



Ashesi University College

**An Investigation into the Factors Accounting for the High and Persistent
Housing Deficit in Ghana**

By

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the award of the Bachelor of Science Degree in Business Administration

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DECLARATION

I hereby declare that this thesis is my original work and that no part of it has been presented for another degree in this university or elsewhere.

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Date: 18th April 2018

I hereby declare that the preparation and presentation of this thesis was supervised in accordance with the guidelines on supervision of theses established by Ashesi University College.

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Date: _____

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ABSTRACT

For several decades, Ghana has faced an increasing housing deficit. As population is expected to grow in the coming years, so is the housing deficit, if the right measures are not put in place. Following this, the study sought to gather information from relevant stakeholders in the housing industry on the key factors influencing the housing deficit. Thereafter, ways of addressing the deficit were discussed and proposed. To achieve the objectives of the study, the following research questions were answered:

i) What are the most pertinent factors accounting for the high and persistent deficit in Ghana? ii) In what ways are these factors influencing the persistence of the housing deficit? iii) In what ways can the housing deficit be addressed?

A conceptual framework was developed for this study with the various players in the housing industry put into 5 different groups based on their roles in the industry. These groups are the construction team, financial institutions, regulatory team, housing and utility service providers as well as housing service customers. Quantitative data was then collected from 454 persons while qualitative data was gathered from 1 person each from the construction team, financial institutions, regulatory team and housing and utility service providers.

The results revealed that amongst the main challenges encountered by home owners and potential home owners in acquiring a house are cost of land, cost of building materials and inadequate/expensive mortgage financing. On the side of those who supply housing, the key challenges were discovered to be high cost of building materials and labour, inadequate financing and defective land tenure system. Some ways of addressing the deficit were proposed including providing incentives to developers to help reduce construction cost, spreading jobs across the country to reduce congestion in major cities and the introduction of high rise buildings.

Keywords: factors influencing the housing deficit, Ghana

LIST OF ACRONYMS

ECG – Electricity Company of Ghana

GBC – Ghana Broadcasting Corporation

GRA – Ghana Revenue Authority

GWCL – Ghana Water Company Limited

IRB – Institutional Review Board

OHCHR – Office of the United Nations High Commissioner for Human Rights

UNICEF – United Nations Children’s Fund

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DEFINITION OF TERMS

Housing deficit - a deficiency or lack in the number of houses needed to accommodate the population in an area (Collins Dictionary, 2017)

Extended family – a family that extends beyond the nuclear family to include grandparents and other relatives (Oxford Dictionaries, 2017)

Nuclear family – a family group that consists only of parents and children (Merriam-Webster, 2017)

Household – an arrangement in which a single person or group of people living together make provision for their own food and other essentials for living (United Nations, 2017).

Institutional Review Board – a board that ensures that all research being carried out falls in line with ethical and legal procedures and policies, thereby protecting the subjects of the study.

CHAPTER 1: INTRODUCTION

1.1 Overview and Background

Abraham Maslow in 1943 mapped out man's hierarchy of needs and identified housing as one of the most important of the needs of man. In 1948, the United Nations under Article 25, recognized housing as a human right (OHCHR, 2014). According to Konadu-Agyeman (2001) housing is a human need, thus making it imperative for everyone to have a house to live in. Afrane, Bujang, Liman and Kasim (2016), go beyond recognizing housing as a basic need of man to highlighting housing as key in the generation of economic growth and development. As defined by the Bank of Ghana (2007), a house is a structurally separate and independent place of abode such that a person or group of persons can isolate themselves from the hazards of climate such as storms and the sun.

Housing in Ghana, which was previously highly influenced by culture and tradition, has evolved with time (Jumia House, 2014). Several years back, many houses in Ghana were compound houses which accommodated various members of the extended family within a common space (Jumia House, 2014). An example of such houses is seen in Figure 1. Another common house type that existed several years ago is the round mud house which is seen in Figure 2. These houses are made up of different units which also accommodate various family members, like the compound house. Though no longer common in the southern part of Ghana, the round mud houses can well be found in the northern part of Ghana. The types of houses described so far (compound houses and round mud houses) reflected the intensively social nature of traditional African societies and the pressing need to live close together in a land rich but climate hazardous region of the world walked by wild animals. As family types have evolved to become more nuclear over the years, housing types have also evolved

to accommodate the nuclear family type with cement/sand -sandcrete replacing mud and aluminium roofing sheets replacing thatch roofs (Jumia House, 2014; UN Habitat, 2011). Figures 3 to 6 show more modern buildings in Ghana.



Fig 1: Compound house in Ghana

Source: Maestra Corpus



Fig 2: Round mud houses in Ghana

Source: Graphic Online



Fig 3: A house built from bricks

Source: Vicalex Brick&Tile Company Ltd.



Fig 4: A house built from cement blocks

Source: Devtraco Ltd.



Fig 5: An example of a semi-detached house

Source: Kings Realty



Fig 6: An example of an estate developed by a private real estate firm. It shows good roads, proper drainage, sanitation facilities (bins) as well as vegetation and landscaping plans.

Source: Emefs Estate

With an ever-increasing population estimated to be 27,498,924 in 2017 and predicted to reach 30 million in a matter of a few years Ghana faces a housing deficit of 1.7 million units (CIA, 2017; Akyea, 2017). The housing deficit reflects low housing delivery relative to household and population growth (Boamah, 2010). Of the available housing units, majority of them do not have toilet facilities making the situation even direr as existing communities often end up as slums with people defecating in the open or placing the excrement in rubber bags to be thrown in the street or neighbors houses or in chamber pots to be deposited in drains (Joy Online, 2015). In 2015, an average of 22.9 percent of the population of Ghana did not have access to *any* toilet facility while only 15 percent used unshared sanitation facilities (UNICEF, 2015).

A study of the factors influencing the housing deficit in Ghana by Afrane, Bujang, Liman and Kasim (2016), revealed a number of factors responsible for the housing deficit. Amongst these are lack of continuity of housing development plans by successive governments due to consistent change of government, rural-urban migrations, population growth and urbanization, inadequate mortgage financing institution, high cost of land, defective land tenure system, high cost of building materials, lack of infrastructure and provision of utility services.

Afrane et al (2016) reveal that when there is a change of government in Ghana, the new government usually fails to continue projects started by the preceding government which include affordable housing projects. The authors further explained that rural-urban migrations have led to an increase in slums in the urban areas including Accra, Kumasi and Sekondi-Takoradi. They anticipated that the number of slum dwellers in the country will increase to 7.1 million by the year 2020.

Afrane et al (2016), however, obtained their data from only developers and did not include the perspective of other relevant stakeholders. The housing market is

influenced by several factors including demand-side factors and supply-side factors and policy factors but the study by Afrane et al (2016) does not quite capture all opinions and is a major motivation for the relevance of this study.

1.2 Problem Statement

The issue of housing deficit appears to be prevalent in countries across the world especially in African countries like Ghana (Monkkonen, 2012). Beyond the current housing deficit of 1.7 million units, Danyansah (2017) has projected the housing deficit will increase to 2 million units in 2018. As seen below, the housing deficit in Ghana has increased over the past 2 decades, making it an issue that needs much attention to stop or reverse the trend.

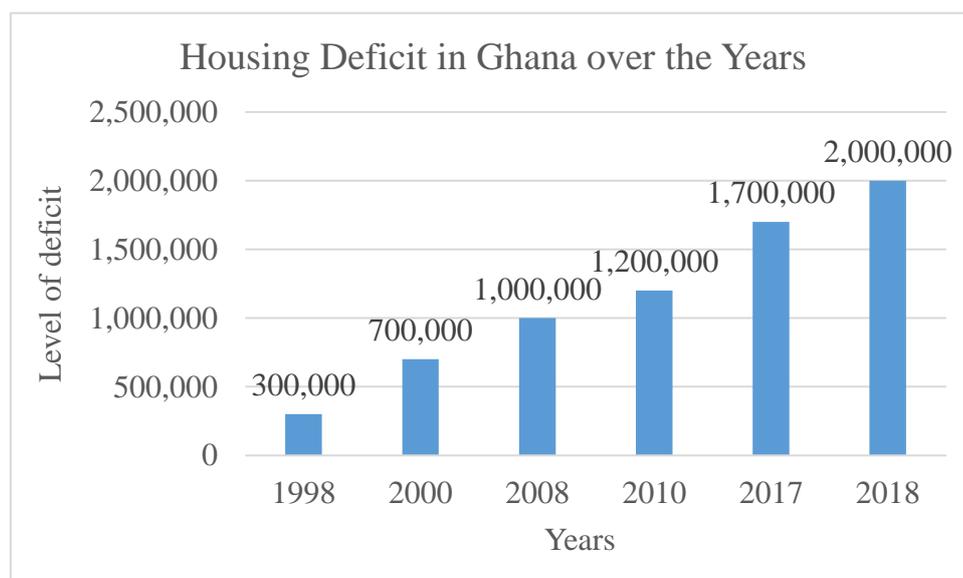


Figure 7

Data Source: (Afrane, Bujang, Liman and Kasim, 2016; Danyansah, 2017)

Over the years, incumbent governments in Ghana have rolled out housing projects to provide accommodation for more people. Nonetheless, the housing deficit remains high. In 2005, an affordable housing scheme was initiated by the New Patriotic Party (NPP), with the aim of providing accommodation for the low to middle income

earners (Agboada, 2016). Some of the areas the scheme has covered nationwide include Borteyman/Nungua, Kpone, Asokore-Mampong, Koforidua, Tamale, Wa and Prampram. Since then, the National Democratic Congress (NDC) also introduced the *Coordinated Programme of Economic and Social Development Policies*, describing an agenda for transformation which includes putting up more affordable housing units for citizens (Mills, 2010).

Following the failed interventions of government and the persistent housing deficit, there is a need to study both the demand-side and supply-side factors that influence the housing deficit. The relevant stakeholders in the housing industry need to be identified and information gathered from them, to contribute to the discussion.

1.3 Research Questions

- What are the most pertinent factors accounting for the high and persistent deficit in Ghana?
- In what ways are these factors influencing the persistence of the housing deficit?
- In what ways can the housing deficit be addressed?

1.4 Research Objectives

- To identify, discuss and collate the most pertinent factors influencing the housing deficit
- To rank the factors that influence the housing deficit
- To determine the various channels through which the various factors identified influence the persistence of the housing deficit
- To investigate the strategies through which the deficit can be reduced

1.5 Relevance of Study

This research will not only add to the knowledge on the housing sector in Ghana but also serve as a guide to policy makers in Ghana and in other African countries also facing the problem of housing deficit.

1.6 Scope of Study

The study focused on the Greater Accra Region of Ghana where data was gathered from various stakeholders in the housing industry to gather as much detail on the topic as possible.

1.7 Research Method

The study used a mixed method research to generate rich insight on the topic. The study was exploratory to uncover information and increase knowledge in the area of study. In addition to analysis based on existing literature, semi-structured interviews were conducted, and questionnaires issued to gather much data. A purposive sampling technique was used since the research topic is highly focused.

The parties identified in the conceptual framework in the literature review section were useful in helping answer the research questions because of their various roles in policy and decision making, research, developing houses and their ability to own a house.

1.8 Outline of Thesis

Chapter 1: Introduction

This chapter gives some background into the research topic. It highlights the questions the research hopes to answer, outlines the objectives of the research and draws on the importance of the study. The chapter further outlines the format the research will follow.

Chapter 2: Literature Review

This chapter draws on existing literature in discussing key concepts related to the study. Based on existing literature as well, a conceptual framework is developed, upon which this study will be carried out.

Chapter 3: Methodology

This section discusses the research design and techniques used in data collection and analysis. Justifications are also made for the methods and techniques used as well as the sample population and sample size. Based on the methods, techniques and tools used, conclusions are drawn, and a decision made on the topic.

Chapter 4: Results and Discussion

This chapter presents the research finds and explains the results. It employs graphical representations as well as the use of descriptions.

Chapter 5: Conclusion and Recommendations

This chapter gives a summary of the research findings and gives recommendations based on results. It also highlights some limitations experienced during the study.

CHAPTER 2: LITERATURE REVIEW

2.1 Overview

This chapter draws on existing literature to provide a detailed discussion about housing and the housing deficit. The chapter considers the housing situation across other continents and then focuses on Ghana.

2.2 Housing Situation around the World

In 1964, the Athens Center for Ekistics touched on some of the reasons for the poor housing situation across various parts of the world. Within Latin America, the principal reason for poor housing was attributed to high population growth rate which saw the creation and expansion of slums. Similarly, the Center identified high population growth as key to enhancing the housing deficit in Africa and in Asia as well.

In Asia, the Athens Center for Ekistics identified that the poor housing condition was mainly due to economic and industrial underdevelopment coupled with rapid population growth rate. However, Japan was singled out to have a higher housing delivery rate than population growth. Much like Japan, the Center also discovered that Europe was able to meet housing demand relatively well.

North America was also identified to be able to provide housing fairly well. Nonetheless, other issues requiring public attention were also identified such as housing for low income groups, slum clearance and urban renewal. Of all the continents, Oceania and the Pacific appear to have the least issues regarding housing owing to good climate, relatively low population growth rate and high per capita income.

2.3 Housing in Ghana

2.3.1 Demand for Housing

In the *Housing Market in Ghana* report in 2007, the Bank of Ghana touched on factors influencing demand of housing and other benefits derived from owning a house. The bank ascribed the increase in demand of housing as partly due to the identification of housing as a form of savings and protection of wealth against inflation in the long run. The bank also pointed to housing as the most preferred form of collateral by banks for granting credits, which has further influenced the demand for housing.

2.3.2 The Housing Industry in Ghana

In the post-independence National Development Plan of 1960-1965, two main bodies were created to help address housing issues in Ghana. These are the State Housing Corporation (STC) and the Tema Development Corporation (TDC). The TDC was created to establish residential units in Tema following the major industrialisation drive in the area. STC, on the other hand, worked to provide real estate across the nation. However, inadequate funds saw the vision fail over time and have individuals put up their own homes in an uncontrolled manner (Bank of Ghana, 2007). To this point, it is unclear why strict enforcement of laws was not applied to prevent the uncontrolled sprawling of houses.

2.3.3 Housing Policies in Ghana

A National Housing Policy Committee was formed in 1986 to help create a government policy and action plan aimed at providing adequate and decent housing. The committee sought to address constraints in housing delivery including housing finance, physical planning, land, building materials and delivery coordination efforts amongst others (Bank of Ghana, 2007). The bank further

outlines three choices of shelter acquisition which are to rent, build or mortgage, and points to the most popular choice for the developed world being mortgage as it is the most capable and superior financier within the industry in developed countries. The report also points to one of the hindrances of own-building being issues with access to land titles which then makes building less preferred for individuals. Following the report, this indicates that more Ghanaians are geared toward mortgage homes because with an increase in income level, they tend to move away from renting and consider building or mortgage homes.

Similarly, Boamah (2010) identifies another form of policy which is the use of subsidies for housing from the government of Ghana. In the early years after independence, from 1957 to about 1960 the government offered concessionary loans, roof loans and rental subsidies. In 1987 there was liberalisation in the housing sector in Ghana which led to the establishment of the Ghana Real Estate Developers Association (GREDA) in 1988 and the Housing Finance Company (now HFC Bank) in 1991 thereafter. These two bodies have been key in the development of housing in Ghana as HFC was able to provide \$44.4 million to support housing.

Obeng-Odoom and Amedzro (2011) identify a gap in housing policy in Ghana where policies are not seen to cover maintenance. They recommended including a maintenance policy in housing policies as key as this would cut out expensive repair costs and save existing houses from being lost through decay. Obeng-Odoom and Amedzro also raise the point about well-maintained houses having as high as 13 percent times more market value than poorly maintained ones.

2.4 Literature on the Factors Responsible for the Housing Deficit

The Athens Center for Ekistics further identified the use of non-durable construction materials as one of the major causes for poor housing conditions in Africa. One other major issue the Center identified is the drastic increase in population which has created a burden especially on urban areas.

Afrane, Bujang, Liman and Kasim (2016), in *Major Factors Causing Housing Deficit in Ghana*, discuss some of the factors responsible for the housing deficit in Ghana as mentioned in the introductory chapter.

From results of questionnaires issued, Afrane et al use average mean, cross-tabulation and correlation analysis to identify the most significant factors influencing the housing deficit in the nation. Nonetheless, information was only gathered from developers which is not representative of the housing industry. Thus, this research seeks to gather insight from other relevant stakeholders within the industry as will be identified in the conceptual framework. The study further used the quantitative research method whereas this research seeks to use both the quantitative and the qualitative research method in order to gain rich and in-depth insight about the issue.

Obeng-Odoom and Amedzro (2011) also identified some reasons for inadequate housing in Ghana. Amongst the reasons are poor maintenance attitude, lack of estate management expertise, insecure tenure, expensive building materials and poverty. Regarding poor maintenance attitude, Obeng-Odoom and Amedzro point to a poor maintenance culture where Ghanaians fail to show a responsible attitude toward maintain their own buildings. Besides identifying some traditional beliefs as a reason for poor maintenance culture, Obeng-Odoom and Amedzro fail to provide further reasons to fully justify why there is a case of poor maintenance

culture. Further reasons would especially be helpful as identified in the introductory chapter, the composition of households and construction materials of houses have evolved with time and are less traditional but rather more westernised in recent times.

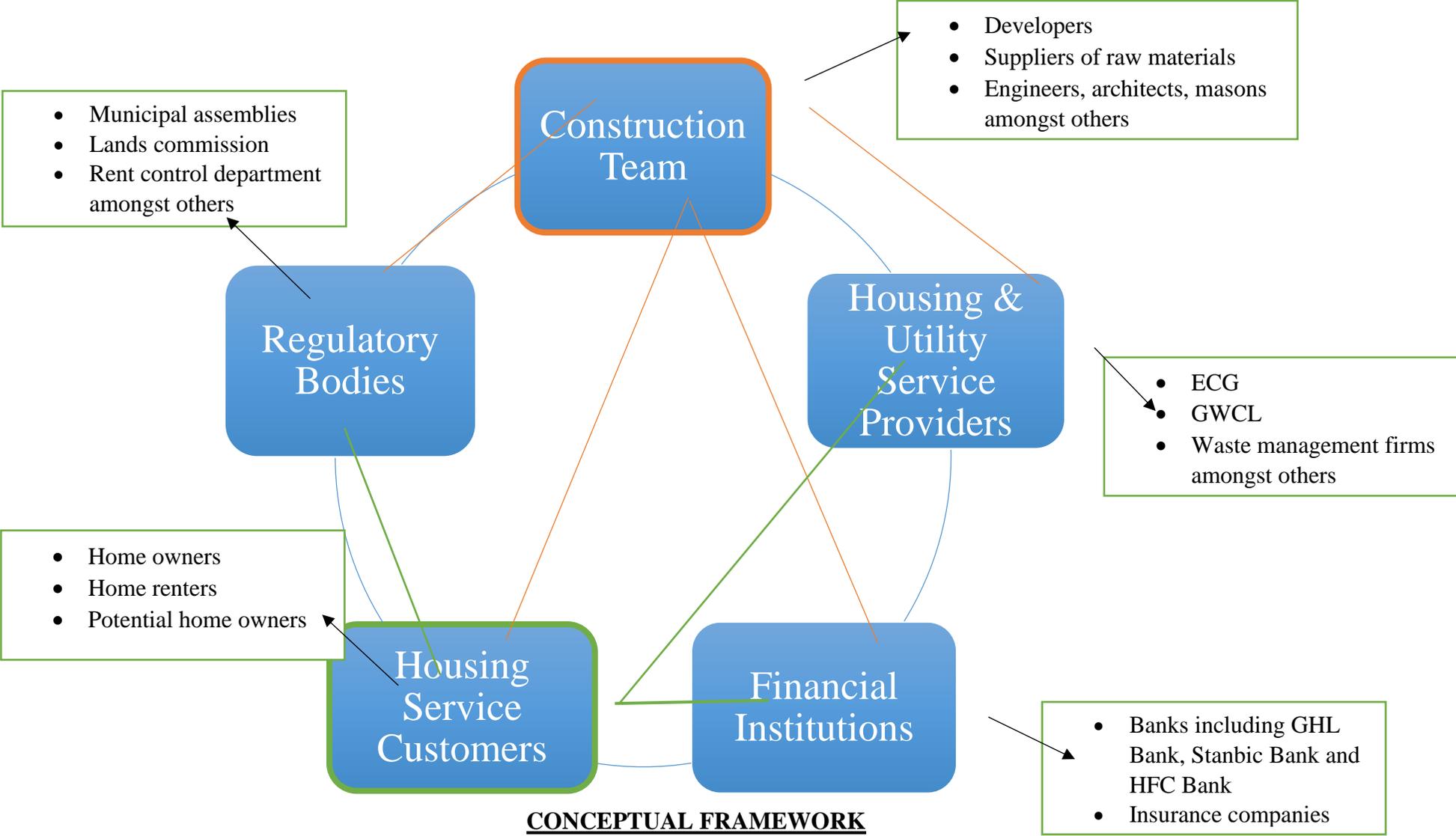
Nonetheless, it is not clear why estate developers are not involved in estate maintenance. Moving on, Obeng-Odoom and Amedzro discuss insecure land tenure which Afrane, Bujang, Liman and Kasim (2016) also make mention of. They tie this to poor maintenance, indicating that people underinvest in their homes following insecure tenures because they are uncertain how long they would have to keep their homes. However, this point is inferred from a general belief and not based on evidence directly specific to Ghanaians.

Obeng-Odoom and Amedzro (2011) discuss the relatively high cost of building materials in Ghana, specifically in Accra relative to other African countries. This, they conclude is partly the case because of currency devaluation and inflation which further affects the industry because several building materials are imported. Afrane, Bujang, Liman and Kasim (2016) concur with Obeng-Odoom and Amedzro (2011) on this point, identifying high cost of building materials owing to importation as a factor accounting for the housing deficit, because it further increases overall cost of building. To this effect, Afrane, Bujang, Liman and Kasim suggest that local substitutes be used in place of imported materials if support is given to manufacturers. However, it is not clear in the study what the needed support to manufacturers should be.

2.5 Conceptual Framework

Based on the shortcoming identified in the work of Afrane et al, a conceptual framework has been developed which will be used in conducting this

study. Miles, Netherton and Schmitz (2015) identify key players in the real estate development process. These players are further classified into 5 major groups based on their roles in the housing industry. Within the housing sector, these groups are dependent on one another.



Based on the roles that they play, coupled with some of the reasons already identified for housing deficits, potential problems within each of the 5 major groups have been identified and are outlined below:

- Construction Team
 - Shortage of skilled labour
 - High cost of building materials
 - Use of inferior building materials
 - Sustainability concerns
- Housing and Utility Service Providers
 - Inadequate supply of resources including water and energy power
 - Shortage of skilled labour
 - Disposal issues
- Financial Institutions
 - Devaluation of currency
 - Inadequate funds due to low savings
 - Problems of loan recovery
- Regulatory Bodies
 - Multiple sale of single plot of land
 - Sale of lands that zoned for other purposes
 - Bureaucracy
- Housing Service Customers
 - Inadequate funds and high service costs
 - Nature of community

2.6 Conclusion

Based on the literature studied, it can be confirmed that housing deficit is prevalent across the world. It can also be gleaned that the factors that account for housing deficits vary from country to country. Given that the study on the major factors accounting for the housing deficit in Ghana by Afrane, Bujang, Liman and Kasim (2016) was quantitative and based on only one of players in the housing industry which is developers, this research seeks to conduct a mixed method study with other players in the housing industry forming part of the sample of the study. This approach will bring insightful information considering the other players within the industry. This will further aid in policy and decision making.

CHAPTER 3: METHODOLOGY

3.1 Overview

Based on evidence of a high housing deficit in Ghana and a projected increase in the deficit, a field study was carried out to identify and rank the factors that influence the housing deficit. This section, therefore, discusses the method, approaches, instruments and analyses used in gathering the data and interpreting results of the study to meet the objectives of the study.

3.2 Research Design

A research design is described as a general plan or strategy for conducting a research study to examine specific testable research questions of interest (Lavrakas, 2008). The research design for this study is the exploratory design. Afrane et al (2016) conducted similar research, however, they obtained data from developers only which is not representative of the housing industry and it can be inferred that the authors used the quantitative research method. This study combined the best of both qualitative and quantitative research to provide more concrete information.

Johnson and Onwuegbuzie (2004) defined the mixed method research as the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study. Salkind (2010) also described the mixed method design as an integration of techniques from quantitative and qualitative paradigms to tackle research questions that can be best addressed by mixing these two traditional approaches. The mixed method was done concurrently where the qualitative and quantitative data were collected at the same time.

The qualitative aspect of the study helped provide a detailed narrative description and holistic interpretation of results (Lavrakas, 2008) while the quantitative aspect of the study provided precise and specific data that helped with generalisation.

3.3 Research Scope

3.3.1 Study Population

The population for this study consisted of the 5 major groups identified in the conceptual framework. These groups are the construction team, housing and utility service providers, financial institutions, regulatory bodies and housing service customers. The population was mapped out based on both the demand and supply sides of the housing industry.

3.3.2 Study Area

The study area for this research was the Greater Accra Region where the capital city of Ghana is located. The Greater Accra region was identified to be the most ideal region in Ghana for this study because from 1984 to 2010, when the last census conducted, the region was noted to have had the highest migration of +1,275,452 which is over four times more people than the Western region which came in second in the ranking of the number of migrants over the period (Ghana Statistical Service, 2014). Furthermore, the *2010 Population and Housing Census* revealed that the Greater Accra region is the most densely populated region with 1,236 persons/square km which is over five times more than that of the Central region which is ranked second in terms of population density. It could be inferred from these statistics that the Greater Accra region may thus face the highest threat of housing deficit relative to the other regions as people appear to be migrating to the region the most.

3.4 Sampling Strategy

3.4.1 Sampling techniques

This study used purposive sampling techniques. This technique is described as the deliberate seeking out of participants with particular characteristics, according to the needs of the developing analysis and emerging theory (Lewis-Beck, Bryman & Liao, 2004). It was imperative that this study employed this approach owing to the type of data required for the analysis and the persons with the ability to provide insight on the issue. Specifically, the snowballing technique was used. Lewis-Beck, Bryman and Futing Lao (2004) defined snowball sampling as a technique for gathering research subjects through the identification of an initial subject who then provides the other actors. In this case, having identified a few participants, these participants further helped identify other subjects that could provide vital information for the study. Regarding the interviews, the research was discussed with the respective institutions before the start of the interviews such that the most ideal employee for the research interviews will be proposed.

3.4.2 Sample Sizes

With the 2016 population of the Greater Accra region estimated at 4,613,637 (Ghana Statistical Service, 2016) and a population growth rate of 2.17% (CIA World Factbook, 2017), the 2017 population of the region is estimated to be 4,713,753. Using a margin of error of 5% and a confidence level of 95%, the sample for the study was set at 385 people. This sample size satisfied the quantitative requirements of the study. To obtain the qualitative data, interviews were conducted with 1 persons each from the regulatory team, financial institution, housing and utility service providers and the construction team. From the regulatory team, a Municipal Chief Executive (MCE) was interviewed. From the financial institution, a Client Acquisition Consultant was

interviewed. From the housing and utility service providers, a Human Resource (HR) Officer from the Electricity Company of Ghana (ECG) was interviewed. From the construction team, a Real Estate Developer was interviewed.

3.5 Data Collection

3.5.1 Data Collection Instrument

Data was gathered through interviews and the use of questionnaires developed by the researcher. Interviews were semi-structured to allow for flexibility in the research process while questionnaires were partly open-ended.

3.5.2 Data Collection Procedure

Data for the study was collected through face-to-face interviews with the participants. Questionnaires were issued to more participants than were interviewed. This was done over a period of two months. Permission was sought from the participants and prior notice given on what the study was about and the purpose of it. Consent forms were given ahead of interviews and filling questionnaires to get the full approval and to be certain of participants willingness to participate in the study. Interviews commenced once permission had been granted. With permission from participants, interviews were recorded. Participants who wished not to be recorded were not recorded.

3.6 Data Preparation, Collation and Processing

A pilot test was rolled out before the actual start of interviews. Given (2008) described a pilot test as a small-scale implementation of a larger study with a purpose of developing some conclusions and pushing an area of research or foreshadowed problem where reformulation or the generation of other researchable questions can occur. This was used to assess if the right information was being sought after. Information gathered was then reported and analysed in Microsoft Word. Microsoft

Excel was further used for graphical representation of data collected as well as ranking the most pertinent factors influencing the housing deficit in Ghana.

3.7 Data Analyses

Data was analysed as and when it was gathered. The initial analysis helped inform upcoming interviews as to whether questions needed to be revised or methods and instruments needed to be changed. The study used content analysis as well as descriptive statistics in analysing the data gathered. Content analysis is described as a process whereby any form of communication, including texts and images is subject to a process of counting based on the frequency of certain words, phrases, and other linguistic sets as well as the use of an established coding frame designed to generate measurements from qualitative materials (Byrne, 2017). Onwuegbuzie and Combs (2010) define descriptive statistics as techniques that are used to organize and summarize data to enhance understanding. This method was also employed in the analyses of the information gathered for easy understanding.

3.8 Validity and Reliability

Reliability in research refers to the consistency of outcomes while validity refers to the accuracy of inferences made based on the outcome measure (Suter, 2012). Reliability shows the extent to which a measure yields the same scores across different times, groups of people, or versions of the instrument (Vanderstoep and Johnston, 2009). Validity on the other hand, shows if a measure actually measures what is intended to be measured (Vanderstoep and Johnston, 2009).

To ensure validity in this study, a pilot test was conducted. This was used to check that the questions being asked were appropriate and useful in meeting the objectives of the study. Questionnaires were also standardised to enhance reliability.

3.9 Ethical Considerations

A research proposal, including the questionnaire for the study and interview questions were submitted to the Institutional Review Board (IRB) of Ashesi University College before the start of field work. This committee ensures that the study meets all ethical and legal requirements. Following approval from the committee, field work commenced. Furthermore, privacy, confidentiality and anonymity were observed in the study. Names of subjects were not disclosed in the report so as to protect participants who gave off sensitive details. Data reported is also truthful and reflects actual responses gathered through the interviews and from the questionnaires.

3.10 Limitations

Though the study was able to collect a lot of data through questionnaires, the response rate for interviews was relatively low. Not all prospective participants were willing to partake in interviews. Other participants were not as forthcoming with information as they could possibly have been. This limited the level of in-depth information that this study could have brought out.

CHAPTER 4: FINDINGS AND ANALYSIS

4.1 Overview

This chapter presents the findings of the study as well as the analyses of the data gathered through research. The chapter relates the findings gathered through interviews and questionnaires to existing literature to answer the research questions of the study and meet the objectives of the study. The main objectives this research sought to achieve are: i) to identify, discuss and collate the most pertinent factors influencing the housing deficit; ii) to rank the factors that influence the housing deficit; iii) to determine the various channels through which the various factors identified influence the persistence of the housing deficit and iv) to investigate the strategies through which the deficit can be reduced.

As mapped out in chapter 2, the housing industry was classified into 5 groups for this study. These are the construction team, housing and utility service providers, financial institutions, regulatory team and housing service customers (people who live in houses). It is important to note that individuals within the first four stated groups also form part of the last group which is the housing service customers. 1 person each from the construction team, housing and utility service providers and the regulatory team were interviewed. Questionnaires were also issued to the housing service customers.

4.2 Demographic Information about Respondents

The Greater Accra Region selected as the focus of the study for reasons stated in chapter 3. A sample size of 385 was identified to be ideal for the study. This was based on a confidence interval of 95% and margin of error of 5%. A total of 454 filled the online questionnaire. 2 questionnaires were only partly filled: they were incomplete in areas that were key in meeting the objectives of the study so were eliminated. Thus, a total of 452 questionnaires was used in the analyses.

All participants were Ghanaians, 18 years or older. Out of the respondents, 35.61 percent were female. 48.2 percent of the participants were employed with 56 percent of the employed population being employed in the local private sector, 23.4 percent employed in the public sector, 17 percent employed in international organisations and 3.2 percent employed in local non-governmental organisations.

4.3 Analyses of Findings

4.3.1 Major factors affecting the housing deficit in Ghana

4.3.1.1 Ranking of the factors that influence the housing deficit in Ghana

The data gathered through the questionnaires required participants to rank the factors affecting the housing deficit in order of which factors they consider most pressing. The factors were classified under demand-side factors which show factors that affect housing customers and supply-side factors which show factors affecting bodies and institutions in the delivery of housing.

A matrix was then designed to rank the factors based on the responses. The matrix is as follows:

The factors were ranked on a scale of 1 to 6, where:

1 = Extremely pressing

2 = Very pressing

3 = Pressing

4 = Neutral

5 = Barely pressing

6 = Not pressing

1 (Extremely pressing), 2 (Very pressing) and 3 (Pressing) were put into a broad category “*Pressing Factors*” to help ascertain the order in which respondents consider the various factors as pressing. Following this, the value of responses under 1, 2 and 3 as

seen in Table 1 and Table 2 were summed up. The section showing the respondents for 1, 2 and 3 are bordered blue in the tables. The results were thus used to rank the factors in descending order.

Note that the rows represent the factors while the columns represent the number of respondents who picked each ranking value.

RANKING OF DEMAND-SIDE FACTORS AFFECTING THE HOUSING DEFICIT IN GHANA						
FACTORS	1	2	3	4	5	6
Mortgage Financing	239	91	57	18	14	33
Lack of Infra/utilities	136	136	81	42	28	29
Land Tenure	187	124	74	25	21	21
Cost of materials	222	119	51	29	17	14
Cost of land	248	100	45	19	17	23
Document Acquisition	203	108	51	32	29	29

Table 1: A table showing the number of responses per rank for each of the demand-side factors.

These responses are also presented in pie charts below:

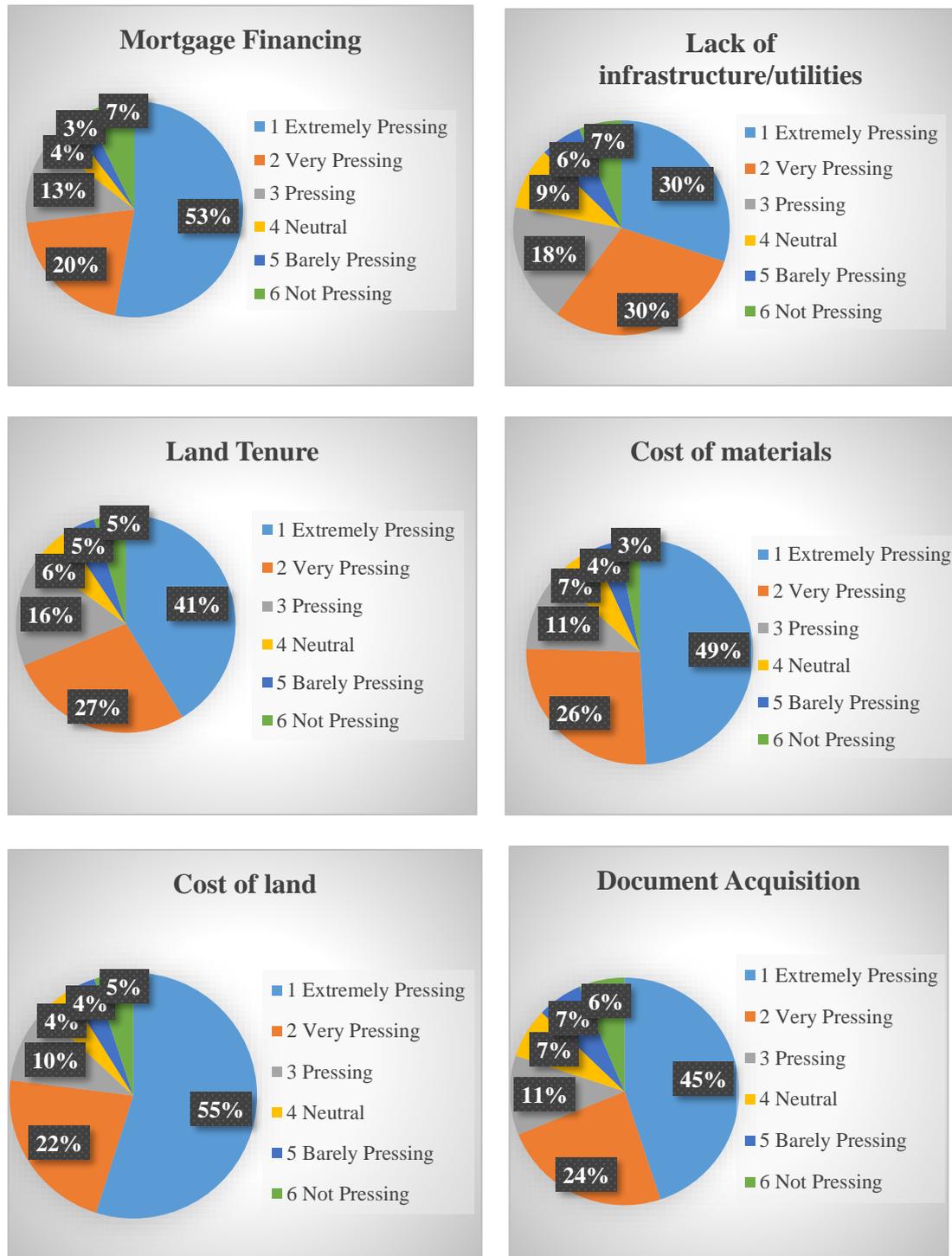


Fig 9: Individual charts showing the weightings for the various demand-side factors, based on participants' responses || Source: Field data

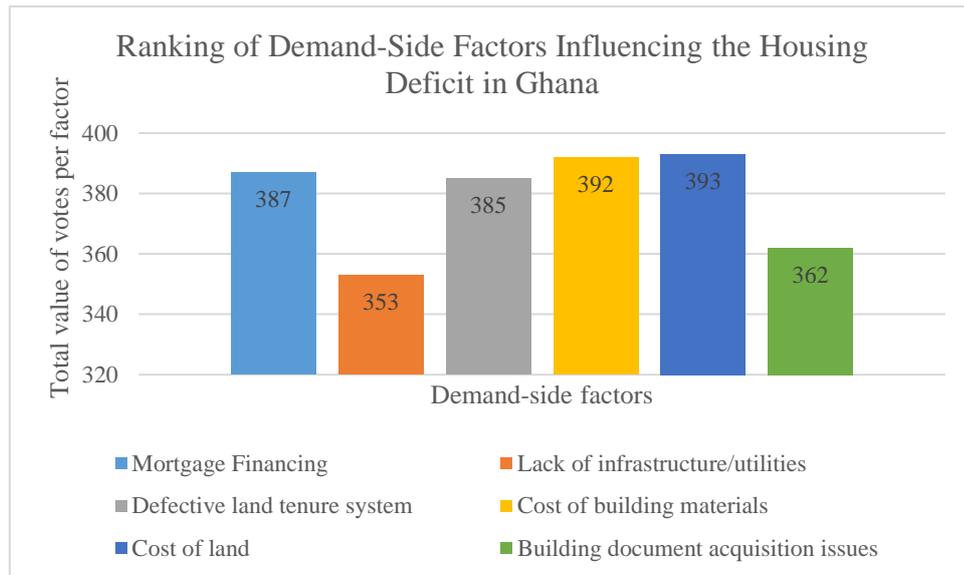


Fig 10: A graph showing the summation of votes under the broad category “*Pressing Factors*” where the individual votes for 1(Extremely pressing), 2(Very pressing) and 3(Pressing) were added up to determine the order in which respondents consider the identified demand-side factors as pressing.

The results show that for the demand-side the order of factors affecting the housing deficit in terms of which is most pressing is as follows:

1. Cost of land
2. Cost of building materials
3. Inadequate/expensive mortgage financing
4. Defective land tenure system
5. Difficulty in acquiring needed documents for building
6. Lack of infrastructure/ provision of utilities

The tabular and graphical representation of responses for how pressing various supply factors are in relation to the housing deficit in Ghana are seen next:

RANKING OF SUPPLY-SIDE FACTORS AFFECTING THE HOUSING DEFICIT IN GHANA						
FACTORS	1	2	3	4	5	6
Change in gov't	183	109	82	23	27	28
Material, labour cost	192	157	51	28	7	17
Land tenure	191	129	69	33	10	20
access to infra/utilities	149	139	86	33	20	25
Inadequate financing	198	126	67	27	16	18
Inadequate skilled labour	108	125	101	46	25	47

Table 2: A table showing the number of responses per rank for each of the supply-side factors.

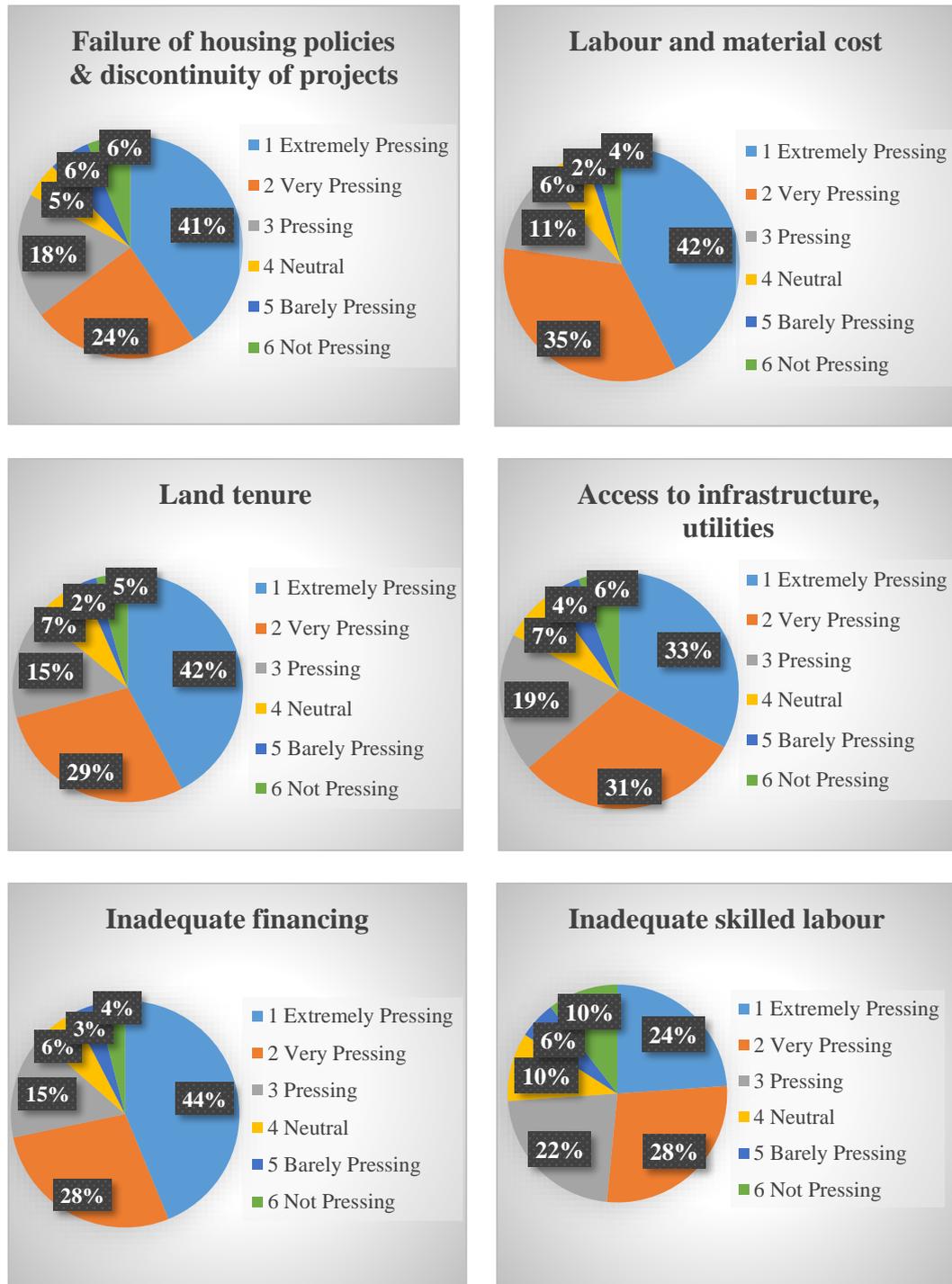


Fig 11: Individual charts showing the weightings for the various supply-side factors, based on participants' responses

Source: Field data

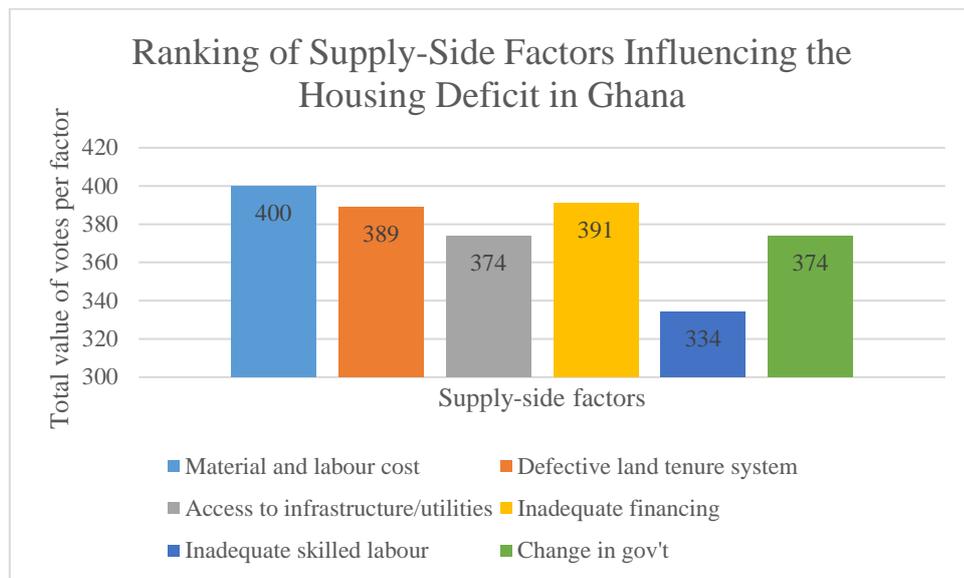


Fig 12: A graph showing the summation of votes under the broad category “*Pressing Factors*” where the individual votes for 1(Extremely pressing), 2(Very pressing) and 3(Pressing) were added up to determine the order in which respondents consider the identified supply-side factors as pressing.

On the supply-side, the order of factors affecting the housing deficit in order of which is most pressing is as follows:

1. High cost of building materials and labour
2. Inadequate financing
3. Defective land tenure system
4. Failure of housing policies and lack of continuity of projects due to consistent change in government
4. Access to infrastructure/ provision of utilities
6. Inadequate skilled labour

NB: there was a tie for fourth place on the supply side.

Both demand and supply factors were also put together and assessed as factors that affect the housing deficit in general. In doing so, the average value was found for factors that appeared on both the demand and supply side. Figure 13 shows the values for each factor.

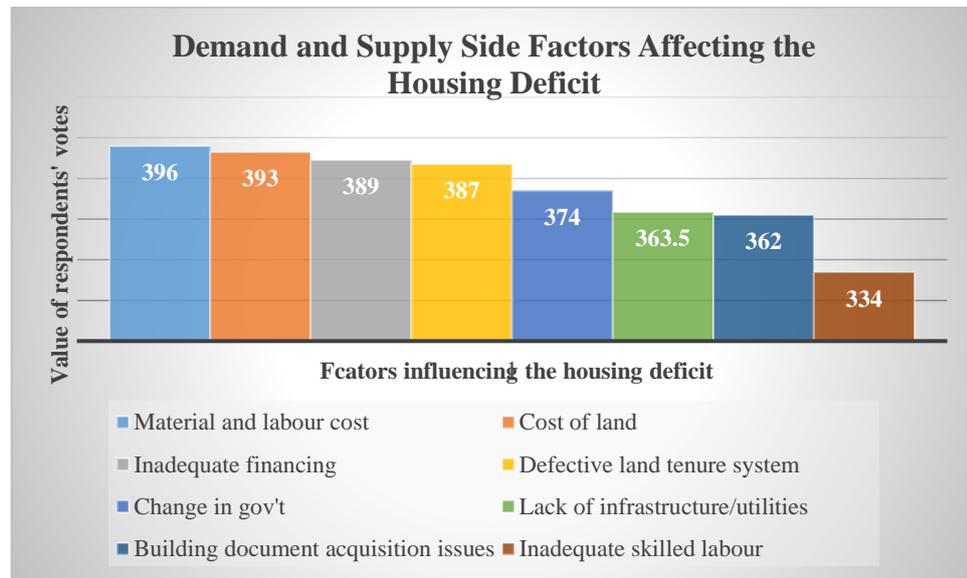


Fig 13: A graph showing the collation of both demand and supply side factors that influence the housing deficit in Ghana.

The results thereof read:

1. Cost of building materials and labour
2. Cost of land
3. Inadequate/ expensive financing options
4. Defective land tenure system
5. Failure of housing policies and lack of continuity of projects due to consistent change in government
6. Lack of infrastructure/ provision of utilities
7. Difficulty in acquiring needed documents for building
8. Inadequate skilled labour.

Relating the ranking in this study to the results of the research conducted by Afrane et al (2016), a difference is seen. They identified some major factors influencing the housing deficit in Ghana. From their analysis, in order of the most significant, the factors are:

1. Inadequate mortgage financing
2. Defective land tenure system
3. Consistent change of government
4. Lack of infrastructure/provision of utilities
5. High cost of land

This difference may be attributed to the fact that Afrane et al (2016) focused solely on developers (the supply side) whereas this study gathered data from both the supply side and demand side including the construction team, financial institutions, regulatory team, housing and utility service providers and housing service customers.

4.3.1.2 Discussion of factors identified and how they perpetuate the housing deficit

Interviews with players in the housing industry gave much insight on the housing deficit in Ghana because of the privilege of personal discussions which allowed for more explanation and further questions to be asked. These discussions helped better understand why and how some of the factors already identified by Afrane et al (2016) and the factors ranked above are problems. Amongst these factors are:

Inadequate/expensive financing options. Owing to high interest rates, fewer developers and home buyers can borrow money to develop and buy houses respectively. Ghana has 35 licensed banks (Bank of Ghana, 2017). However, few of these banks offer mortgages. Amongst the few that offer mortgages are GHL Bank (formerly Ghana Home Loans), HFC Bank, Fidelity Bank and Stanbic Bank. Stanbic Bank, for instance, requires persons to have a minimum monthly net salary of GHS 2,000 which translates to a minimum annual net salary of GHS 24,000. The survey revealed that 48 percent of the population was employed. Figure 14 gives the salary ranges of the respondents. Of this sub-population of employed persons, most of the respondents may not be eligible for mortgages in Stanbic Bank as 39 percent of the respondents earn an annual salary of less than GHS 5,000 and 36 percent earn between GHS 5,000 and GHS 30,000 annually.

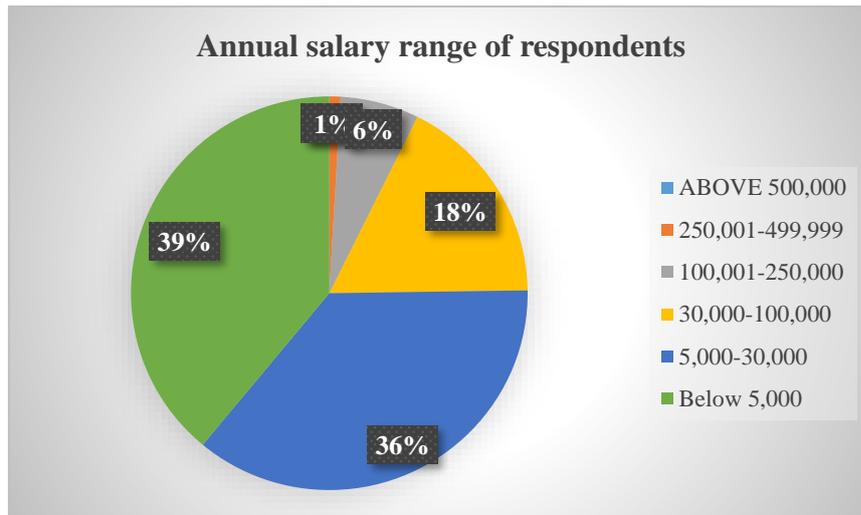


Fig 14: Annual salary ranges of employed participants.

Source: Field data

Another point to consider is cost of building materials and labour. This point was earlier confirmed by Obeng-Odoom and Amedzro in 2011. Building materials are a key variable that influence the price of buildings and these materials appear to be costly. Several materials are imported which increase total expenditure on buildings. Currently, developers pay a value added tax (VAT) of 15 percent on goods purchased locally as well as a 15 percent National Health Insurance Levy (NHIL) on all imported goods (GRA, 2018).

A developer interviewed in this study indicated that importing building materials is his preferred option to purchasing locally produced building materials. He cited that the building materials he imports such as doors turn out to be cheaper when imported than when produced locally. He further stated that the imported materials are also of better quality than the locally made ones.

There are also issue of defective land tenure system. In the pre-colonial era, lands in Ghana were governed by customary law but with time has come to include the common law or English law as well as Acts of Parliament (Dzokoto & Opoku, 2010). There is multiple sale of

land which hinders the growth of the housing industry. A Municipal Chief Executive (MCE) who was interviewed in this study confirmed that this usually happens because people fail to perform due diligence before finalizing purchase of lands. He went on to explain that failure to perform due diligence when purchasing a land has also caused people to purchase lands that have been zoned for other activities. Victims of that, he said, have their houses demolished when found.

Former president J.J. Rawlings (2009) pointed out that there is multiple sale of lands because of different parties claiming ownership to the same piece of land. He also cited the poor use of compulsory acquisition powers by government agencies, weak management and the menace of land guards as factors enhancing the multiple sale of lands. The Ghana Land Administration Project (LAP) also confirmed that 85 percent of the civil cases reported annually are land cases.

Unique to the already identified factors was that people go into the housing sector with very little knowledge. The aforementioned MCE explained that some of these people are drawn to the industry by the revenue they hope to earn. He also mentioned that some others are influenced by ideas they have seen abroad but fail to consider the features distinct to each country such as climate, which may support the structures or not. This point was earlier mentioned by Richardson (2014) who cited the XGI building located in Shiashie, Accra as not being usable because of the glass all around the building which does not make the building usable because of the climate of the country. The MCE went on to explain that when materials that generally do not match the climate of a place are used, this calls for extra costs to be incurred to fix systems such as air conditioners and heaters to make homes more habitable.

4.3.2 How the housing deficit in Ghana can be addressed

Seeing as the housing deficit was projected to increase to 2 million units this year, it is imperative that the nation adopts measures to combat this. Through interviews and questionnaires, the views and experiences of participants were gathered on how the housing deficit can be mitigated. These ways are outlined below:

To begin with, government should provide incentives to developers. Some of these incentives can take the form of tax exemptions, duties clearance and grants. This will help reduce the total cost of construction for developers which will in turn help reduce the selling price of houses. This will help more people acquire houses easily. This re-invites an action by some past governments of Ghana in the twentieth century, identified by Boamah in 2010. In that era, the government issued subsidies as a means of providing affordable housing in the country. Between 1957 and 1966 the government provided roofing subsidies (Boamah, 2010). However, it can be inferred that this system was ruled out because the Bank of Ghana (2007) reported a proposal to provide subsidies for housing. This approach could be picked up again. On the other hand, government could also provide general subsidies on more common building materials such as sand and cement. This will help reduce the overall cost of construction and in turn reduce the selling prices of homes.

It can be deduced from the data gathered that several citizens find that it is highly expensive to acquire a house in Ghana which they cannot readily do given their earnings. On the other hand, interviews also reveal that the prices of homes in the country are greatly influenced by the cost of labour and materials. Thus, the introduction of subsidies is a great tool in narrowing the gap between the prices of houses and individuals' wealth.

Additionally, there should be more efficient systems in place for the land and permit acquisition. There should be informal education on the need to secure the necessary permits before building commences. This will help ensure that developers and persons seeking to build go through all the required processes before commencing building. With this in place, people having lost money to multiple sale of lands or cases of people having acquired lands for building in places zoned for other purposes will be reduced significantly. There will also be fewer cases of houses being demolished for being built in the wrong places.

Furthermore, municipal assemblies and other zoning departments should work diligently to ensure that all buildings that come up have the needed permits. These inefficient systems and failed institutions are revealed in the decision of the Aviation Minister and the State Housing Corporation to carry out demolition activities on houses built on lands zoned for other purposes (CitiFMOnline, 2017; Joy Online, 2018). The interview with the MCE revealed that in times past, responsible bodies, failed to carry out their duties to the core for which reason buildings have been put up in locations zoned for other purposes. The collapse of the Melcom building in Achimota, Accra, revealed that the firm did not secure the necessary document before building and that the location on which the Melcom structure was built had been zoned for another activity (BBC, 2012).

In addition, there should be more financing options and more flexible repayment terms. Long-term financing options at a lower interest rate should be introduced for both developers and buyers. This will ensure that money is accessible to a lot more developers and individuals to help them build and acquire houses. Ghana records a mortgage rate of between 22 and 45.8 percent (CitiFMOnline, 2016). Uganda, on the other hand with a similar housing deficit of 1.6 million units records a mortgage range of 22-28 percent which is relatively better than the range offered in Ghana. Ghana's Minister for Works and Housing has confirmed that the

government has reversed its plans to establish a housing bank citing heavy capital as a downside. Alternatively, government has proposed giving pension funds to existing banks who will then give out mortgages at competitive rates (GBC Online, 2018).

Government should spread offices, infrastructure and utilities around the country. This will reduce the incidence of rural-urban migration and decongest major towns and cities around the country. This will permit the use of the vast unused land spread across the country. This should be coupled with a pragmatic plan of how the deficit will be addressed based on statistics and available resources.

Moreover, developers should adopt the use of new and more appropriate methods of building and techniques. Developers should seek materials and approaches to building that are less expensive yet efficient and that will lead to durable buildings. Again, more high-rise buildings should be introduced. The main benefit of high rise buildings is that they accommodate more people on less space. They are also seen to reduce theft and the fear of it because of controlled entrances (Gifford, 2007). Farouk (2011) also identified the use of high rise buildings as a way to reduce the high costs of land in providing accommodation for several people. He also pointed to the use of high rise buildings as an expression of progress and civilisation.

Despite the benefits of high rise buildings, Gifford (2007) also highlighted some cons which draw people away from them. One of them is the fear of falling from a high height which may result in injury or death. Another fear is the collapse of the building in times of earthquakes. However, Ghana is far from the major earthquake zones and can thus accommodate high rise residential buildings (Amponsah, 2004).

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1 Overview

This chapter provides a summary of this entire study. It goes further to make recommendations based on the insights gained, that are expected to help reduce the housing deficit in Ghana considerably.

5.2 Summary of Study

The purpose of this study was to identify the key factors that influence the housing in deficit in Ghana, having identified a high deficit which was projected to further increase with time. This work added on to that of Afrane et al (2016) which identified some major factors inducing the housing deficit in Ghana. Whereas Afrane et al (2016) sourced their data from only developers, this study extended the population to capture the experiences of various parties on both the supply and demand side. These parties were segmented into 5 main groups based on their roles in the housing industry. These groups are housing service customers, the regulatory team, housing and utility service providers, financial institutions as well as the construction team. The population was narrowed to the Greater Accra region where Ghana's capital, Accra, is located.

This research employed both quantitative and qualitative techniques in data collection. the data gathered revealed that on the demand side, the most pressing factors that influence the housing deficit are cost of land, cost of building materials and inadequate/expensive mortgage financing. On the supply side, the most pressing factors were high cost of building materials and labour, inadequate financing and defective land tenure system.

Based on interviews with relevant stakeholder in the housing industry as well as literature, some possible solutions were proposed to help address the housing deficit in the country. These include the introduction of high rise buildings to maximise the use of land and the provision of subsidies to developers to help reduce the overall cost of construction. It was

also proposed that government spread its offices across the country to decongest major cities and make use of the vast lands across the country.

The main limitation of the study was that some relevant stakeholders who could have provided key insight into the study were not available to be interviewed.

REFERENCES

- Afrane, E., Bujang, A. A. B. Liman, H. S. and Kasim, I. (2016). Major Factors Causing Housing Deficit in Ghana. *IISTE*. Retrieved from <http://www.iiste.org/Journals/index.php/DCS/article/viewFile/28630/29392>
- Agboada, K. (2016). Where is the affordable housing? *Graphic Online*. Retrieved from <https://www.graphic.com.gh/business/business-news/where-is-the-affordable-housing.html>
- Amponsah, P. E. (2004). Seismic activity in Ghana: past, present and future. *Annals of Geophysics*, 47(2). Retrieved from <http://www.earth-prints.org/bitstream/2122/778/1/16Amponsah.pdf>
- Athens Center for Ekistics. (1964). The World Housing Situation. *Ekistics*. Retrieved from <http://www.jstor.org/stable/43614027>
- Bank of Ghana. (2007). *The Housing Market in Ghana*. Retrieved from <https://www.bog.gov.gh/privatecontent/Research/Research%20Papers/bog%20housing.pdf>
- Bank of Ghana. (2017). *Licensed Banks, Representative Offices & Their Registered Offices in Ghana – August 30 2017*. Retrieved from http://www.bog.gov.gh/privatecontent/Banking_Supervision/LICENSED%20BANKS%20%20ADDRESSES_AUGUST%2030%202017.pdf
- BBC. 2012. *Melcom shop collapse in Ghana: Negligence blamed*. Retrieved from <http://www.bbc.com/news/world-africa-20250494>

Boamah, N. (2010). *Housing Affordability in Ghana: A focus on Kumasi and Tamale.*

Retrieved from

<https://www.ajol.info/index.php/ejesm/article/view/63958/51765>

Byrne, D. (2017). What is content analysis? *Project Planner.*

10.4135/9781526408570.

Central Intelligence Agency. (2017). *The World Factbook: Ghana.* Retrieved from

<https://www.cia.gov/library/publications/resources/the-world-factbook/geos/gh.html>

Farouk, A. (2011). *High Rise Buildings and How They Affect Countries Progression.*

Retrieved from <https://www.g-casa.com/conferences/zagreb/papers/Akram1-HighRise.pdf>

GBC Online. 2018. *Government no longer interested in establishing housing bank –*

Atta Akyea. Retrieved from <http://www.gbcghana.com/1.12018605>

Ghana Revenue Authority. (2018). *Value Added Tax.* Retrieved from

<http://www.gra.gov.gh/index.php/tax-information/value-added-tax>

Ghana Revenue Authority. (2018). *Domestic Taxes.* Retrieved from

<http://www.gra.gov.gh/index.php/tax-information/income-tax>

Ghana Statistical Service. (2014). *2010 Population and Housing Census Report:*

Urbanisation. Retrieved from

<http://www.statsghana.gov.gh/docfiles/2010phc/Mono/Urbanisation%20in%20Ghana.pdf>

Ghana Trade. (2017). *200,000 units required to fix Ghana's housing deficit*. Retrieved from <http://ghanatrade.com.gh/Trade-News/200000-units-required-to-fix-ghanas-housing-deficit.html>

Gifford, R. (2011). *The Consequences of Living in High-Rise Buildings*. *Architectural Science Review*, 50(1), pp. 2-17. DOI: 10.3763/asre.2007.5002

Given, L. M. (2008). *The SAGE encyclopedia of qualitative research methods*. Thousand Oaks. CA: SAGE Publications Ltd doi: 10.4135/9781412963909

Intsiful, G. W. K. (2017). *Apparent disappearance of vernacular architecture*. *Graphic Online*. Retrieved from <https://www.graphic.com.gh/features/opinion/apparent-disappearance-of-vernacular-architecture-in-the-northern-regions.html>

JoyBusiness. (2018). *Aviation Ministry to demolish buildings on GCAA lands in East Legon*. Retrieved from <https://www.myjoyonline.com/business/2018/January-23rd/aviation-ministry-to-demolish-buildings-on-gcaa-lands-in-east-legon.php>

Jumia House. (2014). *The Evolution of Ghanaian Houses*. Retrieved from <http://house.jumia.com.gh/journal/evolution-ghanaian-houses/>

Konadu-Agyeman, K. (2001). *Structural adjustment programs and housing affordability in Accra, Ghana*. *Wiley Online Library*. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/j.1541-0064.2001.tb01500.x/epdf>

Lartey, P. N. (2017). *State Housing Company's nationwide demolition to start at Adenta*. *CitiFMOnline*. Retrieved from

<http://citifmonline.com/2017/09/14/state-housing-companys-nationwide-demolition-to-start-at-adenta/>

Lavrakas, P. J. (2008). *Encyclopedia of survey research methods* Thousand Oaks, CA: SAGE Publications Ltd doi: 10.4135/9781412963947

Lewis-Beck, M. S., Bryman, A. & Futing Liao, T. (2004). *The SAGE encyclopedia of social science research methods* Thousand Oaks. CA: SAGE Publications Ltd doi:10.4135/9781412950589

Lokko, V. K. (2016). GN Bank offers cheapest mortgage loans in Ghana. BoG Report. *CitiFMOnline*. Retrieved from <http://citifmonline.com/2016/08/30/gn-bank-offers-cheapest-mortgage-loans-in-ghana-bog-report/>

Measurement in research. (2012). In Suter, W. N. *Introduction to educational research: A critical thinking approach* (pp. 250-282). Thousand Oaks, CA: SAGE Publications Ltd. doi: 10.4135/9781483384443

Miles, M. E., Metherton, L. M. & Schmitz, A. (2015). *Real Estate Development: Principles and Processes*. Washington DC: Urban Land Institute

Monkkonen, P. (2012). Demographic Transition, Economic Crises and the Housing Deficit in Indonesia. *Research Gate*. Retrieved from https://www.researchgate.net/publication/228276718_Demographic_Transition_Economic_Crisis_and_the_Housing_Deficit_in_Indonesia

Mohammed-Nurudeen, M. (2015). Open Defecation, Privacy and Women Dignity. *Joy Online*. Retrieved from

<http://www.myjoyonline.com/lifestyle/2015/november-30th/open-defecation-privacy-and-women-dignity.php>

Obeng-Odoom, F. and Amedzro, L. (2011). Inadequate Housing in Ghana. *Urbani Izziv*. Retrieved from <http://www.jstor.org/stable/24920562>

OHCHR. (2014). *The Right to Adequate Housing*. Retrieved from http://www.ohchr.org/Documents/Publications/FS21_rev_1_Housing_en.pdf

Onwuegbuzie, A. & Combs, J. (2010). Emergent data analysis techniques in mixed methods research: a synthesis. In Tashakkori, A. & Teddlie, C. *SAGE handbook of mixed methods in social & behavioral research* (pp. 397-430). Thousand Oaks, CA: SAGE Publications Ltd. doi: 10.4135/9781506335193

Rawlings, J. J. (2009). *Challenges of land tenure and reform in Africa*. Retrieved from <https://jjrawlings.wordpress.com/2009/04/30/challenges-of-land-tenure-and-reform-in-africa/>

Richardson, A. (2014). *Design*. [Lecture]. Ashesi University College

Salkind, N. J. (2010). *Encyclopedia of research design* Thousand Oaks, CA: SAGE Publications Ltd doi: 10.4135/9781412961288

Sema A. K., (2008). Research Design. *Sage Research Methods: Encyclopedia of Survey Research Methods*. Retrieved from <http://methods.sagepub.com/base/download/ReferenceEntry/encyclopedia-of-survey-research-methods/n471.xml>

UN Habitat. (2011). *Ghana Housing Profile*. Retrieved from <https://unhabitat.org/books/ghana-housing-profile/>

UNICEF. (2015). *Basic Sanitation*. Retrieved from

[https://www.unicef.org/ghana/REALLY_SIMPLE_STATS_-_Issue_3\(1\).pdf](https://www.unicef.org/ghana/REALLY_SIMPLE_STATS_-_Issue_3(1).pdf)

United Nations. (1948). Universal declaration of human rights. Retrieved from

<http://www.un.org/en/universal-declaration-human-rights/index.html>

Vanderstoep, S. W. & Johnston, D. D. (2009). *Research methods for everyday life:*

Blending qualitative and quantitative approaches. San Fransisco: John Wiley & Sons, Inc.

Vicalex Brick & Tile Ltd. (2018). *Gallery*. Retrieved from

<http://vicalexbrickghana.com/Photogalery.html>

APPENDICES

STATEMENT OF INFORMED CONSENT**Explaining the Housing Deficit in Ghana**

This is a study that seeks to find out the factors accounting for the high and persistent housing deficit in Ghana and will draw on your invaluable experience in doing so.

There may be questions that you find sensitive. However, your responses will help gain more insight into the factors responsible for the continuing housing deficit in Ghana. This will better help policy makers and players in the housing industry address this pressing issue. Furthermore, your identity will be kept hidden and will not be revealed in the report.

Interviews should last no more than an hour while questionnaires being filled should take approximately 20 minutes of your time. Please be informed that participation is not mandatory, and you may withdraw at any point with no negative consequences. You are also free to make inquiries at any point in the process.

This research protocol has been reviewed and approved by the Ashesi University Human Subjects Review Committee. If you have questions about the approval process, please contact Chair, Ashesi University HSRC, through irb@ashesi.edu.gh.

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Kindly confirm your participation by filling the section below:

Name of Participant

.....

Signature of Participant

Date

.....

Mobile Number

.....

INTERVIEW QUESTIONS ON HOUSING DEFICIT IN GHANA

Good afternoon, my name is Charis Naa Dromo Laryea from Ashesi University College and I am conducting a study on the major factors influencing the housing deficit in Ghana. I believe your input will be valuable and insightful in this study. Thus, I would like you to help answer the following questions.

1. What is your role in [specific firm's name]?
2. What duties do you perform?
3. What duties do you perform specific to the housing industry in Ghana?
4. How long has your firm or institution been involved with the housing industry?
5. What contributions have you made towards housing in Ghana?
6. How key is your firm or institution in providing housing in the country?
7. What would you say are the key factors accounting for the housing deficit in Ghana?
 - a. Kindly rank these factors in order of which is most pressing.
8. In what ways do these factors lead to the housing deficit?
9. In what ways do these factors perpetuate the housing deficit?
10. In what ways can the housing deficit in Ghana be addressed?
11. Which persons or bodies are key in influencing the provision of housing in Ghana? Why?

QUESTIONNAIRE

Dear participant, I am a student of one of Ghana's universities conducting a study on housing in Ghana. This survey is solely for academic purposes and seeks to gain insight on the housing situation in the country. The completion of the questionnaire will take about 15 minutes of your time. We assure you responses and identity will be kept unknown. Thank you in advance for completing this questionnaire.

Please use "N/A" where the question does not apply to you

1. What is your gender?
 - a) Male
 - b) Female

2. What age range do you fall in?
 - a) 23 – 35years
 - b) 36 – 45years
 - c) 45 – 60years
 - d) Above 60 years

3. What is your status?
 - a) Single
 - b) Married
 - c) Separated/|Divorced

4. How many children do you have?
 - a) 0
 - b) 1
 - c) 2
 - d) 3
 - e) 4 and above

5. Are you employed?
 - a) Yes
 - b) No

6. In what sector are you employed?
 - a) Public sector
 - b) Local private sector
 - c) Local non-governmental organisation (NGO)
 - d) International organisation

7. What is your annual salary range?
 - a) Below GHS 5,000
 - b) GHS 5,001 – GHS 30,000
 - c) GHS 30,001 – GHS 100,000

- d) GHS 100,001 – GHS 250,000
- e) GHS 250,001 – GHS 499,999
- f) Above GHS 500,000

8. Do you own a house?

- a) Yes
- b) No

9. If yes, how did you acquire the house?

- a) Through a gift/inheritance
- b) By purchasing it
- c) By building
- d) Other (please specify)

.....
.....

10. How was the acquiring process financed?

.....
.....
.....
.....

11. What processes did you go through in acquiring your house?

- i.
.....
- ii.
.....
- iii.
.....
- iv.
.....
- v.
.....
- vi.
.....

12. Do you live in a rented house?

- a) Yes
- b) No

13. Would you like to own your own house?

- a) Yes
- b) No

14. Why would you not like to own your own house?

.....

15. Kindly rank these demand-side factors encountered in acquiring a house? (#1 is the most pressing and #6 is the least pressing)

- i. Inadequate/ expensive mortgage financing
- ii. Lack of infrastructure and provision of utilities
- iii. Defective land tenure system
- iv. High cost of building materials
- v. Cost of land
- vi. Difficulty in accessing needed documents to build

16. Kindly rank these supply-side factors encountered in providing housing? (#1 is the most important and #6 is the least important)

- i. Failure of housing policies and lack of continuity of projects due to frequent change in government
- ii. High cost of building materials and labour
- iii. Defective land tenure system
- iv. Access to infrastructure and provision of utilities
- v. Inadequate financing
- vi. Inadequate skilled labour

17. Which people or bodies are key in providing housing in Ghana?

- i.
- ii.
- iii.
- iv.

18. In what ways can the housing deficit (*shortage in the number of houses provided*) in Ghana be solved?

- i.
- ii.
- iii.
- iv.
- v.
- vi.

19. Any other comment on the housing deficit in Ghana?

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Thank you for your help.

1.1 Interview with a member of the Construction Team

1. What is your role in the firm?

Response: I am the Chief Servant, other people choose to call it CEO

2. What duties do you perform?

Response: I determine the general direction of the firm. I approve projects. I approve budgets. I approve hires. I serve the team in whatever capacity that is required

3. What duties do you perform specific to the housing industry in Ghana?

Response: Look for new and improved ways of building that are cost effective as well as ensuring that whatever we build will last long and conforms to the code of Ghana's building and I also help reduce the housing deficit by building more houses, by making more homes available.

4. How long has your firm or institution been involved with the housing industry?

Response: 5 years

5. How do the above-stated duties aid in the housing industry?

Response: I have introduced newer ways of building. I have used technologies that are not conventional. I have sacrificed my profit margins to be able to allow more people to own homes. I have introduced the hybrid payment which is a combination of mortgage and interest-free payments over a period of time after the person has moved into the house.

6. How key/ instrumental is your firm or institution in providing housing in the country?

Response: I don't think I can consider that my firm is key. I think, yes, we build houses that are affordable yet quality. Maybe with a company like Lands Commission it's impossible for people to do things without them but in my case if I don't exist things will still work because there are several others doing what I do; some which are bigger and have been around longer.

7. What would you say are the key factors accounting for the housing deficit in Ghana?

a. Kindly rank these factors in order of which is most pressing.

Response:

i. Cost of financing to developers and buyers. Because of the cost of financing developers are not able to build houses that are affordable enough to the average Ghanaian.

o What exactly makes financing a problem?

Response: When you borrow money and they tell you you are borrowing it at 30 percent – due to high interest rates. Also, cost of financing to buyers.

ii. Availability of affordable homes to the average Ghanaian.

iii. Import cost of raw materials required for building. This is high because almost everything that we use for building is imported and the ones that are not imported, that are local are even more expensive than the imported ones.

o Why?

Response: Like cement. The Chinese imported cement is better than the Ghana made cement. Even Dangote cement is cheaper than Ghacem. It's just the way Ghana is. It doesn't make sense. Even [points to a shop], locally made wedding gown is more expensive than the one you buy from London or America. Do you understand? And they will also tell you the cost of wood, even doors, the door that is made in Ghana is more expensive than if I imported a door because they say all the wood is in Kumasi. And the wood that is coming from Kumasi if it is not dry to a certain level is not good for you. So if I ask my carpenter for a door, he says if you want a proper door give me 3 weeks. If I imported something, it will arrive the week after yours comes in and even in your case there is no proof that when it arrives in the city it will not have some

kind of a problem. Like it took my carpenter 6 weeks to deliver my door because when it was coming from Kumasi it rained and a drop of it went on the door. So the cost of imported things are high but still lower than those provided in Ghana. I think those are the major factors.

- iv. Lack of enough skilled labour. You know supply with demand. When it's harder for me to get a good carpenter, the few good carpenters charge a certain premium that therefore drives up the prices of everything.

8. In what ways do these factors lead to the housing deficit?

Response: Because we have a supply of a good that the people who are demanding that good, there's a gap. I'm going to give you an explanation as opposed to a straightforward answer. So you have a lot of people who feel like they want houses but they can't afford and you have a lot of developers who feel like we also have buildings but people who are trying to buy can't afford us. So there's a gap that has been created because the true Ghanaian, the average Ghanaian, let me put it this way. If houses in Ghana cost less than \$25,000 a lot of people in that deficit will be able to acquire homes. Does that make sense? But the cost of building does not allow any developer to build anything at \$25,000 and still make money. So now there is a gap that has been created between the supply of the homes that we developers provide and the kind of homes that buyers want to buy for. So this is the real factor that has affected the housing deficit in the country. That's the issue that has been affecting the housing deficit in the country. Does that make sense?

9. In what ways do these factors perpetuate the housing deficit?

Response: The gap that is created. Because there is a growing population, a growing demand that is further increasing the imbalance. There is a population that

is still growing and we are producing more and more and more yet the supply is still not providing houses that the growing population is looking for. So it is the growing population that is not finding houses that are within their budget or within their reach.

10. In what ways can the housing deficit in Ghana be addressed?

Response:

- Great financing options. Financing options being made available to both developers and to home buyers. Cheaper financing options, long-term financing options for developers at a lower interest rate. So financing options that are more than 3 years and more than 5 years and lower interest rate for developers. Also lower interest rates for home purchasers or home buyers and more options because currently only Ghana Home Loans and a few banks offer mortgage options so we need more competition in the mortgage or home buyers funding.
- Government incentives to developers such as tax exemptions, duty clearance – clearing of things from the port if the houses they are using them for are within a certain price range, grants.
- Better systems in place for the land acquisition, permit acquisition because all those things drive up the cost of putting up a structure.

11. Which persons or bodies are key in influencing the provision of housing in Ghana?

Why?

Response:

- Financial institutions. It is probably my top one. Because of the cost of financing and because they provide money.

- Municipal assemblies, authorities like Lands Commission; because whenever I buy a piece of land from one person they give proper documentation of who owns it and things like that so I know I am not buying it from 3 people and also the process that it takes for me to acquire a building permit needs to be simple and water, power, road networks and stuff should not be something that should be difficult. So like availability of water and stuff in that area will also help in the cost. Sometimes you are even thinking “I have to buy water to build.” By the time I finish the building the cost of the building will be up because I actually bought water.

12. Any additional comments about the housing deficit?

Response: It is a big problem.

1.2 Interview with a member of the regulatory team

1. What is your role in the Municipal Assembly?

Response: Municipal Chief Executive

2. What duties do you perform?

Response: My roles are many. My powers derive from Act 936. Act 936 defines my role very aptly. It says there shall be a district chief executive appointed by the president with a prior approval of not less than two-thirds majority of members of the district assembly present and voting. A DCE shall preside at meetings of the executive team of a district assembly and in the absence of the DCE, a member of the executive committee will be elected to act. The CE is responsible for the day to day performance of the executive and administrative functions of the district assembly. CE will be responsible for the supervision of the departments in the district assembly. The CE shall be the chief representative of central government in the district; so I am the president's representative. I am the representative of central government in this district. I run the day to day affairs of this assembly. I chair the executive committee.

3. So those sum up all your duties?

Response: You meet with the people and try to solve their daily issues. People have issues with their building permits, flooding, drains or lack of them. So it's like the social attention that we have to give to the people.

4. What duties do you perform specific to the housing industry in Ghana?

Response: The assembly has powers to regulate the spatial development plans so it is this assembly that will determine if you can build in any particular parcel of land or not. Although we do not sell land, we are the ones who regulate the industry so you need a permit to build. That permit is given you mainly because: 1) you own the land 2) the drawings or the designs for the building are approved by us and they contain what they

should contain and then the material because if you're going to put up a five-storey building and the foundation is not strong that can be determined from the drawing so you would have to put the necessary things in place. There are places where you should not build. Some places are zoned for residential purposes and some are zoned for recreational. Some places are just supposed to be left the way they are as open fields and once those things have been done you're supposed to abide by them.

b) Speaking about that, how does that really work because I see shops spring up just outside houses so does that apply to your municipal assembly?

Response: so we've got something we call temporary permits. There are certain situations where people want to put up some kiosks and things. We give them one year so they can. If there is a parcel of land that is government reservation, it is not going to be used now but maybe a road will be coming there soon, people can apply and if it is not going to disrupt anything you will be given the opportunity to put something there for just a year. It's a temporary permit situation and we have given that off to our zonal households to do things like that.

c) What about people who open shops right outside their houses or on the same piece of land. Do they need any special permit?

Response: Yes, if the place is for mixed use and that is what it really means. It can be used for more than one thing. So, yes, corner shops and things have always been with us and they will still be with us for a long time but they are regulated. *Land use and spatial planning* is the terminology that is used for this. Again, the Local Governance Act, Act 936. It talks about the various things that need to be done in terms of our land use and spatial planning. There is also another act, Act 925 that deals with the spatial planning – what used to be called the town and country planning. So in section 91, it says a person shall not carry out a physical development in a district except with the

prior written approval in the form of a written permit issued by the district planning authority. A district planning authority may approve an application referred to in subsection 1 before the adoption of an approved district development plan for the district. The district planning authority shall consult public agencies and local communities as may be prescribed by regulation issued by the Minister and the determination of an application for a permit to develop prior to the adoption of an approved development plan. That means that even if you do not have a development plan we can approve certain things like the temporary approval we give for permits, for kiosks and some of those things. Then we also have those basis that are approved plans and in that case we must only allow those things there.

Development permits to be conditional or unconditional. The district planning authority may issue a permit for physical development with conditions or without conditions. So those are the powers that I have as a chair to regulate those things using the planning authority.

d) When you mention the district planning authority are you referring solely to the municipal assembly or there are other parties?

Response: The district planning authority even though it rest within the bosom of the assembly we recruit people from various agencies to be part of it. On our spatial planning authority, for instance, we have somebody who is from the regional survey department. We have somebody from the Lands Commission. We have somebody from EPA, we have the Fire Service, we have NADMO, so there are quite a number of people on that committee that looks at all these. Each one is an expert in his own right. Like the surveyor when we have issues will look and see whether the survey the plots conform to what you say you own. The EPA is telling us whether the undertaking is going to have any adverse effect on the environment. Then the Lands commission is

saying this is not government land, this is government land, this is what the place has been zoned for. So that fire service if there is a public building the necessary things that ought to be there. We have a technical sub-committee that looks at the hard-core details and makes recommendations to the spatial committee.

5. How long has your firm or institution been involved with the housing industry?

Response: This specific municipal assembly in itself has been in existence for 10 years but before then has always been under one jurisdiction or another.

b) But from the genesis of the entire municipal assembly, even back in the days when it was under the Accra Metropolitan you have been involved in the housing industry?

Response: Yes, so anywhere people put up houses they need the permits so you have to go to the authorities. So those people who started very early, possibly in the 70s – there were very few buildings around here but there were buildings anyway. You needed to go to ATMA to get your document. I remember in 1995 there about, the Methodist Church, when we wanted to get our site plans and things that were given us, I had to go – because I was on the committee, I had to go to Amasaman, at that time the headquarters for Ga Rural to go and get the approval for the document and in 1996 there about when I was moving here we had to go to TMA to get them to come and assist us to get polytanks because there was no water in the area. That's how it's been. We've always been under one authority or the other.

c) I have come across on a lot of buildings: “Stop work, produce building permit”, what is the process such people go through before they can continue building.

Response: I read a statement that said a person shall not carry out a physical development in a district except with a prior written approval. Some people may not have even applied for the permit yet they start building. It is up to us to go and stop them because they might be building in an unapproved area. Sometimes they have made

the application, haven't removed any approval but they go ahead. When there is a problem nobody will say that they haven't got this but then the problem now becomes a national issue. Well, you remember the Melcom at Achimota. It was meant for a particular use. It was being used for something else not the purpose for which it was intended and then it collapsed. You get the point? The first point of call was not the owner of the Melcom building. It was the municipal assembly so they went to AMA and they got the building inspectors. That is why the law gives us the power to do this. So anytime you see this it shows a lot of indiscipline in our society. People are doing what they shouldn't be doing. That is what it means.

For such people there is a punitive fine. You pay a penalty and it is also something that the law allows us to do.

c) Has such a thing ever called for seizure of land?

Response: No, the land we cannot seize. The building we can take off. The law allows us to pull down the building and charge you for it.

Reading from the Act:

The district assembly may revoke a permit to develop or impose additional conditions in respect of a permit already issued. Enforcement in respect of unauthorized development:

- i. Where a physical development has been carried out without a permit or is being carried out without a permit or conditions incorporated in the permit are not complied with, a district planning authority shall give written notice in a form that shall be prescribed by regulations to the owner of the land to require that owner on or before a date specified in the notice to show cause in writing addressed to the district planning authority why the unauthorized physical development should not be prohibited, altered, abated, recovered or demolished

- ii. If the owner of the land fails to show sufficient cause why the development should not be prohibited, altered, abated, recovered or demolished the district planning authority may carry out the prohibition, abatement, alteration, removal or demolition and recover any expenses incurred from the owner of the land as if it were a debt due to the district planning authority.
 - iii. The district planning authority may issue an enforcement notice that demands the immediate stoppage of work that is being carried out contrary to this act or the terms of an approved development plan.
 - iv. A person who fails to comply with a notice to stop work commits an offence and is liable on summary conviction to a fine of not less than 200 penalty units and not more than 400 penalty units or to a time of imprisonment of not less than 3 months and not more than 6 months or to both a fine and term of imprisonment. In the case of a continuing offence to an addition fine of not more than 4 penalty units for each day the contravention continues after written notice has been served to the offender. So we have got real powers – to pull down your building and if we have any expenses charge you as if you owe us. And we can take you to court. That’s why they are saying it’s like a debt.
6. What contributions have you made towards housing in Ghana?

Responses: for now, one of the things I can say is that people are not building on water ways in this area although some have built in some. It’s our activities and we go to stop people from doing such things. The roads you see, some of them were done by the assembly. It all goes to enhance commuting in the area and allow people to communicate from one end to the other. The street lights, you’ve seen some in certain areas. It is supposed to increase visibility and the security in the various

areas. Yes, we haven't been able to do everything but we have done quite a lot of things. In the building industry too we have had situations where we have stopped people from building in the wrong places. Some people have acquire land in places where the spatial planning does not allow them to build.

Another thing, the motor way has a green belt attached to it. Some people sometimes build in those things. We have to go and remove them so that the green belt. Now government is saying they are going to extend the motor way because the people of long ago knew that the thing will expand so they left the land and today's generation of people who don't think about tomorrow start building in those areas. So these are some of the problems and the challenges.

b) What happens to persons who have bought lands in place they should not have – perhaps because they did not know?

Response: Ignorance is no excuse. It says: "buyer beware." So you the buyer have to do due diligence. So you should get a site plan of the place, go to the lands commission. Check who owns that parcel of land and see whether the person selling it to you is the rightful owner. If you don't then you've technically bought stolen property

7. How key is your firm or institution in providing housing in the country?

Response: Well, as the planning authority, ours is to make sure that the parcels of land that are available are zoned because certain places are good for certain things. Adenta, for instance, happens to be lying between the sea and the Aburi Mountains so when it rains up there it goes through Adenta so there are loads of streams passing through Adenta. Now, assuming people decide to build in the stream, can you imagine what will happen? Some people will think that they are being engineering-minded so will put bridges underneath and build a house over it. When that gets

choked it means all the places upstream are also going to be flooded. These are some of the issues and that is why we are there to make sure the wrong things are not done.

There is supposed to be a road [moves to make a point on a map]. {The map shows a road and further up the road a house has been built (in the road)}

Pointing to the building: This building will have to be pulled down. It is these regulations that are left that we need to protect. Someone has put up a building behind us. This whole area was intended to be a government land but then the State Housing people tied off part of it and gave to some other person. That shouldn't have happened. The difficulty is that we are not land owners. We are the regulators of the land use so you have the right to go and buy land anywhere but it must be used for the right thing otherwise it poses social problems.

State housing is a premier estate developer but it builds because it has a state hand haphazardly. If you go to other estate developers they have roads like SSNIT, they put in the drains. State Housing doesn't do that and those are the things that create the problems in the various communities.

b) Why does State Housing not do all of that?

I don't have an answer. I don't work at State Housing. You see private companies have a life of their own and are commercially oriented. State Housing started as a state housing corporation and they were not profit oriented and every now and the government appoints a boss over there and incidentally sometimes they do not have that business consciousness so they do things just so they can get some money in their pockets and be paid.

8. What would you say are the key factors accounting for the housing deficit in Ghana?

- i. People go into estate development with very little knowledge of the occupation they are going into or for that matter the sector. Some people are just conscious of the amount of money. I have come across a few people who have built and the buildings are not good quality so after some time they start collapsing.
- ii. Our land tenure system. The land is in the hands of other family heads than the hands of traditional rulers. Whichever way, some people feel they must be able to get it so there are multiple sale of lands around so there is always litigation on land and things and it hampers the growth of the industry. Some people do things without thinking about the future so like I was talking about State Housing – they do not have drains, they do not have appropriate roads in their communities so people have bought the houses – the thing is people need the houses. They buy and then they are not satisfied but the Ghanaian is the type of person who doesn't complain so he takes it as is.
- iii. Then there are so many people chasing the few building around so rentals go up – value goes up. There is a demand and supply thing. Assuming there were so many houses that as soon as you leave school you can get accommodation, I'm sure it will be there. You can choose whether to live in Adenta, or live in Frafraha or live in Tema or live in Accra and they will all have their various values but it will be within range because if you overprice yourself nobody will come to you. But when there are very few and many people are chasing, if you don't want it, somebody else wants it, you get the point? So it makes the prices go up. These are just a few of them.
- iv. Then again to the materials we're using for building. I was telling some people recently. If you go to our villages, you see mud houses? Some of

those mud houses are more than 100 years old. They were built in those days with a material that has still survived up till now. Why can't we use today's technology to improve on that? We'll rather go and buy cement and get sandcrete blocks put them together and then instead of using louvre blades to get full ventilation we go and put sliding doors. The sliding door means that one-third of the space is no longer available for you. Whereas if it was this louvre blade, if you open, you've opened and its 100 percent access. So it's the materials we're using. We build and then we now have to shut everything and use air conditioning. These are some of the things.

- v. There are too many inexperienced, sometimes inefficient, sometimes even untrained people doing the wrong thing. Some people travel out of the country, they see things and want to copy it here whether it fits the climate or not. I see no reason why we are not using solar in this country to run our electricity and we are complaining. So these are some of the things.
 - a. Kindly rank these factors in order of which is most pressing.

9. In what ways do these factors lead to the housing deficit?

Put together these things have made land very expensive. The plots are not serviced. The building themselves are wrongly designed and they'll become expensive because of the materials we're using so buildings are priced. Once they are priced they are beyond the pockets of people. When government even puts up low-cost houses sometimes they are too expensive for even government workers to acquire them so those things have added on like the land tenure, the buildings so you're using aluminium glazed windows when you could have increased the size of your windows and then there will be more ventilation you wouldn't need air conditioning. Once you put the air conditioning there the prices are going up

because operational cost is going up. These are some of the things so all those things account for the fact that we cannot put up so many houses but our population is still exploding so there will always be a deficit because there are few houses available and everybody is chasing those same houses.

10. In what ways do these factors perpetuate the housing deficit?

11. In what ways can the housing deficit in Ghana be addressed?

Government has to take a pragmatic approach. It is said that we have a deficit [of about 1.7 million units at last year] so let's just say 2 million units. Assuming government says that look take out Greater Accra or let's leave Greater Accra. So you've got 10 regions. 2 million means that if we 200,000 units in every region around the country we'll have 2 million. So assuming that we say for the next 10 years this is what we're going to be doing, it means that every year we should put up 20,000 homes. In 10 years we would have finished 200,000 per region. Scatter these houses around the region, what do you have? So many houses that if you are transferred to Sunyani you should be able to get accommodation. If you are transferred from Sunyani to Tamale you should get accommodation and there will be no problem. This is the way I think. Government just has to take a pragmatic view of things.

There is a street within the municipal assembly called "Approtech." It goes by that name because it was developed using *appropriate technology* where they used clay material because one doctor did some work on that and then they ended up putting up those buildings there. They've lasted for as long as I know, from the 1980s, you get the point? That is 40 years ago – those buildings are still there. If we use appropriate technology we will improve on the cost or reduce the cost and buildings will still be there.

b) You just spoke about having 20,000 units in each region but here is the case where everyone seems to be migrating to Accra, Kumasi so how will that work?

Response: why are they migrating? Because they are not comfortable where they are. And a lot of people don't want to go to those places because they see them as deprived. But if you put those buildings there like I said civil servants will move. So if you've got 20,000 homes in the Brong Ahafo region it makes sense now to go and put the Ministry of Forestry or the Ministry of Natural Resources where it is not in Accra. Ministry of Agric will be in Kumasi or the Eastern Region where a lot of our fruits come from so you can spread these people around because the workers will find accommodation and it will bring more jobs; farming and things will be done in various places. But we've left everything in Accra and it's easier to come to Accra.

I think that we have 216 districts – we do not have the power to build as an assembly. The power we have is planning and land use. We also start working in a certain direction where we leave land banks for accommodation and again as government start looking at high rise buildings then you get more people in a square foot of land so we will not be using all our land. The buildings in the UK are not detached. We live comfortably in mansions compared to what the people in Britain live in but they have a different lifestyle from us. If we can copy some of these things and increase. Because if you see the state housing buildings. Look at the space from the end of the wall- the building itself to where the fence wall is and the space, somebody's whole house could fit if you take a wall out. So you can imagine that you can get twice as much many houses in just one row. For me, those are the things I look at.

c) Okay, because I was actually wondering what was going to become of future generations in terms of land because it seems all the lands are going out?

Response: if you travel from Accra to Ada or the Volta Region you will see a large expanse of land but everybody moves here because the ministries are here, the big shops are here. How many shops will you find in Kpando? But if I want some gadget, I'm going on retirement, I need a washing machine, I will get it in Accra. If I come to Accra and buy it and I go back, who will repair it for me if it gets spoilt? So if I live in Accra I can get someone to repair it. My vehicle, most of the good repairers are in Accra so why should I move all the way from Accra and when I am in trouble have to find money so that is why I am saying spread the thing around and let each be independent.

12. Which persons or bodies are key in influencing the provision of housing in Ghana? Why?

Primarily the Ministry of Works and Housing which turns out the policy, estate developers are key but they need to be guided by regulations and standards so people don't drop the standards. Lands Commission, Lands Title registry, survey department all play key roles. The government as well. It needs to have a driving force that will help it so that every year we will reduce the deficit we are talking about. You see you are burning the candle at two ends- you have a population rise and you have buildings coming up but at a slower rate so you end up increasing the gap if you don't quicken the number of buildings you are coming up with.

13. Any additional comments on housing in Ghana or the housing deficit?

Response: Houses are too expensive.

b) What is the way to address that because as you outlined the various things used to build factor in.

Response: the way the land tenure has been, it is a cap two-two situation. The land is in the hands of the chiefs and the family heads. As many people are chasing the land prices go up. As developments come in Accra. In East Legon I hear lands are sold at very high

prices and if I buy land at such prices what kind of building am I going to put on it? That means I have money in excess. If you are selling that land to me and I think it is too expensive somebody else is ready to buy it so it makes the prices only go higher. These are things that I think government ought to address to ensure that there is a limitation on how high these things can go but again, in an open economy it is the market forces that drive prices not government meaning a price ceiling will not work because it causes people to do things on a black market.