps them to maintain the value of the loans and avoid the risk of losing their capital.

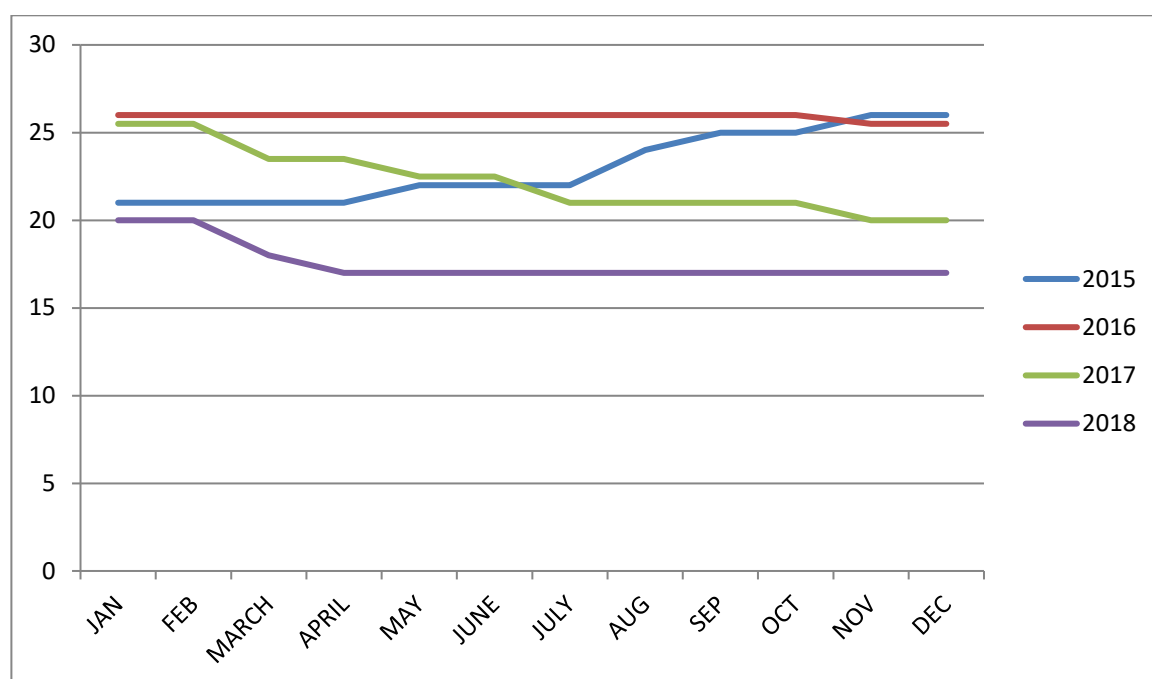
Furthermore, the respondent of Ecobank discussed that provision of mortgage loans in Ghana is mainly dependent on access to long-term funds. This is because mortgage loans cannot be financed with short-term deposits from customers since they withdraw their funds within short periods. The respondent, however, stated that foreign loans or bonds are usually of long-term and low interest rates. Access to long-term funds matches with the provision of mortgage loans and mostly attracts investment in mortgage loans. Hence since some of the commercial banks in Ghana do not have access to long-term loans, they are unable to grant mortgage loans.

The first mortgage financial institution established in Ghana was the Home Finance Company (HFC) currently called Republic Bank. The company was founded by mainly the flotation of mortgage-back 10 to 20 years housing bonds by Social Security and National Insurance Trust (Pension Fund Institution) and the Ghana Government (Douglas and Lea, 1995; Asare and Whitehead, 2006). If the government provides a guarantee for the financial institutions, bonds could be issued internationally to attract investors at a lower interest rate. This would make more funds available to households at a lower interest rate.

All the three banks interviewed operated both cedi and dollar mortgages. They discussed that the cedi mortgage attracts a higher interest rate than the dollar mortgage since the value of the cedi falls rapidly due to the high inflation than the dollar which is not directly affected by the local inflation. As presented in previous sections, the type of mortgage (cedi or dollar) provided is based on the type of salary that prospective mortgagors receive. Those who received their salaries in dollars were given dollar mortgages whiles

those who received theirs in cedis were given cedi mortgages. The main aim of this practice was to make monthly mortgages affordable to households and to avoid credit risk. The graph under Figure 6.1 below shows the levels and fluctuating nature of the policy rate from 2015 to 2018.

**Figure 6.1: Policy interest rate variations in Ghana**



**Source: Bank of Ghana (2019)**

According to Figure 6.1 above, the highest annual interest rates were in 2016 and the lowest in 2018. Between the two levels, the interest rate rose consistently in 2015 and was volatile. Moreover, in 2017 it fell consistently and was volatile. It was good that the rate in 2016 was mainly constant but the disadvantage was that it was very high. When it is constant, households can budget for it than when it fluctuates. However, when it is high the study revealed that the demand and supply of mortgages are relatively low than when the interest rate is low.

In 2018 the rate was averagely low and constant and did not fluctuate consistently. Hence more households were attracted to borrow more. Furthermore, 2015 rates were the worse.



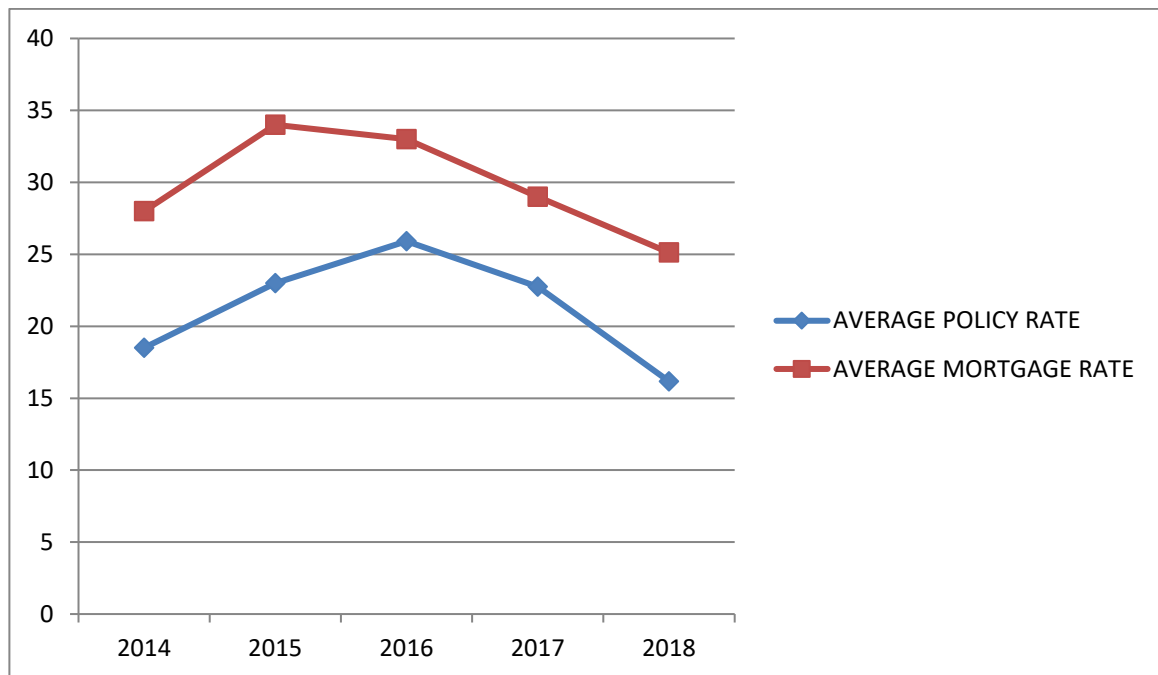
The rise and fluctuating nature discouraged households to access loans and increase credit risk for the lenders.

In 2017 the constant fall will also attract households to access loans but not to the level of 2018 since the 2018 rates did not fluctuate.

A quantitative analysis of the policy rate as indicated by the attached regression analysis under Appendix 3 indicated that the average annual variations of the interest rate were not significant. It explained further that the interest rate risk was not significant hence lenders can provide more loans to households.

The respondent of the GHL Bank presented the following data on the interest rate charged by the bank from 2014 to 2018. These interest rates have been compared with the average policy rates charged over the years to illustrate the index of mortgage interest rate to the policy rate.

**Figure 6.2: Policy interest rate indexed to GHL Bank mortgage interest rate.**



**SOURCE: Bank of Ghana (2019) and GHL Bank**

The two-line graphs above indicate the interest rate and the policy rate lines and establish the relationship between the two interest rates. For instance, when the average policy rate rose from 2014 to 2015 (18.5% to 23.0%) the mortgage interest rate of the bank also increased during the same period (28.00% to 34.00%). Furthermore, the policy rate fell from 2017 to 2018 (22.75 to 16.17) and the mortgage interest rate also fell during the same period. This illustrates the fact that the mortgage interest rate is dependent on the policy rate. Furthermore, the mortgage interest rate was always higher than the policy rate. The difference between the policy rate and the mortgage interest rate is based on the risk associated with the mortgage loan (Brealey and Miles, 1998).

In addition to the impact of the high and fluctuating nature of policy rates in the study area, the study also indicated the nature of the foreign exchange rate and its impact on mortgage loan lending in Ghana.

### 6.3.2 The impact of foreign exchange risk on mortgage lending in Ghana

Foreign exchange of the cedi to the major foreign currencies especially the US dollar carries a major influence on the property market and mortgage financing. This is due to the high and fluctuating foreign exchange rates of the cedi.

The study revealed that most estate developers price their properties in dollars or equivalent in cedis. This is done to avoid the loss in value of their capital used to construct the houses. Financial institutions usually pay for the properties on behalf of the mortgagors in dollars and must ensure that the value of the amount paid is maintained in other not to erode the capital of their investment. Households that accessed cedi loans indicated that in addition to paying high interest rates they also suffer seriously from the volatility of the foreign exchange rate. They argued that their monthly mortgage increases drastically when the cedi depreciates against the United States dollar. This is because their bankers adjust their deductions based on the percentage fall of the cedi against the USD and since their incomes are low, they are left with virtually nothing to spend on the other household responsibilities like food, clothing, and emergencies. One of the respondents stated as follows.

*My bankers informed me that due to the rise of the exchange rate my expected monthly deduction has risen above the 50% ceiling of my salary hence I have defaulted, and they are processing the default at the court for an order to sell my collateral property to defray the outstanding debt (Household, Akwadum Estate, SSI: 24/10/19).*

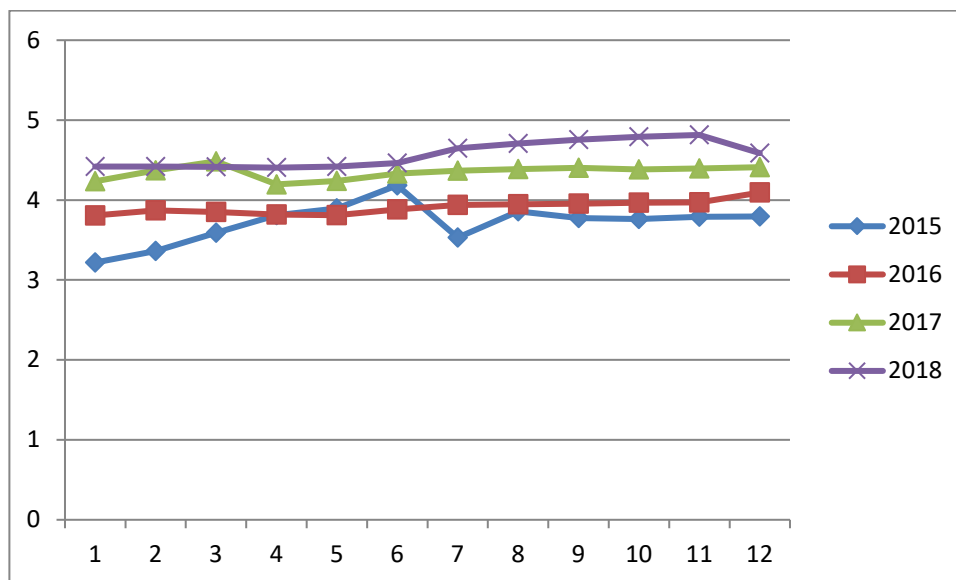
According to Levina and Zamulin (2002) institutions price their properties in dollars in countries that experience high inflationary rates. This is done to avoid regular adjustments of the cost when the foreign exchange fluctuates and allow prices of products to be stable for a considerable period. However, the laws of Ghana frown on the sale of properties in foreign currency. The foreign exchange Act, 2006 (Act 723) prohibits the pricing, advertising, and receipt or payment for goods and services in foreign currency. When the properties are priced in for instance dollars and demand for goods sold in dollars increases, the USD would continuously appreciate against the cedi.

The study however revealed that financial institutions must protect their capital investment from the volatility of the foreign exchange rate otherwise their capital would be eroded, and they would be bankrupt. One of the officials of a foreign mortgage institution stated that:

*We remit the funds that we generate to our parent branch abroad hence the value of the funds that we generate in Ghana is eroded or falls greatly when the exchange rate rises since they must convert more cedis to get a dollar (Official, Republic Bank, SSI:25/10/19)*

The uncertainty about the exchange rate throughout the loan term is considered as the foreign exchange risk (Diamond and Lea, 1995; Mishkin and Eakins, 2012). This is a great concern for mortgage financial institutions especially in Ghana where the fluctuation of the rate is high and serves as a disincentive to provide mortgage loans to households to acquire houses in the municipality to reduce the housing deficit. Foreign exchange rates from 2015 to 2018 in Ghana have been presented in Figure 6.3.

**Figure 6.3: Cedi - dollar exchange rate variations in Ghana**



**Source: Bank of Ghana (2019)**

Concerning Figure 6.3 above the highest exchange rate was in 2018 which increased marginally but consistently whilst the lowest was mainly in 2015 but fluctuated over the year. In between was that of 2016 which mainly increased marginally while in 2017 the rates both increased and fluctuated.

A quantitative analysis of the annual average foreign exchange rates presented under Appendix 3 revealed that the variations were significant and that the foreign exchange rate increased by 10% annually. This indicates that dollar loans to households should be discouraged. This is because though the interest rate on the dollar loan is relatively low the value of the loan would be increasing by an annual average amount of 10% which would be unbearable to most households and the banks would foreclose the mortgage transactions. Furthermore, it would result in high default rates which would affect the bank's cash flow especially when auctioned collateral properties do not yield adequate funds to pay the outstanding loan and interests. The dollar loan can however be given to households who earn income in dollars and would not need to convert cedis to dollars to pay a monthly mortgage.

During focus group discussions the representative of the banks explained that the determinants of foreign exchange volatility in the country are relative prices of foreign traded goods in the country. The relative increase in prices of traded goods in the country due to high inflationary levels increases the prices of the traded goods and therefore causes the cedi to depreciate. Again, preference of foreign goods against local goods in the country causes the prices of foreign goods to increase, and based on the theory of Purchase Power Parity (PPP) explained in Chapter 3 results in the depreciation of the cedi.

### **6.3.3 Ineffective foreclosure laws affect mortgage lending**

When a borrower defaults consistently on the payment of a monthly mortgage, the lender has a legal right under the mortgage contract and foreclosure laws to apply to the courts for an order to auction or dispose of the collateral property to defray the outstanding loan. Two out of the three respondents of banks interviewed were of the view that the courts delay in granting an order for properties to be auctioned when there is a default of payment of a monthly mortgage. The court tends to give the lender some time to pay the mortgage

to prevent the sale of the property. The study revealed that the intention of the Mortgage Act was not for the mortgagor to lose the collateral property but to obtain a loan from the financial institutions hence usually the lawyers request some time for their clients to be able to pay the outstanding loan so that they can maintain their houses.

During focus group discussions the representative for households argued that they always want to save the property from being sold since such properties are auctioned at low prices below the market price. The respondent of Ecobank however, indicated that usually, they are unable to sell the properties at the forced sale price provided by the valuers. She attributed the low prices of the properties to the fall in the prices of the collateral due to the long period of the foreclosure by the courts. The property should be auctioned early so that they can save the loan from accumulating more interest which would go against the borrower. It was also suggested that special courts like the commercial courts should always adjudicate forfeiture cases so that the process could be expedited to attract more investments into the mortgage sector.

Section 18 of the Ghana Mortgage Act 1972 (NRCD 96) focuses on the judicial sale and section 18 (14) provided that the sale or auction cannot take place until the expiration of 30 days after the date of the order. This means that depending on the value of the loan a minimum of one month interest would accrue on the loan to the disadvantage of the household before sale proceedings commence.

Diamond and Lea (1995) discussed that a legal system that provides, records, and enforces property rights encourage housing finance. In comparing three countries Mexico, Canada, and the United States of America, they stated that Mexican property rights have not been strongly supported by the legal system of the courts, hence the ability of lenders to enforce liens through the courts has been more expensive, time-consuming and problematic. The effects are higher credit risk premiums and scarce funds available for housing. However, the United States and Canada experiences have revealed stronger property rights and efficient foreclosure procedures that facilitate lending at high Loan to Value (LTV) ratios and all types of borrowers. Furthermore, expediting foreclosure and other penalties of default has been an effective means of reducing default rates and access to increased funds

(Van, 1990). Again, active resale and rental markets encourage governments to provide effective foreclosure laws (Diamond and Lea, 1995). The study also revealed that high credit risk also prevents most financial institutions from entering the mortgage market as considered below.

#### **6.3.4 The effect of credit risk on the provision of a mortgage in the New Juaben Municipality.**

Mishkin and Eakins (2012) discussed that credit risk depends on the provision of a loan to someone who is creditworthy and non-diversion of loan for unintended use.

The study revealed that the inability of households to present adequate information about their finances (debits and credits) makes it difficult to screen out bad applicants with bad credit risk from the good and make the banks record high default rates. The respondent of Ghana Home Loans revealed during a face-to-face interview that, personal data that the banks request are age, marital status, and the number of children. Again, information about personal finance that is requested are salaries, bank accounts, and other assets like insurance policies and cars. Additionally, questions about outstanding loans, number of years worked are also asked. However, since the said information is not usually made available to them it becomes difficult to access the creditworthiness of the applicants. He further stated that:

*There are no reliable credit rating institutions in the country to help us to identify the bad nuts from the good ones and this has generated high credit risk in our credit institution (Official, GHL Bank, SSI: 25/10/19)*

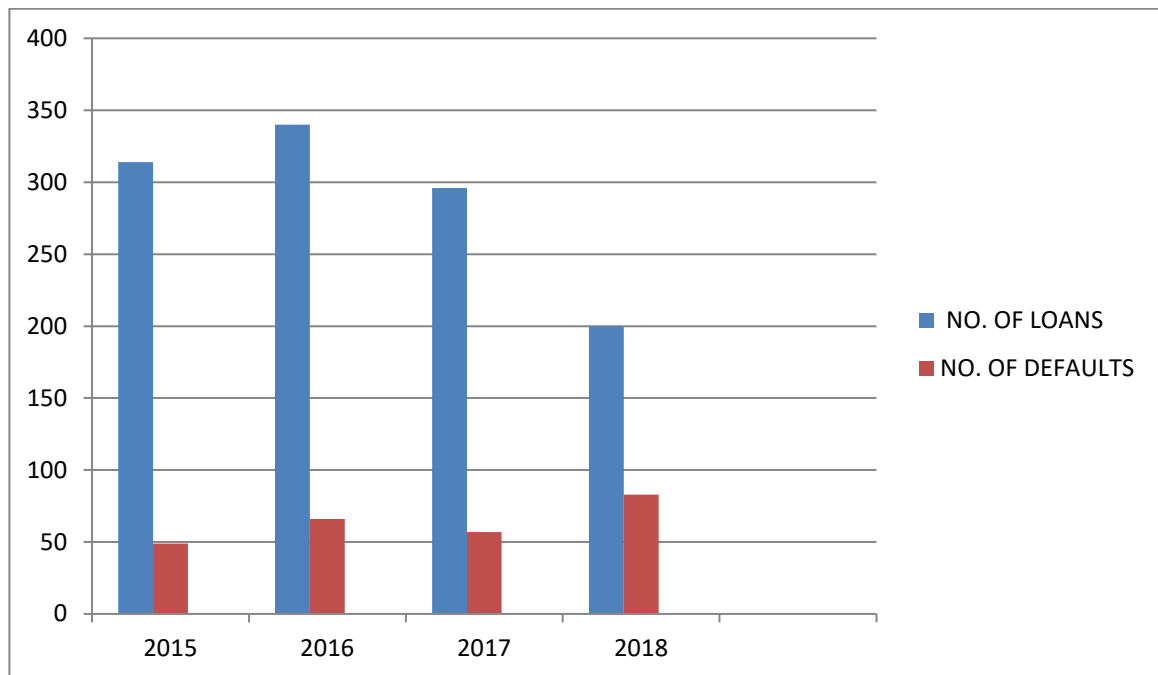
The Credit Reporting Act 2007 (Act 726) was enacted to mainly provide a framework for credit reporting. Section 24 of the Act requires financial institutions to present data on credits to credit bureaus within 72 hours of entering into credit agreements. However, most financial institutions do not comply with the act making data provided by the three credit bureaus (XDS Data Limited, Hudson Price Data Solutions Limited, and Dun and Bradstreet Credit Bureau Limited) unreliable (Ghana News Agency, 2018). For instance, in 2017 only 53% of the universal banks presented credit data to the credit bureaus and

only 23% of the Rural Banks did so. The reports that were released by the financial institutions were not reliable due to inconsistencies in the data presented (Ghana News Agency, 2018).

The representative of the financial institutions stated during focus group discussions that, to make the credit report credible and reliable, the Bank of Ghana must ensure the full implementation of the relevant act by imposing sanctions on the financial institutions that do not comply with the provisions of the Act. This would ensure reliable data on households' credit records and would reduce the risk associated with granting mortgage loans to attract more investments in the sector. Again, when credit risks reduce most financial institutions are likely to reduce their interest rate on mortgage loans to attract more household's especially low-income earners to access mortgage loans to acquire houses in the municipality. Households' respondents also indicated that the fluctuating and high cedi-dollar exchange rate also influenced the default rate. They were of the view that the rampant fall of the value of the local currency causes most mortgagors to default payment of monthly mortgage since their incomes were low. The respondent of the GHL Bank in Ghana presented the following records concerning their financial institution under Figure 6.4.



**Figure 6.4: Number of loans and defaults in the GHL Bank.**



**Source: GHL Bank (2019)**

Figure 6.4 indicates that though the number of loans provided decreased from 2016 (340) to 2018 (200) the number of defaults increased from 2017 (57) to 2018 (83). The increase in the default rate from 2017 to 2018 could be due to the high exchange rate rise from 2017 to 2018 indicated under the foreign exchange line graph shown in Figure 6.3. This was because as the Ghana cedi depreciates against the USD more cedis were required to pay the same monthly mortgage in dollars. However, since households' incomes remained relatively low, they were unable to get additional funds to pay the monthly mortgage.

A quantitative analysis of the mortgage loan defaults presented under Appendix 3 revealed that the variation in the annual number of defaults was significant. Furthermore, there was an annual average increase of 11 defaults from 2015 to 2018. The increase in the number of defaults serves as a disincentive for other financial institutions to give mortgage loans to households.

The study also revealed that to reduce the risk of default, financial institutions provide loans mainly to applicants who keep salary accounts with the banks so that the loans could be deducted from households' salary from source and the remainder released to them. Furthermore, the prospective borrower is requested to get two customers of the bank who have adequate funds in their accounts to guarantee the loan. Sometimes too employers, community leaders, and religious leaders can guarantee the loans.

The representative of households during focus group discussions however stated that though the above restrictions protect the lenders it serves as a disincentive to access mortgage to acquire more buildings in the municipality to mitigate the acute accommodation challenges in the study area.

On the other hand, the representative of Republic Bank raised the challenge that some of the households divert the use of the mortgage loans from the acquisition of houses to invest in their businesses. Some of these customers are not able to fulfil their obligations under the loans when the businesses fail. Hence to ensure that the purpose of the mortgage loan which is acquisition or development of houses is achieved the loan is deposited in the mortgagors account for a short period for it to reflect in the accounts before it is transferred to the developer's account for the house to be constructed or acquired.

During focus group discussions it was discussed that to reduce default risks both the mortgagor and mortgagee must ensure to implement the mortgage terms that have been agreed between them. Additionally, to reduce credit risk and encourage more investments in the mortgage market the insurance companies can insure mortgage loans. In Ghana, insurance companies are noted for insuring against fire of collateral properties and life assurance for mortgagors. Adding mortgage insurance would reduce credit risk, lower mortgage interest rates, and attract more investments in the sector.

#### **6.4 Conclusion**

It was realised from the field that households could afford to acquire houses using mortgage if they could meet the requirements of accessing loans and able to pay monthly mortgage throughout the mortgage period. The requirements of the loans presented in

previous sections were difficult to be met by households due to their low incomes, government monetary policies, and high prices of the houses. These factors made financial institutions charge monthly mortgage payments of 50% of households instead of the 35% which is generally recommended. The study further revealed that the payment of the monthly mortgage throughout the mortgage was difficult due to frequent changes of the interest and foreign exchange rates, cost incurred on frequent house maintenance works, high stamp duty payment, and high transportation cost especially for households who reside in areas like Nyamekrom, Adweso, and Akwadum estates. In addition to household affordability situations, financial institutions also indicated their challenges that do not attract more financial institutions to grant mortgage loans to households. These challenges were the high and fluctuating nature of the interest rate and exchange rates. The fluctuation nature of the rates posed interest rate risk and foreign exchange risk of losing the value of their capital explained in the previous sections. Furthermore, the inability of the financial institutions to obtain credit information about households, caused them to make an adverse selection of households who were not creditworthy and used the loan for unintended purposes. The activities of these households resulted in a high default rate which became unattractive to financial institutions to grant loans to households. Lastly, the long foreclosure period of mortgage loans provided in the Ghana mortgage act served as a disincentive for most financial institutions. The study revealed that the said law allows 30 days for the auctioning of collateral of defaulted loans. The long period of processing court orders causes the value of the houses to fall and the proceeds are not able to cover the outstanding loan. After accessing mortgage loans from the banks, households acquired houses from property developers. The activities of real estate developers that are associated with the supply of houses have been presented in the next chapter.

## **CHAPTER 7**

### **HOUSING DEVELOPMENT CHALLENGES IN NEW JUABEN MUNICIPALITY**

#### **7.1 Introduction**

Challenges have been raised by households and the Ghana government about the activities of real estate developers in the construction and sale (prices) of houses in the previous chapters. This chapter seeks to present data that relates to the construction activities of developers to be able to identify challenges associated with housing supply in the sample communities. It, therefore, seeks to consider the research question,

“What are the housing development challenges?”

Discussions made under this chapter are based on four key themes which are access to land and cost of land for housing development, labour cost and efficiency, accessibility to capital for development, and sales of houses to households. These themes were developed based on factors that determine supply under the demand and supply theory and the factors associated with establishing industrial estates in communities analysed by MacLennan (1982) under Chapter 3. The themes were developed because they constitute the factors required for housing construction and would help in the discussion on housing development challenges in the study area.

The chapter starts by considering the availability and cost of land for development by housing developers in the community. This consists of land acquisition, registration, and obtaining planning permits for housing construction in the study area. After getting access to land housing developers considered the labour force and building materials for the construction of houses. Additionally, the sources of capital for housing construction have also been discussed in the chapter. Data obtained on these factors of housing construction in the study area have been considerably discussed to identify the challenges that confront estate developers in their construction activities. The chapter ended up with factors that influenced the sale of houses to households in the study area. The analysis in this chapter

revealed the practices in each of the sample areas to form the basis of identifying challenges associated with housing development in the New Juaben municipality.

## **7.2 Accessibility and cost of land for development**

Land is considered one of the factors required for the construction of houses (Shapiro and Mackmin et al, 2019). In the study area, it was revealed by the representative of the Lands Commission that all the lands in the sample areas were stool lands and state lands. This confirms what was discussed under chapter 3 that lands in Ghana consist of stool lands, state lands, and family lands. He also emphasized that the mode of acquisition of these lands varies in terms of the type of land or interest that is being acquired or transferred. The respondent also stated that the deed registration system is practiced in the study area and the process of registration is based on the Land Registry Act 1962 (Act 125). Table 7.1 illustrates the mode of acquisition and registration of the lands used to develop the sample communities.

**Table 7.1: Land instruments and titles in the sample areas.**

<b>Sample areas</b>	<b>Developers</b>	<b>Land ownership</b>	<b>Land rights/ Interests</b>	<b>Term to developers/ Households</b>	<b>Acquisition instrument and date</b>	<b>Acreage</b>
Adweso estates	SSNIT & SHC	Government & private land.	Government lease/ freehold.	Government lease of 99 years to SHC/SSNIT 14/02/14.	Compulsory acquisition. (E.I.) 12 1961.	181.616
Effiduase estate (Sector 11)	SSNIT	Stool land vested in trust for New Juaben stool.	Government lease.	Leased to SSNIT for 60 years dated 2002.	Vesting instrument EI 196/1961 1/11/1961. Registry No. 982/2002.	28.42
Nyamekrom (Sector 19)	Managed by Lands Commission	Vested land	Government lease	Grant of 99/60 years leases	Vesting instrument EI 196/1961 1/11/1961	100.45
Old Estate	SHC	Vested land in trust for New Juaben	Government lease	99 years lease	E.I 196/1961 1/11/1961 Renewed 6/7/10	161.74 Acres
Akwadum Estate	Akwadum Estates	Vested land in trust for New Juaben	Government lease	Lands are provided to individuals/ institutions for 99/60 years lease	EI 196/ 1961 1/11/1961. Leased to Akwadum Estates on 5/4/ 2012	224.3
Betom (Sector 4)	Managed by Lands Commission	Vested land for New Juaben stool	Government lease		E.I. 196/ 1961 dated 1/11/1961	

**Source: Ghana Lands Commission (2019)**

The themes used for discussion under the section are the mode of acquisition of the land, registration of the property, and granting of a permit for development. These themes

became prominent during face-to-face interviews and focus group discussions with representatives of the Lands Commission, Town and Country Planning, estate developers, and households. The views expressed by the respondents of the estate developers are as follows.

### **Effiduase Estates land developed by SSNIT**

The mode of transfer of lands was based on relevant laws in Ghana as indicated under Table 7.1. The respondent of the Effiduase estates indicated that the Effiduase estates land was acquired by the Social Security and National Insurance Trust (SSNIT) from the Lands Commission of the government. The site was acquired to construct estate houses for the contributors of the pension fund. The initial purpose was to construct houses for their members to rent, to ease the accommodation challenges that were encountered at the time, and as a form of investment to generate revenue to the pension fund. The official stated that they decided to sell the properties since the outgoings such as repairs, maintenance, and property rates were higher than the rent that they collected.

The representative of the Lands Commission stated that the land is vested. Vested lands are lands managed by the government in trust for a stool. This means that the government manages the lands and collects ground rents on behalf of the New Juaben stool based on the Administration of Lands Act 1962 (Act 123). The Administration of Lands Act 1962 (Act 123) 7(1) states that *Where it appears to the President in the public interest to do so, the President may, by executive instrument, declare any stool land be vested in the President in trust and accordingly the President may, on the publication of the instrument, execute a deed or do an act as a trustee in respect of the land specified in the instrument.* Furthermore, section 7(2) presented that *Any money's accruing because of a deed executed or any act done by the President under subsection (1) shall be paid into the appropriate account for this Act.*

The Lands Commission respondent stressed further that, the 1992 constitution presented that leasehold interest should be granted from all stool lands including the Effiduase estate land. He stated that in Lands Commission, the acquisition of vested lands commences from an official application to the Lands Commission by an applicant. This can be done

either with an attached site plan or without a site plan. An application can be done with a site plan when the applicant has identified a vacant land on the planning scheme and would like to acquire it. The chairman of the Lands Commission would have to vet and grant the consent of the application before it is sent to the Lands Commission meeting for final approval. Once the approval has been given by the Lands Commission an approval letter would be written to the applicant to pay the development fee. The development fee is to take care of the provision of infrastructural services provided in the area. After the payment of the development fee, a title deed would be prepared for the applicant to sign. When this is done, the Lands Commission would also sign the transferor portion of the title deed to ensure that the transaction is executed. As stated in previous sections leasehold interest is provided to the applicant with the following leasehold terms:

- 1) The applicant is usually given 99 years for residential use or 50 years for commercial use.
- 2) The annual ground rent is also provided which is subject to upward review every 5 years.
- 3) The applicant cannot transfer the bare land unless it has been developed.
- 4) The property cannot also be mortgaged or sold without written consent from the Lands Commission.
- 5) The land must be developed within 5 years after acquisition otherwise the land would be taken from the applicant.

The respondent of Effiduase estate which was constructed by Social Security and National Insurance Trust (SSNIT) stated that as presented in Table 7.1, 60 years lease term was granted to their institution and they transferred the houses to the households at varied lease terms below 60 years. The total land area was 28.42 acres. However, SSNIT could not develop the entire land area, and based on the lease agreement signed with the Lands Commission, the undeveloped land was taken from them. The representative of SSNIT however, presented that, the lease term granted to them was very small considering the type of investment that they made on the land. He further stated that:



*After the expiration of the term which is currently left with 42 years, SSNIT must renew the lease term with the Lands Commission who are acting on behalf of the New Juaben stool so that they can also renew the lease between SSNIT and the households. If this is not done the Lands Commission can take possession of the estates after the expiration of the lease term (Official, SSNIT, SSI: 01/11/19)*

Where estate houses are leased to households, the property must revert to the landlord after the expiration of the lease term, unless the leaseholder renews the leasehold agreement for a further number of years. Furthermore, based on the lease agreement, households pay annual ground rent to the SSNIT. This ground rent increases every 5 years. The construction of estate houses on leasehold lands is similar in the United Kingdom.

In the United Kingdom, real estate developers construct houses on leasehold lands and assign the remaining interest in the land to households. The UK government, however, intends to ban the sale of leasehold houses assigned to households to avoid indiscriminately increase of ground rents by landlords to households. The government intends to encourage granting of freehold lands to households who acquire houses to avoid payment of excessive ground rents (Ministry of Housing, Communities and Local Government, 2019). After the land has been acquired it is the responsibility of the estate officer to register the land as discussed below.

### **Registration of the land**

During the face-to-face interview, the official emphasized that due to the numerous challenges with land ownership in the study area, land registration appears to be very relevant in the protection of rights held in the property. Again, registration of the land entices households to acquire the houses as without registration the property is not secured. Households could lose their lands if ownership is contested in court. The respondent further stated that registration helps in the easy transfer of their properties to households. This is because households can ensure easy transfer of title at the Lands Commission. Apart from securing interest in land, registration is required by financial institutions before mortgage loans are granted to households.

The representative of SSNIT however raised serious challenges with the registration process; these challenges are delays in the registration process as the process can take an average of one year to complete, again corrupt practices undertaken by the staff increase the cost of registration by 3 times the official fee and searches conducted at the Lands Commission reveals conflicting ownership of lands. The high cost of registration due to the malpractices of the staff and the delays in registration increase the cost of construction.

A representative of the Lands Commission indicated during a face-to-face interview that the Lands Commission Act 2008 forms the legal basis of the operation of the Commission. He stated that the main challenges with the registration process are the lack of adequate staff to undertake the duties in the Commission since the office processes all documents in the Eastern Region and that there are no district offices to support the work. Furthermore, the system was not adequately computerized and the physical transfers of files across the various divisions to be worked on also delay the registration process. Sometimes files get lost and get a thorn in the act of moving them among offices. If the records were kept in soft copies they could easily be transferred among computers.

Additionally, since the process is manual it encourages staff to demand bribes in the office before jobs are done whilst if it had been computerized applications could have been done online without the physical presence of the clients. Most site plans and indentures are not prepared well and often result in conflicting interests on the records at the Commission. This also causes delays as the parties must solve the problems before representing their documents for registration.

The above challenges are like what happens in Malaysia as developers and households must satisfy 55 different steps of a regulatory process which could take between five to seven years before they complete buildings on the property market. This increases to a large extent the risk in participating in residential real estate development (World Bank, 2005). Contrarily, in Bangkok, Thailand the registration process was simplified and the period for obtaining a planning permit and property registration was 100 days. This made residential construction attractive to investors and more houses were constructed at competitive prices. Again, in Mexico, the government realized that excessive land

regulations constituted about 25% of the cost of residential buildings and introduced reforms including the provision of financial and technical assistants to relevant states to computerize their land registration systems (World Bank, 2005).

The representative of the Lands Commission summarised the registration process as follows: The registration process is initiated when the title deed is presented physically at the Client Service and Access Unit (CSAU), where representations of all the divisions of the Lands Commission namely, Public and Vested Land Management Division (PVLMD), Land Valuation Division (LVD), Survey and Mapping Division (SMD) and the Land Registration Division (LRD) are gathered. After the presentation of the title deed, the document is forwarded to the LVD, where the applicant would be asked to pay stamp duty on the document. After payment, the document is stamped and sent back to the CSAU where the applicant would be given a letter to send to the Town and Country Planning Department (TCPD) or LUSPA for planning comments. The comment would be given to the applicant after payment of a fee to be sent back to the CSAU. The LVD, SMD, and Town and Country Planning offices are not on the same compound with the CSAU as one would have to travel to the various units or divisions. Only the PVLMD is on the same compound as the CSAU. If the planning comment is returned to the CSAU without any conflicting issues, then the document would be referred to PVLMD from the CSAU for plotting. If there are no conflicting issues at the records of PVLMD the document would be plotted and referred to the SMD for final registration and provision of a deed registration number. The applicant would be sent a text message to pick his registered document from the CSAU. If there are any challenges with the registration process the applicant would be sent a text message to visit the CSAU to rectify before the registration process could continue.

The above registration process relates mainly to family lands where freehold interests are usually provided. Where government land and stool lands (communal lands) are involved, additional requirements are needed. Households are required to apply for the government land at the Lands Commission so that when it is approved, a lease document would be prepared for them to go through the registration process provided above. Applicants are also expected to pay annual rents throughout the lease term. In the case of the stool lands,

the applicant requires consent and concurrence from the Lands Commission before the grant from the head of the stool could be confirmed. Once the consent is given a title document is prepared and the household would be required to sign his portion and have the document registered.

### **Granting of a permit for development**

After a developer has registered the title deed the next step is the preparation of a planning scheme to control the development of the area. During a face-to-face interview with a planning officer at LUPSA, he stressed that the planning schemes are usually prepared by the municipal office. However, it can also be prepared by the estate developer and presented at the municipal office for approval. The study found out that after the preparation of the planning scheme, development and building permits must be obtained before the property can be developed. According to the Local Assembly Act 1993 (Act 462) (1) “A physical development shall not be carried out in a district without prior approval in the form of a written permit granted by the district planning authority”. The planning officer stated that the relevant plans (building design or plan and layout plan of the land) are submitted at the local assembly for approval.

The respondent of Effiduase Estate stated that the planning scheme was prepared and submitted to the Town and Country Planning Department (TCPD) for approval. In addition to that, all the architectural drawings (building plans) were also submitted to the Town and Country Planning office for approval. The estate officer however stressed that the bureaucratic process of the granting of the permit delays the construction of the houses. A face-to-face interview with the planning officer revealed the following challenges that they encounter which result in delays in approving the plans.

The main challenges that the municipal planning office experienced were coordination among relevant government agencies to be able to prepare planning schemes. The Lands Commission (Survey and Mapping Division) provides base maps for the preparation of the schemes by TCPD. However, though the TCPD was also a government agency the Lands Commission charges high fees which were unbearable to the planning authorities. This resulted in the provision of limited planning schemes and uncontrolled developments

in the study area. He stated that since they (Assembly and Lands Commission) were government departments, they should coordinate their activities to ensure that schemes are prepared for relevant areas to make more lands available for development in the community. Furthermore, when developers present their building plans for approval, it was difficult to get all the 8 committee members representing various departments to vet and approve the plans hence the process for approving them delays. The delay in granting permits was confirmed by the developers and they presented that it reduces the development or supply of houses in the community. Dowall and Clark (1991) and Egbu and Antwi et al (2006) stated that the bureaucratic process of approving planning permits causes delay and creates a cost to the government and developers.

Another challenge that the Planning Officer stated was that most of the estate developers prepare the planning schemes but do not submit them for approval at the assembly. Furthermore, most of the estate developments have no development and building permits. Since they do not have enough staff to monitor the developments, they do it with impunity. Again, penalties for unauthorized developments were not deterrent enough hence, most developers do not build lands according to the planning schemes. For example, buildings were found developed on areas earmarked for roads and made accessibility to residential buildings difficult. Appendix 4 shows a site plan of a building that is partly situated on land earmarked for road construction. The effect is that buildings are erected on lanes earmarked for roads hence most households have no access to their houses.

The study also found out that after the planning scheme had been prepared, land surveyors are tasked to transfer what is on the map to the ground. The site is therefore demarcated according to the design on the map. After the various land uses have been set out on the ground, site, and services like roads, electricity, pipe-borne water, and telephones are usually provided according to the layout on the scheme.

#### **Adweso estates developed by SHC and SSNIT**

The representative of State Housing Company (SHC) revealed that the Adweso estates land was initially compulsorily acquired by the government for SHC. Since they could not develop the entire land, Lands Commission leased part of the land to SSNIT to

develop estate houses. The SHC was initially established by the government to construct mass social housing for households. However, in the late 1990s, the government converted it to a public company to operate without financial support from it.

Face-to-face interviews with the respondent revealed further that the government compulsorily acquired the SHC land from Adweso family landholders. Though the payment of compensation was not fully made, the land was released to the SHC to develop by the government.

The study revealed that the purpose of the Adweso acquisition was to get access to a large tract of land for the construction of houses for households. The State Lands Act 1962 (Act 125) section 1 provides that *Whenever it appears to the President in the public interest so to do, he may, by executive instrument, declare any land specified in the instrument, other than land subject to the Administration of Lands Act, 1962 (Act 123), to land required in the public interest; accordingly, on the making of the Act it shall be lawful for any person, acting in that behalf and subject to a month's notice in writing to enter the land so declared for any purpose incidental to the declaration so made. After the acquisition of the land, the former landowners must provide relevant title documents to claim compensation from the state as provided under Article 20 (2), Compulsory acquisition of property by the state shall only be under a law that makes provision for prompt payment of fair and adequate compensation for the owners of the land.*

Households in Adweso argued that the government took over the land without paying compensation to most of them. This made it difficult for them to engage housing contractors to construct their houses. If they were paid compensation for their lands, they could have used it to pay a deposit to access loans to acquire their own houses.

A respondent from the Lands Commission stated that the Lands Commission did not grant SHC a head lease due to the non-payment of compensation to the aggrieved original landowners. Since SHC did not get the head lease, they could also not transfer subleases to households who acquired the houses.

A respondent of households within the estate stated as follows:

*Since we acquired the property in 1997, we have not been given title deeds. We could therefore not register our houses and used them as collateral to obtain loans to pay for the property. We, therefore, relied on our meagre salaries and support from family members before we could pay for the property (Household, Adweso Estate, SSI: 02/11/19)*

### **Registration of the property**

The respondents of households presented that since they could not get any lease agreement from SHC and SSNIT they could not also register their houses. They emphasized that they could have lost their properties to third parties if it had been contested at the court. This was because they did not have access to legal documents indicating ownership of their houses. It was further revealed that SHC and SSNIT have not been able to collect annual ground rent from the households since they could not provide lease documents to the occupants. The households however stressed that the two real estate developers must endeavour to provide them lease documents so that they could register their houses to protect their interest and use same to obtain loans to pay their outstanding short-term loans with their respective banks.

Once the property has not been registered it cannot be used as collateral to secure mortgage loans from the banks. Furthermore, though the houses have been bought from the estate developers, there were no leasehold agreements between the households and the housing developers in terms of payment of ground rent and the lease term.

The respondents of SHC and SSNIT further stated that the issue has been discussed with the Lands Commission and every effort is being made to complete the acquisition process with Lands Commission and obtain relevant documents so that they could present title deeds to the households. This will enable households who acquired the houses to register their houses. Furthermore, the estate company could enter into lease agreements with households and collect ground rents from them.

### **Development permit**

The respondents of both housing developers however indicated that planning schemes were prepared and approved by the then Town and Country Planning Department before they commenced the construction of the estate houses. They further stated that development and building plans of all the houses were also prepared and presented to the planning authorities before construction of the houses. Copies of the planning schemes have been presented in Appendix 4.

### **The Akwadum Estates**

The Akwadum Estate is privately owned. As stated above under Table 7.1, it is a vested land and covers an area of 224.3 acres. The Lands Commission that manages vested lands granted the estate developer 99 years lease term effective 5<sup>th</sup> April 2012. A representative of the company stressed that they made serviced plots available for sale to households to construct their houses. The households must finance the construction of their houses. Once households secure loans from financial institutions they have a schedule of construction of houses from the substructure to roofing level to construct their houses for them. A copy of the schedule has been presented under Appendix 4. Households are granted 80 years leases and are expected to pay ground rents provided in the lease documents. They however encountered challenges with the natives of New Juaben stool over the acquisition of the land. Though they rightly acquired the land from Lands Commission since it was a vested land, the natives of the stool usually disturb them over the ownership of the land.

As stated under previous sections based on the Lands Administration Act 1962 (Act 123) 7(1), though the land belongs to the New Juaben stool, it was managed by the Lands Commission. Hence payment of the land is made to the Lands Commission, which then transfers the funds into New Juaben stool accounts through the Office of the Administrator of Stool Lands.



### **Registration of land**

Concerning the registration of the land, the representative of the housing estate stated that they registered the lease that they obtained from the Lands Commission before granting the leasehold land to households. The onus, therefore, lies on the individual households to register their lands with the Lands Commission to secure their interest in the lands.

### **Building permits**

The representative of the housing developer discussed that since they do not know the type of houses households would develop on their lands, households were expected to obtain their permits from the Town and Country Planning Department before the development of their houses. The housing developer emphasized that they ensured that housing development was done based on the layout to ensure that houses are not constructed on roads to allow residents to get easy access to their houses.

### **Betom and Nyamekrom settlements**

The study further revealed that both Betom and Nyamekrom settlements were vested lands. Lands were allocated to individuals upon application to the Lands Commission as presented under previous sections. Once the application is successful, a lease agreement is prepared for the households to access funds to construct houses. The household was entitled according to the lease agreement to pay annual ground rent which is subject to renewal every 5 years.

The household respondents in the area stressed that in addition to the ground rent that they pay to Lands Commission, they also pay the natives who are commonly called ‘Care Takers’ in the community a lump sum. This increases the cost of construction of the houses in the community.

### **Registration of Lands**

The study revealed further that, like the Akwadum Estates lands, individual households are entitled to register their lands after receipt of land allocation from the Lands Commission. After relevant title documents had been received from the Lands

Commission, households registered their lands by presenting the title deeds and going through the land registration process indicated under previous sections.

### **Planning permit**

Households interviewed in the two settlements revealed that they did not experience any challenges with obtaining planning permits for development. This was because the allocation was done by the Lands Commission, there were planning schemes covering the entire area making it easier for officials of the Town and country planning to identify the land uses in the area which facilitated the process of granting permits.

### **7.3 Availability and cost of labour and building materials.**

The cost of labour and materials are construction inputs for housing construction (Baye, 2006). The study revealed that labour cost constitutes 40% of the cost of construction while the cost of materials was at least 40% of the value of housing output. Due to the high amount of money that contractors spend on the inputs, they must be managed well to reduce the cost of construction as well as the price. This section considers the views of respondents on sources and labour cost of housing as well as sources and cost of construction materials in the study area.

Face-to-face interviews with the respondent of SSNIT revealed that they outsourced the construction activities to general contractors, hence they did not deal directly with the artisans on the site. Contractors only presented Bill of Quantities (BOQ) to them and after the documents had gone through tendering, money was released to the successful contractors to construct the houses. The role of SSNIT was to supervise the work and to ensure that the construction work was executed according to specifications presented in the BOQ. However, since they did not have adequate staff to supervise the work some of the jobs were not done well.

He stated that:

*I realised that an efficient plumber was not recruited to do the plumbing works. This resulted in several complaints by the households. Since they were major*

*works, it cost SSNIT a considerable amount of money to do the repairs since the contractor had been paid his entire contract sum (Official, SSNIT, SSI: 01/11/19).*

The study revealed that the labour force in the construction industry constitutes the site manager, contractor, site supervisor, and the workforce or the artisans who are in varied fields like plumbing and masonry. The site manager is the overall head or administrator of the construction contract. The responsibility of the manager is planning and implementing the contract, coordination of the labour force, and procurement of materials and services required for the project. It is also the responsibility of the manager to coordinate the numerous labour inputs, control construction resources like materials and plants and encourage efficient operations of the construction work. The general contractors are the technical leaders on the field who are contracted to undertake a project. They are directly responsible to the client and manage the entire construction activity. He controls all the technical workforce on the field to ensure that they perform their activities efficiently and according to the terms in the construction contracts.

Under the general construction contract operated by SSNIT, they did not have direct control over the selection and activities of the artisans. Since they could not supervise the work well the buildings were not in good condition leading to extra cost to the developers and households.

On the other hand, for Akwadum Estate, which is the only privately-owned housing developer in the municipality, their respondent emphasized that they engaged their specific artisans to construct the houses for their clients. They interview the applicants for employment and the successful candidates with their specific qualifications are employed in the company. The new artisans would be on probation for six months before they are granted permanent employment. During the probation period, they are trained to be familiar with their duties and assessed on the job training. Some of the artisans that they recruit are bricklayers, roofers, plant operators, glaziers, and carpenters. The others are painters, floor layers, welders, and plumbers. The challenge they realised was that most of the artisans were not well trained and inefficient to perform their duties well.

Egbu et al (2006) discussed that the availability and efficiency of tradesmen boost the building industry. However, shortage and inefficiency result in high construction costs especially if there is a high wage rate due to inflation. According to the Oxford Business Group (2017), the labour force in the construction industry in Ghana has suffered from a growing gap. The World Bank estimated that there was a shortage of 60,000 skilled artisans and tradesmen in Ghana. They further estimated that the sector employs only 2% of young people in the country. There is a need for the Ghana government to encourage technical education in secondary, tertiary, and universities.

In addition to the engagement of labour, a face-to-face interview with the respondent of the Akwadum estate revealed that the estate developer produces some of the construction materials that they used in their construction activities. The respondent stated that they produce concrete roofing and cement blocks that they used on the site. Additionally, fixtures and fittings, water closets, wash hand basins and showers, porcelain floor and wall tiles, as well as plastic T&Gs, were imported into the country. Other materials like cement, steel, and aggregates were obtained from the country. The respondents emphasized that the imported materials are expensive due to the high exchange rates and import duties. The high prices of the materials increased the cost of construction and the price of the houses. They further stated that some of the materials acquired locally were also expensive due to high inflation in the country and monopoly powers given to some manufacturers like those who produced cement. The main producer of cement in the country usually reduces the supply of cement which creates shortages and leads to high prices of cement in the country. According to Danso and Obeng- Ahenkora (2018) the main factors that determine the prices of building materials in Ghana are the supply of raw materials, the high cost of labour for its production, exchange rates, energy cost, quality, and local taxes.

The company also uses equipment like payloaders and excavators for earthworks and mixtures for mixing mortar and concrete. The use of equipment reduces the cost of construction, speeds up the construction process, and provides quality work. The respondent expressed that:

*The use of equipment in the construction of houses reduces the construction cost by 25%. This happens either the equipment is hired or owned by the construction firm. When the equipment is hired the housing company must buy gas oil, and the hiring cost is based on the number of days that the equipment is used. Whether the equipment is owned by a housing developer or it is hired the cost of construction is lowered compared to if the work was done manually (Official, Akwadum Estate, SSI: (04/11/19).*

The respondent further indicated that the challenge with the use of the equipment was that it was expensive since they were imported into the country. Maintenance cost was very high since the spare parts were also imported into the country. Most of the manufacturers of the equipment do not have agents in the country hence it becomes very difficult to get the equipment repaired when they break down.

Ghana News Agency (2014) discussed that 80% of local government contractors do not complete their projects on schedule due to their inability to acquire and use machinery. He further emphasized that due to the high cost involved in acquiring machinery, most contractors in Ghana purchase 10 to 15 years old machinery at auction in Europe and other developed countries without access to spare parts. Furthermore, the study revealed that the construction industry is labour intensive and associated with low technology compared to other sectors like communication. The use of low technology in the construction industry increases costs and delays the construction of houses.

The respondent further stated that:

*To encourage contractors to be able to maintain and service their equipment, the government should equip the Koforidua Technical Institute with training equipment and experts to train personnel on how to repair relevant equipment in the study area and generally in Ghana. The government should present enabling environment to attract companies that produce such equipment like payloaders and excavators to establish their agents in the country to ensure easy access and maintenance of the equipment at reasonable prices. The producers could provide*

*after-sale service so that it can be repaired any time it breaks down (Official, Akwadum Estate, SSI: (04/11/19).*

Additionally, the Old estate was constructed by the State Housing Company. The respondent of SHC stated that they were constructing new houses. The structures were constructed up to roofing level and sold to households to complete the development. They realised that the completed houses were expensive for households to acquire, hence they developed uncompleted houses which were at a relatively low price that households could afford so that they could complete at their own pace with their funds. Again, they engaged general contractors to construct the uncompleted houses according to the BOQ prepared for them. The contractor constructs the uncompleted houses based on the BOQ and adds the profit margin. In addition to the housing contractor's profit, SHC also adds another profit margin. This results in charging double profit and increase the price of the houses. The SHC respondent stated further that:

*We realised that outsourcing the construction of the houses to general housing contractors results in charging double profits and increases the price of the houses. We, therefore, intend to engage our artisans to construct the houses so that the prices would be reduced by the margin of the percentage charged as profit by the general contractor (Official, State Housing Company, SSI: 05/11/19).*

Table 7.2 indicates a summary of the costing of a two-bedroom uncompleted house at 70% level of completion showing double profit presented by the SHC respondent.

**Table 7.2 Price estimation of a two-bedroom house in SHC at New Juaben**

**Municipality**

<b>Details</b>	<b>Amount (GHC)</b>	<b>%</b>
Land Cost	16,000.00	7
Cost of Construction	161,714.30	65
Profit of Contractor	32,000.00	13
Profit of Estate Developer	38,000.00	15
Price of the House	248,993.59	100

**Source: Fieldwork (2019) (USD: GHC5.4, 2019)**

Table 7.2 revealed that by engaging a general contractor by the estate developer, the price of the houses increased by 13%. This percentage could be avoided by engaging specific contractors and artisans to construct the houses. This can however be achieved if there are standard rates for the artisans so that the rates would be directly applied to the hours that they work, and the estate company should also have adequate staff to supervise the work to ensure that they can implement what had been presented in the BOQ. Furthermore, as stated in previous chapters, the Adweso estate is owned by State Housing Company and SSNIT. They shared common boundaries.

#### **7.4 Sources of capital for housing development**

According to Lam and Chiang et al (2011), the main sources of capital for housing construction are pension funds, mortgage loans, stocks, and bonds. These sources of funds have varied characteristics in terms of requirements for accessing them, repayment methods, and cost of capital. In the study area, the housing developers accessed different sources of capital for housing development as follows.

Face-to-face interviews and focus group discussions in the study area revealed four main sources of housing development used by the developers in the sample area. These were retained earnings, pension funds, mortgage loans, and alternative sources of finance. Views expressed by respondents of the estate developers have been illustrated under Table 7.3.

**Table 7.3: Source of financing of real estate development in the sample areas**

<b>Sample areas</b>	<b>Sources of finance</b>	<b>Cost of capital</b>	<b>Requirements for accessing funds</b>	<b>Quantum of funds that can be assessed</b>
Adweso	Pension fund / Internally Generated Fund (IGF)	No direct cost of capital	No requirements	Large/Small capital
Effiduase estates	Pension fund	No cost of capital	No requirements	Large amount
Nyamekrom	Mortgage Loans/ Alternative sources of income	High Cost of capital/ Low cost of capital.	Difficult requirements for accessing mortgage loans	Large /Small amount.
Old estate	Internally Generated Fund	No cost of capital	No requirements	Small amount
Akwadum	Pre-finance by households.	High / Low cost of capital.	Difficult requirements for accessing mortgage loans	Large/ Small amounts.
Betom	Pre-finance by households.	High Cost of capital for the mortgage loans. Low cost of capital for alternative sources of income.	Difficult requirements for accessing mortgage loans	Large amount for mortgage loans and a small amount for alternative sources

**Source: Fieldwork (2019)**



The respondent of the SSNIT flats at Effiduase and Adweso presented that, the pension fund was used to finance the construction of the estates. Since it was a pension fund without the direct cost of capital the project was executed at a relatively low cost and sold at reasonable prices to households. This confirms Akuffu (2007) description of the SSNIT housing project as a 'social housing' one due to its relatively low prices. The respondent further stated that, since the pension fund is a long-term contribution, it is appropriate for financing the construction of houses which is also long-term development. Since the pension fund is a long-term fund and is not withdrawn over short periods by contributors it is available in large amounts for the development of many houses. However, in the late 1990s since contributors who were retired increased, coupled with a high maintenance cost, SSNIT halted the construction of the houses. This view is however contrary to that of Akuffo (2007) who gave the reasons for SSNIT stopping the construction of houses to high prices of building materials due to high inflationary rates in the country.

To encourage the use of pension funds to finance housing development, the government of Ghana under the Ghana Pension Act 2008 presented that, it would encourage the contributions under the Tier 2 pension scheme to be used by contributors to pay a deposit to access mortgage loans from banks. This provision has however not been implemented by the government.

Though pension fund is associated with low cost of construction and house prices, it has not been adequately utilised by SSNIT in the study area. This is because they could not develop the entire tract of land that they acquired in the study area. In the Central and Eastern European countries where most of their social housing buildings were sold to the sitting tenants, the government encouraged the households to use the houses they had acquired as mortgage to finance more buildings in the community (Stephen, 2015), and this can be adopted in the study area. This would help SSNIT diversify its investment portfolio as was done by the USA when they introduced the Employee Retirement Income Security Act 1974 (ERISA) which entailed investment in real estate and diversifying its pension fund investment portfolio to reduce the risk of pension fund investments.

Contrary to the use of pension fund the State Housing Company used the internally generated fund to construct estate houses in the New Juaben municipality. A face-to-face interview with an official of State Housing Company (SHC) revealed that since the SHC was converted to a public company, its main source of funding had been an internally generated fund. The respondent revealed that their internally generated funds consisted of the ground rent that households or lessees pay to the company. Further, they generate revenue from the renewal of leases and fees from approvals for extensions to existing developments.

The official of State Housing Company stated during an interview that:

*Though the amount generated is not much it is used to develop properties that are affordable to most households in the municipality. Since the source of capital is limited, we are unable to construct a large number of houses as was done when the government financed the construction of the houses. The meagre amount of capital is used to construct uncompleted houses for households. (Official, State Housing Company, SSI: 02/11/19).*

The internally generated fund was used to pre-finance developments in stages for the applicant to pay. The official stated that SHC uses the funds to develop the property initially up to the lentil level then they assess the work done and sell the uncompleted structure to households to buy and pay lump-sum funds. Households then complete the building at their own pace. The motive was that the uncompleted structure was of a lower price than a completed one so that it would be affordable for households to pay. The State Housing Company is partially pre-financing construction of uncompleted houses in its extension site in Old Estate. The SHC respondent stated that:

*Since we do not access loans with interest from the banks, our properties are relatively lower than the private developers in the municipality. Again, because we sell uncompleted houses the structures become affordable to households. Though it takes some time for them to acquire the uncompleted structures, we do not lock capital in them for long period (Official, State Housing Company, SSI: 05/11/19).*

The developers in the remaining sample areas like Akwadum estates, Nyamekrom, and Betom mostly relied on mortgage loans. Households in Akwadum estate, Nyamekrom, and Betom access mortgage loans and other sources of financing (alternative housing financing) to acquire partially serviced bare lands from landowners or estate developers and self-finance the construction of the houses. This form of construction is referred to as incremental or progressive development. The study revealed that the main sources of funding under the incremental development were short-term loans (usually paid within 3 years) from the banks, support from families living abroad, loans from corporative unions, and part of households' monthly incomes. This form of housing financing appeared favourable to households interviewed in the sample areas. They presented that under the type of housing financing, construction was done at their own pace dependent on the availability of funds and they were free from the stress of payment of monthly mortgage loans. They stated further that with the mortgage loans, non-payment of the monthly mortgage could lead to forfeiture for them to lose their houses. Furthermore, their meagre salaries, as low-income earners do not qualify them to access mortgage loans. They however stated that since the sources of capital were not reliable and usually inadequate it took a long period like 15 years to complete. Additionally, the high interest rate charged on the short-term loans made it difficult for them to complete payment of the loans. The trend of the policy rates of the country from 2015 to 2018 was presented under previous sections. It indicated high policy rates which influenced interest rates charged by the banks. This is because the interest rates of the loans were indexed to the policy rates.

### **7.5 The nature of sales of properties**

The study revealed that the sale of houses was a great concern of housing developers since they wanted to avoid locking up their capital in the houses constructed for a long period. The presentation of the views of participants was based on the themes that determine the sale of houses to households presented by Geltner and Miller (2001) and Fernando and Kaluthanthri (2015). The main factors that influenced the sale of houses in the sample communities were the location of the houses, taste, and preferences (variety of sizes and finishes), availability of infrastructure facilities, and pricing strategies presented under Table 7.4.

**Table 7.4: Factors that influence the sale of houses in the study area.**

SAMPLE AREAS	LOCATION	SIZES	PRICE	Amenities
SSNIT	Far from CBD. Daily transport cost of GHC 50	250 sq. m. Two-bedroom (B/R)	GHC400,000	Tarred roads, electricity, pipe-borne water, telephone
AKWADUM ESTATE	Far from CBD. Daily transport cost of GHC 60.	300 sq. Two- B/R detached houses	GHC300,000	Tarred roads, electricity, pipe-borne water
ADWESO ESTATE	Far from the city centre. Daily transport cost of GHC 60	1) 350 sq. m. 3-B/R 2) 250 Sq. m. two- B/R houses	GHC420,000  GHC400,000	Tarred roads, electricity, pipe born water, telephone
BETOM	Close to the city centre. Daily transport cost of GHC 30	0.23-acre serviced land	GHC 350,000	
OLD ESTATE	Close to the city centre. Daily transport cost of GHC 40.	1) 150sq. m. single B/R 2) 250sq. m. two-B/R 3) 350sq. m. three- B/R 4) 350sq. m detached uncompleted houses	GHC 250,000.00  GHC350,000  GHC450,000	Tarred roads, electricity, pipe-borne water, telephone.
NYAMEKROM	Far from the city centre. Daily transport cost of GHC 60.	0.23-acre Serviced land	GHC 70,000	Lateritic roads, partial electricity, no pipe-borne water, and no telephone

Source: Fieldwork (2019)

Table 7.4 indicates factors that determined the sale of houses expressed by respondents in the study area. The factors have been presented as follows.

### **7.5.1 Location of the houses.**

The study revealed that one of the main factors that households considered in acquiring houses in communities was the location. This was considered especially with distances from the city centre where most household jobs were located. There were several views expressed by both housing developers and households on the location of houses in the study area. The study revealed that most of the developers sited their estates in areas that were far from the city centre. The developers were of the view that the houses were developed in those locations since there were no available lands close to the city centre. There were no large bare lands in the areas that have easy accessibility to the city centre. Additionally, developers stressed that prices of the few lands were very expensive about 4 times higher than those at the outskirts of the municipality which their target population in the community could not afford since they were mainly low- and middle-income earners. They stated that while prices of lands within the city centre was selling between GHC120,000 and GHC150,000 per plot of 0.23 acre, it was between GHC30,000.00 and GHC40,000 (£; GHC6.1, 2019) at the outskirts. Respondents who raised this challenge were from Akwadum estates, Adweso estates, Nyamekrom, and Effiduase estates. Due to the long distances from the city centre, households were reluctant to acquire lands and houses in areas like Nyamekrom, Akwadum Estates, and Adweso. They indicated during face-to-face interviews and focus group discussions that they commute long distances from the estates to the town centres not only to work but also to market centres. They were of the view that most of the estates did not provide commercial centres in the estates and hence they had to travel long distances to the city centre to shop. This challenge seriously affected those who did not have their private vehicles and had to wait at the roadsides for long hours before they could board vehicles to the city centre where their jobs were located.

According to MacLennan and Miao (2017), creating land banks help developers get easy access to land at varied locations for development and reasonable prices. Lands could be bought and reserved for future development. Developers could buy lands at varied sites for future developments. Since the area may not be developed at the time of acquisition

the price would be relatively low and the developers could develop houses at a relatively lower price when the area develops.

The transportation challenge was confirmed by the developers who stated that the transportation cost of commuting from the estates to the city centre where their prospective clients work, was also very high. This was raised by developers of the Adweso estate, Effiduase estate, Nyamekrom, and Akwadum estate whose estates were far from the city centre and there was no reliable transport at reasonable cost to the city centre. A representative of the Akwadum estate stressed that:

*Due to the location of my estate, most of the properties have not been bought. Most prospective buyers are attracted to buy when they hear about the advertisement that we made on the radio but when they inspect the site, they were not attracted to buy the properties, mainly because of the location and the fact that there was no reliable transportation at that part of the municipality (Official, Akwadum Estate, SSI:4/11/19).*

In the Greater Accra region, the government engaged the services of Scancom Transportation Company under the government Public-Private Policy (PPP) to provide about 265 buses to ply the outskirts of Accra to the city centre (Ghana News Agency, 2017). This has made it easier for people living on the outskirts of Accra to commute easily to the city centres. Prices of houses at the outskirts of cities are relatively low and attractive to households especially if public busses are available. The transportation problem was however not experienced by residents in Betom and Old Estates. This was because they could walk to the city centre to their workplaces and market centres which were close to their houses. One of the households was of the view that:

*I moved from Nyamekrom to settle at Betom due to the challenges that I experienced with transportation. There was no reliable transport in Nyamekrom, and the transportation cost was also very high. I could not cope since the transport cost took a large portion of my salary and I was always late to my workplace which was at the city centre (Household, Betom, SSI: 4/11/19).*

### **7.5.2 Pricing of houses**

Price is very important in the acquisition and sale of goods including houses (Baye, 2006; Horngren and Bhimam et al, 2002). It was one of the main factors that determined the acquisition and sale of houses in the study area.

The respondent of the State Housing Company emphasized during a face-to-face interview that, since they engaged general contractors, they charged super profit which increased the prices of their houses as presented under previous sections. This affected the sale of their houses and they locked their capital in the unsold houses for a considerable period.

Similarly, SSNIT engaged general contractors to construct their houses thereby making the cost of construction quite high. However, as stated in previous sections, since they used pension funds with low cost of capital, their prices were relatively low. Additionally, since SSNIT offered households good terms of payment of 6 years it attracted households to acquire their houses. Akwadum Estate, Betom, and Nyamekrom settlements did not experience the charging of the double profits as artisans were engaged directly to construct the houses. This contributed to the relatively low cost of construction of their houses. As stated under Chapter 3 the higher the price of the property the lower the demand. This is because as prices reduce households can use the available income to buy more of the commodity. Again, if the price is low, they can substitute a portion of household income to buy more houses. This is referred to as the income and substitution effect (McGuigan & Moyer et al, 2004; Baye, 2006).

### **7.5.3 Size and style of houses**

The study also revealed that another challenge that did not attract households to acquire houses and caused developers to lock up their capital in houses for long periods was due to the construction of one size or type of houses in the estates. Households interviewed in the study area revealed that they were not given options to choose from, based on the sizes of their families, their levels of income, and the style or design of the houses. They stated that providing varied sizes of houses allows them to acquire appropriate houses for the

family. Provision of single-bedroom, two-bedroom, and three-bedrooms indicated under Table 7.4, could attract varied households in the estates to acquire houses. Observation of the estates in the New Juaben municipality revealed that Effiduase estate was only high-rise buildings with two-bedroom semi-detached houses. These blocks of houses will not be convenient for older people in the households and would not attract them to acquire the houses. Pictorial view of Effiduase estate has been presented under Figure 7.1.



**Figure 7.1: Pictorial view of Effiduase estate constructed by SSNIT.**



**Source: Fieldwork (2019)**

The Effiduase estate has only one type of housing structure which does not give options for households to choose based on their income, family size, and design. The high-rise buildings without escalators contained two-bedroom semi-detached flats. This means that single households will not be attracted to acquire two-bedroom houses. The representative of the SSNIT estate however stressed that the design of the houses (storey building to use less land area, semidetached rooms) was made to reduce the cost of construction so that the price would be affordable to most households to attract them to acquire the houses.

One of the factors of demand for goods and services is the taste and preference of households. Providing varied products meet the demands of many households thereby increasing the demand and sale of houses. Despite the good terms of payments made

available by SSNIT to households they should have made available varieties of houses for households.

The situation was however different in the Old estate. The respondent of the Old estate developers stated that when they started their estate construction, they made provision for varied households. The houses that they developed were of varied sizes, semi-detached, and detached buildings. The buildings were mainly single-room en-suite houses, two-bedroom houses, and three-bedroom houses at varied prices. The semi-detached houses have relatively low prices for low-income earners whilst the single bedrooms met the demand of single households. This gave options for different income earners and households to acquire the houses to increase their sales levels so that more houses could be constructed in the study area.

#### **7.5.4 Provision of infrastructural services**

The provision of infrastructural services is usually responsive to demand (Fernando and Kaluthanthri, 2005; Shapiro & Mackmin et al, 2019). Though prices of houses are higher in areas where there is adequate provision of infrastructural facilities like good road networks, pipe-borne water, and electricity, households turn to acquire more of those houses (Geltner & Miller, 2001). The study revealed that the main infrastructural facilities that attracted households to acquire houses in the study area were well-maintained tarred roads and streets, electricity, and pipe-borne water. These facilities are required because they are complementary goods and are used with houses in the community.

#### **Provision of access roads in the estates**

Face-to-face interviews and focus group discussions revealed that the construction of tarred roads and streets, as well as maintenance of the same, was a difficult task for housing developers. Personal observation of the industrial estates' site revealed that, apart from Effiduase estate that had a well-constructed and maintained roads and streets network (shown in Figure 1), the other five sample areas had challenges with their road networks. Face-to-face interviews with households however revealed that they are attracted to neighbourhoods that have tarred roads. Most households interviewed

preferred to acquire houses in neighbourhoods with a good network of tarred roads even if the prices are marginally higher than those without good roads. World Bank (1993) presents that the cost of serviced plots or houses is usually higher than non-serviced sites by 10 to 15%.

The representative of the Effiduase estate stated that the road network within the estate and surrounding areas are tarred and well maintained. The roads were well constructed and have not seen any major maintenance since the construction of the estate began about 20 years ago. He was of the view that, the good, tarred roads and the provision of spacious free car parks attracted households to acquire the houses. Personal observation also revealed that the area had a good layout with adequate roads and streets that provide easy access to the block of houses. The estate officer emphasized that since the apartments were constructed mainly for their members the cost of the construction of the roads was considered in the pricing of the property. The respondent added that since about 90% of the houses have been sold the maintenance of the roads was mainly done by the landlord association with support from the developers. There was however no specific agreement with the households concerning the maintenance of the roads.

Contrarily, in the case of Old estate, the condition of the road network was generally bad. Personal observation revealed that the streets were in a poor condition. There were several potholes on the streets that made driving very difficult. The households interviewed in the area stated that when the houses were initially acquired about 50 years ago the condition of the roads and streets were very good and that attracted them to acquire the houses. The road did not have any major maintenance work and have deteriorated. The respondent expressed the view that it required reconstruction. The road network at the western part of the estate however is quite good with isolated potholes. A face-to-face interview with the respondent of the housing developer concerning the nature of the road revealed that the company was not responsible for the maintenance of the road network.

He stated further that:

*The housing company made a provision in the lease agreement that they were not responsible for the maintenance of the road. It was categorically stated in the*

*lease agreement that the maintenance of streets was not the responsibility of SHC. It was recommended in the agreement that households could contact the municipal assembly for assistance to maintain or reconstruct the roads (Official, State Housing Company, SSI: 02/11/19).*

The estate officer indicated that the condition of the roads had affected the sale of the new developments as it took a relatively long time for them to get buyers. To prevent the occurrence of the current problem of maintaining the streets, they provided in the new lease agreement that the households were responsible for the maintenance of the roads.

The road network in the Adweso estate was like that of the Old estate. Personal observation of the Adweso estate revealed that about 70% of the road network was in deplorable condition. A picture of the road condition has been presented under Figure 7.2.

**Figure 7.2: Pictorial view of the state of Adweso estate roads**



**Source: Fieldwork (2019)**

The surface of the streets and roads presented under Figure 7.2 had developed potholes and made it difficult for households in the area to use their cars. During my fieldwork, the car that I drove to the area got stuck in a gutter that had developed in the middle of the road. The study further revealed that the road was initially good and attracted high demand for the houses, however since it recently deteriorated, the sale of houses has reduced. He further stated that no arrangement was made in the lease agreement concerning the maintenance of the roads. However, the Urban Roads Department under the municipal assembly has been contracted to help in the maintenance of the roads. The respondent of the Adweso estate stressed that:

*No provision was stated in the lease agreement concerning the maintenance of the roads. The onus lies on the households to maintain the streets since they are the regular users and the estate developer had no current interest in the landed property as the houses have been transferred to the households (Household, Adweso Estate, SSI: 02/11/19).*

During focus group discussions it was revealed that developers should consider how they could manage the construction and maintenance of roads and streets before they commence new developments so that it does not pose problems after all the properties have been sold.

Furthermore, in the Adweso estates, the housing developers' (SHC and SSNIT) respondents stated that they had not done any extension work in the area. Households who owned houses in the community expressed that it was very difficult for them to sell their houses due to mainly the nature of the roads. The houses in the area have been unattractive to buyers and the values of the houses had fallen drastically. The two-bedroom semi-detached house which was previously sold between GHC 500,000 and GHC600,000 about 3 years ago when the road was in good condition is currently sold between GHC 450,000 and GHC400,000 (About 20% decrease) when the road deteriorated. The respondent of the estate developers admitted the drastic fall in the prices of lands and houses in the area and explained that it could affect the prices of houses that they will develop in the future.

Additionally, the roads and streets in Nyamekrom and Akwadum estates neighbourhoods were observed to be lateritic surfaced (not tarred). Though the communities had planning schemes indicating roads and other land uses, most of the streets had not been set out or constructed. The respondent of the Akwadum Estate indicated that it was very expensive for them to construct the roads that were the reason why most of the roads were covered with weeds. The Nyamekrom settlement was managed by the Lands Commission and the respondent explained that they only allocate the land to households to develop and provide lateritic surfaced roads and streets and rely on the municipal assembly and the Ministry of Urban Roads to tar the roads. Though they charge the households development fee of GHC 10,000 cedis it is only to provide the lateritic surfaced roads for households to gain access to their houses but not to tar the roads. Only a few houses were seen in the area since the area had not been attractive to households to acquire and build in the area. In Betom settlement, which is the nearest to the city centre, the Lands Commission respondent expressed that there were no problems with roads in the area as most of the roads and streets are tarred. The respondent explained that due to mainly the provision of tarred roads in the area the place is fully developed, and households demand for serviced lands is very high even with the fact that ground rents in the area are high.

### **Provision of utilities**

As discussed under Chapter 6, the provision of utilities like pipe-borne water and electricity in the sample housing estates and settlements in the New Juaben municipality was inadequate. This did not attract households to acquire houses in some of the estates and settlements.

Face-to-face interviews and focus group discussions revealed that SSNIT estate, Old Estate, Adweso estate, and Betom had ample supply of utilities like pipe-borne water and electricity. These estates, therefore, experienced relatively high patronage compared to the Nyamekrom settlement and Akwadum estate. In Akwadum estate and Nyamekrom, housing estates respondents presented that, they could not extend these facilities to their areas due to the associated high cost from the nearest point of supply. The longer the distance the higher the cost and since their estates were very far from the source of supply,

they could not afford to extend the utilities to their estates. The respondent from Akwadum Estates stated that:

*When we applied to Water Company for the water services to be extended to our estates, an officer from the utility company came to access the cost and it consisted of cost for excavation of the earth for 2km, cost of PVC pipes and accessories to connect the line over the 2km distance, the labour cost of two staffs who would undertake the exercise and the cost of extension of the line. The total cost was unbearable hence we suspended the project. (Household, Akwadum Estate, SSI: 03/11/19).*

As discussed in previous sections, the Land Pooling and Readjustment Programme (LPRP) was adopted by countries like Australia and Japan to improve the infrastructural situation in the countries (World Bank, 1993). It entailed the provision of infrastructural facilities in an area before the development of the land. A loan was obtained from the banks for the development of the infrastructure. After the provision of the infrastructural services on the land, the value of the land was appreciated to the level which covered the value of the original land without services and the loan that was taken from the bank. The bank loan was therefore paid, and the serviced land developed into houses for sale. The LPRP can be adopted in the study area since houses have no substitute and have inelastic demand. Hence, if the price of the houses increases due to the bank loan, households would still acquire the houses once the necessary infrastructure services have been provided. After the houses have been sold the loan component on the price of the property would be deducted to pay the loan.

## **7.6 Conclusion**

The chapter discussed the challenges experienced by estate developers in the supply of houses in the communities. The study revealed that the challenges of housing developers were mainly associated with land acquisition and registration, availability and cost of labour and construction materials, access to capital, and challenges associated with the sale of the houses.

The chapter identified challenges that housing estates encounter in the acquisition of land for development. The ineffective implementation of the government compulsory acquisition process in the acquisition of the Adweso estate land did not enable the housing estates to grant title deeds (lease agreement) to households who acquired their houses. This did not permit the housing estate to demand ground rents from the households and provide the lease term of the transfer. It was also realised that housing developers who acquired vested stool lands made double payments for the lands. The study revealed that housing developers paid money to Lands Commission who were the legal trustees and to the natives of the land who were the beneficial owners of the land. The double payment of the said land increased the cost of construction and made it difficult to construct more houses in the community. The land registration system was also found to be ineffective as registration of lands delayed at the Lands Commission. The process of granting a permit to housing developers was bureaucratic and delayed the provision of planning permission to housing developers. The delays in land registration and granting of permits adversely affected the commencement of housing construction projects in the communities.

Furthermore, there were challenges associated with the engagement of general contractors and specific contractors. Housing contractors who engaged general contractors experienced the charging of double profits which inflated the prices of the houses and resulted in low sales to the developers. Housing developers who engaged specific contractors revealed that there were inadequate artisans and most of them were inefficient due to lack of technical schools to train more housing labour force.

Additionally, access to capital was identified as a major problem experienced by housing developers. The main sources of capital were pension funds, internally generated funds, mortgage loans, and other alternative sources like short-term loans from the banks, reliance on monthly incomes, and support from family members especially individuals who self-financed their housing projects. Though the pension fund source of capital was associated with low cost of capital, the problem of the high demand of pension fund contributors leads to the suspension of construction of houses in the study area. The internally generated fund also had a low cost of capital however, the capital generated for the construction of the houses was meagre which could only construct few uncompleted



houses for households to acquire and complete themselves. The use of mortgage loans had unbearable requirements and was associated with a high cost of capital which increased the cost of construction. Though the alternative sources of income allowed the households to self-finance the construction of the houses, it was not reliable and caused the construction of the houses to last for a considerable number of years usually about 10 to 15 years.

The last challenge of housing developers that was discussed related to the long period that it took housing developers to sell the houses after construction. It was revealed that the factors that determine the sale of houses were the location of the houses with the distance from the city centre. There was high demand for houses closer to the city centre due to easy access to jobs and markets which were mostly located in the Central Business District (CBD). Furthermore, the pricing of the houses determined their demand. Houses that were associated with high prices did not attract households to acquire. Additionally, housing developers that constructed varied types and sizes of houses attracted high demand since households of varied sizes and incomes were able to choose what they could afford or liked. Lastly, some of the housing developers could not afford to provide infrastructural facilities like tarred roads, pipe-borne water, electricity, and telecommunication in their estates and this affected their sales levels causing them to lock up huge sums of capital in unsold serviced lands and houses. The next chapter presents a summary of the findings of the thesis and recommendations to the acute accommodation challenges experienced in the study area.

## **CHAPTER 8**

### **CONCLUSION AND RECOMMENDATIONS**

#### **8.1 Introduction**

The thesis traced the historical background of housing in the pre- and post-independence of Ghana. The various policies that were applied during the period were presented and associated challenges were identified. Since houses are products, the demand and supply factors were applied to discuss the challenges associated with households, financial institutions, housing developers, and relevant land sector agencies of the government. The discussion helped to develop a conceptual framework for the study. The framework discussed that the housing stakeholders' activities are interdependent, hence once each stakeholder performs its activities efficiently, it solves the problems of the other dependent stakeholders and enables them to make adequate houses available in the community. Based on the framework, field work was undertaken to identify the findings of the study. This chapter presents the key findings associated with households, financial institutions, housing developers, and relevant government agencies as well as some recommendations. It, therefore, answers the research question,

“How can the challenges be mitigated?”

The chapter consists of three main parts namely, the key findings, recommendations, and general conclusion. The first part presents the key findings with challenges of households' affordability in terms of meeting the requirements of mortgage loans, which are payment of deposit, provision of collateral, and payment of a monthly mortgage. Furthermore, it identifies challenges that mortgage financial institutions encounter in the provision of mortgage loans in the study area. These findings relate to interest rate risk, foreign exchange risk, credit risk, and foreclosure laws in the study area. It also presents key findings on the challenges of housing developers in terms of availability and cost of housing inputs like land, labour, capital, building materials, and challenges associated with the sale of houses in the study area. The second part presents recommendations identified by the study in terms of mitigating households' housing affordability

challenges, management of financial institutions risks, and enhancing housing development by estate developers. The last section presents the conclusion of the study.

## **8.2 Major findings of the study**

This section discusses the key findings of the study. The findings relate to the research questions presented under the study, which relate to the challenges of households' unaffordability, the financial risk of financial institutions, and the high cost of construction inputs of housing developers.

### **8.2.1 Main challenges of housing affordability in New Juaben municipality**

The findings under the first research question of "What are the causes of household's unaffordability?", presented under chapter 6 are as follows:

To answer this research question, the current state of housing affordability challenges was presented and related to relevant theories, which helped to discuss the affordability situation in the study area. Considering the above research question in the study area, three (3) main challenges were identified in terms of challenges experienced by households who did not qualify to access mortgage loans referred to as purchase affordability, challenges experienced by those who accessed the mortgage loans referred to as mortgage sustainability, and households who were not interested in the mortgage loans due to their challenges.

Households who were not successful to access mortgage loans could not meet the requirements for the loans. These requirements were payment of a monthly mortgage, payment of deposit, and provision of collateral. The other challenge was the sustainability of the payment of the monthly mortgage. The challenges that were associated with payment of the monthly mortgage throughout the mortgage period relates to the location of the property, interest and exchange rate variability, and total expenses associated with the property (payment of stamp duty, maintenance of the houses, and unavailability of adequate infrastructure). The sustainability of the payment of the monthly mortgage was relevant because, if the household was able to access the loan but unable to service the loan throughout the loan period, the mortgage loan will be foreclosed, and the property

sold to pay the remaining debt. Households who never applied did so due to their low incomes, lack of trust in the financial sector due to regular changes in monthly payments of previous loans, relatively high prices of houses sold by estate developers and avoidance of monthly mortgage loan payment psychological stress.

In terms of purchase affordability, it was realised that the financial institutions' requirements to access mortgage loans were difficult to meet by households. These requirements included the provision of up to 50% of the household's income to pay a monthly mortgage. This percentage deduction is higher than the generally recommended percentage of 35% (Asare & whitehead, 2006). Usually, mortgage loans are given to those who collect their salaries from banks so that the banks could deduct the money directly from the source. Households in the informal sector who did not earn regular income which could be used to determine their ability to pay the loan were ignored. A small proportion of households interviewed were self-employed and they were all refused mortgage loans when they applied.

The next finding was the payment of the deposit of the price of the property before the provision of a loan to cover the remainder of the price. The study revealed that due to the high prices of the houses and low incomes of households, the payment of usually 20 to 30% deposit of the value of the house was unbearable for the households. The study revealed that the deposit is a lump sum which is usually higher than the household's monthly income hence they must save for several years to be able to make a one-time payment of the deposit. However, it was discussed that incomes of households in Ghana were very low and they spent all their salaries or incomes before the end of the month, and were unable to save some (Karley, 2008).

With regard to the provision of collateral, however, all the respondents in Adweso estates could not use their houses to secure loans due to challenges with the acquisition and registration of their houses. The other households did not experience that challenge since they could use the houses as security to access the loans.

Moreover, it was realised during the field work that households who were able to access loans had challenges with the payment of monthly mortgages due to the location of their houses, variability of interest and foreign exchange rates, and total expenses made on the houses that they acquired. It was identified that most of the estates or settlements were sited very far from the city centre (about one-hour drive) where most of the respondents' jobs were located. Since the government could not provide busses in the municipality, there was no reliable public transport system that charges reasonable fares. Only taxis ply most of the routes causing challenges for households in the payment of the monthly mortgages. Additionally, except for Effiduase estates, all the other estates did not have adequate supply and maintenance of infrastructural services like tarred roads, pipe-borne water supply, electricity, and telephone. This affected the ability of households to pay monthly mortgages. Settlers in Nyamekrom and Akwadum estates as discussed under Chapter 6 for instance, had to rely on water tankers that charged 10 times the price of supplies from the public mains. Furthermore, the interest rate and exchange rate variability affected households in the payment of the monthly mortgage, thereby causing some of them to foreclose their mortgage facilities. Again, some expenses like stamp duty and maintenance cost were so high that they affected the payments of their loans.

Similarly, it was realised that most households did not express interest in mortgage loans due to the high prices of houses, since estate developers earned super-profits. They also stated that they wanted to avoid mortgage loan stress. Furthermore, they were self-employed households with very low and unreliable incomes. For instance, one of the households stressed that the low income that she earned was not reliable and could not pay the regularly high monthly mortgage associated with mortgage loans. Additionally, she prefers the incremental development, which matches up with her income flow as she continues with the development as and when the income becomes available. The key challenges associated with financial institutions' granting of mortgage loans have been presented below.

### **8.2.2 Key challenges associated with granting mortgage loans in the New Juaben Municipality**

The main challenges of financial institutions in granting mortgage loans to households were identified in the study area based on the research question,

” Why are financial institutions hesitant to provide funds to households?”

The challenges of the mortgage financial institutions identified during the field work and secondary data presented, were financial risks encountered by granting mortgage loans to households, and a long period of foreclosure.

The study indicated that the policy interest rate in the country did not only increase, but also fluctuated during the period of the loan, referred to as interest rate risk. The value of loans and capital invested decreases when the policy interest rate rises, and increases when it falls. However, it usually increases due to the high inflationary rates in the country. This served as a disincentive for most financial institutions to provide mortgage loans to households. Due to the interest rate risk, all the respondents of the financial institutions stressed that they indexed the mortgage loan interest rate to the policy rate so that the impact of the variations on the mortgage interest rate could be reduced. A line graph presented under Chapter 6, indicated the variations of the policy interest rate from 2014 to 2018.

Another challenge revealed by the banks was the foreign exchange rate risk, which was caused by the variation of the foreign exchange rate, usually between the cedi and the USD. The study revealed that foreign exchange risk relates to the changes in the value of the loan provided and the capital of the banks, due to the variation of the foreign exchange rate (Mishkin & Eakins, 2012). The foreign exchange rate is determined by the high demand for foreign goods (usually foreign building materials) against that of local ones. As the demand for foreign goods increases, their prices increase, and based on the principle of Purchase Power Parity (PPP) explained in previous chapters, the value of the currency of the country of origin of the foreign goods appreciates against the cedi. The study further revealed that the use of foreign exchange has become prominent in the

country's housing industry since most housing developers sell their houses in dollars (but allow payments in equivalent Cedis). Financial institutions usually give dollar loans to households to pay prices of houses quoted in dollars but expected to be paid in equivalent cedis. Since cedis is the common currency used in the country, any time the cedi to dollar rate changes, it affects the value of the loan provided to the household. The variations in the dollar rate, therefore, discourage financial institutions from presenting mortgage loans to households to acquire houses in the study area. The variations of the cedi to the dollar exchange rate from 2014 to 2018 were graphically presented under Chapter 6. A quantitative analysis of the average annual variations indicated that the variation was high, and the exchange rate increased by 10% annually. It, therefore, implies that the average annual face value of the cedi equivalent of the monthly mortgage increased by 10%, which was a disincentive to households to access mortgage loans. On the other hand, financial institutions also lose the value of the capital invested due to the depreciation of the cedi. The depreciation of the cedi, therefore, does not create an enabling environment, which can attract financial institutions to the housing industry to provide more loans to households to acquire houses in the study area.

Respondents of financial institutions revealed a high default rate in the study area and discouraged most financial institutions from granting mortgage loans to households. As stated in previous sections, credit risk relates to the likelihood that the loan and interest could not be paid by the household. The study revealed that factors that determined loan defaults were the use of the loan for an unintended purpose (other than to acquire a house) by the household and not selecting the right person who is likely to pay the loan. Respondents of the financial institutions narrated that most of the clients diverted the use of the loan to other purposes different from the intended purpose of acquiring houses, hence, defaulting in payment of loans.

Again, since there were no reliable credit bureaus in the study area, it became difficult to identify clients who were credit-worthy and had good credit records. Loans were therefore wrongly given to households who were not credit worthy or had bad credit records and thereby generated high credit risk in the study area. As stated under previous sections, the Credit Reporting Act 2007 entreats all financial institutions to provide credit

reports of their clients to the credit bureaus within 72 hours after any credit transaction. However, most financial institutions did not act according to the provision of the law, thereby making the work of the credit bureaus ineffective. According to Ghana News Agency (2018), though section 24 of the Credit Reporting Act 2007 (Act 726) requires all financial institutions to report credit records of clients to the bureaus within 72 hours of entering into credit agreements, it was not implemented effectively. In 2017, for instance, only 53% of the universal banks and 23% of rural banks presented credit records of their clients to the bureaus. Furthermore, most households felt reluctant to present information about their personal and financial records.

Chapter 6 revealed the high credit risk experienced by GHL Bank from 2015 to 2018. Analysis of the data revealed high credit risk since the variations of the number of persons that defaulted were significant. It further revealed that the average annual number of persons that defaulted increased by 11 persons (10% of households granted loans).

Additionally, in previous chapters, it was discussed that financial institutions required prospective borrowers to provide collateral properties or securities before loans were given to them. The collateral properties are sold under a court order when the borrower defaults in the payment of the loan and accumulated interest. The regulation relating to the processing of the court order to dispose off the collateral property can be referred to as foreclosure laws. The study revealed that an effective foreclosure law is not expensive, time-consuming, and problematic. In the study area, however, representatives of financial institutions in both face-to-face interviews and focus group discussions revealed that the foreclosure process in the study area was very difficult and time-consuming. They argued that due to the long period of foreclosure, they were unable to get the property value that formed the basis of giving out the loan. The value of the property when sold was inadequate to cover the loan that was given to the lender, referred to as the loan-to-value ratio. The Ghana Mortgage Act 1972 allows for a minimum period of 30 days after a foreclosure order has been given by the courts to auction a collateral property. The long period of foreclosure sometimes makes the value of the property fall on the housing market and the proceeds of the sale become inadequate to pay the remaining debt. This



challenge discouraged most financial institutions in the study area to give loans to households to acquire houses to reduce the accommodation challenges in the study area.

### **8.2.3 Major housing construction challenges**

The major challenges that affected housing construction in the study area were identified to answer the research question: “What are the challenges of real estate developers?”. The main challenges identified related to accessibility and high cost of construction inputs like land, labour, capital, building materials (including equipment), and sales of housing units. The availability and cost of the major inputs required for construction were a problem for housing developers in the study area.

The study revealed that estate developers in the study area encountered serious land acquisition challenges in terms of the compulsory acquisition process which could not be completed but buildings were developed on the land by the acquiring government agency. This resulted in the refusal of the Lands Commission to grant title deeds to the developers in the Adweso estate. Since the developers could not get the head lease document, they could not also transfer any title or interest to the households who acquired the estate houses. This prevented the developers from collecting ground rents from households and they used the houses to secure loans for further developments. Furthermore, most of the natives of the New Juaben traditional area did not recognise the legal rights that Lands Commission had under the vested land administration to transfer (sell) lands to households, especially in Nyamekrom. The indigenes, therefore, demanded double payment for lands in the area. Another challenge that was encountered by the housing developers (and households) was the terminable interest (leasehold term) that was granted to the developers. When a leasehold interest is granted to a developer, a yearly ground rent is paid by the developer or household (if the property is transferred to the household) throughout the lease term subject to increment every 5 years in the study area. Again, after the expiration of the lease term, the land and everything on it (including buildings) is reverted to the lessor, based on the lease agreement, for a possible renewal of lease under a new agreement. Additionally, the land registration system and planning permit processes were cumbersome and confusing. It is also associated with delays, high costs,

and dishonesty on the part of the staff. These challenges made access to land difficult for development by estate developers.

Furthermore, few technical training institutions in the study area trained artisans for the construction industry. It was, therefore, difficult to get a well-trained labour force to work efficiently on the site to improve on the workmanship of houses and reduce the cost and price of houses. Again, most of the building materials were imported at very high prices due to the high and variable exchange rates. This made it difficult to acquire more of the materials for the development of more houses. Again, most of the local building materials were produced by local manufacturing companies who were granted monopoly powers. These companies created artificial shortages to increase the prices of construction materials like cement. Due to the high prices of materials, houses were sold at high prices that were usually unaffordable to households. Building equipment that facilitates and provides quality houses was very expensive since they were imported into the country. Most developers therefore could not afford to buy and use heavy-duty construction equipment like excavators and pay loaders in the study area to facilitate building construction at low cost and increase the number of buildings in the community. The study revealed that the use of building equipment in construction reduces the cost of construction by 25%.

Additionally, it was revealed that the main sources of housing development capital were pension funds, internally generated funds, mortgage loans, and alternative sources of income of households who pre-financed the construction of their houses. The pension fund was used by the Social Security and Insurance Trust (SSNIT). Though it had characteristics like low cost of capital, the large sum could be accessed and relates favourably with a durable asset like houses, SSNIT reduced its investments in housing due to high construction cost and a large number of contributors that retired annually. Additionally, estate developers in the study area used the Internally Generated Fund (IGF) to construct houses. Though the IGF had virtually no cost of capital, the amount was not adequate to construct a large number of houses to mitigate the housing situation in the study area. The amount could only construct a small number of uncompleted houses for households to acquire and complete using their funds. A mortgage loan was also available

in the study area however due to its difficult requirements like payment of deposit, monthly mortgage, and provision of collateral it was difficult to access it for housing development. Estate developers like Akwadum estates therefore could not access loans to construct houses in the estate and had to sell partially serviced bare lands to households for them (households) to pre-finance the construction of their houses. Households on their part acquired bare lands at Nyamekrom and Akwadum estate and used alternative sources of housing finance like short-term loans from banks and cooperative societies, mutual funds, and support from family members who lived abroad.

The study also revealed that after housing developers had gone through the above challenges to construct the houses or present serviced lands, the sale of the houses and serviced lands was another task. Some of the houses and serviced lands were not acquired for over 10 years. The main causes why housing developers locked up their capital in unsold houses in the study area were the location of the estates, pricing of the houses, sizes of the developments, and provision of infrastructural services in the communities.

The location of the property is very important in housing development. The study revealed that most of the houses were located very far from the city centre or Central Business District (CBD) where households' jobs were sited. Additionally, there was no public bus transport system that could convey the households to and from the town centre at a reasonable cost. Low-income earners who did not have their private cars boarded taxis daily to the city centre to work. This discouraged some households to acquire houses in areas which were far from the city centre especially where reliable public transport systems were not provided.

Another factor was the pricing of the houses. If the prices are competitive and reasonably low most households could buy than when they are very high. The study revealed that most of the real estate developers did not have their workers who worked for them. They outsourced the entire project to building contractors to construct the houses. Both the real estate developer and the building contractor charged profit almost at the same amount thereby resulting in super profit (overstatement of profit) and raising the price of the houses, which became unaffordable to the households.

The developers did not build a variety of houses in terms of sizes and finishes, which gave a variety of prices for households to choose from based on their levels of income and size of households. Most developers in the study area constructed one type of house in the communities making it difficult for low-income households to choose the ones they could afford. This made it difficult for the low-income earners to acquire houses in the communities.

Furthermore, the aesthetic nature of the estates in most of the communities was not attractive to most households. The beauty of the estate is not only the style or design of the buildings but also the immediate neighbourhood of the community. This entailed the provision of infrastructural facilities like tarred roads, pipe-borne water, electricity, and communication. Since some of the sites like the Akwadum Estate and Nyamekrom settlement did not have these facilities most households were not attracted to acquire the houses or lands to reduce the accommodation situation in the area. The next section discusses how the challenges raised concerning housing development could be resolved so that the acute accommodation challenges could be mitigated.

### **8.3 Suggested recommendations to the study**

This section summarises solutions identified in the field and practices in other parts of the world that could mitigate the challenges related to housing affordability, finance, and development in the study area. Each suggested recommendation was followed by implementation strategies. The study revealed that the activities of the main stakeholders are interdependent and complementary. Hence as the individual stakeholders (households, financial institutions, estate developers, and government land sector agencies like Lands Commission) perform their activities efficiently, they help the other stakeholders in the housing industry to operate efficiently and make adequate houses available in the community. The recommendations presented intended to improve the performance of the stakeholders to reduce the housing density in the study area. These recommendations sought to address challenges associated with household affordability, mortgage financing, housing development, and that of land sector agencies of the government. It presents suggestions that community leaders and governments could apply to mitigate housing

challenges in communities. The recommendations were based on economic, financial, and regulatory measures.

### **8.3.1 Addressing household affordability challenges.**

In addressing challenges associated with housing affordability, the three main factors considered were qualification for the mortgage loans, sustainability of the monthly mortgage loans, and how to boost the interest of those who never applied for mortgage loans.

It was identified from the study that households could qualify for the loans based on payment of deposits, payment of a monthly mortgage, and provision of collateral. In terms of payment of deposits, it was realised that households' incomes were very small in terms of the price of houses that were sold on the market. Hence the study revealed that housing developers should construct houses of varied sizes and finishes so that households could choose what they could afford based on their level of income. MacLennan (1982) discusses that estate developers should assess the demand characteristics of households in the community before constructing houses. This would enable them to construct houses that would meet their level of income so that the demand for the houses would be high enough to mitigate the housing problem. Additionally, employers could offer soft loans for their employees to pay the deposit. In the study area, for instance, a small number of respondents were presented with soft loans to pay deposits. Again, it was realised that the government should implement the use of Tier 2 benefits under the Ghana Pension Act 2008, to release contributors fund to them to pay deposits. Furthermore, mortgage institutions could allow households to use their parent(s) (dad's and mum's) properties to secure loans to pay the deposits. The challenge here was that the household could pay 2 monthly mortgages, one for the main mortgage and the other for the deposit. Furthermore, when the household defaults in the payment of the loans both the collateral for the main mortgage and the parent(s) property would be sold to pay the remaining debt.

Again, respondents stressed that the monthly mortgage of 50% charged by most banks was very high since the remaining 50% could not take care of other household expenditures. They recommended 30 - 35% which happened to be the maximum of the

generally acceptable affordability rate. The financial institutions could reduce the monthly mortgage by increasing the mortgage period from 15 years to about 30 years. The challenge will however be that households would pay higher total funds for the acquisition of the house. In Mexico for instance, under the FOVI system, the government encouraged financial institutions to increase the period of mortgage loans from 20 to 30 years to reduce the monthly mortgage of defaulters to enable them to pay, instead of applying for foreclosure from the courts.

The study also revealed that respondents in Adweso estates could not use their houses as collateral to obtain loans to acquire their houses, due to challenges with the acquisition and registration of their titles. The study revealed that the State Lands Act 1962 should be amended so that persons who are affected by compulsory acquisitions would have their claims assessed and the transfer of land executed like private land transactions, before the acquisition authority implements the compulsory acquisition order as done in the UK based on Sections 4, 5, and 23 of the Compulsory Purchase Act 1965. This would enable their compensation to be paid before the acquired properties are used by the government. This would also avoid the situation where the Lands Commission refused to grant and register title deeds of households who acquired houses at Adweso Estates because compensation was not paid to claimants whose lands were compulsorily acquired.

In terms of sustainability of payment of monthly mortgages, the study revealed that households encounter challenges with commuting long distances from new industrial estates to the city centres where their jobs were located. It was recommended that reliable public buses should be provided in the municipality to reduce the cost of transportation and help households pay their monthly mortgages. This can be done by the government collaborating with private companies to provide reliable bus services in the study area. For instance, it was reported that, in the capital city of Ghana, Accra the government collaborated with Scancom Transportation Company (United Kingdom) to provide about 265 buses to ply the outskirts of Accra to the city to help households commute easily to the city centre at lower cost and by the reliable bus transport system. The study also revealed that estate developers can have land banks that will be close to city centres at the

time of development. This will help households to stay closer to city centres to reduce transportation costs.

Again, most of the sites that were located at the fringes of the towns had no adequate supply of utilities like pipe-borne – water, electricity, and telephone. This made them spent extra funds for getting access to the utilities and made it difficult to afford the monthly mortgages to finance their houses. Under the government Public-Private Partnership (PPP) programme, the government can collaborate with real estate developers to share the cost of providing infrastructure services like tarred roads, pipe-borne water, and telephone to attract more households to acquire buildings in the community. Furthermore, as stated in previous sections estate developers could adopt the Land Pooling System (LPS). This entails accessing loans from financial institutions to provide infrastructural services before the construction of houses in industrial estates. The cost of the serviced plots would appreciate equaling the cost of the bare land without the services and the loan with interest. Hence when the houses or lands are sold the loan component could be used to pay the loan to the financial institutions and the utilities would be available for use by the households. The LPS was applied in countries like Germany, Australia, and Japan. The LPS was later practiced in the Republic of Korea, Taiwan, and China.

The study revealed in the previous sections that the high and fluctuating interest rates caused some households to default payments. This was because though the mortgage interest rates increased since it was indexed to the policy rate, their wages did not increase. This made their incomes inadequate to pay the monthly mortgages. The government should therefore manage the economy well to stabilise inflationary rates so that the policy and the mortgage rates would be stabilised and make the payment of monthly mortgages affordable for households. Inflationary rates could be stabilised if the government provides enabling environment to attract both local and foreign investors to increase the production of goods and services in the country to reduce general prices of goods and services. This is because when the production of goods and services increases, prices and inflationary rates will be stable or reduce in the study area.

Another challenge that made it difficult for households to maintain the payment of their loans was the fluctuating nature of the foreign exchange rates between the cedi and the main foreign currencies like the USD and the pound sterling. To stabilise the foreign exchange rate, the study revealed that households should reduce their taste for foreign building materials and finishes to enable housing developers to reduce the importation of housing materials. When demand for foreign goods is reduced, the Ghana cedi will appreciate or stabilise against the major foreign currencies like the USD and the pound sterling.

Additionally, the previous sections revealed the payment of high stamp duties on both the acquired houses and the mortgage loans. In the bid to redistribute income in the country, low-income earners could be made to pay less by raising the first range of values that attracts lower fees or taxes presented in the Stamp Duty Act 2005, so that houses with low prices usually acquired by low-income earners would pay lower stamp duties. Furthermore, low-income earners especially First Time Buyers (FTBs) of houses can be exempted from payment of stamp duties. FTBs are a resident household that has not acquired houses either in the country or other parts of the world. Though it may be difficult to identify the FTB, the scheme can be implemented through the local assemblies or councils and traditional authorities who could easily identify the FTB. Similarly, analysis of households' data, bank statements, and pay slips could help identify the FTB. The UK government waived the payment of stamp duty by FTB in the country to attract more households to access mortgage loans in the country.

Another challenge raised by households that affected their ability to pay the monthly mortgage was the high maintenance cost on their houses. The use of inferior building materials and poor workmanship that often cause the poor condition of houses could be checked by effective supervision by housing developers especially when they engage general contractors (outsource building contracts). This will help the estate developers to ensure that what has been presented in the Bill of Materials (BOM) is implemented. Additionally, housing developers should employ their workforce to construct their houses so that they can ensure that they recruit qualified artisans and professionals to construct their houses for them.



Moreover, households who were not attracted to access mortgage loans should be encouraged to do so since it is a reliable source of mortgage finance (Mishkin and Eakins, 2012). It was revealed during focus group discussions that the financial institutions should organise periodic educational programmes and durbars to sensitise them about their various products so that they can access what they can afford. In addition to the homeownership loans, the banks have equity loans and home completion loans. The financial institutions revealed that households could use the uncompleted houses that they develop under the progressive developments as collateral to access home completion loans to complete their houses. This will help them to avoid using between 10 to 15 years to complete the houses under the progressive developments. Furthermore, the educational programmes could reduce the erroneous impression that households have about mortgage loans, that it generates stress.

### **8.3.2 Mitigating mortgage finance constraints**

The study revealed that the main challenges experienced by mortgage financial institutions were interest rate risk, foreign exchange risk, credit risk, and ineffective foreclosure laws. Recommendations revealed by the study are as follows:

#### **Overcoming interest rate risk**

As stated in previous sections, financial institutions in the study area stated that policy rates in Ghana were high and fluctuate in the country. They further stated that the value of loans given to households reduced when policy interest rates increased within the period of the mortgage loans referred to as interest rate risk. These challenges did not attract financial institutions to provide loans to households. For example, in 2015 the interest rate changed about 8 times within the year as indicated in Chapter 6.

As stated in previous sections, to mitigate this challenge the banks indexed their mortgage interest rates to the policy rate so that when the policy rate increased the mortgage interest rates also increased, this is referred to as a variable mortgage. Furthermore, most financial institutions did not have access to long-term loans with low interest rates so that they could offer loans at a relatively low-interest rate. The study revealed that the government

should therefore grant guarantees to mortgage financial institutions so that they could access foreign loans in the form of issuing bonds at low-interest rates as was done by the government to raise funds to establish the then Home Finance Company (currently Republic Banks). This will attract more banks to provide more loans so that there will be competition in the market for the provision of competitive mortgage interest rates and products to attract households to access mortgages to finance housing in the study area.

### **Addressing foreign exchange rate risks experienced by financial institutions.**

Foreign exchange risk as stated in previous sections is the main challenge that has almost crippled the mortgage market in Ghana. The study revealed that the high and fluctuating foreign exchange rate discourages mortgage financial institutions to grant loans to households. The changes of the foreign exchange rate during the period of the mortgage are referred to as the foreign exchange risk.

The foreign mortgage institutions like Ecobank and Republic Banks remit funds to their head office in foreign currencies. The study revealed that when the cedi depreciates against the USD for instance, the value of their capital falls. As stated under Chapter 6, the foreign exchange rate is generally dependent on the concept of the Purchase Power Parity (PPP). The concept explains that as demand for traded (foreign) goods increases in a country, its price increases compared to the relative price of the product in the origin country, hence the currency of the local country will depreciate against the currency of the origin country of the product. There is low production of building materials in the country, hence, there is a low demand for the products and high demand for the foreign goods in the country. This has resulted in the continuous depreciation of the cedi. To maintain or strengthen the value of the cedi, therefore, the government must create the enabling environment under its policy of “One District One Factory” under the Public-Private Partnership to establish building material factories in areas like the Central Region where there are large deposits of clay to manufacture ceramic tiles. Cement factories can also be established in the Eastern Region where there are large deposits of clinker. When these materials are produced in good quality and large quantities, there would be low

demand and price of the foreign goods, and the cedi would appreciate or maintain its value against the major foreign currencies like the USD and pound sterling.

Furthermore, the pegging, ‘floating’ or ‘crawling’ of foreign currency in a local country concept can be introduced in the country to maintain the value of the cedi against the major foreign currencies. The pegging as stated in previous sections was introduced by 7 neighbouring West African countries like Benin, Burkina Faso, La Cote d’Ivoire, and Mali. These countries have pegged their currencies against the Euro (Formally tied to the French Franc). The pegged currency attracts a lot of Direct Foreign Investment (DFI) in the country due to the confidence that investors have in the currency. For instance, if the Government pegs the Ghana cedi to the USD which is the major trading currency, the cedi will not depreciate to reduce the capital of the foreign banks.

The challenge however would be how to manage the overvalued currency. In Mexico for instance when they were forced to devalue their currency due to economic crises, the peso was devalued by about 50% (Mishkin and Eakins, 2012). To avoid the experience of Mexico, the government can adopt the “Floating” or “Crawling” pegging which consists of pegging periodically and not permanently. The Arab Oil –Rich countries operate the latter pegging strategy with the USD due to the sale of the oil in the said currency.

Lastly, to be able to strengthen the local currency the government of Ghana should partake in the implementation of the use of “ECO” as the official currency for the member countries of the Economic Community of West Africa States (ECOWAS) which is deemed to commence in 2020. Mishkin and Eakins (2012, 389) stated that “One of the reasons that urged the seventeen Eurozone nations to adopt the euro was the ability to hedge against fluctuations in foreign exchange rates.”

#### **Amending foreclosure laws to discourage defaults.**

The fieldwork revealed additional challenges experienced by mortgage financial institutions which made it unattractive to investors. They stated that foreclosure of mortgage loans at the courts was expensive, time-consuming, and problematic.

Most financial institutions presented during the fieldwork that it usually takes a maximum of one year to process court orders to foreclose mortgage loans. Additionally, the mortgage Act provides a minimum of 30 days period between the date of the court order and the auction of the collateral properties when there is forfeiture. They presented that the period of processing court orders and auction of collateral properties is long and causes the values of the properties to fall and unable to pay outstanding loans. They were of the view that the Mortgages Act 1972 (NRCD 96) has not seen any major amendments to address the current challenges of mortgages in the country. Hence, there is the need to amend certain sections of the Act including section 18 (14) which provides that the foreclosed property could be auctioned 30 days after a court order has been given. Prices of houses can fall when the demand for houses decreases since the Ghana property market is not vibrant. It is therefore prudent for the courts to expedite the adjudication of forfeiture cases and properties of defaulted households auctioned few days after the order from the courts. Again, there should be punitive measures including sentencing those who default on loan payments so that it would be a deterrent to others who take loans from the banks.

The practice of the forfeiture process in the United States of America explained under Chapter 3 can be adopted in the study area and Ghana. An alternative of the use of the courts to foreclose mortgages can be adopted in the study area to reduce the period of forfeiture. This entails the appointment of trustees by both the mortgagor and mortgagee to manage the foreclosure of loans. Under this system, the collateral property is given to the trustee to keep on behalf of both the lender and the borrower. So that when the mortgage loan is paid to the lender by the end of the mortgage term, the trustee releases the collateral property to the borrower. However, if the borrower defaults in the payment of the loan the trustee will sell the collateral property and the amount is used to pay the loan which consists of the principal and interest. This process reduces the time and cost spent at the court for an order to auction the property. The government of Ghana can pass relevant legislation to amend the current Mortgage Act to allow the introduction and practice of the appointment of trustees as an alternative forfeiture process. This would reduce the forfeiture cases at the courts to enable the court to deal with the few that they

receive within short periods. The next challenge of the financial institutions has been analysed below.

### **Reducing credit risk of mortgage financial Institutions**

The study revealed that there is a high default rate in the study area and the main causes were the inability to select the right persons for the loans and misuse of the loan for non-intended purposes. As stated in previous sections, to be able to select creditworthy households by financial institutions, the study revealed that the Bank of Ghana should enforce the Credit Reporting Act 2007 so that all financial institutions will present credit reports within 72 hours (3 days) of their occurrence to the three credit bureaus in the country. The credit bureaus in Ghana are XDS Data Ghana Limited, Equinox Credit, and Debt Recovery Limited. The Bank of Ghana supervision department should regularly inspect banks and non-banking financial institutions to ensure that all credit records of customers are reported to the credit bureaus. Penalties and fines for offenders should be deterrent to ensure that relevant financial institutions obey the laws. When this is done mortgage, financial institutions would be able to reduce the high default rates in the study area by giving loans to credit-worthy households. Furthermore, the banks can rely on the monthly salaries of government and reputable private company workers who collect their salaries through the banks. The institutions could be asked to guarantee the payment of the monthly mortgages by ensuring that the salaries are paid through the banks. In the United Kingdom for instance creditworthiness is usually determined by credit rating agencies like Experian, Equifax, and Call credit. The Credit Rating Agencies (CRA) in England obtain relevant credit information from public records like the Individual Insolvency Register which contains public financial records on every resident associated with credit and related institutions like banks, credit card providers, and utility services.

On the other hand, self-employed households should not be ignored. The study revealed that self-employed households should be requested to provide their audited annual statements for three consecutive years for them to be analysed by the banks. If the statement proves that they are credit-worthy the banks could request two guarantors who are also customers of the bank before the loan is given to them.

Again, in order not to misuse the loan offered to the customer, it was realised that the banks should put the loan in the applicants accounts for a few minutes to reflect in his accounts and immediately withdrawn and sent it to the accounts of the developer (if the contractor is going to build a new house) or the seller of the house (If the property is already built). Additionally, if it is a new house that is being built, the financial institution should inspect the project site regularly and ensure that the house is well constructed according to the Bill of Quantities (BOQ). This is to ensure that when there is a default the proceeds of the sale will be adequate to pay the outstanding loan. Whatever agreement that would be reached between the mortgagor and mortgagee should be presented in the mortgage agreement and registered so that it would be enforceable.

### **8.3.3 Enhancing housing construction in the study area**

The findings on estate developers' activities related to the cost and availability of housing inputs like land, labour, capital, building materials, and the sale of the houses. Recommendations presented to resolve challenges associated with housing development have been presented below.

#### **Making housing inputs available at competitive prices to attract more housing developers**

To attract developers to construct more houses in the community, the government is responsible for the provision of an enabling environment for investment in housing. The enabling environment consists of simplifying the land acquisition process, automating the registration and permit provision processes to enable housing developers' access land easily and at a lower cost for development. Again, the training of more artisans in technical schools and polytechnics should be encouraged. The government should also introduce policies that would enhance easy access to capital by housing developers for development. These include effective management of the Ghana capital market (Ghana Stock exchange) and making pension funds available for the housing developers.

**Streamline the process of land acquisition, registration, and granting building permits.**

To streamline the land acquisition process in the study area especially vested land areas like Nyamekrom, Akwadum estate, Effiduase estate, and Betom, the Lands Commission must implement the Ghana Land Administration Act, 1962 (Act 123) by discouraging the New Juaben stool and the natives from demanding additional payments from housing developers after they had obtained leases from the Commission. The additional payments increase the cost and prices of the houses. These natives should be sued in courts to stop them from demanding double payments of lands in vested areas.

Furthermore, the Lands Commission which manages government land must ensure that the original landowners at Adweso are paid by the government according to the provisions of the Ghana State Lands Act 1962 (Act 125). The study revealed that landowners whose properties are compulsorily acquired should be paid adequate and prompt compensation. This should be done quickly so that leases could be granted to the housing developers for them to also grant part of their interest to households who acquired the houses. Furthermore, as stated under previous sections, the State Lands Act 1962 should be amended to ensure that affected landowners' interests are assessed, and the transfer of interest-based on the compulsory acquisition executed before the objective of the acquisition is implemented on the acquired lands.

The study also revealed that the grant of leases to estate developers should be discouraged due to the large investments that they make in the development of houses. The ground rents increase every 5 years, and it becomes an additional cost to the housing estates. Additionally, after the expiration of the lease term, they must apply for renewal of lease under a new agreement based on the developed land which would be higher than the initial agreement which was on bare land. The government of Ghana should discuss the challenge with the stools for possible amendment of the constitution to allow the stools to be able to transfer freehold lands. Article 267 (5) of the Ghana 1992 constitution states that only leasehold interest could be transferred from stool lands, should be amended to enable housing developers to acquire freehold interest from stool lands. Due to the burden

that the payment of the ground rent poses to developers and households in terms of hikes in annual ground rents charged by landlords, the UK government intends to ban transfers of leasehold estate houses and allow all existing ones to be converted to a freehold interest.

After the acquisition of the land for development as stated under previous sections, the land is registered by the estate developers before development. The study revealed that the main challenges of the Lands Commission were delay in the registration process, lack of adequate staff, collection of bribes, inadequate storage space. These challenges could be mitigated by automating the registration process. The land registration automation consists of the introduction of Land Information Management Systems (LMIS) software. The software would have the data entry module, security model, graphical model, and query capabilities. The data entry model software would guide the user to perform all relevant operations from data entry to data validation. The software facility would have interfaces to enter the registers. The facility would provide an option to view, list, and print the content of the registers. The security model would allow only authorised staff to edit records with their code numbers, digital signature for authentication, a separate module for tracking every transaction, and a backup facility. Furthermore, the graphical model would be linked to the GIS software for plotting and display maps. It contains all the tools that are available in the internationally recognised graphic viewer soft wares. Lastly, the query unit will provide a facility to query relevant information that is required from the clients.

The main benefits of the automated system that would mitigate the challenges experienced in the current system provided above are:

It would develop digital archives and retrieval systems thereby reducing the paperwork in the current system where physical documents are moved across offices and delay the time of registration. Additionally, it would reduce the floor and shelf spaces required to store documents. The loss and defacing of documents and information would not be heard in the office.

Again, it would simplify the registration system and reduce the bureaucracy associated with the property registration system. It would thereby reduce the number of staff that



would be required and the reduction in wages compensate for the additional cost that the new system would introduce.

Furthermore, the registration process would be transparent without any staff claiming to have facilitated the registration process and needed to be compensated in the form of a bribe. The automated system would also reduce errors and increase accuracy thereby avoiding overlapping plans that generate disputes and increase land cases at the courts.

Though the initial cost of the introduction of the automation system would be high in terms of acquisition and installation of computers and printers, the revenue that would be generated would be enormous.

Furthermore, there should be an effective collaboration between the Lands Commission (LC) and the LUSPA since they are all government agencies. This collaboration would enable LC to prepare base maps for LUPSA or TCPD to prepare planning schemes to make more residential lands available for housing developers to develop. When more lands are made available for developments the price would reduce and houses can be sold at lower prices. Again, like LC the LUPSA activities should be automated as described in previous sections to reduce the period of granting a permit to housing developers to enable them to develop more houses in the communities. The LUSPA should be resourced adequately by the government with staff and vehicles to be able to inspect and enforce planning regulations to ensure that houses are built according to the layout plans and building codes. This would enable the houses to be in good condition with the provision of adequate facilities like access roads in the community. After accessing land for development as explained above, developers require qualified and well-trained artisans to physically develop the houses as described below.

### **Improving the efficiency of artisans and making building materials available at competitive prices**

Concerning engagement of the housing labour force to construct houses, it came up that it was prudent for the housing developers to engage specific contractors to work for them. This is when individual artisans are employed directly by the estate developers to work

for them. If this is done, developers can select qualified artisans to work for them. Furthermore, the estate developers can reduce the cost and price of houses by ignoring the profit which would have been charged by the general contractor if it had been outsourced. The study also revealed that the government should establish more technical schools and develop existing ones to be able to attract more youth to be trained as housing development artisans. The study revealed that only 2% of the youth are employed in the housing sector in Ghana.

The findings of the study stated under chapter 7 revealed that, it was difficult for housing developers to get access to construction equipment for the development of houses due to its high cost in terms of high exchange rate and import duty charges since they are usually imported into the country. A developer who is a member of the Ghana Real Estate Development Association (GREDA) argued that the government must encourage housing developers to import more building construction equipment by reducing or eliminating import duties and managing the economy well to stabilize the foreign exchange rate against the main foreign currencies like the USD and the pound sterling.

The next input relates to building materials which include cement, aggregates, wooden members, and steel. The study revealed that the cost of materials constitutes about 40% of the cost of construction and adequate care must be taken to reduce the cost of housing and price. It was revealed during the fieldwork that, some developers rely on foreign building materials for their construction activities. This was due to the high demand for foreign building materials like porcelain tiles by both Ghanaians living abroad and those in Ghana. The rampant high and fluctuating exchange rate results in the high cost of foreign building materials. The estate developers stated that households in the study area and those living abroad have a strong taste for foreign materials. Hence if the households begin to request local materials, they will shift their attention to acquiring locally manufactured building materials to construct houses at a lower cost. However, the government especially the Ghana Standards Board must inspect the products that are manufactured locally by the building material industries to ensure that the materials are of international standards.

Moreover, it was realised during the fieldwork that some companies have been given monopoly powers to produce some of the building materials locally. These companies usually create artificial shortages which cause prices of the materials to increase. Cement is a common building material use in constructing houses and a company was given monopoly power for its production. This resulted in frequent increases in prices before the government allowed the importation of some cement into the country to break the monopoly power to stabilise the price of cement in the study area. According to Safa and Shahi et al (2014), the cost of materials can constitute 50% - 60% of the cost of projects and its management affects 80% of the schedule of delivery. This means that if the cost of materials is managed well, the cost and prices of houses could be reasonably low. It can therefore be realised that if the government creates the enabling environment to attract both foreign and local companies to produce some of the foreign materials in the country, importation of the foreign goods would be reduced, and developers would construct houses at lower cost and price. For example, there are large deposits of clay in the Central region of Ghana which can be used to produce porcelain tiles which are currently mostly imported into the country. The quantity, types, and costs of the building materials are presented in Bills of Quantities (BOQ) and once they are ready, developers look for sources of finance. The sources are presented below.

#### **Availability of reliable sources of development finance to developing houses**

The study revealed in Chapter 7 that the main forms of housing development finance in the study area were pension funds, retained earnings in the form of internally generated funds, and mortgage loans from the banks. This section identifies the main challenges that were analysed under chapter 7 and presents suggestions that were given by participants on the field. Relevant information from secondary data was also applied to help present recommendations to mitigate access to capital challenges of estate developers.

The study revealed that retained earnings in the form of the internally generated fund were the main source of capital for the State Housing Company (SHC). The SHC currently relies on an internally generated fund in the form of receipts of ground rent from lessees, fees paid for the renewal of leases, permits for extension of buildings, and proceeds of the

sale of new buildings which is usually uncompleted structures. Though the source of capital is cost-free (that is no interest is paid on the capital) and allows the developers to sell the houses at a relatively low price, it is inadequate to develop a large number of houses to meet the demands of households. The participant of the state housing, therefore, stated that they were planning to partner with some private institutions under the government policy of Public-Private Partnership. Under the partnership, SHC would provide land and personnel whilst the financial institution would provide funds for the construction of the houses. This was evident in the Government of Ghana housing development partnership with the Korean construction firm, STX Korea Ghana Limited. Under the partnership agreement, the government was supposed to provide lands at varied places and guarantee a loan for the development of 200,000 housing units. The government also agreed with SSNIT to issue US\$ 200,000.00 worth of bonds to establish the then Home Finance Company as a secondary mortgage market (Ansah and Ametepey, 2013).

The second source of housing development financing in the study area was the pension fund used by the Social Security and National Insurance Trust (SSNIT) to develop high-rise buildings in Effiduase, Koforidua. The representative of the SSNIT Estates stated that the source of financing was reliable and at a lower cost compared to interest on capital on the market. However, in the late 1990s, there was a rise in the demand of pension fund from the pensioners and large sums of the fund was used to pay them. Besides, they did not have adequate staff to supervise the construction activities that were outsourced to construction companies. This resulted in the poor performance of some of the developers which created maintenance works on some of the houses. These challenges caused them to reduce their housing development activities in the country.

During focus group discussions a representative of the financial institutions analysed that, SSNIT is a major financial institution, hence it must specialise in its activity as a financial institution and form a partnership with a housing development company that also specialises in housing development. Diamond and Lea (1995) analysed that pension funds match with a long-term investment like mortgage funds due to its long-term financing. If they form the partnership, SSNIT would provide funds at a reasonable cost which would

help to build contractors to construct houses at a lower cost for both the contributors and the public. The contribution is laudable since SSNIT does not have the capacity in terms of staff strength and technical knowledge to supervise the work of the contractors to perform efficiently. Again, when a partnership is established the houses can either be rented or sold. The monthly rents could take care of the monthly income while the capital sum that is paid for the transfer of the properties used to pay a lump sum pension.

Furthermore, at the Akwadum estate, since the developers had no access to long-term funds for development, they sell the bare land to the household, and the household is supposed to pre-finance the development by providing funds for the construction of the property for a maximum period of nine years. The representative of the Akwadum Estate presented that since the area had not been provided with adequate road networks and utilities like water and electricity most households were not attracted to acquire plots and develop their houses. He further stressed that:

*The company is ready to enter a partnership with a financier who can help to finance the development so that more buildings can be developed on the site to attract demand of the serviced site and houses (Official, Akwadum Estate, SSI: 03/11/19).*

Under the current state of the Akwadum estate, the owner together with other developers can join under the umbrella of the Ghana Real Estate Development Association to arrange with the government to provide them with a government guarantee so that they can access loans abroad at a relatively reasonable interest rate.

In Betom and Nyamekrom settlements, the Lands Commission allocates vested stool lands to applicants for them to provide funds for the development of their houses. The planning scheme is implemented on the ground, however, only the main roads are provided with a lateritic surface. Electricity and pipe-borne water were supposed to be provided by the applicants. As stated above under chapter 7, a 99 years leasehold is provided to the household. The main challenge was accessing funds for the development of the houses. As stated in previous sections, the usufruct of the stool also demanded another payment of the land as they did not recognise that the applicant had paid funds to

the Lands Commission for the land. One of the respondents in Nyamekrom stated that it was very difficult to access mortgage loans at the banks due to the loan requirements. He noted further that:

*I am trying to arrange with my credit union to obtain soft loans from them for the developers to develop the property for me under the progressive development (Household, Nyamekrom SSI: 03/11/19).*

The study revealed that there are several credit unions and mutual fund organisations that operate under the umbrella body of the Ghana Co-operative Unions Association (CUA). Karley (2009) stated that there are other alternatives to mortgage funding in the acquisition of property. This includes mutual fund managers, joint venture capital, and co-operative funding. The CUA is a member of the Africa Confederation of Co-operative Savings and Credit Association (ACCOSCA) and the World Council of Credit Unions (WOCCU). The study revealed that all the members are expected to pay their dues and some of the benefits that they can enjoy are funds to acquire land, buildings, materials, and putting up houses so that when they retire, they will have a place to stay. The CUA is also a member of the Ghana Microfinance Institutions Network (GHAMFIN) and corporate with the Department of Co-operatives of the ministry of employment, Social Welfare, and the Co-operative Council. The co-operative credit union regulations, 2015 (L.I. 2,225) guides the operations of the credit unions in Ghana.

Since the co-operative unions are well established in the New Juaben municipality and Ghana they can contribute and acquire plots of land in the municipality especially vested lands at Nyamekrom so that they use part of their contributions as well as loans from their co-operative to develop their houses. This is comparable to the origin of the Building Societies in the United Kingdom where members use their contributions mainly to acquire houses. Currently, the building societies have developed into banks that receive deposits and grant mortgage loans to its members to acquire buildings in the United Kingdom.

The other potential sources of housing financing which are employed in housing globally but not common in the study area and Ghana are the issue of shares and bonds at the stock exchange or private placement as presented below.

As stated in previous sections, a real estate developer who issued an Initial Public Offer (IPO) at the Ghana Stock Exchange to obtain a capital sum of about GHC 60million (£1: GHC2.144, 2011) in 2011 was not successful since the public did not patronise or buy most of the shares. It was discussed under Chapter 3 that, the Ghana stock exchange does not provide adequate information about the capital market and the listed companies to the public thereby making the public lose interest and trust in the stock exchange. For instance, the latest report in November 2019 revealed that the GSE-CE, which measures the performance of the companies listed on the stock market, fell by 340 points or 13.52% in 2019 (Ghana Stock Exchange, 2019). To attract the public to buy shares on the stock market and make capital available for estate developers, the Ghana Stock Exchange must provide adequate and reliable information to the public. According to Reilly & Brown (1997) and Mishkin and Eakins (2012), a capital market should be able to divulge adequate information not only on the performance of the stock market but on the companies that are listed so that the public can make informed decisions about their investments. Furthermore, there should be numerous potential buyers and sellers willing to trade on the market at prices below or above the current market price. Additionally, the cost of transactions in buying and selling should be minimal. The Ghana stock exchange should therefore reflect the above attributes to attract estate developers to be enlisted to generate more capital to expand their businesses.

Apart from the public stock exchange, the estate developers can rely on private placement, where primary share offerings can be sold privately to several institutions and not through the public stock exchange (Geltner and Miller, 2001).

In addition to the shares issue discussed above, bonds are a reliable source of capital for developers (Lam and Chiang et al, 2011). The literature review analysed detailed characteristics of the issue of bonds on the stock market, which is another potential source of capital to developers which is yet to be exploited in the study area. It is a long-term debt that is presented in the form of securities which place on the issuer the responsibility to pay periodic interest rate throughout the bond and lump sum payment of the principal of the loan at the end of the loan period (Lam and Chiang et al, 2011; Mishkin and Eakins). It, therefore, put an obligation on the issuer to pay the investor the money that has been

invested with interest over a period while in the case of share issue companies have no obligation to pay back the amount invested but the investor earns dividends and appreciation of the share values. This characteristic of bond issue reduces the risk of the investor and attracts them to patronise bond issues than shares. This gives the assurance that if developers issue bonds rather than shares on the stock exchange the public would patronise it for them to increase their capital and develop more buildings in the community. The risk associated with this form of investment, however, is that the company would be bankrupt if it is unable to pay the interest and the principal of the loans.

According to Lam and Chiang et al (2011) due to the global financial crisis, banks were hesitant to grant loans to housing developers hence developers including those in Asia countries like Hong Kong and Singapore resorted to the issue of bonds and it was successful. For example, in Hong Kong the housing developers dominated in the issue of bonds on the corporate debt market with the issue of 260 bonds amounting to S\$14.7 billion (US\$1 = S\$1.6) from 1998 to 2008 (Rogers, 2009).

### **Enhancing sale of houses to households**

One of the findings of real estate developers was the difficulty in anticipating demand for their products. This was because due to large capital invested in houses, if the houses are not patronized early enough, developers tend to lock up their capital in the houses for a considerable number of years. Views expressed by respondents concerning the sale and acquisition of houses were pricing, location, size of the houses, and the style of houses. These have been analysed below.

### **Estate developers should develop houses at competitive prices, varied sizes and finishes.**

As stated in previous sections, most of the households interviewed in the sample areas complained about the high prices of the houses sold by the developers and were of the view that they earned supernormal profit. They further explained that the prices discourage them from acquiring estate properties and they decide to rent or engage in incremental development.



The respondent of Old estate stated that they adopt the cost accounting principle of Job Order Costing to price their products. This type of costing entails the cost of construction, administration cost, and profit margin. Hence when the profit margin is reduced the price of the houses would reduce. Though outsourcing of jobs has its benefits in terms of efficiency in performance that results in reducing cost when profit is overstated, it results in higher prices of the houses.

Moreover, it was revealed from the study that, housing prices could be attractive and affordable to households to acquire if developers construct properties of varied sizes and finishes. One participant stated that developers should construct houses of varied sizes and costs so that households can ‘cut their coats according to their cloths’. He further explained that when households are allowed to choose among varied houses, they would be attracted to acquire what they can afford. It, therefore, means that developers should build both semi-detached and detached buildings. Under this circumstance, low-income earners may choose to buy semi-detached buildings while middle or high-income earners would buy detached ones which are relatively expensive. The representative of State Housing Company at Old estate stated that:

*We developed semi-detached and detached houses where the detached buildings were expensive than the semi-detached buildings to allow different income earners to acquire what they can afford. The company also developed single, two- and three-bedroom houses to allow households of varied sizes to choose the type that would suit them (Official, SHC, SSI: 03/11/19).*

However, in Effiduase estate, SSNIT developed only high-rise buildings that contained two-bedroom houses which did not provide households options to choose from, thereby making it difficult for low-income earners to acquire.

Similarly, households in the Akwadum estate revealed that the estate developer uses imported building materials which are very expensive thereby resulting in high prices of houses. To attract households to patronize houses varied finishes like smooth cement screed floor finish, terrazzo floor finish, or porcelain tiles floor finish should be used. The

Households stated that the low-income earners would acquire buildings with standard finishes that attract low values whilst the middle- and high-income earners would prefer the terrazzo and porcelain tiles that are sold at high prices.

Location of the houses and provision of infrastructural facilities in the communities attract households to acquire houses and these have been discussed under housing affordability in previous sections.

The above recommendations are applicable in the New Juaben Municipality, Ghana, and other developing countries since they share similar financial and socio-economic characteristics.

#### **8.4 Fulfilling of study objectives.**

The study presented answers to the key research questions. The aim was to provide affordable housing in the study area. It was realised that housing affordability was not only the ability to access mortgage loans but also to sustain the payment of the monthly mortgage throughout the loan term. It was indicated that though there existed various forms of housing financing, the most reliable and internationally recognised is the mortgage system as the alternative housing finance (progressive development) takes about 10 to 15 years to complete. Furthermore, though the mortgage loan was reliable, the requirements were difficult to be met by most of the households. The requirements to access the loans were the payment of 20% of the price of the house as deposits, monthly payment, creditworthiness, and provision of collateral. It was identified that due to the high prices of the houses and low incomes of most of the households, they were unable to access the mortgage loans. Those who were able to access the loans were usually high-income earners in institutions like banks and communication networks who received subsidies from their employers to acquire houses. Ghanaians living abroad were also able to access the loans to acquire houses. Those who were able to access the loans were worried about the ability to sustain the payment of the monthly mortgage due to challenges like fluctuations in the interest and foreign exchange rates which usually increase the monthly mortgage though their incomes remained the same. Furthermore, expenses related to housing like payment of stamp duty, insurance premiums to cover life

and fire, maintenance of the houses, and high transportation cost to commute from home to their workplaces reduced their incomes and made it difficult to make the monthly payments. This sometimes resulted in defaults in payments of the monthly mortgage and resulted in the sale of the houses by the banks to redeem unpaid loans.

Another aim was to identify the challenges that financial institutions encounter that made it difficult to provide loans to households. This was also achieved since it was revealed that the main challenges encountered by the mortgage institutions were interest rate risk, foreign exchange risk, credit risk, and long foreclosure period. Since the mortgage interest rate was indexed to the policy rates, the fluctuations in the policy rate affected the value of the banks' capital and discouraged them to provide loans to households to acquire houses. A similar situation occurred with the fluctuations of the foreign exchange rate. It was revealed that the fluctuations in the foreign exchange, especially between the Ghana cedi and the USD were significant and this affects the value of the loans provided throughout the long period of the loan. Furthermore, the high credit risk and long foreclosure period of the mortgage loans discouraged most banks to grant mortgage loans to households.

Moreover, the research objective of identifying the challenges associated with housing construction in the study area was also achieved. An investigation that was undertaken concerning the activities of housing developers was guided by the supply factors of housing construction which are land, labour, capital, and building materials. It was revealed that housing developers encountered challenges with land acquisition, registration, and planning permits. Due process was not followed to compulsory acquire the Adweso lands. The estate developers were therefore not given a lease agreement that they could transfer part to households who acquired the houses that they constructed. Since there were no agreements between the estate developers and households, developers could not collect ground rents from households. Additionally, housing developers encountered delays in land registration and obtaining permits for developing houses since the processes were not automated. Again, most of the estate developers outsourced the construction of their houses to general contractors instead of engaging specific contractors to construct the houses themselves. This resulted in charging double profits which

increased the cost and prices of the houses. Since houses are expensive, housing developers require a large amount of capital to be able to build estates. In the study area, however, apart from Social Security and National Insurance Trust (SSNIT) that used pension funds for development, it was difficult for State Housing Company (SHC), Akwadum estate, and individual households to access funds for the construction of houses. SHC used internally generated funds to develop uncompleted houses for sale since they did not have adequate funds to build completed houses, while Akwadum estate allowed households to pre-finance the construction of their houses. Individual households who access mortgage loans to develop houses on lands that they acquired must meet loan requirements of payment of 20% deposit, high interest rate, and provide collateral for the loans. Housing developers also encountered shortages and high prices of building materials that made it difficult to construct many houses in the study area. There was also limited use of building equipment like excavators and mixers which facilitate the construction process and reduces the cost of construction. The construction equipment is usually imported into the country and of high prices which were unaffordable to most of the housing developers.

Additionally, the objective of presenting recommendations was also achieved. The framework of the study revealed that the activities of the stakeholders were interdependent and complementary. Hence as they perform their activities efficiently, they solve each other's challenges to be able to make adequate houses in the study area. Households could therefore access loans if they receive subsidies from their employers or government to pay loan deposits so that they use part of their monthly incomes to pay monthly mortgages. Furthermore, financial institutions would be able to provide adequate loans to households if the government manages the economy well and stabilises both policy and foreign exchange rates. Again, the Bank of Ghana should enforce credit rating agency laws to help banks to grant loans to credit-worthy households to reduce the high credit risk. The government should also amend the Mortgage Act to reduce the forfeiture period and introduce the use of trustees to manage collateral properties. Real estate developers can also function well if land acquisition processes are streamlined and the land registration and permit granting processes are automated to help them gain easy access to

registered lands for development. Estate developers could also engage a skilled specific building labour force to construct quality houses at reasonable cost and price and use local quality building materials to develop the houses.

### **Contribution to knowledge**

The study has made considerable contributions to housing financing and development in communities. Significant among them is the development of themes based on modified (due to attributes of houses) demand and supply factors to assess the performance of the housing industry in communities especially in developing countries under one study. The study developed housing affordability measures, which are the ability of households to access mortgage loans, sustain the payment of the loans, and the knowledge that households have about mortgage financing. Furthermore, the assessment of effective mortgage industry factors was the management of policy interest rates, exchange rates, assessment of creditworthiness, and period of foreclosure. Additionally, the performance of estate developers was based on easy access to registered land for development, engagement of well-trained specific contractors, access to the low cost of capital for development, and access to quality locally produced construction materials. Finally, the ability of estate developers to sell houses to avoid locking up capital in unsold houses. These serve as policy guidelines for city authorities to prepare housing policy for communities.

Additionally, the findings of the research identified the interrelationship among the main stakeholders in the housing industry. This relationship helped to develop a sustainable housing management model based on the principle of the price mechanism to manage the provision of houses in a community. The model highlighted the interdependence of the main stakeholders. It indicated that the effective performance of each of the stakeholders helped to solve the challenges of the others in the housing industry and make adequate houses available in a community. However, if the stakeholders were unable to perform their functions, it adversely affects the performance of the housing industry and results in a housing deficit. The model revealed the linkages among the stakeholders in the housing industry that must be considered to make adequate houses available in the community.

For instance, if Lands Commission can automate its operations and expedite registration of lands for estate developers at a lower cost, they (estate developers) can construct more houses at reasonable costs and relatively lower prices for households to acquire to mitigate their accommodation challenges. On the other hand, if Lands Commission is unable to automate its activities, registration of lands for construction will delay and be at a higher cost. The delay and high cost of registration will increase the cost and price of houses constructed by estate developers. Households, especially low-income earners will not be able to acquire the houses due to the high prices and there will be acute accommodation challenges in the community. The performance of the Lands Commission thereby affected the performance of estate developers and households because of their interdependence.

Theoretically, the study strengthens the principle of price mechanism such that apart from its application to determine equilibrium price and quantity, it has been adopted to develop a model for managing the provision of houses in a community.

The discussions on the findings of the study revealed that affordability could be based on the taste and fashion of the household. Affordability measure could therefore be based on the options made available for the household. The options presented to the households will enable them to choose what they can afford. These options are based mainly on floor sizes, the number of bedrooms, finishes, and the location of the property. This is because when households are allowed to choose the house that they could afford, they can acquire with or without mortgage loans. The houses that they will choose will be based mainly on the size of households, finishes, and or cost of transport. Households with different levels of income (low, middle, and high) with varying family sizes will choose appropriate houses that they could afford.

The study adds to the literature on housing finance and delivery in the study area since research work carried out in the area is very limited. It, therefore, provides good literature material for further studies on housing finance and delivery in the study area and other communities, especially in developing countries. Despite the above significant contributions made by the study, it had some limitations which have been discussed below.

#### **8.4.1 Limitation of the study and further research**

The study considered the main source of housing financing to be mortgage loans, though there existed alternative sources of finance like microloans, joint ventures, and loans from cooperative unions in Ghana. This was because mortgage loans are recognised internationally to be the main source of housing financing to households. Since some of the households in the study area rely on alternative sources of housing financing, it creates an opportunity for further research in the study area.

Additionally, the use of the case study strategy also led to the focus on the New Juaben municipality, however, the findings and recommendations identified in the study are applicable in other parts of Ghana and developing countries since they share common financial and socio-economic characteristics. Furthermore, the literature discussed in the study can form the basis for further research in other communities.

#### **8.5 Conclusion of the study**

Housing affordability has been a major challenge for households in the study area of New Juaben municipality and Ghana as a whole. It has however been realised that the solution lies not only in the hands of the government as was perceived by most residents but requires the efforts of all the main stakeholders like the government, housing developers, households, and financial institutions. This section concludes on all the deliberations made under the research topic of housing finance and delivery constraints in Ghana, the case of New Juaben municipality. The section would therefore focus on a summary of what has been considered under the study by highlighting the objectives, methodology, and the entire discussions that have been made under the study. It would also present the main findings that have been identified under the various research questions. The significant contributions to research on housing in the study area and limitations to the study would also be stated. Lastly, areas that require further research in housing that would enhance the provision of adequate housing in the study area would also be presented.

### **8.5.1 Summary of thesis**

This thesis was written due to gaps that existed in terms of the dearth of literature on housing in the New Juaben municipality and the needed efforts required by the main stakeholders of households, financial institutions, housing developers, and relevant government agencies, to perform their related functions in the housing industry efficiently to make houses available in the Municipality. The main aim of the study was to identify how the players in the housing industry mentioned above could perform efficiently to solve each other challenges and make adequate houses available in the community to mitigate the acute accommodation problem in the study area. The broad objective of the study was to investigate the problem of household unaffordability of houses that have generated acute accommodation problems in the New Juaben Municipality and provide recommendations to the challenges.

To summarise the entire thesis, it covered 8 Chapters. The first four Chapters focused on the introduction and presented a strong theoretical basis for the research. Chapter one analysed the introduction of the study to provide the research question and objectives. Based on the research objectives the literature review was discussed under the 2<sup>nd</sup> and 3<sup>rd</sup> chapters. Whilst the 2<sup>nd</sup> chapter focused on the historical background to trace the roots of the housing constraints, chapter 3 analysed the demand and supply theory which formed the theoretical bedrock of the thesis. The historical background traced the activities on housing under when the state or colonial government controlled its management and when the private sector was introduced to partake in the housing industry due to the non-sustainability of the state control. Analysis of the historical background revealed the basis of the current housing challenges of overcrowding of residents that is experienced in the country. Furthermore, due to the introduction of the private sector housing was considered as a market and the principles of demand and supply were applied to analyse the activities of the stakeholders as to how they could perform their activities to determine prices of houses that would be affordable to households. Chapter 4 considered the conceptual framework of the study which relates to the main issues considered under the literature



review and their inter-relationships. The conceptual framework guided the research and helped in the adoption of the case study strategy of the qualitative methodology under chapter five. The case study employs several data collection techniques like an interview, focus group, and archival records to provide evidence from the field.

The empirical analysis of the study covered Chapters 6 and 7 and dealt with the interdependence among the main stakeholders and their activities to help provide answers to the research questions. The recommendation and conclusion for the study were presented under Chapter 8. The summary of the findings has been presented below.

It was realised from the study that most households could not meet the requirements of the mortgage loan to access loans to acquire houses in their communities. The main contributory challenges were the payment of deposits, provision of collateral, and the sustainability of the payment of a mortgage. It was only concerning the provision of the collateral that usually the banks allow them to use the property to be acquired as collateral. These challenges have been generated mainly due to low incomes of the households, high prices of the houses, high interest, and foreign exchange rates, and non-provision of adequate infrastructural services in the community.

Furthermore, the acute accommodation challenges in the study area have also been generated by the challenges experienced by financial institutions which do not attract most of them into the housing industry to give more loans to households to acquire houses. The main challenges of the financial institutions realised in the study were the interest rate risks, exchange rate risks, credit risk, and long foreclosure period. The volatility of the interest and exchange rates in the study area causes the banks to lose the real values of their capitals, therefore, becomes a disincentive to grant more loans to households to acquire houses in the study area. Furthermore, the study also revealed high credit risk in the study area as most of the households defaulted in the payment of loans. This also served as a disincentive for financial institutions to grant loans to households to finance their houses in the study area. Subsequently, when the borrowers default, it takes a long period for the courts to foreclose the mortgage and give orders for the collateral to be auctioned to pay the remaining loan. This long period usually results in the fall of the

price of the houses and the proceeds of the sale become inadequate to pay the remaining loan.

Another challenge that was identified in the study area concerning housing problems encountered by the housing developers. The first challenge was the inadequate assessment of the local market to know the taste and preferences of households so that houses could be constructed to attract them to acquire the houses. The inadequate assessment left most of the houses constructed by developers not purchased for long periods causing developers to lock up their capital in houses for a considerable number of years. It was realised that housing developers should consider household preferences concerning the location of the estate, sizes of houses to construct, pricing, and style including the provision of infrastructure facilities.

Furthermore, housing developers in the study area encountered challenges concerning the cost and availability of housing inputs for construction. These inputs were land, labour, capital, and building materials including equipment.

To resolve household's affordability challenges, it was identified that concerning payment of deposits to secure the loan, employers could grant soft loans to households to pay the deposit so that households can use part of their salaries to pay the monthly mortgage. Again, the government should prepare policies to enforce the Pension Act 2008, that pension claims could be used to pay deposits. Furthermore, the affordability ratio of 50% of a household's income should be reduced to 35% by increasing the period of loans from 15 years to 20 years.

Additionally, concerning the financial institutions, the government should manage the economy well to be able to control the fluctuating interest rate. This can be done by reducing the inflationary rate in the economy. Furthermore, the government should create enabling environment in the country to attract more investors to produce more goods including building materials in the country. When this is done, demand for foreign goods would be reduced and the cedi would stabilize against the major foreign currencies like the USD and pound sterling. Concerning the credit risk, the Bank of Ghana should strengthen its monitoring systems to enforce the Credit Reporting Act 2007, so that the

banks can rely on the credit rating of customers to grant loans to reduce the high default rate in the study area and Ghana. Again, the government of Ghana should amend the Ghana Mortgage Act 1978, to introduce an alternative foreclosure process where the banks and customers could engage a trustee to manage the foreclosure of mortgage loans for the banks to reduce the period used by the courts to foreclose mortgages.

The study also revealed that to prevent real estate developers from locking up their capital in unsold houses for long periods they should assess the preferences of households in a community before construction of houses. These assessments relate to locating estate houses close to the city centre and those houses which are far provided with public buses that would charge moderate fares and be more reliable. Additionally, housing developers should construct the varied size of houses at a different cost so that households with varied level of incomes could afford. Additionally, the land tenure system and the registration processes should be streamlined and help developers to get easy access to land for development in the study area. For instance, the land title registration process should be automated to facilitate the process of registration. The government should introduce more technical schools to train more artisans to work efficiently and reduce the cost and price of houses for households to acquire. Again, the government should create an enabling environment to attract more companies to produce building materials locally so that housing developers could reduce or stop the importation of building materials since they are very expensive due to high exchange rates and import taxes imposed on the materials. Lastly, the government should encourage the Social Security and National Insurance Trust (SSNIT) to invest more pension funds in the development of houses, so that they can be sold at a reasonable cost due to less cost of capital associated with the pension fund.

Though all the research questions of the study were answered, it was realised that the research concentrated more on mortgage finance as the main source of funds available to households to acquire houses. Since some of the households used alternative sources of housing finance like microfinance and loans from cooperative unions, further research could be done on alternative sources of housing finance and development in the study area.

### **8.5.2 Conclusion**

The study sought to identify the main causes of the acute housing challenge of overcrowding situation observed in the study area and supported by census reports. It, therefore, traced housing policies by the colonial government from 1907 when the government introduced the “Aided self-help” housing policy to improve sanitation in the communities to reduce the spread of the Bubonic disease that killed hundreds in the communities to post-independent era up to 2020 when the affordable housing project is practiced under the Public-Private Partnership (PPP). The immerging issues from the policies identified challenges with the main stakeholders (namely, households, financial institutions, housing developers, and relevant government agencies) which needed to be investigated. Since houses are products and traded on the market the Demand and Supply theory and Price Mechanism were modified based on the special characteristics of houses and applied as priory theory to discuss the challenges. It was realised that the activities of the stakeholders were complementary and interdependent and as the stakeholders perform their activities efficiently, they solve each other’s challenges in the housing industry to mitigate the housing challenges in the communities. A framework was therefore developed based on the theory of demand and supply and price mechanism to guide the fieldwork.

The case study research methodology was adopted to investigate the acute housing problem in the field since it allowed varying methods of investigation for various stakeholders based on their backgrounds referred to as triangulation. The challenges that were experienced by the various stakeholders were identified through semi-structured interviews, focused group discussions, and archival records. Data from the field were analysed based on the framework to identify key challenges. Recommendations based on the views of participants and relevant practices in other parts of the world were presented to mitigate the acute housing problem in the New Juaben municipal area.

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## **APPENDICES**

### **APPENDIX I**

#### **SEMI-STRUCTURED INTERVIEW GUIDES FOR HOUSEHOLDS, MORTGAGE INSTITUTIONS, HOUSING DEVELOPERS AND RELEVANT GOVERNMENT AGENCIES**

##### **Introduction**

This research is to meet a partial requirement of the award of a PhD degree in Business, Faculty of Business and Law at the Anglia Ruskin University, Cambridge, United Kingdom. The main objective of the research is to resolve the acute accommodation challenges in the New Juaben municipality. The face-to-face interview guide has been prepared to obtain data related to household housing affordability, housing finance, and housing development in the New Juaben municipality of Ghana. Detailed information about the research was provided in the participants' information sheet given to you prior to this section. You were also given participants consent form to fill to confirm your participation.

The semi-structured interview is divided into four main parts:

##### **PART ONE: INTERVIEW WITH HOUSEHOLDS**

###### ***General Information***

Date of interview:

Place of interview:

Interview Gender:

Marital Status:



Self-employed/salaried worker:

### **Interview with mortgage holders**

#### ***Mortgage requirements***

- 1) Why did you decide to acquire a house and did not rent one?
- 2) Why did you acquire your house with a mortgage and not cash or incremental development?
- 3) What type of house did you acquire and what was the price?
- 4) How much mortgage did you receive and what is the loan period?
- 5) How did you access the mortgage?
- 6) Which financial institution provided you the mortgage loan?
- 7) What type of mortgage did you access (Cedi or dollar loan) and why?
- 8) How much deposit did you pay and how did you get it?
- 9) What are your average monthly income and the monthly mortgage?
- 10) What proportion of your income do you use to pay the monthly mortgage? Probe further to know the impact of the monthly mortgage on the household income.
- 11) What interest rate do you pay on your mortgage? Is the interest rate the same throughout the loan period?
- 12) If no, why does it vary and what impact does the variation have on the payment of your mortgage?

#### ***Sustainability of mortgage loan***

- 13) Where is the location of your house?
- 14) How much does it cost you daily to commute from the house to work?
- 15) What impact does transportation cost have on your ability to pay the monthly mortgage?
- 16) What other expenses do you incur concerning the acquisition and use of the house in terms of access to water supply and electricity, stamp duty payment, and maintenance cost that affect your ability to pay your monthly mortgage?

***Interview with tenants / non-mortgage holders***

- 1) Do you have a house? If yes did you finance, it with a mortgage and why? If you do not have a house, would you like to access a mortgage to acquire one? Give reasons.
- 2) Have you applied for a mortgage from a financial institution to acquire a house?
- 3) What was the result and why did you not access the mortgage to acquire a house?
- 4) Do you have salary accounts with any of the banks?
- 5) What is your monthly salary and what proportion of the monthly income can you spend to pay the monthly mortgage?
- 6) How do you intend to pay your deposit which is about 20% of the price of the house?

**PART TWO: INTERVIEW WITH MORTGAGE FINANCIAL INSTITUTIONS**

***General Information:***

**Date of interview:**

**Place of interview:**

**Interview Gender:**

**Organisation / Institution:**

**Position/ Title**

**This section is divided into 4 parts**

***Interest rate risk assessment***

- 1) What is the interest rate on mortgage loans?
- 2) Is the interest rate fixed throughout the loan period?

- 3) If it is variable, why is it so?
- 4) How does the variation of the interest rate affect granting of loans to households?
- 5) Provide the yearly interest rate charged (both Cedi and Dollar rates) from 2014 to 2018

***Exchange risk assessment***

- 1) What is the current interest rate on dollar loans?
- 2) Is the interest rate fixed throughout the loan period?
- 3) If it is variable, why is it so?
- 4) How does the variation of the exchange rate affect the provision of mortgage loans to households?
- 5) Provide the yearly interest rate charged on dollar loans from 2014 to 2018?
- 6) What has been the impact of the variations in the cedi to the dollar exchange rate on the default rate of households?

***Credit risk assessment***

- 1) What is the general repayment status of your customers?
- 2) How do you assess the ability of households to pay their loans referred to as creditworthiness?
- 3) How do you ensure that the loan given to households has been used for the purpose it was given?
- 4) Please provide the yearly number of defaults from 2014 to 2018

***Foreclosure law assessment***

- 5) What legal instrument forms the basis of granting mortgage loans in the country?
- 6) How do you assess the foreclosure period provided in the Mortgage Act of Ghana?
- 7) What impact does the foreclosure period has on the sale of the collateral to pay the outstanding loan?
- 8) What impact does the foreclosure period has on mortgage loan financing?

### **PART THREE: INTERVIEW WITH HOUSING DEVELOPERS**

#### ***General Information***

**Date of interview:**

**Place of interview:**

**Interview Gender:**

**Organisation / Institution:**

**Position/ Title**

**The interview is divided into three main parts.**

#### ***Objective and motivation of institution***

Please present a background history of your organisation in terms of.

Date of establishment

Purpose of the real estate developers

Size and proportion of the market share

#### ***Land***

- 1) How did you acquire the land and what interest do you have in the land.
- 2) What challenges did you experience with the acquisition of the land and how did you resolve the challenges?
- 3) Have you registered your land? If yes, what challenges did you experience and how can the challenges be resolved?
- 4) How did the land acquisition and registration processes affect the construction and cost of the houses?

- 5) Do you have an approved planning scheme and a building permit? What challenges did you experience?
- 6) Did the process of obtaining a planning permit affect the construction and cost of the houses? Please explain.

***Sources and cost of the housing labour force and construction materials***

- 7) Do you engage general housing contractors or specific contractors?
- 8) What challenges do you have with the contractors?
- 9) What challenges do you have with labour efficiency and wages? How can the challenges be resolved?
- 9) What challenges do you have with access and use of building equipment? What impact does the use of building equipment have on the cost of construction?
- 10) What are the sources of supply of construction materials and what impact does the cost of the materials have on the price of your houses?

***Sources of capital***

- 11) What are your main sources of funds and what challenges do you experience with them?
- 13) How can the challenges be resolved?
- 14) How do the challenges affect the price and supply of houses in the estates / community?

**PART FOUR: INTERVIEW WITH GOVERNMENT AGENCIES**

***General Information***

**Date of interview:**

**Place of interview:**

**Interview Gender:**

**Organisation / Institution:**

**Position/ Title**

**The interview is divided into three main parts.**

## **INTERVIEW WITH LANDS COMMISSION**

### ***Allocation of vested serviced lands to households for development***

- 1) What is the process of allocating vested lands and government lands by the Lands Commission?
- 2) What challenges do you experience and how can they be resolved?
- 3) What challenges do you experience in providing infrastructural services on the vested lands at the outskirts of the municipality and how can the challenges be resolved?

### ***Land registration***

- 1) What is the standard process of registering land documents in the New Juaben municipality?
- 2) What is the average period of registering land documents in the municipality?
- 3) What challenges do you experience in land registration in New Juaben municipality?
- 4) How can the challenges be resolved?

## **INTERVIEW WITH LUPSA**

### ***Building permit***

- 1) What is the process of granting building permits in the New Juaben Municipality?
- 2) What is the average period of a processing building permit in the Municipality?
- 3) What challenges do you experience in process of granting the building permit in New Juaben Municipality?

- 4) How can the challenges be resolved?

## **INTERVIEW WITH UTILITY SERVICES**

### ***Provision of pipe-borne water and electricity***

- 1) What is the process of applying for the provision of water and electricity to communities?
- 2) Why have most areas at the outskirts of the communities not been provided with pipe-borne water and electricity?
- 3) What challenges do you experience with the provision of the services and how can it be mitigated?

## **APPENDIX II**

### **FOCUS GROUP DISCUSSIONS FOR HOUSEHOLDS, FINANCIAL INSTITUTIONS, HOUSING ESTATES, RELEVANT GOVERNMENT INSTITUTIONS.**

#### ***General information***

**Name of the interviewer:**

**Place of interview :**

**Date :**

**Institutions :**

#### **Introduction**

This research is to meet a partial requirement of the award of a PhD degree in Business, Faculty of Business and Law at the Anglia Ruskin University, Cambridge, United Kingdom. The main objective of the research is to resolve the acute accommodation challenges in the New Juaben Municipal Assembly. The focus group discussion guide has been prepared to obtain data related to household housing affordability, housing finance, and housing development in the New Juaben municipality of Ghana. Detailed information about the research was provided in the participants' information sheet given to you prior to this section. You were also given participants' consent form to fill to confirm your participation.

***Discussions on the interdependence of stakeholders and effective performance of roles in the housing industry.***

- 1) What are the name and legal basis of your institution?
- 2) What are your main functions relating to the housing industry?



- 3) Which of the institutions above do you deal with directly when performing your duties?
- 4) What support do you require from them before you could perform your duties?
- 5) What support do you provide to them to enhance their work?
- 6) What challenges do you experience with the relevant stakeholders that impede the performance of your duties?
- 7) What general challenges do you experience in the performance of your duties?
- 8) How can you perform your functions effectively to ensure that those who need your services would be equipped to perform their roles effectively to make houses available in the New Juaben municipality?

**Thank You**

### APPENDIX III

#### QUANTITATIVE ANALYSIS TABLE

	(1)	(2)	(3)	(4)	(5)
	Interest rate	Loans for household	Mortgage interest rate	Mortgage loan default rate	Exchange rate
Years	-0.541 (-0.50)	8.400 (0.29)	-1.076 (-0.91)	10.40* (3.48)	0.456124** (9.81)
_cons	1111.2 (0.51)	-16674.6 (-0.28)	2199.0 (0.92)	-20906.4* (-3.47)	-915.7628** (-9.77)
<i>N</i>	5	5	5	5	5
<i>R</i> <sup>2</sup>	0.077	0.027	0.216	0.801	0.9698
<i>F</i>	0.25	0.08	0.83	5*	96.21**

*t* statistics in parentheses

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

- The equation (1) is non-significant and indicates the relative stability of the interest rate around its annual mean.
- The equation (2) is non-significant and indicates the relative stability of the loans for households around its annual mean.
- The equation (3) is non-significant and indicates the relative stability of the mortgage interest rate around its annual mean.
- The equation (4) is statistically significant at 0.05 probability level and indicates to the mortgage loan default rate was increasing annually by 10.4 persons. In addition, the coefficient of determination indicates that 80% of changes that occurred in mortgage loan default rate were due to a set of factors that their impacts have reflected by time.
- The equation (5) is statistically significant at 0.01 probability level and indicates to the Exchange rate was increasing annually by 10%. In addition, the coefficient of determination indicates that 80% of changes that occurred in the Exchange rate were due to a set of factors that their impacts have reflected by time.

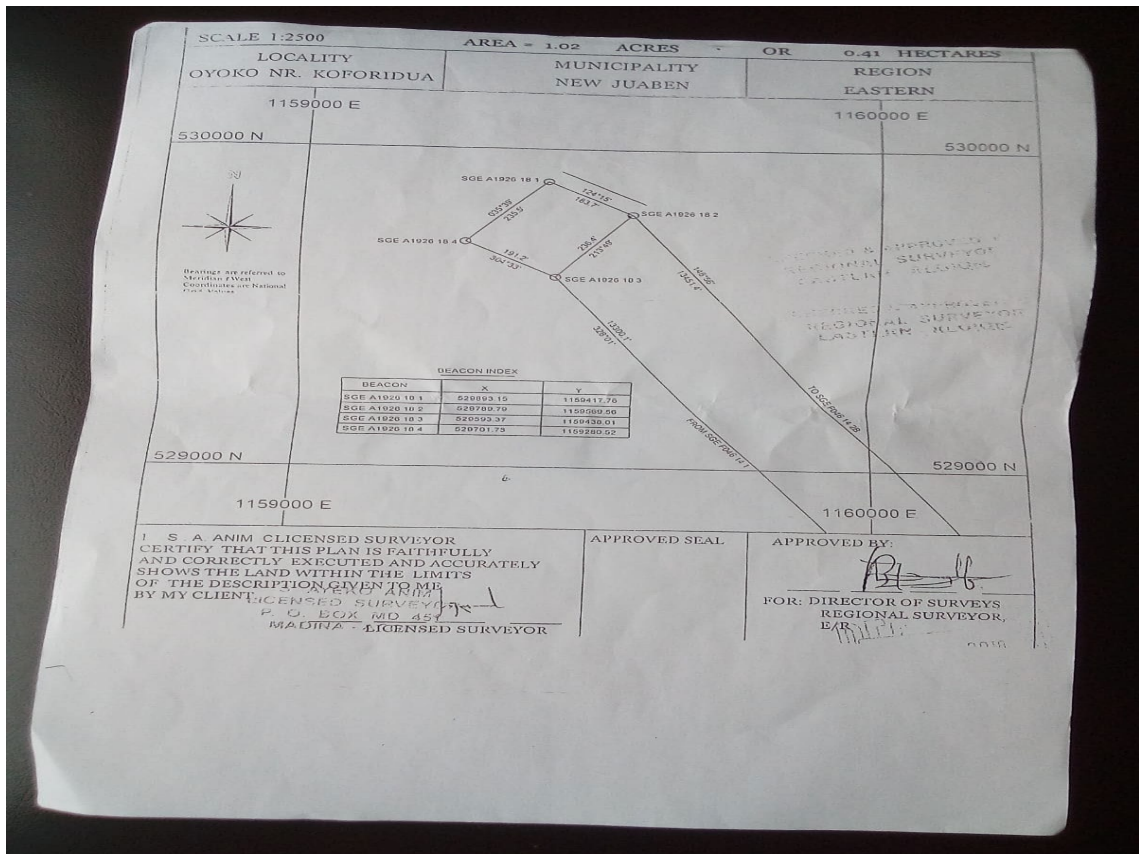
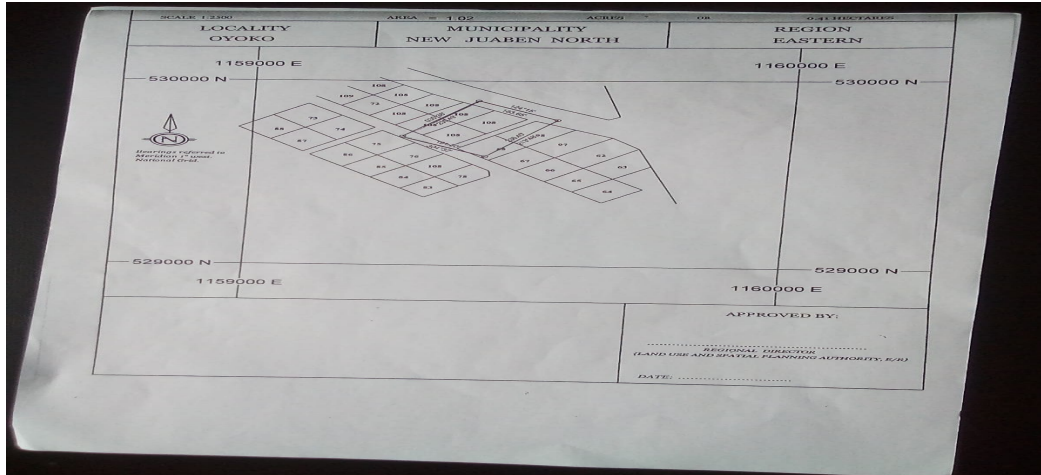
## **APPENDIX IV**

### **ARCHIVES INFORMATION**

**(a) Files stored on the floor of Lands Commission conference room due to lack of space**



(b) Site plan prepared without reference to the planning scheme





© Planning scheme of Adweso Estate





(d) Planning scheme of Old Estate at Nsukwao



e) Schedule of construction by Akwadum Estate

THE JOURNEY TO MY DREAM  
SINGLE ROOM SELF CONTAINING

90 GHANA CEDIS A DAY, 450 A WEEK, 1800 A MONTH

	BILL	DAYS	WEEKS	MONTHS	YEARS
Land acquisition	8600.0	95.6	19.1	4.8	0.4
land registration	4837.5	53.8	10.8	2.7	0.2
building permit	2687.5	29.9	6.0	1.5	0.1
substructure	17721.4	196.9	39.4	9.8	0.8
superstructure	36200.6	402.2	80.4	20.1	1.7
roofing	29892.5	332.1	66.4	16.6	1.4
finishing	104029.9	1155.9	231.2	57.8	4.8
electricity connection	3225.0	35.8	7.2	1.8	0.1
water connection	2150.0	23.9	4.8	1.2	0.1
1.5 contingencies	4695.5	52.2	10.4	2.6	0.2
Totals	214039.9	2378.2	475.6	118.9	9.9

