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Perceptions of Residential Real Estate Mortgage Financing in Ghana: A Survey of Low-Income Key Workers

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Abstract:
Housing is an essential facet of everyday life, community, health and well-being. Home ownership remains the tenure of choice for most people. Spiraling house prices and the shortage of housing means that self-help housing is increasingly the only option for low and middle-income families unable to afford a home of their own. A well – functioning housing finance systems contribute a major building block of the enabling approach in the global shelter for all, including low-income households. In this article, a quantitative research design in the form of questionnaires was used to explore the perceptions of residential real estate mortgage financing among public key workers in Ghana. Our findings suggest that there are a large number of mortgage financing institutions in Ghana, all of which have the mandate to provide credit facilities to the lower income groups at lower than market interest rates and long repayment periods. However, many self-builder's households face series of problems in attempting to access finance with which to resolve their housing needs even though they have regular employment and income. Finding reveals that many face barriers such as high deposit charges and difficulty meeting qualifying requirements such as the lack of required documentation. Policies to address these barriers would help promote self-help housing in Ghana.

Keywords: *Self-help, affordable housing, Ghana, mortgage, key workers, low income*

1. Introduction

Having access to quality and affordable housing is a fundamental human right. Without the fulfillment of this basic need, access to other rights such as safety, health, education and employment would be difficult if not impossible to achieve. Therefore, owning a house will always be a top priority to an individual and especially those with a family, in order for them to live in peace and security. This also means that having access to an efficient housing market and developed housing finance is a priority, as housing finance supplies the necessary funding in order for an individual to obtain a property of his/her own. Ghana's very rapidly expanding population and housing deficit is not a new phenomenon. The estimated housing deficit, according to the 2010 Population and Housing Census, is over two million (2,074,391) dwelling stocks (Ghana Statistical Services, 2012). The Ministry of Works and Housing put the housing unit deficit at 1.7 million in 2014.

This means that as much as over two million housing stocks should have been provided as at 2010 in order to meet the deficit. The 2010 census also recorded a population of almost 25 million, showing that, on average, at least, 1.5 million houses could have solved the housing conundrums in Ghana (Ghana Statistical Services, 2012). The 2012 housing sector profile estimated that Ghanaians would need 5.7 million new rooms by 2020 and this supply can only be met if 3.8 new rooms are completed in every minute of every working day for ten years. The 2010 census estimated the average household size as 4.4, with about 51.5 percent of these households occupying a single room in a compound house. It suggests that on average seven people occupy a single room in Ghana. According to the most recent Ghana Living Standards Survey (2008), 62.9 percent of urban households sleep in single rooms. This is the Habitat for Humanity standard of three rooms per household.

There is an uneven distribution of houses across the country with an arithmetic increase in the provision of the housing against a geometric rate increase in the population. A total number of houses as at 2010 compared with a number of households indicated an acute overcrowding in most houses. As also shown in the data, on average, there are about 7.3 persons living in each house. The Ashanti region recorded the highest percentage of housing stock in the country (16.9%), corresponding to its high population (Ghana Statistical Services, 2012).

New housing supply continues to fall behind the new household growth in Ghana, despite a recent small improvement in output. Raising new build output is perhaps the biggest housing challenge facing the country. The past governments' attempts to provide affordable housing alone were woefully inadequate or ended in a fiasco. The Kufuor-led New Patriotic Party (NPP) government sought to reduce the housing shortfall by building about 20,000 affordable units in 2001 for civil and public servants. In 2007, the construction of about 4,500 units ranging from bed-sitter, single and two-bedroom apartments had begun at Borteyman and Kpone in the Greater Accra region, Asokore-Mampong in the Ashanti Region, the Akwadum site in Koforidua in the Eastern region, and Tamale in the Northern region. All were to be completed by June 2009.

Unfortunately, not a single unit has been completed. Now, most of the sites have been taken over by squatters. This project was discontinued by the National Democratic Congress (NDC) government in 2009. President John Atta Mill's administration signed a controversial deal with a South Korean company, STX, for the construction of 30,000 housing units for government security personnel at a cost of US$1.5 billion. That deal has since floundered. In 2013, Water Resources and Works and Housing Ministry announced that there would be 9,120 housing units built after a deal was struck with Credit Suisse and Barclays Bank for a US$400 million loan for the project. A total of 5,000 units were to be built by Brazilian company Construtora OAS for US$200 million. The remaining 4,120 were to be constructed by Ghana's ItalConstruct International for a total cost of US$200 million.

In Ghana, housing provision categorizes urban households into low, middle and high-income groups. Ghana Real Estate Development Association (GREDA) provides about 2,500 housing units annually but expensive and scared. As for the housing for the upper class and some middle-class people with high purchasing power and disposable incomes in our society, there are always plenty of houses to meet their needs. But for the ordinary Ghanaian, civil servants and other people in the lower income bracket, only the government can currently provide affordable housing for them. Mortgage companies estimated that most households in the country could only afford houses with prices ranging between US$10,000 and US$18,000 but no real estate developer could construct a house for such low prices because the real estate industry is driven by location, the type of development and quality of finishing.

Given highly skewed income distribution and the barrier, this presents for many in accessing home ownership, a large proportion of households cannot aspire to solve their housing through formal housing markets. As a result, an alternative for many households is self-help approach to home ownership. Self-help housing has provided the means for thousands of low-income households to realise the dream of homeownership. Self-help housing has a long history in this country. Most Ghanaians prefer incremental housing (self-help building), which accounts for nearly 80 to 90 per cent of home ownership.

The financial sector is an essential player in housing development, playing a facilitating role of amassing the necessary capital for housing development. This implies that financial institutions constitute the interface between the housing market on one hand and capital markets on the other (Renaud, 1984). In many cases, housing remains mostly self-financed by households' equity or initiative in developing countries. The mortgage market offers outstanding benefits to the borrower and the wider economy as it enables prospective homeowners to spread the cost of a house over a reasonably long period. Most of it would not have been built without mortgage finance; middle-income households and even most upper-income groups' need mortgages in order to buy it or long-term finance in order to build it. The ability to secure finance is clearly important if the lowest-income households are to be able to participate in the housing market.

Anecdotal evidence suggests that only five to eight per cent of Ghanaians can afford a house from their own resources, that is, without accessing bank or mortgage loans, and most of these are resident outside the country. About 60 per cent of people in Ghana needs some form of financial assistance, while up to 35 percent will not be capable of owning or building a house in their lifetime. This is because the majority of people do not have access to long-term loans or mortgage products. This situation has made most Ghanaians prefer incremental housing (self-help building), which accounts for nearly 80 to 90 per cent of home ownership.

The remit of this research is to analyse the perceptions of publiclow-income key workers' who intends to enter into the housing market through incremental housing about the Ghanaian residential real estate mortgage financing market. It is assumed that the source of financial assistance is by formal financial institutions. The paper is structured as follows. The next section presents a survey of the basic literature on self-help housing and residential estate mortgage financing in Ghana in an attempt to gain an understanding of the policy context of the housing finance issue. The third section presents data and analysis from the public key workers' questionnaires. The final contains overall conclusions and policy recommendations.

2. Literature Review on Self-Help Housing and Providers of Residential Real Estate Mortgage financing to Public Key Workers in Ghana

2.1. Self –help housing

In Ghana like many developing world, housing in the developing world is a process. Building a home in progressive or incremental stages is a common practice in much of the developing world, constituting 50 to 90 percent of residential construction. It is traditionally a process of delivering affordable homes in many parts of the world (Oluwole and Akunnaya, 2013). Usually, such housing is referred to by different names and the concept ranges from self-built, self-managed, incremental housing, a Do-It-Yourself (DIY) starter house, a phased-development house or owner-driven house (Matheey, 1992; Barlow et al,2001; Peter and Ayora, 2011). Incremental housing is a step-by-step process of housing development that begins with a core house and is gradually upgraded in size and or quality over time under the owner's control with regards to household needs and resources (Goethert, 2010). The process offers home owners a wide range of flexibility to enlarge and improve their houses in response to changes in their family size, structure, and financial capabilities. Therefore, the novelty of the housing produced through this mechanism lies in the process itself rather than its outcome (Hamid and Elhassan, 2014).

With this approach to housing, households can get a foot on the housing ladder more easily as the total cost of a home is much less than buying from one of the big house developers (The National Self Build Association (NaSBA) (,2008). According to Napier (2002) this housing delivery model had all the elements of incremental package, like secure tenure, access to appropriate finance, skills, use of local materials, and construction methods among others.

Affordable housing has continued to pose a severe challenge to the low developing countries in looking for sustainable solutions to meet the over increasing housing demand with less supply. Bredenoord, et al (2014) suggest that such an approach is cheaper than formal construction because it avoids the multiple overheads, corporate profits for large construction companies and it makes use of local resources, including the labour of the owners. It is a system that is officially and legally recognized and supported with the aim of making home ownership accessible for households who otherwise could not afford the mortgage payment, or in other words, could not buy a house outright. In response to the inability of governments to deal effectively with the overwhelming demand for housing, self-help housing has become a favourite formula and a feasible solution to meet the housing needs of the urban poor in the third world. Jones and Datta (1999.p12) suggest that self-help housing was 'affordable' relative to size and stability of existing income over the short term and the household life-cycle". As a result, Ibem et, al (2012) suggest that the incremental housing can facilitate easier access to affordable housing than the conventional turnkey approach. It is on this premise that Turner advocated for self-help housing as an alternative solution to the low-income group needs, while arguing that the mechanism uses local systems, appropriate technology, with local materials, local labour, and skills available in the community (Turner, 1972). From this process perspective, incremental housing can be described as an inverted version of the formal process of building and financing a house (Greene and Pojas, 2008). In general, procurement processes for such housingtake place in the opposite order of those in the formal sector (Wakely andRiley, 2011). In the formal process, the complete features of the house are available to the owners from the first day of occupancy, financed by the long amortization period of a mortgage loan while the house is in use. In contrast, in the incremental construction process, the house is acquired with only the most basic features and is upgraded later, at a pace based on the financing capacities of the families, through savings, micro loans or self-help, which implies waiting until the final stage to obtain the completely finished house. This implies that self-help houses are occupied long before the entire building is fully constructed without applying for occupancy permits. Greene and Rojas (2008) suggest that these houses are often constructed on land that is inadequate for residential use; are located within the incomplete and unauthorized land; lack secure land tenure or construction permits; or fail to meet the construction standards that ensure the safety and sanitation of the houses. According to Meikle (2011), such houses often take an average of 8 to 10 years to complete as they are developed progressively sometimes for example floor by floor or room by room.

2.2. Providers of Real Estate Mortgage financing to Public Key Workers in Ghana

In comparison to advanced countries or industrialised countries like US, UK, and other developed countries, the mortgage market in Ghana has expanded significantly in value terms but remains remarkably underdeveloped. Many banks still refuse to enter fully the market. Commercial banks do not have a major involvement in housing finance as many have concerns about the risks of providing long-term loans. However, since the passage of the Financial Institutions (Non-Banking) law in 1993 and financial liberalisation in the country, the HFC Bank, and Ghana Home Loans have been specialist mortgage banks that have dominated mortgage financing activities.

A wide variety of mortgage instrument designs has been created by these banks to meet the needs of borrowers and lenders. They offer both residential and commercial mortgages. Each of these offers a list of loan options, with their own special brand names. They include Home Purchase Mortgage (HPM), Home Improvement Mortgage (HIM), Home Completion Mortgage (HCM) and Home Equity Mortgage (HEM). In addition, the HFC Bank has additional specialist products of Buy (land), Build & Own a Home. These mortgage instruments have a complex mix of different features and the terms associated with them dictate how the interest rate is determined, how the loan is amortised, its final maturity and the options for and the requirements of the lender and borrower. As indicated by Chiquier and Lea (2009) there is no perfect mortgage because features attractive to borrowers may be expensive or impossible to lenders and that while a borrower is interested in the affordability of the loan, both at the beginning and over its life, the lender, on the other hand, is interested in getting an acceptable risk-adjusted rate of return over the life of the loan. As a result, the set of mortgage instruments offered by banks reflects market forces of demand and supply as well as the legal and regulatory environment (Agyeman-Yeboah, 2015). There are many relevant forms of the mortgage loan as shown in Table 1. The paper, however, focuses mostly on mortgage loans designed for self-housebuilders and low-income earners.

Product Type	Features	Optimum Borrower
Home Purchase Mortgages	A maximum of \$120,000 for a 20 years term, with a 20% down payment. Resident Ghanaians are required to pay a processing fee of 1.5% of the proposed loan while non-resident Ghanaians pay \$250/GB£ 150 plus a 1% facility fee.	Middle and upper echelons of the salaried income distribution structure of households

Product Type	Features	Optimum Borrower
Home Completion Mortgages	A maximum of $120,000 for HFC Bank but $150,000 for Ghana Home Loans Company. The loan shall not exceed 50 percent of the total cost of construction of the property. The property must have reached at least lintel level before the loan is granted. The maximum term is 15 years for both cedi and foreign currency loans. All applicants are to submit a development permit, building permit and approved building plans. Location of property should be the highest consideration. The loan is disbursed in stages upon inspection of a lender's qualified surveyor.	Middle and upper echelons of the salaried income distribution structure of households
Buy, Build and Own a Home mortgages	Applicants must deposit 10 percent of the cost of the land on which the loan amount for the 'buy' is $15,000 or its cedi equivalent. Then the 'build and own' component is $35,000 or the cedi equivalent. Each component has a maximum term of 10 years giving a total of 20 years. Lastly, the property must have development and building permits.	Low-income applicants who cannot afford to purchase a complete home but can do so incrementally by, first, buying the land and then building over time.
The First Time Buyer Mortgage	A minimum of $10,000 and a maximum of three times annual salary and a loan repayment to income ratio of no more than 30 percent of net income (excluding other loans). The maximum loan to value (LTV) is 75 percent of residents and 70 percent for non-residents. The loan period is between seven and 15 years. The applicant must have registered title.	Self-employed and employed/salaried workers
The Equity Release/Home Improvement Mortgage	A record of three years of satisfactory operation is required as self-employed. The minimum loan is $10,000, no more than 30 percent of the net income and a maximum of three times annual salary. The maximum loan term is15 years	Employed/salaried workers and self-employed

Table 1: Type of mortgage instruments

3. Research Methodology

This research was of the positivist paradigms (Cohen, Manion, & Morrison, 2000). This was demonstrated by the researcher seeking to incorporate increased objectivity and a uniformity of approach characteristic of the positive questionnaire with the view to obtaining rich insights from the stakeholders. In other words, a quantitative design was used and data was collected through the administration of questionnaires. The research adopted a survey quantitative research method because of the nature of the research problem which is deterministic in nature (Creswell, 2014).

This is because questionnaire is a well-established tool within social science research for acquiring information on participant social characteristics, present and past behaviour, standards of behaviour or attitudes and their beliefs and reasons for action with respect to the topic under investigation (Bulmer, 2004). The analysis was most interested in the respondents' feelings, insights and perceptions regarding the current residential real estate financing market in Ghana. To test the usability of the research instruments, a pilot study was conducted with 16 key workers before the main study. The question asked of the key workers was: what are the issues influencing your choices to use mortgage financing in your housing provision? This final version was created following feedback from the respondents participating in the pilot, the views of expert and the results of the analysis process.

The survey was administered between July and November of 2015. The questionnaire is specifically designed to be applicable across people of different education and income levels as well as in markets with different levels of financial inclusion. The questionnaires were distributed to the respondents and collected them after an agreed period of time.Many key workers (civil and public-sector workers) in Ghana are identifiable groups affected by problems of affordability (Agyeman-Yeboah, 2015). Among the 38 countries in Sub Saharan African, wages and salaries in the public sector in Ghana are very low and the lowest in the West Africa (Hammond and Abdulai,2011). With high and rising costs of housing, some key workers whose pay is generally determined nationally find it very difficult to gain access to the local housing market. On the basis of this, these sectors were purposively chosen as the basis of the sample because of their salary structure and level. A total of 250 self- house built key workers in the Kumasi were surveyed. Kumasi, the capital city of the Ashanti Region was chosen because the author has spent a long time living and working there and therefore very familiar with housing affordability problems associated with public key workers. The sample was a purposive convenience sample selected based on explicit inclusion criteria. Overall in the key worker's survey, a total of 250 questionnaires were distributed with a response rate of 78% for teachers, 50% for prison officers, 32% for police officers, 76% for local government staff and 42% for nurses respectively. At the end of that period, a 55.6% (n=139) response rate was reached across all respondents surveyed. Respondents were given statements validated in a pilot study that reflected all the issues identified in previous studies as a barrier to access to mortgage financing. The survey included 31 questions measuring their perceptions. The Questionnaires were designed to use the Likert type of scale in measuring the respondents' perceptions and attitudes on mortgage financing and how it impacts on their homeownership. According to Mugenda and Mugenda (1999), the Likert types of scales are used to measure perception, attitude, values, and behavior.

Rating scales consist of numbers and descriptions which are used to rate or rank the subjective and intangible components in research. Questions measured perceptions of the affordability and accessibility of residential real estate financing, the prevalence of financial exclusion practices in the mortgage financing market. The survey proposed a mixture of nominal and ordinal questions. Descriptive statistics with the assistance of Statistical Package for the Social Sciences (SPSS) version 12 was applied in this research in organizing, coding and analyzing quantitative data collected. In addition, standard deviation and coefficient of variation were used in the research specifically to measure the degree of disparity and consistency of responses to statements on student academic performance.To test the internal consistency of the Likert scale used in this study, reliability analysis was done using Cronbach's Alpha as the measure. A reliability co-efficient of $\alpha \geq 0.7$ was considered adequate. A co-efficient of 0.761 was registered indicating that the scale used had a high level of internal consistency.This showed that the scale was reliable enough to test the perceptions of mortgage financing among the respondents.

4. Analysis and Result

Descriptive statistics was conducted to analyze the research findings. Firstly, the respondents' demographic details and loan application experience were discussed.

4.1. Socio-Economic Characteristics of Respondents

Overall, 39 (28%) of the key workers were aged between 20 and 34, 54 (38.8%) were aged 35 to 44, and 46 (33.1%) were 45 or over. From these results, it is clear that in terms of age the respondents are on average quite young although the age distribution varied considerably between respondents.

Household composition of the respondents is also assessed and is important to an understanding of the size of the house that would be required and the ensuring level of income that would be needed in order to acquire such a house. The majority of the sample of key workers is married (79%). Only a few (9.7%) are single with the remainder (11.3%) report that they are divorced or widowed. The most common family type is a couple with children. The next most common family type is a couple without dependent children and a single with children, of which there were 24.2%.

Educational attainment is normally a key indicator of an individual's current and future earning potential, and the respondents are generally well qualified. Only a sixth has only a secondary school certificate and more than a fifth have a degree level qualification. This strongly supports the notion of the significant socio-economic status of participants, as well as confirming that majority of the respondents can read and write or have reached a certain level of competence in one field of education.

It is not easy for many people to disclose their financial information but the response to the survey income question was good with 94.96% of respondents answering this question with 5% giving an answer of 'I don't know and not to disclose'. There was considerable variation across households in gross household income. Survey results for respondents' income show that following the introduction new salary scheme, it was revealed that no key worker is with incomes below 100 Ghana cedis.

However, the majority (60 %) have income bands of 501-1000 Ghana cedis with 18 % in the bands of 100-500. A few (12%) are with the income range of 1001-1500 Ghana cedis. Only 5% receives 1501-2000.

Housing units constructed by the respondents vary considerably with 55% percent lived in semi or detached housing and 24 percent lived in terraced housing. Almost half of the respondents lived in three bedroomed houses.

4.2. Credit Application Experience among Respondents

A series of questions on applying for a mortgage was included in the survey. The survey used the following questions to measure the incidence and extent of credit constraints:

''Over the past 5years, have you or anyone else in your household borrowed on credit from the financial institution for construction purposes?"

"During the last 5years, did you try to borrow from an institution and were turned down?"

"Why was your application declined?"

According to the survey, it was revealed that the demand for bank loan finance was high as 64% of the households reported that they had applied for a loan and that 37% did not apply which is arguably more important as presumably, they perceived difficulty or unlikelihood of getting a loan. The majority (56%) of households that sought bank loan finance were unsuccessful.

4.3. Perceived Barriers to Access to Credit

Financial exclusion constitutes a complex set of often overlapping barriers, particularly for some vulnerable groups. An analysis indicates that among those who reported that they were unsuccessful, they identified a number of perceived barriers, which eroded their chance for having a successful application. The main reason given by the respondents was the lack of suitable collateral. 55% of the respondents indicated this as a barrier. The next most commonly identified barrier was not being able to build up a savings history to qualify for the loan (a prerequisite for most loans) due to low income, 33% of respondents felt this was an issue. The third most common barrier was the problem of having too many loans, 12% of respondents indicated this as a barrier.

5. Public Key Workers' Perception of Residential Real Estate Mortgage Financing

As discussed above, we employ a two-stage procedure in order to assess the impact perception on residential real estate mortgage financing. Households face a variety of constraints on their access to credit, such as eligibility and rationing processes or deposit and creditworthiness requirements for access to home ownership (Bramley, 2011). This section examines attitudes towards residential real estate financing mortgage among public key workers. Table 2 has shown the assessment of respondents' levels of agreement with accessibility of mortgage financing. From the results, mortgage affordability in the form of advanced deposit and monthly repayment was rated first and second with a MS of 4.11 and 3.87 which indicated 'strongly agreed'. This was followed by documentation requirements with a MS of 3.78 which indicated 'agreed'. Understanding of the mortgage qualification criteria, Complexity of the loan processes, full knowledge of the mortgage products and full understanding of interest rate, were ranked fourth, fifth and sixth with a mean of 3.76, 3.73, 3.72 and 3.70 respectively.

No	Statement	Mean	SD
1	Larger *deposit* requirements	4.11	0.65
2	*Monthly Payment requirements*	3.87	0.81
3	*Documentation requirements*	3.78	0.81
4	*Understanding of the mortgage qualification criteria*	3.76	0.76
5	Getting a *mortgage loan* is a *complex process*	3.73	0.82
6	Understanding the amortization schedule	3.72	0.70
7	Full knowledge of the mortgage products	3.70	0.91

Table 2: Perception on the accessibility of mortgage loan

5.1. Perception on Mortgage Affordability

Affordability is the first and most important consideration in both housing and long-term financing. Mortgage lending raises two financial issues which are interfaced: an issue of credit-worthiness, and another of affordability. Mortgage providers will not lend unless there is an assurance of credit-worthiness of the borrower. Lending decision- making is sometimes based on the use of Five Cs(capacity, character, capital, collateral, and conditions) methodology or an adaptation of it as part of their credit evaluation process (Karley, 2002; Asare and Whitehead, 2006). While rising house prices are an issue for those hoping to buy a new home, raising a sufficient deposit is still seen as the biggest barrier, flagged up by 58% of respondents. A further 42 % of respondents thought concerns about low income were preventing key workers from purchasing a property while monthly repayment was seen as a problem by 31 %. But anxiety about interest rates rising was no longer seen as an issue, with just 11% of respondents mentioning it as a concern.

Statements included in the subscale were related to access to mortgage financing. Subsequently, an ordinal scale of measurement was proposed to determine the level of difficulties of each mortgage affordability criterion. Each criterion was rated using a 5-point scale which ranged from 1 = "Very difficult" to 5 = "Very easy" to mortgage affordability from the perspective of the respondents. This statistic gives an overview of the perceived difficulty of obtaining a mortgage for respondents (see Table 3). Statement 1 showed that majority of the respondents (65.0%) reporting that they find it "very difficult "to raise the required deposit (M=3.85) followed by 40.8% who said they find it "difficult "to make monthly payment.

No	Statement	M	SD
1	I have sufficient income to save the necessary money for a deposit.	3. 85	1.25
2	I have sufficient income to be confident of securing a mortgage	3.24	1.49
3	I have sufficient income to make monthly repayment	3.40	1.20
4	I am paying my mortgage but struggle to pay my other bills.	2.83	1.33
5	I am behind on my mortgage repayments	2.75	1.37

Table 3: Means and Standard Deviations for respondents' perceptions of the difficulties in access to credits

5.2. Perceptions of Monthly Repayments by Income and Composition

The payment subscale statement related to mortgage monthly repayment. Each household respondent is assessed to establish their ability to afford a monthly repayment for a property of a suitable size within the city. Ease of repayment was seen as an important influencing factor and was directly linked to the affordability of the loan. Information on households who experienced difficulties in repaying their mortgage was assessed. Overall, respondents with mortgages say that it is not easy to meet their monthly payments; the majority of 79 percent say this. However, this varied between income levels; with those in the lowest income groups find it harder than those in higher income groups to meet their mortgage payments. Seventy-four percent of those in the second lowest income say it is not easy to meet their mortgage payments, compared with 80 percent of those in the second highest quartile and 89 percent of those in the highest income quartile. The household composition characteristics are strikingly different. There was considerable variation in different household characteristics. Results show that couples with children (55 per cent), multi-adult (55 per cent) and lone parent (48 per cent) households are more likely than single person (44 percent) and couple (43 per cent) households to say that their monthly are too high and they are experiencing difficulty in paying them.

5.3. Perception on Documentation Requirements

Documentation plays an important role in the mortgage transacting process. Loan application forms are used by financial institutions to capture, store and analyse the important information about the borrower that is necessary to originate mortgages. A standardised documentation must be available for all loans (Agyeman-Yeboah, 2015). Mortgage documents show the kinds of information made available to lenders in the assessment of risk.Mortgage institutions must require adequate loan documentation for all loans. Loan applicants must complete a mortgage loan application and provide documentation to show the veracity of the information provided in the application.

In Ghana, the security required for the loan varies by banks (Agyeman-Yeboah, 2015). Adequate loan documentation includes the following: offer letter from a real estate developer or a vendor, personal reference form, proof of relationship in the case of a joint application (such as a marriage certificate).Confirmation or Certification of Employment Letter/form from your employers stating your salary and the Latest (3) salary slips/salary certificate/pay stubs showing all deductions, applicant's salary must pass through the Bank and copy of Title Deed /Land Title Certificate and must include seven (7) copies of site plan from developer or owner of property. The documentation requirement is one of the most significant barriers. Sixty-one (54%) respondents agreed with the statement' complicated applications may also discourage some borrowers' and 'documentation requirements' were deemed a barrier by 80(70%) respondents. However, the degree to which this requirement affects prospective borrowers remains uncertain. There was greater agreement among all respondents in their perception of what was the most pressing documentation requirements barrier. 98(86%) agreed that 'requests for a copy of Title Deed /Land Title Certificate' was a challenge. While seventy-two (63%) respondents agreed that requests for verification of deposit was also a barrier.

The mortgage subscale statements related to mortgage application process. There was greater agreement among all respondents in their perceptions of mortgage application process in this subscale. For example, 89(78%) respondents agreed that mortgage application process is too complicated.

5.4. Perceptions on Understanding of The Mortgage Qualification Criteria

A wide variety of mortgage instrument designs has been created by these banks to meet the needs of borrowers and lenders. These mortgage instruments have a complex mix of different features and the terms associated with them dictate how the interest rate is determined, how the loan is amortised, its final maturity and the options for and the requirements of the lender and borrower. As indicated by Chiquier and Lea (2009) there is no perfect mortgage because features attractive to borrowers may be expensive or impossible to lenders and that while a borrower is interested in the affordability of the loan, both at the beginning and over its life, the lender, on the other hand, is interested in getting an acceptable risk-adjusted rate of return over the life of the loan. As a result, the set of mortgage instruments offered by banks reflects market forces of demand and supply as well as the legal and regulatory environment.

There are many relevant forms of the mortgage loan in Ghana. The process of choosing any product can be broken down into three distinct steps: awareness, consideration, and choice. In order to even contemplate choosing a product, one must be aware of that product, and our research indicates that awareness is a key challenge facing the low-income households. Thirty-nine (59%) stated they were fully aware of the mortgage instruments available to low-income key workers with the remainder reporting otherwise. Further analysis revealed that they have a full understanding the services provided by mortgage financing institutions additional 28% said they have a good understanding means that two-thirds of respondent have less than a good understanding of what a mortgage financing institution does due to lack of awareness. Respondents were, for the most part, unfamiliar with APR and were often unsure of the total actual costs involved in their borrowing.

6. Discussion and Conclusion

The self-help housing has been the well-documented approach in housing literature since the 1960s. Despite some of the highly focused criticism of this approach by some scholars (Burgess, 1978; Dwyer, 1979; Marcuse, 1992; Mathey, 1997). Self-help is still a common and traditional method of housing production in Ghana. There is no consensus on the definition of self-help housing but Self build is a term encompassing a variety of different ways in which consumers procure their own home. Thus, self-build housing is defined as a gradual piecemeal acquisition of housing inputs such as plots of land, fine and coarse aggregates, other building materials and construction requirements commensurate with the owner's finances, and executed through the use of professional builders and artisans with little or no labour input by the owner or family. The self-build housing process in Ghana is mainly characterized by self-builder who initiates the project, procures and registers the land, procures designs and building materials, and procures development and building permit. The self-builder also arranges for labour with or without supervision. Only on few occasions do self-builders engage sub-contractors on their project sites, otherwise the labour engaged is limited to skilled and unskilled labour sourced from the informal sector. With the self-build market expected to increase as more people look to build their own homes, demand for finance is likely to increase. However, manyself-builders continue to struggle to find an affordable finance package for their development or encounter difficulties when engaging with lenders. The paper aims to explore the perceptions of self-builders about access to mortgage financing with aunit analysis of public low-income key workers who aspire to own their home incrementally and have sought to obtain credit but had their applications denied.

The study was restricted to a limited population and geographical area; therefore, results may not be generalisable to a larger population. The perception of public key worker questionnaire asked key workers to determine their perceptions of real estate mortgage financing on the basis of a single statement. The quantitative research in this paper presents the analysis of 139 questionnaires, conducted with public key workers who are aspiring to build their housing through an incremental process. The ability to access credit is a critical element of self-help housing, particularly for low-income households that often lack the initial capital needed to undertake the housing projects. The research results showed that public key workers may have wanted to use mortgage financing, but were unable to obtain it.

Respondents appreciated the importance of accessing credits from a formal bank. However, the reality was that respondents thought that lending from a bank was inappropriate and inaccessible to people in their circumstances. The perception was that residential real estate financing is hard to access, expensive, had many hidden charges, were only made over the longer term and were only obtainable if the applicant already had a good credit rating and required documentations. This brings challenges to individual customers. It makes credit unaffordable for the vast majority of individuals, and next to impossible for those on low income. These findings highlight a need to promote access to credit and reflection on the difficulties of residential real estate mortgage financing among public key workers with low income but aspire to build their own houses.

Further research on the perceptions of residential mortgage financing is required on a larger scale in Ghana to identify problems in mortgage financing and to promote the awareness among public workers. Mortgage lending raises two financial issues which are interfaced: an issue of credit-worthiness, and another of affordability. Mortgage providers will not lend unless there is an assurance of credit-worthiness of the borrower. A qualitative enquiry into mortgage financing institutions in lending to public workers and a wide range of experts which were not explored in this study would be of value.

7. Implications for Practice

Access to fair and affordable finance remains a critical problem for key workers in Ghana. The results provide strong evidence of the importance of tackling supply-side barriers to access, and particularly barriers to accessing mortgage financing, in order to contribute to housing development. The findings reinforce the need for financial institutions to provide mortgages facilities that are 'affordable.' Key areas for improvement in the finance packages are the need to introduce more transparency about what finance products are available to self- builders and increase the number of finance products on the markets suitable for low income households.

Real estate is a capital-intensive business; it is impossible for self-builders to operate this sector depending only on mortgage financing. Long-term institutional loan support is essential for financing self-help housing. By reducing barriers to residential mortgage financing, such policies could help to stimulate self-help builders' household and thus contribute to the growth of self-help housing.

8. References

i. Agyeman-Yeboah. S (2015) *Land Administration systems in Ghana and the provision of affordable housing*, Unpublished PhD thesis, Heriot-Watt University, Edinburgh, United Kingdom.

ii. Asare, E. L. and Whitehead, C. (2006) Formal mortgage markets in Ghana: nature and implications, *RICS Research Paper Series*, 6 (13).

iii. Barlow, J., Jackson, R., and Meikle, J. (2001) *Homes to DIY for: The UK's self-build housing market in the twenty-first century* (York: York Publishing Services).

iv. Bramley, G. (2011). Affordability, poverty and housing need: triangulating measures and standards. *Journal of Housing and the Built Environment*, 27(2), 133–151.

v. Bredenoord, J., Lindert, P. and Smets, P.(2014) *Affordable housing in the urban Global South: Seeking suctainable sputions*. New York: Routledge.

vi. Bulmer, M. (2004). *Questionnaires,* V.1. Thousand Oaks, CA: Sage Publications.

vii. Burgess, R. (1978) Petty commodity housing or dweller control? A critique of John Turner's views on housing policy. *World Development*, 6(9/10), 1105e1133.
viii. Chiquier, L., & Lea, M. J. (2009*). Housing finance policy in emerging markets.* Washington, DC, World Bank.
ix. CHF International (2004) Strategic Assessment of the Affordable Housing Sector in Ghana, mimeo, *CHF International*.
x. Cohen, L., Manion, L. and Morrison, (2000). *Research Methods in Education* (5th ed.). London: Routledge Falmer.
xi. *Creswell*, J. W. (*2014*). *Research design: Qualitative, quantitative, and mixed methods approaches.* Thousand Oaks, California: SAGE Publications.
xii. Centre For Affordable Housing Finance in Africa. (2011) *Housing finance in Africa.yearbook: a review of some of Africa's housing finance markets*. Parkview, South Africa, Centre for Affordable Housing Finance in Africa.
xiii. Dwyer, D. J. (1979). People and housing in third world cities: Perspectives on the problem of spontaneous settlements. London: Longman.
xiv. Ferguson, B. (1999) Micro-finance of housing: a key to housing the low or moderate-income majority? *Environment &Urbanization*, 11, pp.185-199
xv. Ferguson, B., and Smets, P.G.S.M. (2010) Finance for incremental housing: current status and prospects for expansion, *Habitat International*, 34 (3), pp.288-298.
xvi. Fiori, J & R Ramirez (1992) Notes on the Self-help Housing Critique: Towards a Conceptual Framework for the Analysis of Self-help Housing Policies in Developing Countries, in K. Mathey (ed) : *Beyond Self-help Housing*, Mansell.
xvii. Ferguson B (2004) *The Key Importance of Housing Microfinance*. In F Daphnis & B Ferguson (eds) Housing Microfinance: A Guide to Practice. Bloomfield CT: Kumarian Press, pp. 17–18.
xviii. Ghana Statistical Service (2012) *2010 Population and Housing Census. Summary Report of Final Results*. GSS, Sakoa Press Limited, Accra, Ghana.
xix. Giddings, S. W. (2007) *Housing challenges and opportunities in Sub-Saharan Africa*. Washington, D.C., International Housing Coalition.
xx. Goethert, R. (2010) Incremental Housing: A proactive urban strategy. *Monthly Developments*, September : 23-25.
xxi. Greene, M. and Rojas, E. (2008) Incremental Construction. A Strategy to Access Housing .*Environment and Urbanization,* 20 (1), pp.89- 108.
xxii. Hamid, G. M. and Elhassan, A. A. M. (2014)Incremental housing as an alternative housing policy: Evidence from Greater Khartoum, Sudan, *International Journal of Housing Policy*, 14 (2), pp. 181-193.
xxiii. Hammond, F. N. and R. T. Abdulai (2011) *The Costs of Land Registration in Ghana*. New York, USA: Nova Science Publishers, Inc.
xxiv. Harms, H. (1992) Self- help housing in Developed and Third World Countries, in K. Mathey (ed.) *Beyond Self-help housing,* edited by Kosta Mathey, Mansell, London and New York.
xxv. Hegedüs, J. (1992) Self- help housing in Hungary, in K. Matey (ed.): *Beyond Self Help Housing München*: Profil Verlag, pp. 217-231.
xxvi. Ibem, E.O., Aduwo, E.B., Uwakonye, O.(2012). Adequacy of incremental construction strategy for housing low-income urban residents in Ogun State, Nigeria. *Built Environment Project and Asset Management* 2 (2), 182–194.
xxvii. Jones, G. and K. Datta (1999) *Housing and Finance in Developing Countries:* Routledge, London, pp.192-212.
xxviii. Karley, N. K. (2002) Alternative Options to Mortgages in Ghana, *Housing Finance International*, Vol. XVII /No.2, pp. 26-30.
xxix. Karley, N. K. (2008) Ghana residential property delivery constraints and affordability analysis. *Housing Finance International* 22 (4), pp.22-28.
xxx. Karley, N. K. and Akomea M.S.Y. (2007) *Overview and Prospects of Real Estate Market in Ghana.* Kumasi, College of Arts and Social Sciences, Kwame Nkrumah University of Science & Technology.
xxxi. Marcuse, P. (1992) Why Conventional Self-Help Projects Won't Work, in K. Mathey, (ed.) *Beyond Self-Help Housing*. Mansell Publishing Limited, London.
xxxii. Mathey, K. (ed.) (1992) *Beyond self-help housing*. London: Mansell Publishing Ltd.
xxxiii. Meikle. J. (2011) *Informal Construction* 5th Technical Advisory Group Meeting April 18-19, 2011 Washington D.C.
xxxiv. Mugenda, O.N and Mugenda, A.G. (1999).*Research Methods: A Quantitative and Qualitative Approach* .Nairobi: ACTS press.
xxxv. NaSBA (2008) *Self build as a volume housing solution*. National Self Build Association, Swindon.
xxxvi. Napier, M., (2002) The origins and spread of core housing. London: UKaid. Available at: http://www._the_role_of_housing_finance_in_addressing_the_needs_of_the_urban_poor_lessons_from_central.com/ (Accessed 20/05/2016).
xxxvii. Oluwole, A. and Akunnaya, O. (2013) Housing Nigerian Urban Poor Through Self-Build Housing Concept Using Compressed Stabilized Laterite Bricks. *International Journal of Research in Social Sciences,* 2 (4).
xxxviii. Peter S. and Ayora J.(2011) Self-build: alternative housing procurement in remote Indigenous communities, *Centre for Appropriate Technology*, Alice Springs
xxxix. Ramirez, R., Fiori, J.; Harms, H. and Mathey K. (1992) The Commodification of Self-Help Housing and State Intervention. In: Mathéy, Kosta (ed) 1992 *Beyond Self-Help Housing*. London: Mansell.

xl. Renaud, B(1984)*Housing and financial institutions in developing countries: an overview*, . World Bank, *Social Science* .
xli. Rust, K. (2008) *Housing Finance in Sub-Saharan Africa: Reflections from South Africa*. Paper Presented at the Second African Ministerial Conference on Housing and Urban Development (AMCHUD II), Abuja, Nigeria.
xlii. Smets, P. (1999) Housing finance trapped in a dilemma of perceptions: affordability criteria for the urban poor questioned. *Housing Studies*, 14 (6), pp. 821-838.
xliii. Turner, J. F., (1972*) Freedom to build*. New York: The Macmillan Company.
xliv. UN-Habitat (2011) *Affordable Land and Housing in Africa* United Nations Human Settlements Programme
xlv. Wakely, P. and Riley E. (2011) *The Case for Incremental Housing,* Cities Alliance Policy Research and Working Paper Series No. 1, Washington DC: Cities Alliance.