



Ashesi University College

“Perceptions on Housing Affordability Among the Working Class in Accra”

By

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Supervised by: Dr. Edgar Cooke

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Declaration

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

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Abstract

Housing provision in the country has seen a number of interventions by the Government of Ghana to improve the housing situation through the construction of affordable housing units in the country. Nonetheless, this has not been enough to curb the housing deficit in the country. Housing provided by the private sector tend to be above the means of low and middle-income earners in the country. This paper aims at finding the perceptions of people within the working class on housing affordability in Accra.

A quantitative approach was adopted for this study. Purposive sampling technique was adopted in undertaking this study. A sample size of 205 was used for this study.

Responses were analyzed using Microsoft Excel and PSPP. Findings from the study revealed that age happens to be a moderator for home ownership among high-income earners; mortgages rates are considered not affordable; and housing perceived as not affordable within the selected study areas.

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Chapter 1

Introduction

1.0 Background of Study

According to Abraham Maslow's hierarchy of needs, housing falls under the provision of the basic needs that are necessary for human survival. Studies suggest that people with access to basic necessities like housing tend to be more productive at their workplaces. According to a study by Barefield (1983), owning a house helps improve the self-esteem of an individual. Maslow regards this as the topmost need he associates with people. Kumar (2012) also indicated that employees often perform more efficiently provided their housing needs have been satisfied.

In Ghana, houses play a pivotal role within our society. Homeownership is often associated with success. In some traditional settings in Ghana, houses are passed on from one generation to the next. According to Yirenkyi (2014), several factors play a role in the selection of homes by people. Some of these factors include the family sizes, location and income levels (Yirenkyi, 2014).

It is for these reasons that housing plays a major role in our lives, hence the necessity of the housing market. Construction constitutes close to 56% of the total contribution of the industry sector contribution to Gross Domestic Product (GDP) (Ghana Statistical Service, 2016). The housing industry in Ghana has experienced growth over the last two decades. This has drawn the interest of financial institutions like the banks, mortgage finance institutions and foreign investors who want to take advantage of this opportunity. Despite the involvement of the private sector in the delivery of housing in the country, there is

still a shortage in the supply of houses in Ghana. The housing deficit in Ghana as per intelligence gathered from the Ministry of Water resources, Works and Housing stands at 1.7 million housing units (Ministry of Water resources, Works and Housing, 2015). Thus, the government would have to build between 190,000 to 200,000 units each year for the next 10 years to enable it bridge the gap (Ghana Trade, 2012).

In the 1960's, the government of Ghana established the State Housing Corporation and the Tema Development Corporation to analyze the housing situation in the country at the time and to find a way to mitigate the housing shortage (Bank of Ghana, 2007). The State Housing Corporation was in charge of constructing affordable housing units across the 10 regions of the country while the Tema Development Corporation was to cater for the increase in demand for housing units in Tema as the industrial area developed rapidly (Bank of Ghana, 2007).

According to Addo (2014), the State Housing Corporation provided about 2,300 low-income houses to households in the country during the reign of General Acheampong in the late 70's. Further studies carried out by Tipple and Korboe (1998) indicated that the State Housing Corporation also built over 24,000 housing units between 1957 and 1990. According to UNHABITAT (2012), close to 60% of households in the urban populace of Ghana occupy single rooms. Population in Accra has increased from 1.4 million in 1984 to 4 million in 2010 as per the censuses carried out in the respective years (Ghana Statistical Service, 2012).

With this problem in mind, private entities like Regimanual Gray, HFC, Devtraco and similar organizations have taken advantage of this gap and invested millions of dollars into the housing sector. This has attracted more developers into the country, leading to

the establishment of the Ghana Real Estate Developers Association (GREDA), which currently has over forty developers to its credit. GREDA helps regulate the activities of member real estate companies in the country and also seeks to protect their interests from exploitation by the government.

2.0 Research Problem

Studies conducted by the Bank of Ghana (2007) on the housing industry establish the fact that financial constraints and economic downturn within the country are reasons for the decline in the activities of the State Housing Corporation and the Tema Development Corporation. Annual GDP growth rate has declined from 14.04% in 2011 to 3.42% in 2015 (World Bank, 2016). With the country's population increasing from 18 million in 2000 to 27.4 million in 2015 (World Bank, 2016), it can be anticipated that the housing sector will experience an increase in demand for housing units. Although the country has experienced an influx of foreign direct investment from \$14.8 million in 1990 to \$3.4 million in 2014 (World Bank, 2016), the housing sector still experiences some lapses within this area.

According to a publication in 1993 by the Institute of Economic Affairs Ghana, the annual housing demand stood at 70,000 housing units. Over the last 10 years, annual housing demand has increased to 190,000 housing units in addition to the deficit, with only about 40,000 housing units being provided each year (UNHABITAT, 2012).

According to Boamah (2010), the contributions of financial institutions towards the provision of affordable housing units have been minimal. Between 2002 and 2006, the Ghana Real Estate Developers Association (GREDA) built over 10,954 homes across the

country. The mortgage financing firms like HFC have also provided 11,635 mortgagors with varying amounts to put up housing units, relative to the average interest rate on the market (Bank of Ghana, 2007). According to HFC (2007), just about 5% of Ghanaians can afford to build or purchase houses from their own resources while about 35% of Ghanaians cannot afford to purchase a house from their own resources. This is an indication that most Ghanaians cannot afford mortgage loans since their average salary falls below the minimum requirements needed to be given a mortgage facility. Prior studies suggest that mortgage institutions have played a minimal role in the provision of housing units for the households in the low to middle income groups. However, these studies do not provide insights on the perceptions of people on mortgage and housing delivery in Accra. Owing to this fact, this study seeks to find out whether Ghanaians perceive housing and mortgages to be affordable. The study also seeks to determine the factors that influence the decision of people to go in for mortgages.

3.0 Research Objectives

This project aims to:

- a) Determine the perceptions of people on the affordability of mortgages
- b) Determine the factors that will influence the decision of people to go in for mortgages
- c) Determine the homeownership status of people in selected areas of Accra

4.0 Research Questions

Based on the objectives of this study, answers will be provided for the following question:

- a) Do the perceptions among the working class on housing affordability have an influence on homeownership?

5.0 Hypotheses for this study

The use of this hypothesis is informed from various studies on housing affordability in Ghana. Thus, the null and alternate hypothesis is stated as follows:

- a. H_0 : There is no association between homeownership and work type
 H_1 : There is an association between homeownership and work type
- b. H_0 : There is no association between homeownership and mortgage rate consideration.
 H_1 : There is an association between homeownership and mortgage rate consideration.
- c. H_0 : There is no association between homeownership and decision for a mortgage.
 H_1 : There is an association between homeownership and decision for a mortgage.
- d. H_0 : There is no association between homeownership and perception on housing
 H_1 : There is an association between homeownership and perception on housing.

Where work type refers to 'government worker' and 'private worker'; homeownership refers to 'own a house' and 'do not own a house'; mortgage rate consideration refers to 'affordable' and 'not affordable'; perception on housing refers to 'affordable' and 'not affordable'; decision for a mortgage refers to 'low interest rate' and 'low interest rate and extended loan repayment periods'.

6.0 Conceptual framework

This study draws upon the works of Mostafa, Wong and Hui (1998). The concept of housing affordability model under a socialist economy in Shanghai focuses on showing the relationship between income levels of people and their ability to either purchase or rent a house. The model takes into account the role of the government and the market (private sector) in the delivery of affordable housing. This concept is being adopted into the Ghanaian housing market to help explain housing affordability in Accra through the lens of homeownership.

7.0 Significance of the Study

This research will provide facts on the perceptions that people have around housing and mortgage affordability in Accra. Also, it will inform mortgage institutions of a market of people who do not own houses as well as what will influence the decisions of potential homeowners to opt for mortgage facilities.

8.0 Scope and Limitations of the Study

This study is limited to the citizens within the country that fall under the low and middle-income category in the Greater Accra region of Ghana, specifically Dome, Gbawe, Airport Residential Area, Achimota and West Legon. Therefore this study will not be able to make inferences on the whole of Ghana since the study is only limited to selected areas in Accra.

9.0 Methodology

This section describes how the perceptions of people on housing affordability in Accra were measured. This followed a quantitative approach where questionnaires were issued

as a means of collecting data. Journal articles also made up the secondary data for this study. Findings from these data collection means were analyzed using chi-square tests to determine whether or not a relationship existed between the variables on the perceptions of people on housing.

10.0 Outlook of Study

Chapter one introduces the topic by providing background information on the problem, defines the problem, generates an objective for the study and research questions to help tackle the underlining issue.

Chapter two provides an in-depth literature review on the housing industry in the country, the supply, demand and housing deficit units and the means by which they can be financed. It also explains the framework under which the study will be conducted. Also, a description of the housing context in Ghana will be provided, macroeconomic benefits of housing and the state of the housing market, with emphasis on the involvement of the financial institutions (Mortgage providers) and private individuals in the provision of housing units within the country.

Chapter three explains the procedures and methods used in carrying out this study.

Chapter four will provide results from collected data, which will be analyzed in relation to the context of the study, the framework governing the study, and make connections with information provided within the literature review.

Lastly, chapter five will summarize the findings of this research with conclusions being drawn. Recommendations will also be made for the problems identified in the study.

Chapter 2

Literature Review

2.0 Introduction

This chapter draws from the pool of knowledge of scholars who have performed research on mortgage financing, the supply and demand of housing in the country and the presence of mortgage financial institutions in the delivery of affordable houses.

2.1 Housing industry in Ghana

Within some African settings, owning a house often bestows a symbol of success on the homeowner. The constitution of Ghana gives citizens of the country the right to own a property. Also, it is often argued that the provision of housing needs for people helps improve efficiency at the workplace. According to Barefield (1983), owning a house, an automobile and clothes helps improve an individual's self-esteem. This statement is affirmed in Kumar's article on motivation. According to Kumar (2012), workers are motivated to give off their best at the workplace when they are provided with adequate housing (Kumar, 2012). This brings to light the importance of housing within every society.

According to Bank of Ghana (2007), the construction of more housing units in the country have a positive impact on the economy. The construction of new housing units helps reduce the level of unemployment in the country and creates employment opportunities. Thus helping in the reduction of poverty in the country as indicated by UNHABITAT (2014).

The housing industry is currently facing a shortfall in the supply of housing units. The housing deficit in the country currently stands at 1.7 million housing units (Ministry of Water Resources, Works and Housing, 2015). Thirty-five percent of Ghanaians living in the urban areas of Ghana cannot afford houses exceeding GHS 12,000 while 85% of Ghanaians cannot afford houses more than GHS 72,000 (UNHABITAT, 2012). This brings to light the issue of housing affordability in the country. Housing expenses make up a large portion of the expenditure of households in Ghana. As household expenditure on settlement of rent and mortgages increase, expenditure on other household needs decrease thus constraining their access to better living standards (Bank of Ghana, 2007).

2.2 History of Ghana's Housing Market

The attention of government towards the housing industry occurred after Ghana gained independence. Successive governments came up with different housing policies to help mitigate the issue of housing deficit in the country. What stood out amongst these policies and plans was the formation of the State Housing Corporation (SHC) and the Tema Development Corporation (TDC) under the Nkrumah regime to address the housing issue facing the country. The SHC was developed to provide houses across the country while the TDC was in charge of providing housing units in Tema for the rapidly growing city, which was experiencing an industrial drive (Bank of Ghana, 2007).

During the regime of Acheampong's government, a housing development plan was introduced to cater for the growing housing needs of the citizens. This project saw over 2300 low-income houses being constructed in Accra, Kumasi and Sekondi-Takoradi by the SHC (Addo, 2014). Ghana's second five-year Development Plan under Nkrumah's

government proposed the construction of 6,700 housing units, with 5000 buildings targeted for government workers, 1,500 housing units for the middle-income class and 200 housing units for those who fall within the low-income bracket (Arku, 2009).

According to studies by Tipple and Korboe (1998), the SHC built approximately 24,000 units between 1957 and 1990 (as cited in Arku, 2009).

2.3 Housing Policies in Ghana

Housing policies have been instrumental in the delivery of housing units in the country over the last 59 years. During the post-colonial era, a 5-year development plan was launched. This was aimed at providing affordable low-cost housing to citizens since it was viewed as the fundamental human right of people to own a property (Agyepong, 1990). Loans were also provided to assist citizens building in the country within this era. This activity was overseen by the First Ghana Building Society (FGBS) to provide various loan schemes to the rural and urban dwellers. Loans were categorized into two; the Roof Loan Scheme as well as the Wall Loan Scheme to provide households with the needed resources to complete their buildings (Addo, 2014).

Between 1964 and 1974, a 7-year development plan was launched and was targeted at satisfying the housing needs of the educated in the country. According to Addo (2014), the project was expected to build 25,000 housing units in and around Accra while 35,000 housing units were to be built in the Western Region.

The Bank for Housing and Construction (BHC) was established in 1974 (Agyepong, 1990) with the purpose of raising funds for investments into housing. According to Agyepong (1990), BHC failed at the delivery of its services, hence being liquidated in

2000 due to the inability of the bank to retrieve monies from contractors and other private individual to undertake investment ventures into building projects.

In 1979, very few housing developments took place. Rather, there was the seizure of houses belonging to the rich in the society. This was known as the “one man one house” policy - an act regarded as inhumane and an infringement on the rights of the homeowners. This period saw a reduction in the number of houses being built by private individuals due to the fear of properties being lost to the government.

In 1992, the Structural Adjustment Program coordinated by the World Bank and the International Monetary Fund was introduced (Addo, 2014). This required the government of Ghana to adopt an enabling environment, which brought on board the private sector in the provision of housing in the country (Addo, 2014). This led to the formation of the Home Finance Company (HFC) with funding from the World Bank and SSNIT amounting to US\$ 23.6 million and US\$ 7.2 million respectively to assist potential homeowners put up buildings (Biitir, Fransen & Ish, 2008).

The latest of the housing policies is that of 2009; The National Housing Policy. This policy aims at solving the housing problem currently facing the country. The policy seeks to make lands accessible to the low-income groups in the country so as to encourage households to build their own houses and also, increase the participation of the private sector towards the provision of affordable housing units in the country (Addo, 2014).

Despite the enforcement of this policy, people in the country still find it difficult purchasing or acquiring buildings and lands. This is because economic conditions in the country have worsened over the years with inflation currently at 17.2% (Ghana Statistical Service, 2016). Also, the bureaucratic nature of the legislative system in the country in

the process of acquiring land title documentations makes the points raised above far from being realized.

Taking a look at the housing policies over the last 20 years, it is expected that the housing problem of Ghana should have improved. Nonetheless, these policies are not being implemented fully due to different factors. One of such contributing factors is the change in governments. Anytime a new political power is given the mandate by electorates, they tend to halt the activities of the preceding government and start new developments. A typical example is the STX deal that was intended to create over 100,000 homes for low and middle-income bracket. This project has since been halted after power changed hands from the National Democratic Congress (NDC) to the New Patriotic Party (NPP) in 2009.

2.4 Macroeconomic Stability

Countries strive for economic stability, by capitalizing on activities that cause expansions in the economy. The housing market is one of the factors that contribute to increasing economic growth in many countries.

There are numerous positive implications of the housing industry on the economies of countries. Job creation is one of the positive impacts that the housing industry has on the economy (Bank of Ghana, 2007). In order for construction work to begin, it requires the services of laborers and this creates jobs, which helps to improve the living standards of people in the country. At the same time, activities of other industries in the country are stimulated. This increases economic activities in the country and thus can be translated into economic growth increments in a country. These activities in effect help reduce the poverty levels in the country (Bank of Ghana, 2007). This insight is complimented by

Cohen and Wardrip (2011) who indicated that although affordable housing helps improve the quality of life of residents, it also yields economic benefits for employers by making it easier to retain employees in organizations.

It can also be argued that housing provides a means of investment for people who want to protect their wealth against inflation. People usually purchase real estate because the price of houses in Ghana appreciates over time. According to Bank of Ghana (2007), Ghanaians prefer hedging their wealth against inflation by investing in real estate. Thus, people end up making profits when they want to dispose of their assets in the future. In the same regard, houses can be mortgaged to acquire investment loans to undertake projects in the future.

2.5 Defining Housing Affordability

According to mortgage corporations in Canada, housing is considered to be unaffordable when households spend more than 30% of their gross income on their housing needs (Canadian Mortgage and Housing Corporation, 2016).

According to the housing law and policies in the United States, housing is considered unaffordable when households spend more than 30% of their income on their housing needs (United States Department for Housing and Urban Development, 2016).

According to the National Housing Policy (MWRWH, 2015), housing is considered affordable when a household spends 30% of their gross annual income on rental charges or the purchase price of house.

According to the World Bank (2011), households in Kenya spend close to about 50% of their income on shelter. This is an indication that houses in Kenya are not affordable in

relation to findings in the United States where findings from the National Housing Report indicates that about 11.2 million renters spend a little more than 30% of their income on their housing needs (Joint Center for Housing Studies of Harvard University, 2016).

For the purposes of this paper, the definition of affordability will be skewed towards the definition provided by the Ministry of Water Resources, Works and Housing (2015) in the National Housing Policy.

2.6 Mortgages and Housing Delivery

Mortgage financing is one of the most important ways of reducing the housing deficit in many countries. However, Ghana's mortgage market is still in its growth stage, with very few players and high interest rates for mortgage financing.

According to Afrane *et al.* (2014), in their paper on examining the mortgage market in Ghana, mortgages are one the most effective if not the most effective means for financing an individual's housing needs based on comparisons to other developed countries. This assertion may be true, however, according to the Bank of Ghana (2007), the mortgage market is still in its growth stage and this is due to the fact that Mortgage Debt Outstanding (MDO) to GDP is still small relative to developed countries. As a result it makes it more expensive due to high risk attached as indicated by Karley (2003) and hence this may not apply in the case of Ghana.

Boabang (2015) in a study of the mortgage financing in Ghana as a means of reducing the housing deficit in the country found out that mortgages are expensive and may not be easily afforded by majority of Ghanaians who do not meet the minimum requirements for a loan. This is in relation to a study by Phang (2010) who indicates the importance of

homeownership. The study indicates that homeownership is biased towards workers in the higher income groups of the society. Perhaps, age can be moderator for homeownership for those between the ages of 25 years to 35 years. This is because it may be speculated that some high-income earners may be young graduates who just finished furthering their education and as such may not necessarily own houses but may rather be a home renters. Findings of Boabang's (2015) research would have been more accurate if perhaps the study had involved an association test to it to find out whether or not relationships existed between variables.

According to Kajimo-Shakantu and Evans (2006), South African banks find it difficult providing financial assistance to individuals that fall in the low and middle-income bracket. Despite the potential to expand the provision of financial needs of low-income earners in the country, banks are skeptical about the ability of people to pay back the monies loaned to them. Findings from the paper suggest that leading banks in the country are willing to assist low-income earners in acquiring loans but the risk posed from this act is high, hence, keeps investors away. The inability of people to provide the right forms of collateral also increases the risks associated with giving out financial assistance to low-income earners in South Africa (Kajimo-Shakantu & Evans, 2006).

Karley (2003) in a study of the mortgage market in South Africa indicates that financial institutions like the banks are unwilling to provide mortgage facilities and loan facilities to people within the low to middle-income groups. This reason was attributed to the high risk associated with giving loans to these income groups due to the high probability of them defaulting on their loan repayments; a reason that can be associated with banks in Ghana.

Karley (2003) indicates that about 70% of South Africans do not qualify for mortgage facilities due to income constraints. Findings from the paper indicate that mortgage lenders are skeptical about offering loans to low-income earners. Thus, lenders prefer giving out loans to individuals with a constant income supply that can also be guaranteed. This is an indication that the government of South Africa can help increase the supply of housing in the country by guaranteeing loans of people within middle-income group (Karley, 2003).

Karley (2002) in his assertion of the mortgage market in Ghana indicates that, just like the South African mortgage market, lenders are reluctant to offer financial assistance to low and middle-income earners. According to Karley (2002), almost 80% of Ghanaians who have their salaries being paid through most banks in the country withdraw if not all, majority of the monthly salary once their bank accounts have been credited. Thus, making it difficult for most middle and low-income earners to gather large sums to pay for initial deposits of between 20% and 50% of the value of the building.

In order to get a loan, lenders use the criteria of the 5 C's: capacity, character, capital, collateral and condition in assessing whether or not to lend monies to individuals (Karley, 2002). Findings from Karley's (2002) study indicated that the 5 C's is not a good measure of assessing the legibility of accessing mortgages since most Ghanaians do not have the collateral needed to back their loans. Also, majority of Ghanaians do not have the capital to go in for mortgage loans since they cannot afford the initial down payments for the mortgage loan.

In an article published by Boamah (2011), it indicated that the mortgage market is an avenue for reducing the housing deficit in the country by providing homeowners with

long-term loans at relatively affordable interest rates. His findings indicated that the introduction of the Home Mortgage Finance Act 770 of 2008 will help increase home ownership in the country. Despite the interesting findings of his paper, it failed to assess this impact with data to show what was happening in the past and what is likely to happen in near future in the mortgage market.

Mortgage financing is relatively expensive in Ghana. Studies by Owusu-Manu *et al.* (2016) indicate that economic imbalances coupled with high risk and the unavailability of collateral has made the mortgage market unattractive. Mortgage rates have been relatively high in the country, thereby reducing the eligibility of people to acquire loans to build their houses. In determining the affordability of mortgage pricing, Owusu-Manu *et al.* (2016) used interest rate and risk free variables. Findings from this research reveal that interest rates play a role in determining mortgage pricing in Ghana. Thus, the higher the interest rate, the greater the cost to be expected on a mortgage. Since Ghana's mortgage market is underdeveloped as indicated by the Bank of Ghana (2007), providers of these mortgage loans hedge against this risk by increasing mortgage rates. Hence reducing the number of people who can afford mortgages in the country.

Boamah (2010) also indicated that the mortgage market is underdeveloped. Due to the inadequacy of the mortgage market, only a few institutions provide mortgage loans. They include HFC Bank, Fidelity Bank, Ghana Home Loans, Stanbic Bank as well as Barclays Bank. This is buttressed by research conducted by the Bank of Ghana (2007) which indicates the Mortgage Debt Outstanding (MDO); a proxy for measuring mortgage market development, to Gross Domestic Product (GDP) grew from 2.5% in 2004 to 4.4% in 2006. This indicates that the mortgage market is in its growth stage.

According to Boamah (2010), mortgages in the country are in excess of \$50 million and this can be attributed to the fact that financial institutions prefer short-term investments to long-term investments.

Owusu-Ansah (2012) in his paper indicated that the value placed on buildings assist mortgage houses in calculating the risk as well as the interest rates they are likely to charge for various home types. Factors like location and physical characteristics like number of bedrooms and bathrooms are used in determining the value placed on houses. In his analysis of the determinants of housing value, the hedonic pricing model was used. Findings from his research indicated that the value of a property increased by about 25% with an increase in the number of bedrooms. Thus, an increase in bedrooms increases the value placed on a building. Also, housing values have increased by over 47% between 2005 and 2010. This creates an opportunity for mortgage companies to provide more loans since they will be able to recoup investments made. Despite the positives of the research, the duration for the study was performed over a 2-year period. This indicates that results from this research could change if data was used over a longer time-period. Findings from research conducted by the Bank of Ghana (2007) on housing finance in the country indicated that the mortgage system is underdeveloped with HFC being one of the few institutions providing mortgages with investments of over \$40 million. A critical point is the high inflation rate and the constant fluctuations in exchange rates in the country, leading to high interest rates on mortgages. Also, the ill-developed legislative system in the country makes it difficult for people to use their lands as collateral in acquiring mortgage facilities due to lands being poorly documented (Bank of Ghana, 2007).

The mortgage market in Ghana is undeniably in its growth phase. Literature has very little information on the current situation on the mortgage market. The studies of most authors have been focused on the housing supply in the country and demand rather than the means of providing finance for more people to be partakers in the mortgage market in Ghana.

2.7 Conceptual Framework

This framework is based on a study by Mostafa, Wong and Hui (2003). It was developed to explain the housing provision system in the delivery of affordable housing in Shanghai for the low and middle-income groups (Mostafa, Wong & Hui, 2003). Nonetheless, the framework is subject to adjustments based on the market for which it will be adopted to explain. Unlike the housing market in Shanghai, Ghana's housing market has the government playing a pivotal role in bringing up policies but fails to provide affordable housing units for the various income groups in the country. This framework stresses on the impact of the government to help develop the mortgage market by reducing interest rates in the country. This will cause mortgage companies to reduce their rates and thus make it attractive for the middle and low-income bracket to assess loans to finance the building of their houses.

Conceptual Framework on Rent

Housing Policy is integral in the delivery of houses in the country. It takes into account the provision of houses from both private and public providers. For the purposes of this study, this framework will exclude the impact of housing policies in the country and will focus on the delivery of housing from the government and private developers. From

Figure I, the government plays the role of providing quality houses that should be on the market as well as enforcing regulations governing rental charges. The private sector is where private developers provide finances and housing units to the income group that is eligible to make the necessary payments - the high-income group. Due to the inability of people within the low and middle-income groups to pay for these high-end apartment buildings, they go in for the standard buildings on the market, usually the ones provided by the government (*see figure 1*).

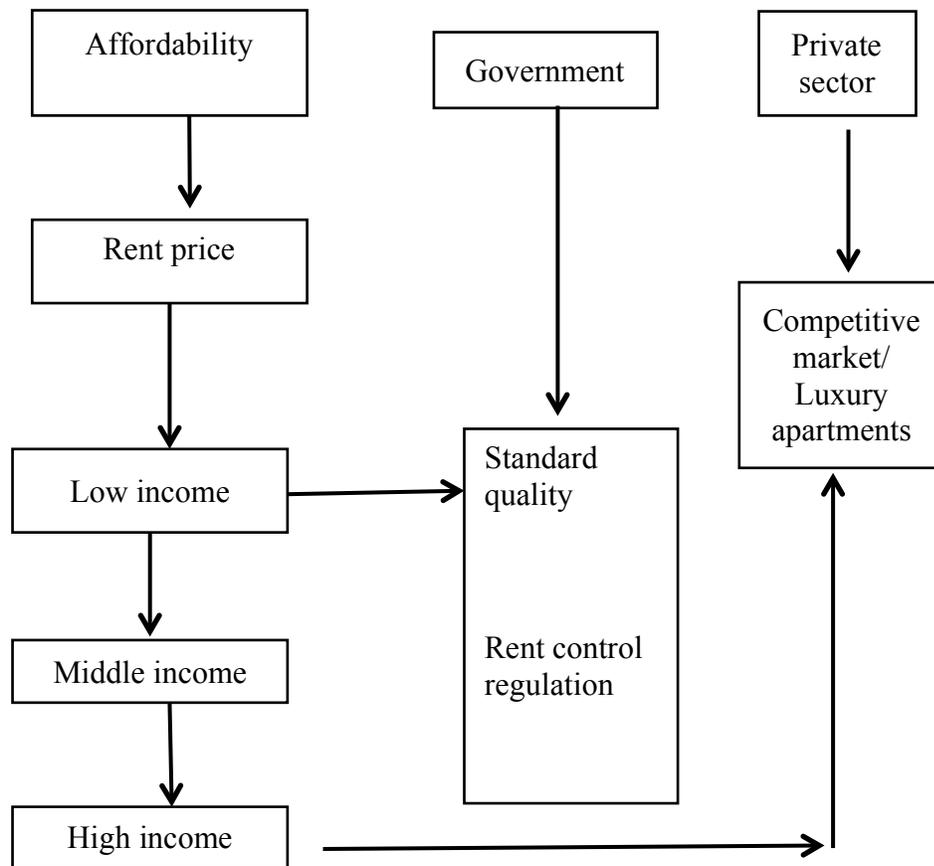


Figure 1: Conceptual framework on rentals explaining the role of the government and the private sector in the provision of rental units (Yirenkyi, 2014, p. 12).

Conceptual Framework on Homeownership

The concept of homeownership takes into account the presence of the state, various households and the involvement of the private sector. The market, which is in this case the private sector, provides houses created by the demand from those who fall within the high-income bracket. According to HFC (2007), about 35% of Ghanaians can purchase or build a house from their private savings. Thus, private developers meet this demand by supplying houses for this group of people, at the expense of households that fall within the low and middle-income group as indicated in *Figure 2*. Thus, the focus of government should not be solely on providing houses to meet the needs of households. Rather, they should also help reduce inflation rates in the country because it will cause a reduction in mortgage rates since it is directly related to interest rates. This will make mortgages attractive to households in the low and middle-income bracket because they will be able to afford it (*see figure 2*).

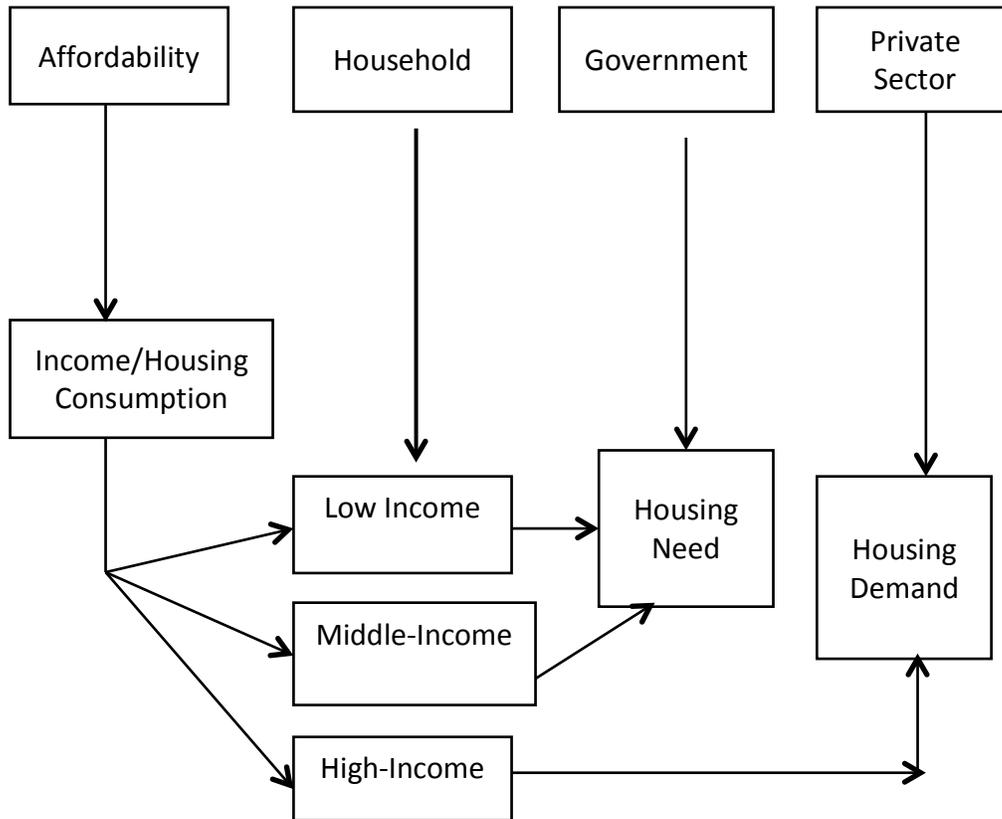


Figure 2: Conceptual framework on homeownership explaining the role of the government and the private sector towards home ownership (Yirenkyi, 2014, p. 11)

Chapter 3

Methodology

3.0 Overview

This chapter provides an overview of how the study was conducted. It describes the methods that were employed as well as the techniques used in collecting data and how this data was analyzed.

3.1 Research Design

This study will take a quantitative approach. This is because the study aims at discovering the perceptions of people on housing affordability in Accra. It will employ the use of a chi-square analysis to study the associations between the following pairs of categorical variables: Homeownership and work type, homeownership and salaries, mortgage rate consideration and homeownership, decision for mortgage and home ownership, and homeownership and perception on housing. These tests will help find out the perceptions of people on housing affordability in Accra. Questionnaires will be used in collecting data on the opinions of people.

3.2 Study Area

Accra is the capital city of Ghana. With a population of 4 million, Accra is the second most densely populated region in the Ghana with the Ashanti region being the most densely populated region (Ghana Statistical Service, 2010). The reason for which Accra is populated is as a result of rural-urban migration. This is due to migrants being of the

perception that there are numerous jobs available in the country's capital, hence seeking greener pastures to better their living standards (Appianing, 2013). The reason for which Accra was selected is because the different suburbs in the region provide a reasonable classification of the different income groups in the country and this fits the objective of the study, which is to find the perception of housing among the different working classes. Thus, selected employed individuals within the catchment areas of Dome, Achimota, Airport Residential Area, West Legon and Gbawe, will make up the study zones for this study. This is because the above-mentioned areas reflect the different income groups selected for this study.

3.4 Sampling Techniques

The population for this study will be the population of the various districts for which the various study areas were selected. These districts include the Ga East District with a population of 147,742, Ga West District with a population of 219,788, and Accra Metropolis with a population of 1,665,086 (Ghana Statistical Service, 2010). Therefore having a total population of 2,032,616.

For the purposes of this study, purposive sampling technique was adopted. The use of this technique was mainly because of the difficulty in getting a sampling frame for Ghana to aid the random selection of respondents to partake in the study. The use of the purposive sampling technique was also because, at the workplaces where the questionnaires were distributed, we assumed that there will a representation of both homeowners and potential homeowners. This also translated into the selection of the various study areas based on the proximity to the school of the researcher and also as a means of reducing the overall

cost that was incurred while undertaking this project. Hence, the selection of the various study areas: Gbawe, Dome, Achimota, Airport Residential Area, and West Legon.

3.5 Sample Size

Based on the selected areas for this study, a sample size of 205 was used along with a confidence level of 95% and a margin of error of 5%. This was ascertained by summing up the population of households found within the various districts of the selected areas.

The sample size for the 5 areas in Accra was determined using the Mathematical formula

$$n = \frac{N}{1+N\alpha^2}$$

Where n represents the sample size, N represents the sampling frame and α represents the margin of error. The calculation is presented in *appendix 1*.

3.6 Data collection and Analysis

Both primary and secondary data was used in this study. Primary data in the form of questionnaires was used to collect responses from the selected areas. In administering the questionnaires, 15% of the sample size was apportioned to Achimota, 30% to Dome, 20% to West Legon, 20% to Gbawe and 15% to Airport Residential Area. These apportionments were done based on the proximity to the various study areas to the researcher.

Questionnaires were randomly given out to offices, schools and churches within the selected areas as well as people passing by within these selected areas. The purpose of using the questionnaire was to gather information from the respondents about their home

ownership status, monthly income, their perception on housing and mortgages as well as factors likely to affect their decision for mortgages.

Secondary data in the form of journal articles as well as institutional reports was used to aid in undertaking the research. This was used in determining the calculation for the sampling frame using data from the 2010 population census.

3.7 Tools and Methods of Data Collection and Analysis

For the purpose of this study, Microsoft Excel was used in coding the responses from the questionnaire. It was also used in drawing relationship graphs among the variables that were tested in this research. Also, PSPP was also used in carrying out the analysis of this study. PSPP was used to calculate the associations between variables from the questionnaire. Fisher's Exact Test was used in calculating the significance between the various variables that were tested in this study. This was mainly to find out whether or not associations existed between the variables that were being tested.

3.7.1 Method of Analysis

Prior to performing the chi-square analysis, a summary statistics of the variables was presented. Additionally, various charts were used to represent the distribution of the variables among the sample surveyed.

Chi-square test of independence: The chi-square test of independence tests the dependence of two categorical variables. This method of analysis was used in finding whether or not an association exists between variables. For this study, Fisher's Exact Test was used for two categorical variables. The study sought to find out whether an association existed between the following variables: home ownership and decision for a mortgage, home ownership and mortgage rate consideration, home ownership and

salaries, home ownership and work type and home ownership and perception on housing.

Variables of the various data sets are defined as shown in appendix 2.

3.8 Hypothesis Statement

The general hypothesis statement for a chi-square test of independence is presented below:

H_0 : There is no relationship between the two categorical variables.

H_1 : There is a relationship between the two categorical variables.

In this study, home ownership was measured using the variables ‘Do not own a house’ and ‘Own a house; Mortgage rate consideration was measured using the variables ‘Affordable’ and ‘Not Affordable’; Decision for a mortgage was measured using the variables ‘Low interest rate’ and ‘Low interest rate and extended loan repayment periods’; Perception on housing was measured using the variables ‘Affordable’ and ‘Not Affordable’; Work Type was measured using the variables ‘Government’ and ‘Private’

The four hypotheses statements are as follows:

- a. H_0 : There is no association between Home Ownership and Work Type
 H_1 : There is an association between Home Ownership and Work Type
- b. H_0 : There is no association between Home Ownership and Mortgage rate consideration.
 H_1 : There is an association between Home Ownership and Mortgage rate consideration.
- c. H_0 : There is no association between Home Ownership and Decision for a mortgage.

H₁: There is an association between Home Ownership and Decision for a mortgage.

d. H₀: There is no association between Home Ownership and Perception on housing

H₁: There is an association between Home Ownership and Perception on housing.

3.9 Ethical Considerations

This research will be conducted in an ethical manner. Thus, respondents will respond to the questionnaires of their own will since they will be made aware of the purpose of the research. No form of incentive will be given out to respondents to provide responses to the questionnaire.

Chapter 4

Analysis and Results

4.0 Introduction

This chapter focuses on the findings from information gathered from the field survey relating to the housing market as well the perceptions of people in relation to the affordability of mortgages in the country. Data reflects information from primary data collected through a survey and secondary data through journal articles.

4.1.1 Demographics of respondents

In order to ascertain the perceptions of people about mortgage affordability in Ghana, 205 questionnaires were administered to homeowners and potential homeowners in their offices at Gbawe, West Legon, East Legon, Anyaa and Airport Residential Area. *Table 1* below presents the demographic information of the respondents.

The data comprises of 103 males and 102 females. Data gathered indicates that 15.84% of the respondents fall between the age range of 18 to 24 years, 41.57% of the respondents fall between the age range of 25 to 30 years, 20.30% respondents fall between the ages of 31 to 35 years, 10.89% of respondents were between 36 to 40 years and 10.40% of respondents are above 41 years. In addition, 108 of the respondents have salaries below GHS 1500, 43 respondents have their salaries between GHS 1500 to GHS 2999 and 13 respondents have their salaries between GHS 3000 to GHS 4499. Three respondents have their salaries between GHS 4500 to GHS 5999, 5 respondents have salaries within the salary range of GHS 6000 to GHS 7499 while 5 respondents have their salaries above GHS 7500. Below is a tabular representation of the data.

Table 1

Summary on the demographic information of respondents

Demographics of Respondents		
Gender	Frequency	Percentage
Male	69	50.24%
Female	85	49.76%
Age	Frequency	Percentage
18 - 24	23	15.84%
25 - 30	59	41.57%
31 - 34	29	20.30%
35 - 40	20	10.89%
41 & Over	20	10.40%
Salary Range	Frequency	Percentage
Below GHS 1500	86	52.43%
GHS 1500 - GHS 2999	41	30.58%
GHS 3000 - GHS 4499	11	6.31%
GHS 4500 - GHS 5999	3	1.46%
GHS 6000 - GHS 7499	3	2.43%
GHS 7500 & above	3	2.43%

4.1.2 Homeownership

Information gathered from the survey indicates that majority of respondents do not own houses. Out of 205 respondents, 140 indicated that they do not own a house where as 58 of the respondents indicated that they own houses without a mortgage. Five respondents however indicated that they own houses with a mortgage. Majority of respondents thus resort to renting houses. This is influenced by data findings where 44% of respondents who have salaries below GHS 1500 also do not own houses.

From this, it can be deduced that the mortgage market still has room to expand since majority of respondents do not own houses and can be made homeowners through mortgages. This is in relation to findings from the Bank of Ghana (2007) and Owusu-Manu *et al.* (2016) that the mortgage market in Ghana is still in its growth stage.

Additionally, it brings to light the housing deficit in the country as indicated by the Ministry of Water Resources, Works and Housing which stands at 1.7 million units (MWRH, 2015) and the need for responses from government to provide more housing units in partnership with mortgage institutions to increase the number of home owners in the country. Table 2 below provides a summary of the findings from the survey.

Table 2

Homeownership status of respondents

Homeownership	Percentage	Frequency
Don't own a house	68.97%	140
Own a house without mortgage	28.57%	58
Own a house with mortgage	2.46%	5

4.1.3 Housing Affordability

As part of the objectives of this research, which is to find whether housing is affordable, data was gathered on the income levels of respondents as well as the portion of their income they spend on housing monthly. Table 3 below provides a summary on renters and housing affordability. Findings show that 93 out of 205 respondents rent houses. According to the National Housing Policy (MWRWH, 2015), housing is considered unaffordable if households spend 30% or more of their income on housing in the country. From the survey, 46 out of the 93 respondents who rent houses in the country spend more than 30% of their income on their housing needs. Thus housing is considered not affordable for these respondents. On the other hand, 47 respondents spend less than 30% of their income on monthly rental payments. Therefore, their housing can be regarded as affordable. Table 3 below provides a summary of findings.

Table 3

Summary Table on Renters

Description	Count
Total Home Renters	93
Respondents who spend more than 30% of Monthly income on rent	49.5%
Respondents who spend less than 30% of Monthly income on rent	49.5%

4.1.4 Mortgages

Despite the awareness of the presence of mortgage institutions in the country, some Ghanaians are not willing to go in for mortgages due to the high interest rates quoted by these institutions. From the survey, 163 respondents out of 205 indicated they were aware of mortgage institutions in Ghana. Nonetheless, 144 respondents indicated that the rates being charged by these institutions are not affordable while 17 respondents indicated that the rates are affordable with 23 respondents indicating them as just right.

The Bank of Ghana (2007) measures mortgage market development by finding the ratio of Mortgage Debt Outstanding (MDO) to Gross Domestic Product (GDP). According to Donkor-Hyiaman (2013), the MDO to GDP in Ghana stands at 0.5%. This is an indication that Ghana's mortgage market is still in its growth phase in comparison with other African countries like South Africa that has a MDO to GDP rate of 22.04% as of 2013 (African Union for Housing Finance, 2015).

However, decisions that will affect the choice for a mortgage by respondents heavily depend on interest rate charges as well as duration of the loan repayment periods. This is presented in Table 4 below. Out of 205 respondents, 108 indicated that they will prefer going in for mortgages if they offer low interest rates and extended loan repayment periods. From the survey, 60 respondents indicated their willingness to go in for mortgages if mortgage institutions offer lower interest rates while 16 responded to going in for a mortgage if the payment periods are extended. Table 4 below provides a tabular representation of findings from the field survey.

Table 4

Summary table on decision for a mortgage and mortgage rate consideration

Decision for a Mortgage	Percentage	Frequency
Low interest rate	32.61%	60
Extended loan repayment periods	8.70%	16
Low interest rates & Extended Loan repayment period	58.70%	108

Mortgage Rate Consideration	Percentage	Frequency
Not affordable	78.26%	144
Affordable	9.24%	17
Just right	12.50%	23

4.1.5 Mortgage Qualification

Ghana Home Loans is the leading mortgage institution in the country with a market share of 47% as of 2013. Second to it is HFC Bank with 27% market share and Fidelity Bank with 14% market share. Mortgage institutions in the country require some amounts of money from potential homeowners as down payments to secure a mortgage from the respective institutions. Stanbic Bank, which also offers mortgage products to clients, requires potential customers to be earning a net monthly salary of GHS 2000. Thus 55% of the respondents who do not have net monthly incomes of GHS 2000 will not be considered for a mortgage from Stanbic Bank. *Figure 3* below provides a graphical representation of findings from the survey.

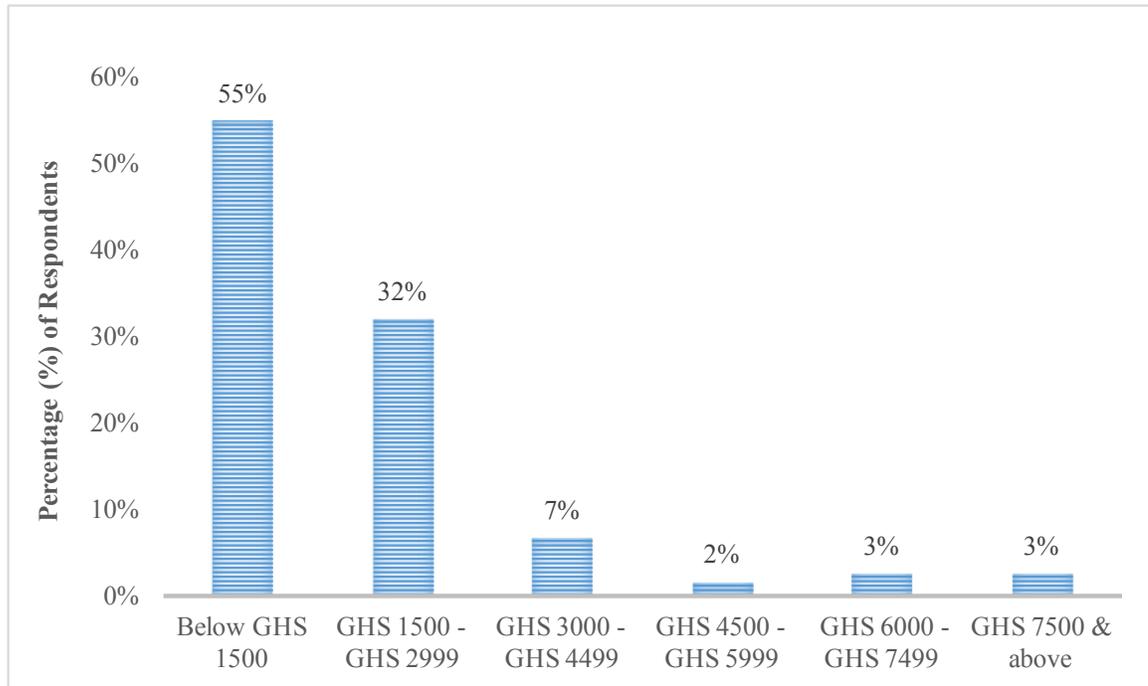


Figure 3: Bar Graph on the Salaries of Respondents.

4.1.6 Perception on Housing

One of the objectives of this study is also to find out the perceptions of people about their current situation. Responses from the survey reveal that majority of the respondents perceive their current housing to be affordable irrespective of their owning houses or not. Thirty seven percent of respondents found their current housing to be very affordable, 33.5% found it to be just right while 14.08% respondents found it as being not affordable. This is as a result of respondents finding comfort in their current housing. Figure 4 below provides a graphical representation of the data.

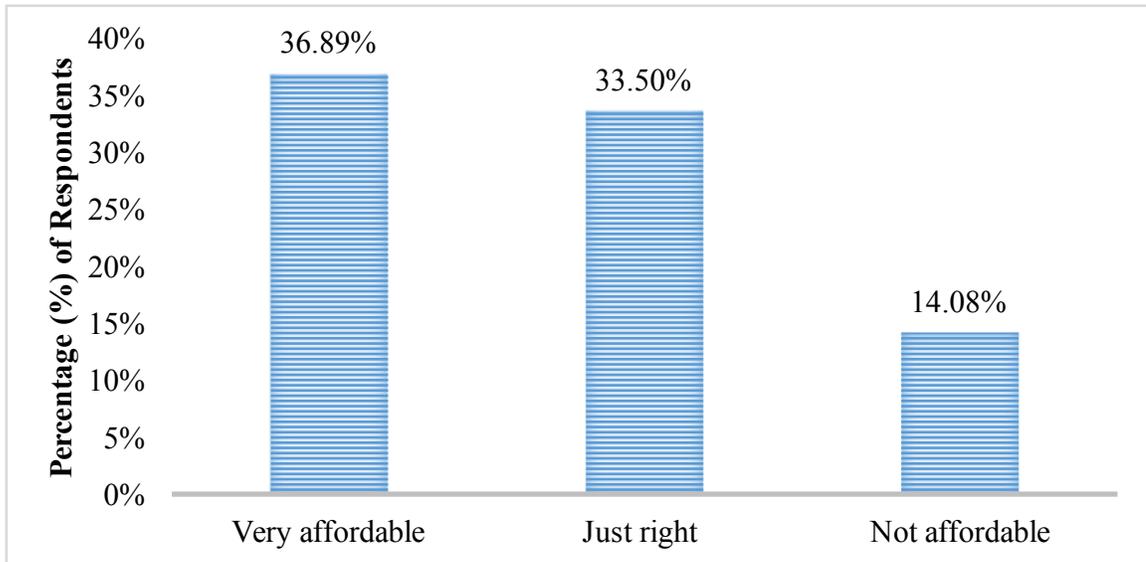


Figure 4: Bar Graph on the Perceptions on Housing Among Respondents.

4.1.7 Work Type and Home Ownership

Responses from the survey indicate that the Government employs 24.64% of respondents who do not own houses and 30.65% of respondents who own houses. Private businesses on the other hand employ 75.36% of respondents who do not own houses and 69.35% of respondents who own houses. Thus, performing a chi-square test of independence as shown in *Table 6* of Appendix between homeownership and work type, a p-value of 0.024 was obtained. With a significance level of 5%, which is greater than the p-value of 0.024, we cannot accept the null hypothesis that the relationship between work type and home ownership is independent. The rejection of the null hypothesis suggests that work choice may influence homeownership. *Figure 5* below provides a graphical representation of the relationship between the two variables.

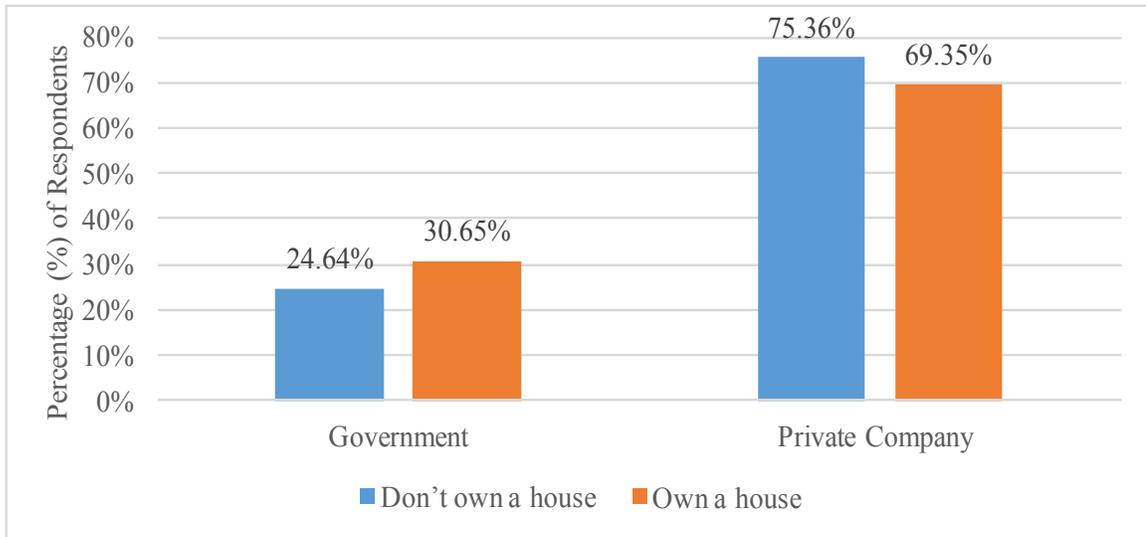


Figure 5: Bar Graph on Work Type and Homeownership.

4.1.8 Home Ownership and Decision for Mortgage

One of the objectives of this study is to find out the factors that will influence the decision of homeowners or potential homeowners to go in for a mortgage. Responses from the survey for home ownership in relation to the decision of homeowners are presented in the graph below (*see figure 6*).

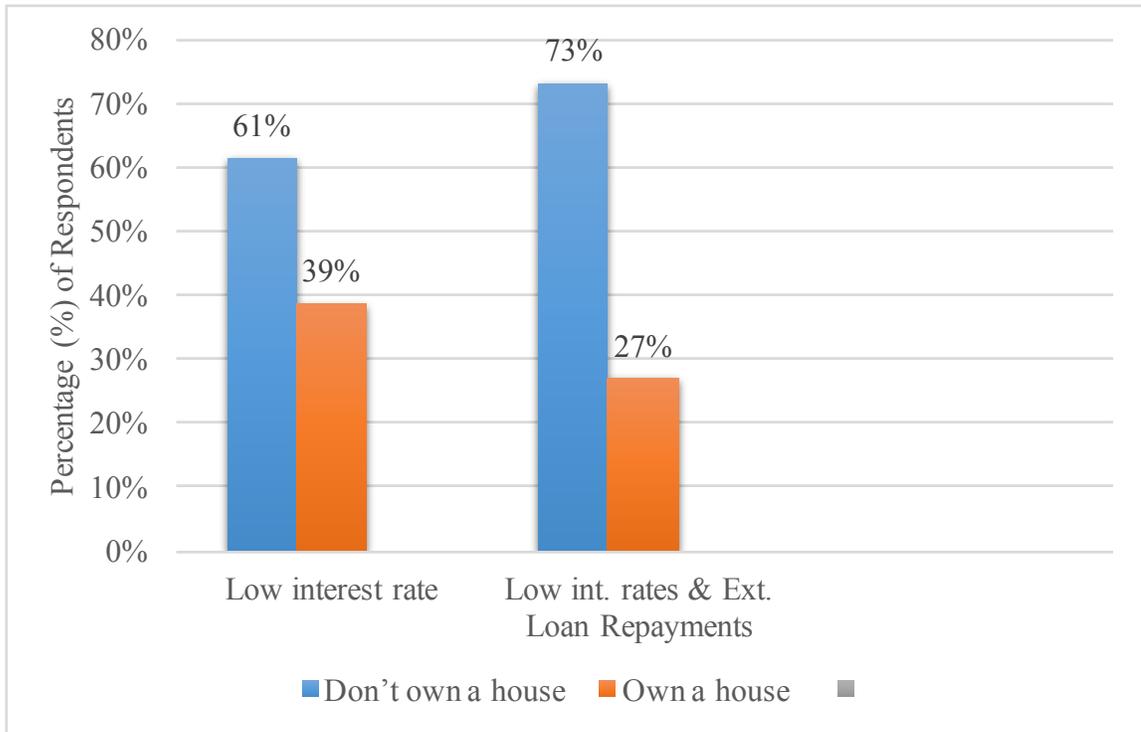


Figure 6: Bar Graph on Homeownership and Decision for Mortgage.

The graph above indicates that more than 60% of the respondents will have their decision to go in for a mortgage influenced if mortgage institutions reduced their interest rates and also extended their payment periods or just reduced their interest rates. On the other hand, more than 25% of respondents who own houses will have their decision for going in for a mortgage influenced if mortgage institutions reduced interest rates being charged and extended the loan repayment period or just reduced their interest rate charges.

Nonetheless, in finding out whether or not a relationship existed between the two variables; home ownership and decision for a mortgage, a chi-square test of independence was used. With a significance level of 0.05 and a p-value of 0.06 as shown in *Table 8* of Appendix, the null hypothesis cannot be rejected because homeownership and mortgage decisions are independent. This is because the p-value of 0.06 is greater

than the significance level of 0.05. Hence, a relationship exists between homeownership status and one's decision for a mortgage.

4.1.9 Home Ownership and Mortgage Rate Consideration

Responses from the survey indicate that 76% participants who do not own houses consider mortgage interest rates as not affordable while 24% of respondents who do not own houses indicated that mortgage rates are actually affordable. Also, 77.59% of homeowners indicated that the rates being charged are not affordable where as 22.41% of homeowners indicated that mortgage rates are affordable. Also, with a p-value of 0.49 as shown in *Table 10* of Appendix and a significance level of 0.05, the null hypothesis will not be rejected. Thus, showing an association between home ownership and mortgage rate consideration. *Figure 7* below provides information of respondents on homeownership and mortgage rate consideration.

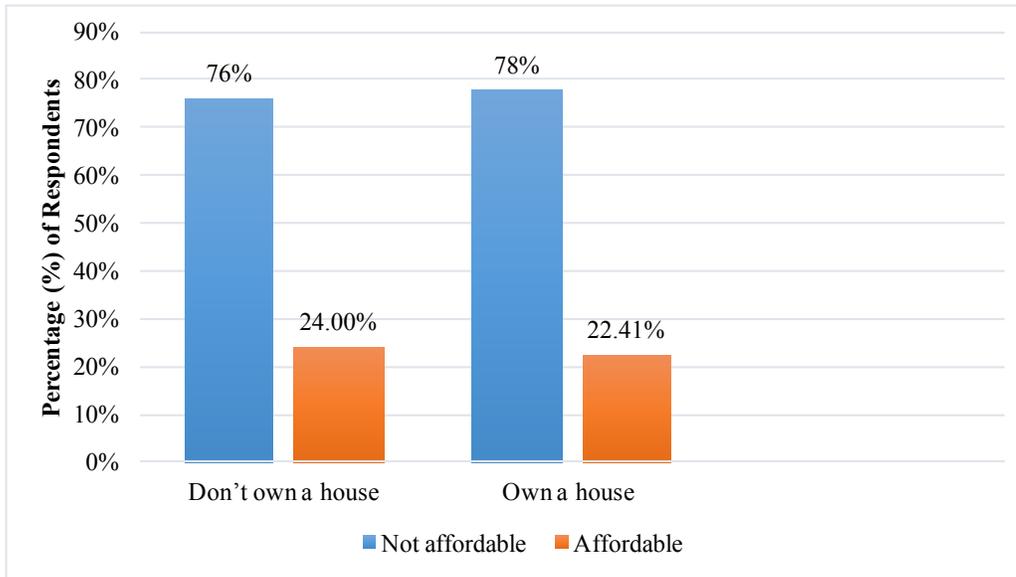


Figure 7: Bar Graph on Homeownership and Mortgage Rate Consideration of Respondents.

4.1.10 Homeownership and Salaries

Another objective of the study is to find out the relationship between salaries and homeownership. Responses from this study suggest that more than 65% of respondents who have salaries up to GHS 4500 do not own houses. However, performing a chi-square test of independence to show proof of a relationship between home ownership and salaries, a p-value of 0.000 was calculated. Since the p-value of 0.00 is less than the significance level of 0.05 as shown in *Table 9* of Appendix, we cannot accept the null hypothesis that the relationship between home ownership and salaries is independent. The rejection of the null hypothesis suggests that perhaps rental payments may influence home ownership. *Figure 8* below provides a graphical representation of the data.

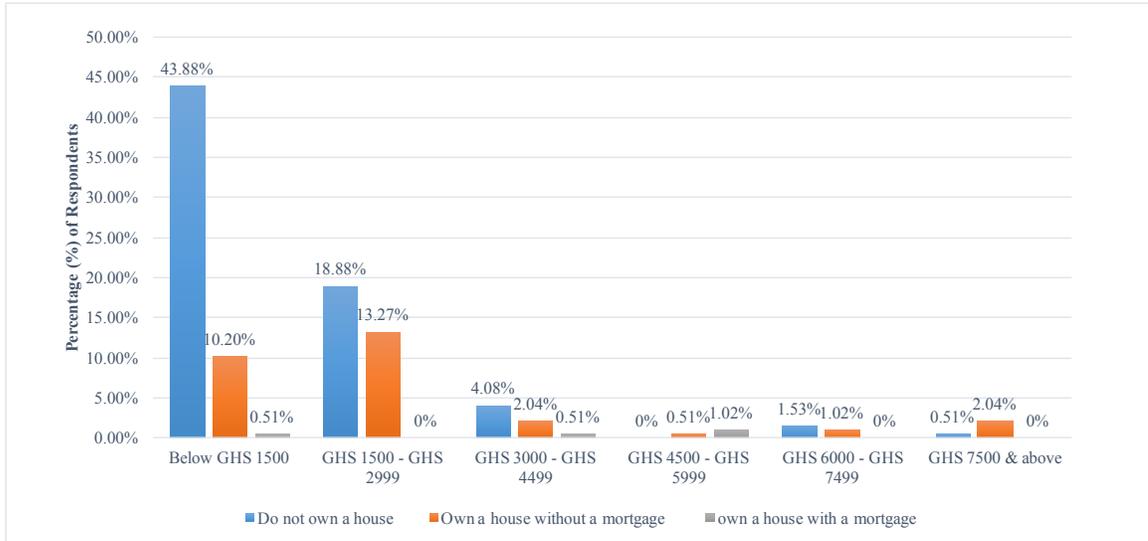


Figure 8: Bar Graph on Homeownership and Salaries.

4.1.11 Rental Payments and Salaries

Out of 157 respondents who rent houses, 58.6% of them spend below GHS1500 of their salary on rent. Also, 31.21% of respondents spend between GHS1500 to GHS2999 of their salary on monthly rental payments while 10.19% of respondents spend above GHS3000 of their salary on rent monthly. Figure 9 below provides a graphical representation of the data above.

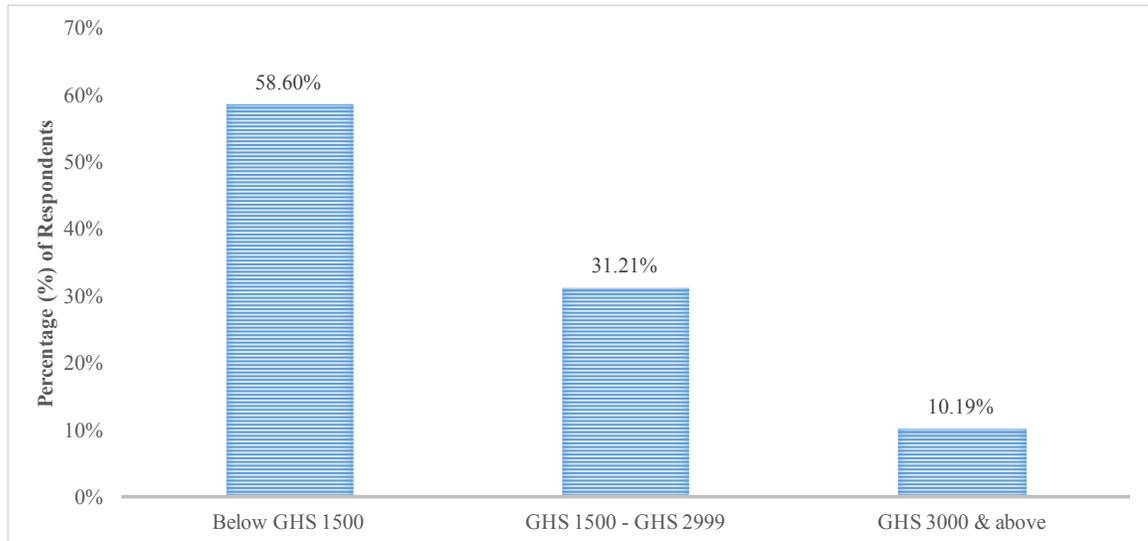


Figure 9: Bar Graph on Total Monthly Rental Payments.

4.1.12 Homeownership and Rental Payments

From the survey, 116 of the respondents were found to not own houses. However, 38.99% of the respondents who do not own houses make monthly rental payments below GHS1000 where as 6.93% of the respondents who do not own a house pay monthly rent above GHS1000. Also, 27.04% of respondents who do not own a house spend zero or nothing at all on rent and this is attributable to the fact that respondents live either with their parents or other relatives. *Table 5* below presents a summary of the findings on home ownership and rental payments.

Table 5

Relationship Table Between Rental Payments and Homeownership

Home Ownership	Rental Payments				
	Zero	Below GHS 1000	GHS 1000 - GHS 1999	GHS 2000 - GHS 2999	GHS 3000 & above
Do not own a house	27.04%	38.99%	2.52%	2.52%	1.89%
Own a house without mortgage	18.87%	5.03%	0.63%	0%	0%
Own a house with mortgage.	0.63%	0.63%	1.26%	0%	0%

4.1.13 Homeownership and Perception on Housing

Results from the survey indicate that 67.13% of the respondents who do not own homes perceive their current housing to be affordable while 32.87% of the respondents who own a house consider their current housing as affordable. On the other hand, 80% of respondents who do not own houses perceive their current housing as not affordable while 20% of the home owners perceive their current housing as not affordable.

Employing the use of fishers test to find out whether or not a relationship exists between home ownership and perception for housing, a significance level of 0.05 was employed.

A p-value of 0.12 as shown in *Table 7* of Appendix was obtained, showing an indication

that a relationship exists between the homeownership and perception on housing. *Figure 10* below provides a graphical representation of the data.

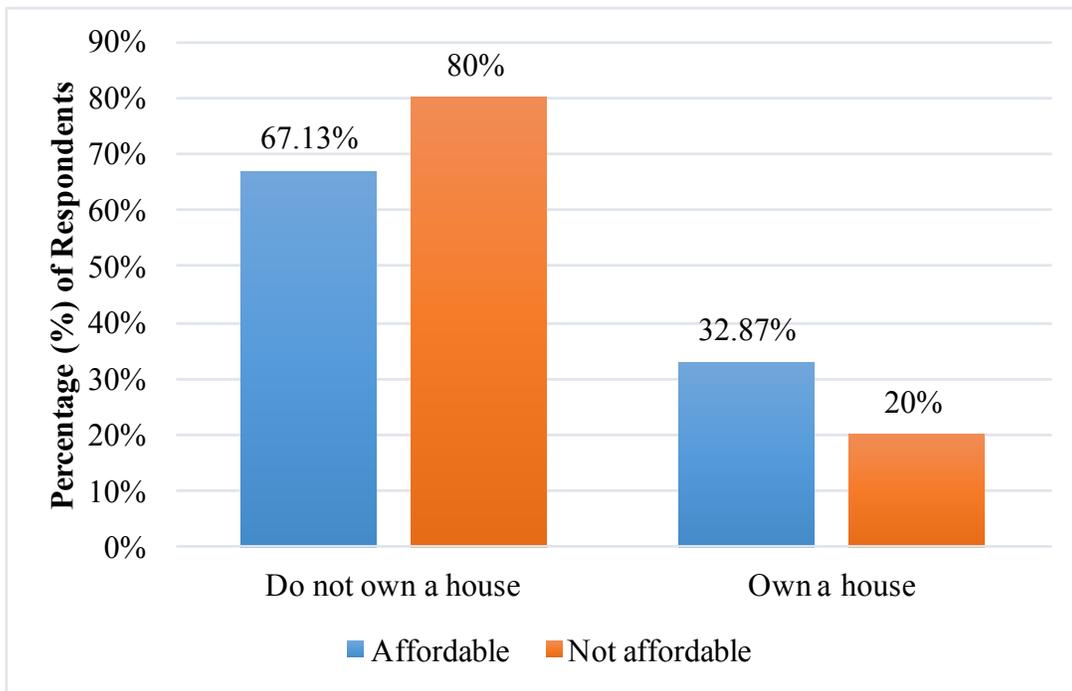


Figure 10: Bar Graph on Perception on Housing and Homeownership.

4.2 Discussion

The data gathered and analyzed points out several problems related to housing among the areas sampled in this study.

Age happens to be a moderator between home ownership and salaries despite home ownership and salaries having no association. This is because the ages of respondents are skewed towards ages between 18 and 30 years. Implying that, respondent are upstarts who just entered into the work force and are yet to have stable income flows, which will then influence their decisions pertaining to owning houses.

With the perceptions of sampled respondents at the forefront of making decisions concerning housing, it does not provide the right basis for measuring affordability. This is

because what one respondent may consider affordable may not be affordable to another since they might rather view it as expensive and hence the conclusion of it not being affordable.

In addition, the study revealed the people who actually own houses with mortgage are few although the market is still expanding. This finding is in line with the findings of Boamah (2010) and the Bank of Ghana (2007) on how the mortgage market in the country is still in its growth stage.

Also, government workers happen to be the least homeowners from the survey in comparison to workers who work with private companies. This outcome is in line with findings from the Karley's (2003) study on housing, in that the government does not have the means to guarantee loans for workers. Thus, only a few government workers tend to be homeowners.

Although it may be speculated that mortgages in the country are not affordable, we found out that it can also be argued as expensive to households who fall within the low and middle-income bracket. For instance, if a respondent decides to buy a property from Devtraco valued at \$90,000 and decides to use a mortgage from Ghana Home Loans to finance the purchase, the respondents will have to earn a monthly salary of \$2,477, which is approximately GHS 11,342. This rules out all the respondents in the survey since they do not meet the requirement to acquire such a facility and then shifts the issue in question from affordability to a matter of mortgages being expensive. Hence, it can be speculated that majority of respondents will resort to incremental building since they perceive it will cost them less to put up a house on their own rather than acquiring a mortgage facility. This outcome from the survey is in line with the study conducted by UNHABITAT

(2011) on how mortgages in the country are expensive, ruling out mostly the low and middle-income earners from acquiring a house through such means.

Despite the positive sides this research brings out, it also has some limitations associated with it. One of such limitations is the fact that the sample collected restricts generalization to be made towards the respondents sampled and not a generalization of the perceptions of housing on the population in the country.

Another of such limitations is the fact that the measure of affordability tends to be ambiguous in this study since it does not have a definite measure. Thus, the decision of whether or not housing is affordable is based on the perceptions of people. As such, we found it to be misleading and hence, cannot be applied to make a general statement on the population but rather on the respondents surveyed.

Thus, in conducting further research on the subject, a better measure of housing affordability should be defined in order to draw insightful conclusions on housing affordability. In addition, random samples should be used to give inferences on the population in relation to the housing affordability in the country.

Chapter 5

Summary of Findings Recommendation and Conclusion

This section provides a summary of findings, makes recommendations on housing conditions on how its delivery could be improved bettered in future and concludes the study.

Summary of Findings

This study revealed the following in relation to housing delivery:

More than 65% of respondents do not own houses. This establishes a market for mortgage institutions to provide housing solutions to these potential homeowners. This is because, it is speculated that the group of individuals who do not own houses happen to be the target group for these institutions.

Out of 205 respondents, 105 respondents indicated that they consider mortgage interest rates as not affordable. This signifies that despite people not owning houses in the country, they will equally not go in for a mortgage facility. On the contrary, it can be anticipated that they will prefer going in for the option of incremental building where they can build according to the amounts of money they earn. Also, findings from the study indicate that government workers among respondents are the least homeowners in comparison to private company workers.

Findings from this research also reveal that the perceptions on housing affordability of people tend to affect the decision of people towards homeownership.

Also, findings from the research suggest that 54.84% of respondents earn salaries that are below GHS 1,500, indicating that these households will not be able to afford a mortgage facility from Stanbic Bank. However, based on the mortgage calculator from Ghana

Home Loans, all respondents from the survey do not have incomes that qualify them for two bedroom house sold by Devtraco, valued at \$90,000.

Conclusion and Recommendation

It can be concluded that the perceptions of people in relation to mortgages is a determinant of housing affordability among respondents of the survey. Also, home ownership is in association with perception of housing, mortgage rate consideration and decision for a mortgage. The contents within these variables are highly significant for housing delivery within the sampled areas.

It is necessary that the government introduce policies that will aid in the economic stability of the country, which will cater for the continuous depreciation of the cedi as against major international currencies in the country. This will in turn help reduce the interest rates being charged by mortgage institutions in the country.

Also, further research should be done in the area of mortgage affordability since it will provide a better representation of the population. Also, mortgage providers should target people within the low and middle-income groups since majority of respondents tend to be potential homeowners. In addition, research should be conducted on the reasons why government workers own less houses compared to private workers.

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Appendix 1

Questionnaire

STATEMENT OF INFORMED CONSENT

This is a study that seeks to find out your preference in choosing whether to buy or rent a house. Participation will take approximately 20 minutes of your time. Please be informed that participation is in no way mandatory for participants. You may choose to stop at anytime in the process of answering the question.

Some questions you may find sensitive. However, your responses will help further the discussion on how mortgages are affecting housing in Ghana. This research protocol has been reviewed and approved by the Ashesi Human Subject Review Committee. Questions about the approval should be forwarded to the chair through irb@ashesi.edu.gh.

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Signature of Participant

.....

Date

.....

Housing Survey

You have been chosen to take part in this survey on the housing needs of people in Ghana. This survey is solely for academic purposes and it seeks to find out your preference on deciding whether to buy or rent a house. This is likely to take up to 20 minutes of your time. Your responses and identity will be kept unknown.

Kindly tick the option that applies to you.

Section A

1. Gender

Male Female

2. Age

18 – 24

25 - 30

31 – 34

35 – 40

41 and over

3. Area of residence

4. Status:

Married Single Divorced

5. Number of children

0

1

2

3 and above

6. Which of the following sectors best describes where you work?

Work with the government / civil servant

Work with a private company

- Work for Family business / farm
- Work as an entrepreneur (Own your business / firm)

7. What is your range of salary earnings per month?

- Below GHS 1500
- GHS 1500 – GHS 2999
- GHS 3000 – GHS 4499
- GHS 4500 - GHS 5999
- GHS 6000 – GHS 7499
- GHS 7500 and above

Section B – This section focuses on the home ownership

8. Do you own a house?

- Do not own a house
- Own a house without a mortgage
- Own a house with a mortgage

9. How did you acquire your current home?

- Through an agent
- Purchased from a real estate developer
- Inherited
- Self-financed (Built from scratch)

10. How were you able to finance your home?

- Loan from the bank
- Mortgage
- Personal Savings
- Loan from family and friends
- Other

If other, please specify

Section C - Home renting

11. Do you pay or share the rental payment for your house?

.....

12. How much do you pay monthly for housing?

Zero

Below GHS 1000

GHS 1000 – GHS 1999

GHS 2000 – GHS 2999

GHS 3000 and above

In case of advance rental payments (1 year or 2), how much do you spend on housing?

.....

13. Will you consider purchasing a house?

Yes No

14. What do you perceive your current housing to be?

Very affordable

Just right

Not affordable

Section D – Mortgage

15. Are you aware of mortgage facilities in Ghana?

Yes No

16. Are you aware of what the interest rate for mortgages are in Ghana?

Yes No

17. What will you consider mortgage interest rates between 33% to 35% in Ghana?

Not affordable

() Affordable

() Just right

18. What will affect your decision on going in for a mortgage?

() Low interest rates

() Extended loan repayment periods

() Low interest rates and extended loan repayment periods

Other (please specify)

Appendix 2

Table 6

Chi-square test between homeownership and work type

Home Ownership & Work Type					
Chi-square test					
Statistic	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-square	0.79	1	0.37		
Likelihood Ratio	0.78	1	0.38		
Fisher's Exact Test				0.39	0.024
Continuity Correction	0.51	1	0.47		
Linear-by-linear Association	0.79	1	0.37		
N of Valid Cases	200				

Table 7

Chi-square test between homeownership and perception on housing

Home Ownership & Perception on Housing					
Chi-square test					
Statistic	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-square	1.93	1	0.16		
Likelihood Ratio	2.06	1	0.15		
Fisher's Exact Test				0.2	0.12
Continuity Correction	1.37	1	0.24		
Linear-by-linear Association	1.92	1	0.17		
N of Valid Cases	173				

Table 8

Chi-square test between homeownership and mortgage decision

Home Ownership & Mortgage Decision					
Chi-square test					
Statistic	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-square	2.85	1	0.09		
Likelihood Ratio	2.83	1	0.09		
Fisher's Exact Test				0.11	0.06
Continuity Correction	2.33	1	0.13		
Linear-by-linear Association	2.84	1	0.09		
N of Valid Cases	183				

Table 9

Chi-square test between homeownership and salaries

Home Ownership & Salaries			
Chi-square test			
Statistic	Value	df	Asymp. Sig. (2-tailed)
Pearson Chi-square	15.89	2	0
Likelihood Ratio	15.81	2	0
Linear-by-linear Association	15.46	1	0
N of Valid Cases	196		

Table 10

Chi-square test between homeownership and mortgage rate consideration

Home Ownership & Mortgage rate consideration					
Chi-square test					
Statistic	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-square	0.06	1	0.81		
Likelihood Ratio	0.06	1	0.81		
Fisher's Exact Test				0.85	0.49
Continuity Correction	0	1	0.96		
Linear-by-linear Association	0.06	1	0.81		
N of Valid Cases	183				

Appendix 3

Sample size calculation

$$n = \frac{N}{1 + N(\alpha)^2}$$

$$n = \frac{2032616}{1 + 2032616(0.05)^2}$$

$$n = 399.92$$

n = 400 sample respondents.

Where 'n' = Sample Size

'N' = Sample frame

' α ' = Margin of error