UNIVERSITY OF EDUCATION, WINNEBA

HOUSING AFFORDABILITY AMONG PUBLIC SECTOR WORKERS: THE CASE STUDY OF SEKONDI -TAKORADI METROPOLITAN ASSEMBLY

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A Dissertation in the Department of Geography Education, Faculty of Social Sciences Education, submitted to the School of Graduate Studies in partial fulfilment of the requirements for the award of the degree of Master of Education (Geography Education) in the University of Education, Winneba

MAY, 2021

DECLARATION

Student's Declaration

I, Janet Appiah Addi, do hereby declare that this dissertation, with the exception of quotations and references contained in published works which have been duly acknowledged, is entirely my own original work, and that it has not been submitted, either in part or whole for another degree elsewhere.

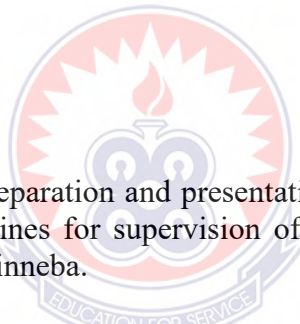SIGNATURE: ……………………………

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Supervisors' Declaration

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of Dissertation as laid down by the University of Education, Winneba.

SUPERVISOR"S NAME: MRS ESTHER YEBOAH DANSO-WIREDU (PhD)

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DATE:…………………………………

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DEDICATION

To Public Sector Workers of Sekondi -Takoradi, Ghana.

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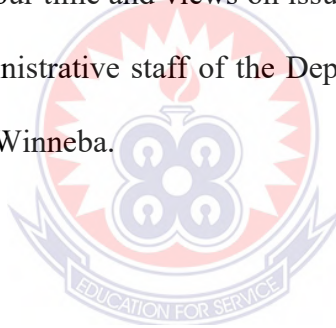
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ABBREVIATIONS

BHC	Bank for Housing and Construction
FGBS	First Ghana Building Society
GREDA	Ghana Real Estate Developers Association
GSS	Ghana Statistics Service
LCHC/P	Low-Cost Housing Committee/Programme
NHPF	National Housing Policy Framework
NRC	National Redemption Council
PSHLS	Public Servants Housing Loans Scheme
SHC	State Housing Corporation
SSNIT	Social Security and National Insurance Trust
TDC	Tema Development Corporation
UN	United Nations

ABSTRACT

Housing has come to be accepted on various platforms as one of the most essential elements in our lives. The need to provide adequate, decent and affordable housing has remained a top priority of every government in Ghana. This problem is further heightened in the urban settings due to rapid urbanization. One critical element that cannot be overlooked is the issue of providing affordable housing to public sector workers. The study adopted the mixed approach method by purposively selecting public sector worker in Sekondi-Takoradi Metropolis. A total of 250 public sector workers participated in the study from the four sub-metros of the metropolis using a developed questionnaire with both qualitative and quantitative aspects. Findings from the study indicate that public sector workers in Sekondi-Takoradi rely mostly on self-enquiries and friends or relatives in their search for affordable housing by mostly using their saving. The factors the influence their choice of affordable housing were accessibility factors, housing characteristics and financial factors. Availability accessibility and financial challenges were also identified as the challenges public sector workers in Sekondi-Takoradi faced in getting affordable housing. It is recommended that public sector agencies should assist their employees by building apartments to accommodate them.

CHAPTER ONE

INTRODUCTION

1.0 Background to the Study

This chapter of the study contains the background of the study, the problem statement alongside the purpose and research questions. It further touches on the significance of the study and the organization of the work.

Housing has become one of the most important elements in our lives on various platforms; its multi-dimensional relations with the socio-economic, political and environmental components of towns and cities give it a unique character (UN-Habitat, 2010; Konadu-Agyeman, 2001; Boamah, 2013). Over the years, due attention has been given to the partnership between housing and governments attempts to improve the quality of their people's lives. Nonetheless, housing issues are daunting and appear in all kinds of nuanced explanations. In urban settings, this issue is further compounded by rapid urbanization (Obeng-Odoom, 2011).

Housing the metropolitan has thus become in futility a daunting task. The world is experiencing a very rapid and complex cycle of urbanization. UN-Habitat records (2011), The cycle of urbanization is marked not only by demographic shifts from rural to urban, or by the growth of urban populations, but also by changes in various aspects of society. In recent times, the enormous impacts of urbanization and population growth in regions around the world have been the most frequently recited poetry in several discourses on development. The problem of providing affordable housing for Public Sector Workers is one critical element that cannot be ignored.

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UN-Habitat's global assessment (2003a; 2003b) reveals that 924 million or 32% of the world's urban population lives in slums, while 43% of the urban population lives in slums in developing countries. Arimah (2010) reports that the prevalence of slums and squatter settlements is the most persistent form of urban poverty in developing countries. This can be attributed to poorly functioning housing markets that do not offer a range of affordable housing alternatives, especially for low-and middle-income households (UN-Habitat, 2011b) As a result, large proportions of urban residents in developing countries are deprived of sustainable access to decent housing (Ibem & Amole, 2010). Here, housing is seen not only as a physical structure but also as an amenity with it (GSS, 2005).

Housing must not only be considered as the physical structure that provides shelter, but also requires other facilities and services (i.e., sanitary facilities, sanitation and accessibility), and even the immediate surroundings of the building to a large extent (Danso-Wiredu, 2016) As a result, large proportions of urban residents in developing countries are deprived of sustainable access to decent housing (Ibem & Amole, 2010). This research is more inclined to enhance the provision of decent and affordable housing to Public Sector Workers following the above debate. (Ofosu-Kusi & Danso-Wiredu, 2014; Tripple and Korboe, 1998; Obeng-Odoom & Amedzro, 2011; Danso-Wiredu &Loopman, 2012). The precise definition of affordability for housing, however, remains elusive. Consequently, there is no widely known method for calculating it; however, it is strongly preferred in the literature to calculate the ratio between what households pay for their housing and what they receive (Ndubueze, 2007). A level of "rule of thumb" of not more than 25–30 percent of

monthly household income spent as monthly household costs are considered appropriate and sustainable.

Nevertheless, UN-Habitat (2011b:10) maintains that "housing affordability requires household income more than the often-used simplistic definition of house buying value." Housing affordability is defined as including the willingness of households to access certain necessities of life, such as food and clothing, as well as adequate housing. This includes the ability of households to obtain housing that enables a reasonable standard of living; the ability of mortgage holders to fulfil mortgage obligations effectively; and the access of households to adequate housing standards without denying them access to other necessities of life (Boamah, 2010; UN-Habitat, 2011b; Working Party on Affordability Issues, 2003). This description is widely accepted. According to Addo (2014), during General Acheampong's reign in the late 70s, the State Housing Corporation provided approximately 2,300 to low-income households in the country. More research by Tipple and Korboe (1998) revealed that more than 24,000 housing units were also constructed between 1957 and 1990 by the State Housing Corporation. Nearly 60 percent of households in Ghana's urban population occupy single rooms, according to UN-Habitat (2012).

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Despite these housing market stimulants, Ghana's oil city, Sekondi-Takoradi suffers from an acute housing shortage. Compared with other larger cities like Accra and Kumasi, Sekondi-Takoradi has a very small number of formal private real estate developments. Housing is predominantly compound housing units with shared facilities and a sizable number of detached and semi-detached sandcrete block buildings. In 2012, the total number of houses in the city was projected by the Sekondi-Takoradi Metropolitan Assembly to be 42,164 housing and 96,535 households. The metropolitan area has a high annual population growth rate of 2.4%, putting additional stress on the already limited housing stock. Very old and poorly built housing stock is common in the city requiring redevelopment (Donkor-Hyiaman, 2014).

1.1 Statement of Problem

Studies carried out by the Bank of Ghana (2007) on the housing industry indicate that financial constraints and economic downturn within the country are reasons for the decline in State Housing Corporation and Tema Development Corporation's operations. The annual GDP growth rate fell 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), the housing sector can be expected to experience an increase in demand for housing units..

According to a 1993 Institute of Economic Affairs Ghana report, the annual demand for housing stood at 70,000 units. In addition to the deficit, annual housing demand has increased over the past 10 years to 190,000 housing units, providing only about 40,000 housing units per year (UN-HABITAT, 2012). The contributions of financial institutions to the provision of affordable housing units are small, according to Boamah (2010). The Ghana Real Estate Developers Association (GREDA) constructed more than 10,954 homes across the country between 2002 and 2006. Unlike HFC, mortgage financing firms have supported 11,635 mortgage holders with varying amounts to build housing units, compared to the average market interest rate (Ghana Bank, 2007). According to HFC (2007), only about 5% of Ghanaians can afford to build or buy houses from their resources, while about 35% of Ghanaians cannot afford to buy a house from their resources. This is an indicator that most Ghanaians are unable to afford mortgage loans because their average salary falls below the minimum requirements for a mortgage facility to be issued. Previous studies suggest that mortgage institutions played a minimal role in providing housing units in low to middle-income groups for households.

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Obeng-Odoom and Amedzro (2011), Ofosu-Kusi and Danso-Wiredu, (2014), Danso-Wiredu and Loopmans (2012) suggest that in Ghana's housing analysis two trends are evident; the study of how to increase housing supply and how to improve accommodation for slum dwellers.

Indeed, various bodies under the UN, other agencies, individual research groups, and researchers have conducted significant studies on housing problems of urban residents in Ghana, including Kumasi, However, not much in Sekondi Takoradi. It is with this understanding that, this study, therefore, seeks to examine the strategies adopted by Public Sector Workers in accessing affordable housing in Sekondi –Takoradi. It also aims to ascertain the perceived challenges and factors influencing the choice of housing affordability in Sekondi-Takoradi.

1.2 Research Objectives

This study addresses the following research objectives;

1. To examine the strategies adopted by public sector workers in accessing affordable housing in Sekondi Takoradi.

2. To examine the factors influencing the choice of housing affordability in Sekondi Takoradi by public sector workers.

3. To ascertain the perceived challenges encountered by public sector workers in accessing affordable housing in Sekondi Takoradi

1.3 Research Question

1. What are the different strategies used by public sector workers in accessing housing in Sekondi -Takoradi?

2. What are the factors influencing the choice of housing affordability in Sekondi-Takoradi by public sector workers?

3. What are the challenges public sector workers encountered in accessing housing in Sekondi-Takoradi?

1.4 Significance of the Study

The study would provide an empirical viewpoint on the affordability of housing; by describing affordability in the form of expectations of Public Sector Workers. This will serve as an adequate guide to inform the creation of successful interventions. Once again, it is hoped that this study would contribute to the process of developing better housing affordability policies that will more readily represent urban household realities as formed by existing urban housing markets. This is intended to assist decision-makers in formulating sensitive and proactive policies and actions aimed at incorporating housing into the overall social system of cities for different socio-economic classes. UN-Habitat (2003a) findings show that a larger proportion of the urban population living in slums in developing countries. Therefore, efforts to improve the living conditions of the poor have been aimed at improving slums in recent times. While a very good idea, it is equally important to broaden our scope of action to provide affordable housing for Public Sector Workers. It would also help the urban poor to be integrated into the formal housing sector and urban spatial landscape.

1.5 Organisation of the Study

The study is organized as follows, Chapter one of the study focuses on the background of the study, laying the foundation for the entire research. It essentially contains the statement of the problem, the research questions, the objectives, and the significance of the study. Chapter two of the study includes a literature review on the thesis-related concepts relevant to the study. It provides a theoretical and conceptual

underpinning of the research. Chapter three of this report introduces the methodology and framework for analysis. The study's approach to research and methods is discussed in depth. Chapter four of the report discusses the Sekondi-Takoradi current housing situation. Chapter five is dedicated to the Sekondi-Takoradi housing affordability calculation study and the study provides a summary of the study's key findings. It also addresses proposed solutions to improving the quality of housing and access to decent affordable housing to Public Sector Workers in Sekondi-Takoradi.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Housing has become one of the most important elements in our lives. Over the years, due attention has been given to the partnership between housing and governments attempts to improve the quality of their people's lives. Nonetheless, housing issues are daunting and appear in all kinds of nuanced explanations. In urban settings, this issue is further compounded by rapid urbanization (Obeng-Odoom, 2011). The problem of providing affordable housing for Public Sector Workers is one critical element that cannot be ignored.

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This chapter focuses on understanding the concept of housing, affordable housing, historical overview of housing development in Ghana, policy, institutional and legal frameworks for housing in Ghana, accessibility of housing in Ghana and challenges in providing housing in Sekondi-Takoradi and Ghana as a whole.

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2.1 The Concept of Housing

In trying to analyze the issue of housing affordability in urban areas, one must get an in-depth understanding of the concept of housing. Housing has often been viewed as a vital tool for economic development and the general wellbeing of people. (Danso-Wiredu & Loopmans, 2013; Collier & Venables, 2013). Arku (2009) indicates that good housing and a decent neighbourhood improve human health, enhance labour productivity, and contribute to social harmony, safety and security. Many authors have, however, bemoaned the persistence of acute housing problems in many urban areas in the world today, especially in developing countries (UN-Habitat, 2010b; UN-Habitat, 2011b; Obeng-Odoom, 2009; Arku, 2009; Ndubueze, 2009).

Collier & Venables (2013) argue that perhaps the role of housing in economic development is not sufficiently recognized in Africa. Zami & Lee (2010) established that the different definitions and understanding of housing lead to different approaches in tackling problems related to housing. This section of the study focuses on exploring the concept of housing, in trying to understand housing affordability in urban areas.

2.2 Defining Housing

Housing has been one of the concepts in literature, which is difficult to define (Zami & Lee, 2010); thus, house and housing mean many things to different people. Its definition is also affected by the geographical setting and the purpose the definition is to serve. The GSS (2005) defines a housing unit "as a single room or group of rooms (or other structure) arranged for human habitation and occupied or intended for occupancy as separate and independent living quarters by a person living alone or persons living together". This is further treated in censuses in Ghana, to refer

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to "any shelter used as living quarters at the time of the census, such as a hut or group of huts enclosed as a compound, kiosks, containers, and tents".

Contrary to the above, GSS (2005) argues that housing should be viewed as not just the physical structure but also the amenity that comes with it. Thus, housing should encompass other supporting facilities and services (i.e. sanitary facilities, water, and accessibility) and even to a large extent the immediate environments of the house. This invokes the adequate housing paradigm which is seen as the right to live somewhere in security, peace and dignity (UN-Habitat, 2009). Adequate shelter as defined in the Habitat.

Housing means "adequate privacy; adequate space; physical accessibility; adequate security; security of tenure; structural stability and durability; adequate lighting, heating and ventilation; adequate basic infrastructure, such as water supply, sanitation and waste management facilities; suitable environmental quality and health-related factors; and adequate and accessible location concerning work and basic facilities: all of which should be available at an affordable cost" (in UN-Habitat, 2010a). This definition has raised a lot of debate in transnational housing discourses. Many, who argue against this taut definition of housing, tend to say that if housing is made to carry all these features, it makes it impossible for low- and middle-income households to acquire housing, given their limited income.

This in a way limits the supply of housing since the cost involved in producing a single unit of housing qualifying all these descriptions above will be very high. This will keep demand for housing, far above the available supply; even to high income households who can afford it. Thus, the definition of adequate housing is embellished

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and untenable. Those who stand against such definitions, tend to stand in line with John Turner‟s (1972) contention that housing is more of a verb than a noun.

Turner (1976) explains housing to include the dwelling units and the process by which the dwellings are maintained, as well as the human and social values of any housing activity. He points out that, "what is important about housing is not what it is but rather what it does". Turner‟s inclination is towards the functional role of housing other than the material qualifications (standards/regulations) of housing. Turner (1972) argues that, "from the viewpoint of planners, designers and officials, it is a logical conclusion that; housing problems are defined by material standards and housing values are judged by the material quality of the houses produced but according to those for whom housing is an activity, these conclusions are absurd".

This observation is particularly appropriate in developing country context; where resources available for housing provision are extremely limited leading to huge deficits and yet people continue to live in dire housing conditions. Turner (1972) does not advocate that every family should build its own house (like squatters do) but rather, "households should be free to choose their housing, to build or direct its construction, and to use and manage it in their ways". This tends to suggest that household should be allowed to acquire or build a house that can meet their present needs and take time to improve on their housing at their own pace. Corollary, what comes to mind is the extent to which households should be allowed the free choice to make decisions about housing.

Perhaps, it is of essence that we have standardized descriptions and restrictions/regulations to streamline the understanding of housing issues. Notwithstanding, such regulations and restrictions should be in the form of minimum

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requirements that are responsive to the basic needs of urban residents and equally be reflective of the prevailing housing situations of cities. Again, it must be noted that, given the existence of different socio-economic groups in cities, housing standards and prescriptions are not likely to be in fit for both low and middle-income households. In this study, housing is equally viewed as more than just a dwelling but also the amenity that comes with it.

2.3 Components of Housing

The preceding discussion gives an in-depth expose on the definition of housing, and it equally reveals the different backgrounds and understanding of this concept. It also projects how housing can be viewed differently based on material standards and components. Thus, our understanding of the concept of housing is in part without the understanding of the various components of housing. Land, finance, building materials, labour and infrastructure are the major inputs in any housing delivery process and thus they impact the affordability of housing (UN-Habitat, 2010a; UN-Habitat, 2010b; Collier & Venables, 2013). These components are further explained with their effects on the affordability of housing.

Land

This is widely seen as the most fundamental input into any housing development (UN-Habitat, 2011c). Thus, the cost of land tends to affect the delivery of housing and this will go on to affect its affordability. The land is primarily affected by the complexities surrounding its location, its value, its accessibility and legal status (Acioly, 1994). These complexities affect the cost of land, especially in urban areas. Collier and Venables (2013) argue that urbanization creates value and the increase in

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value usually accrues to urban land; this increases the cost of land for any development.

Despite this, access to land in urban areas is increasingly becoming a problem as a result of the high demand for land for competing uses (like residential, commercial and light industrial). Ghana like many African countries is troubled by problems of land administration and management (Afrane and Asamoah, 2011). This serves as a constraint to the availability of land for housing development. However, "the availability of land at affordable prices is fundamental to expanding the supply of affordable housing and limiting the growth of new slums" (UN-Habitat, 2011b).

Finance

Housing Finance affects the supply of housing and the array of options that exist for various households to acquire housing. Collier and Venables (2013) suggest that the affordability of any housing construction is a prior condition to household investment in housing. This is informed by the share of financial resources a household is willing to devote to housing. However, UN-Habitat (2011b) maintains that affordability does not only connote the price of housing but more critically it talks about the access to and the cost of housing finance.

Boamah (2010b) points out that, housing finance should enable households to spread the cost of housing over a reasonable period, to meet the huge housing cost obligations. To achieve this, housing finance necessitates simultaneous relationships of housing with other parts of the economy – in the form of financial services, institutional arrangements, human resource development and financial governance systems (UN-Habitat, 2010a). The effective management of these relationships will

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create alternative housing opportunities for various groups of households in urban areas to acquire housing.

Labour

Labour is one very significant component of any housing delivery process. More often than not planners, engineers, architects, land economists and builders are seen as the most essential professionals in the housing construction industry. However, 90 percent of the houses built in Ghana are through informal means where master craftsmen who have been trained through apprenticeship handle such developments (Afrane & Asamoah, 2011; Boamah, 2010b; UN-Habitat, 2011b). There have been several calls on the government to streamline the activities of these groups; mainly because of the low quality of the works they produce.

Collier &Venables (2013) maintain that whereas unskilled labour in Africa is abundant and relatively cheap, skilled construction labour is currently very scarce and reflects decades of little investment in the construction industry. An obvious manifestation of this situation is the importation of foreign skilled construction workers in various major housing projects in Africa. This consequently inflates the cost of producing housing even at the national level.

2.4 Building Materials

Building materials are a significant component of housing due to their peculiar characteristics. It is dependent on the taste and preferences of households and the requirements of the existing planning and building regulations in the country (Afrane &Asamoah, 2011). Other factors such as rules and regulations; policies concerning importation and manufacturing; commercial freedom in trading and the mobility of the building materials within the country affect the demand and supply of materials

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and hence the cost (UN-Habitat, 2010a). This mostly informs the type of material and hence, the cost involved. Building materials are seen as a major reason why housing is unaffordable for the majority of urban poor in Africa (UN-Habitat, 2011b).

Various platforms have encouraged the use of locally manufactured building materials in housing construction since it tends to reduce the cost-share on housing substantially. However, Afrane & Asamoah (2011) report that in Ghana this has not had the desired impact on the housing construction industry; partly because the supply is not able to meet the demand of developers. UN-Habitat (2011b) found out that, in Africa, building materials can account for up to 80 percent of the total house cost. This shows that, for housing to be affordable, significant strategies must be in place to respond to the cost of the components.

Infrastructure

As captured in previous discussions under this section, housing means more than just a physical structure. The house is supposed to host the various human activities of man and thus it is not complete unless the supporting facilities that allow for comfortable human living come with it: roads, drainage, water, and sewerage et cetera. Most of such services are public goods and it is difficult to be provided at the household levels. However, given the cost involved and the public benefits, it tends to bring; it requires that their provider has to be at best done by the government, highly subsidized or enforced by compulsion (Collier & Venables, 2013).

Owusu & Asamoah (2005) report that the demand for facilities and services are far more than the provisioned capacity of the utility agencies and government resulting in individual developers paying a high cost to get connection to basic infrastructure. Collier & Venables (2013:12) maintain that "cost-effective provision of

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the physical infrastructure requires that, it be installed in advance of housing construction and then serviced". UN-Habitat (2010a) argues that the supply and availability of basic supporting infrastructure has a direct impact and influence positively on the supply of housing. It must be observed that the presence of supporting infrastructure reduces the per-unit cost of a house which is step-in to make housing affordable for urban households.

2.4 Understanding Affordable Housing

There are several different understandings of what constitutes affordable housing, who is entitled to it and what role different stakeholders are required to play to deliver housing and allocate it to beneficiaries. Affordable housing is a concept that is heavily influenced by the local context and is therefore not easy to subject to global norms. For some, its definition is a function of household income and expenditure, benchmarked not to exceed a ceiling relative to the overall household income or expenditure, averaging 30% (Dell, Smith and White, 2004). However, this varies between countries – for example, Canada until the 1980s used a 25% household income threshold (Hulchanski, 2005; IBAN, 2017) and in India, a ceiling of 40% is the norm (LaSalle, 2012).

With affordability measured according to the economic status of a household. A variation of this definition looks at how to make housing accessible to the poor, who are defined as those with a household income threshold of under USD 2 per day. Others define affordable housing as housing with costs at or below a fixed price point, sometimes arbitrarily set, and deemed to be accessible to those on lower incomes (Angel, 2001). A variation on this definition uses public subsidies as a factor for

determining what constitutes affordable housing (which is defined in certain quarters as low-cost housing that requires supply-side subsidies).

Elsewhere, affordable housing is broadly defined as housing that is adequate in quality and location and does not cost so much that it leaves its occupants unable to meet their other basic living costs or threatens their enjoyment of other basic human rights (McBride *et al.*, 2011). Here, other elements of affordability come into play: quality, income, location, costs, and enjoyment of basic human rights in this regard, affordable housing is defined in some cases to be the housing of a specific size (determined either by the number of rooms or space) or of minimum quality.

Research on affordable housing in Ghana is often framed in terms of the public provision of affordable housing and the mediatory role of state institutions, with researchers considering whether the public policy would be able to alleviate the precarious housing situation of the urban poor. With the issues framed in these terms, the resulting studies have tended to focus on the state"s attempts to provide housing for low-income households, the existing public financing options (Bank of Ghana, 2006) and the influence of state policy in achieving those aims.

For instance, scholars (Danso-Wiredu & Loopmans, 2013; Konadu-Agyeman, 2001 & Sarfoh 2010) have examined Ghana"s housing policy experience from the pre-colonial era to contemporary Ghana, looking at adopted policies and programmes in the light of international discourse and the core-periphery argument versus neoliberal and communitarian approaches. Arku (2009) investigated the economic logic of housing policies from 1929 to 1966 and observed that colonial governments seldom acted to provide housing for indigenous peoples except occasionally for political and social motives.

For Sarfoh (2010), the direction of housing policy over the years has been characterized by uncertainty owing to (a) shifts in the orientation of governance and the economic paradigms of global players and (b) the strategic positioning of local actors as global norms was reinterpreted. This uncertainty in housing policy direction is epitomized by the country's repeatedly unsuccessful efforts to develop a comprehensive housing policy before 2015 when a national housing policy was finally promulgated. Others have considered the relationship between who is building and what is being built in urban Ghana (Tipple et al., 1998, & Korboe, 1992).

On the question of who is building, Tipple et al. (1998) assert that the motivation for house construction in urban Ghana is to guarantee the security of tenure. Other studies, such as Karley and Akomea (2007) and Obeng-Odoom (2011), examine the prospects and challenges in the real estate sector. A key consideration in most of the existing studies is affordability and the associated strategies for improving access to affordable housing, albeit without a clarification of the competing notions of this concept (Boamah, 2010). Awanyo (2009) draws attention to the need to leverage already ubiquitous in-situ building strategies, as a way of meeting housing space demands among low-income earners.

For Tipple (1996) it is a house extension that offers affordable and sustainable housing. In this approach, as a minimum, the wet areas (kitchen, bath and toilet) and at least one sleeping area are completed for use, and options for later expansion are incorporated. However, this kind of piecemeal approach tends to lock up capital over a considerable time. Other studies mainly carried out by international organizations attempt to provide a panoramic view of the sector (CAHF, 2013; UN-Habitat, 2010; UN-Habitat, 2011; World Bank, 2009; and UN-Habitat, 2004).

These present overviews of the housing sector that examine the issues in aggregate (covering land issues, finance, policy, institutional aspects, housing needs and interventions, among others) rather than focus on a particular sub-sector. These studies do not look at the housing value chain or the socially stratified lower-scale issues of affordable housing in Ghana that are specific to the poor. Neither do they explore the role of the private sector in tackling these issues? Yet, given the private sector‟s understanding of the dynamics of affordable housing provision, the housing market and the mediatory roles of institutions, it has a particularly crucial role to play in policy-making.

2.5 Policy, Institutional and Legal Frameworks for Housing in Ghana

Across the world, housing policies, institutional and legal frameworks are formulated with the explicit or implicit purposes of addressing the interrelated issues of housing quantity, quality and cost (UN-Habitat, 2011). In articulating measures to address these issues a careful balance needs to be struck between housing provision and access to housing for the majority of the population that takes into account the issues of quantity, quality and costs. Despite the numerous challenges in the Ghanaian housing sector which relate to quantity, quality and costs, the country lacks a comprehensive National Housing Policy Framework (NHPF), though a draft policy has been in the offing since the 1990s (UN-Habitat, 2011).

The absence of a comprehensive NHPF seems to undermine the policy coherence of agencies involved in housing provision. In addition to similar experiences in other Sub-Saharan African countries, policies on housing in Ghana are made by many public agencies to fit into their view of the world and seem to lack coordination among them (UN-Habitat, 2011). Though Ghana lacks a comprehensive

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housing policy, it is possible to distil a distinct policy focus on housing in line with global trends over the years.

The post-independence era, the late 1950s and early 1980s can be described as the period of active and direct involvement of the state in the provision of public housing, with the establishment of the State Housing Corporation (SHC) and Tema Development Corporation (TDC) for the regions of Ghana and port and industrial town of Tema, respectively. Also, two state-owned financial institutions, the Bank for Housing and Construction (BHC) and the First Ghana Building Society (FGBS) were established to provide financial support for public housing. The direct involvement of the state in housing delivery continued from the 1950s through the 1970s with the construction of what was referred to as the „low-cost houses" in the district and regional administrative capitals. Although the state was actively involved in direct housing provision during this period, the bulk of the housing (about 80%) was provided by the private informal sector (Danso-Wiredu, 2018; Songsore 2003). After independence till the early 1980s, various governments continued directly providing housing for the masses, in particular public sector workers located in Accra, Kumasi and Takoradi (Arku 2009; Konadu-Agyemang 2001b).

The mid-1980s to the early 1990s represents the era of Structural Adjustment Programs (SAPs) and Economic Recovery Programs (ERP) in Ghana. At the heart of SAPs/ERP was the economic liberalization, and state withdrawal from key sectors of the economy to give way to the private sector (privatization). Consequently, the government's policy on housing took a different turn with an emphasis on creating an enabling environment for private sector participation in housing delivery leading to the emergence on the Ghanaian housing market of private real estate developers and

the establishment of the Ghana Real Estate Developers Association (GREDA) (Danso-Wiredu, 2018; Ofosu-Kusi & Danso-Wiredu, 2014).

The mid-1990s to the present can be described as the post-structural adjustment and globalization era. The government"s policy on housing over the period remained largely the same as from the ERP/SAP era, with greater emphasis on the private sector participation in housing delivery. However, ISSER (2013) has argued that the private sector is unlikely to provide housing for poor and low-income groups without appropriate incentives to the sector. This is because the private sector has never played any meaningful role in housing delivery for the urban poor (ISSER 2008). The multiplicity of sectors and sub-sectors related to housing such as land, land use planning, development control, finance, construction, et cetera, indicates that there would be various institutions and agencies involved in the housing sector.

In all, the Ministry of Water Resources, Works and Housing (MWRWH) is responsible for housing policy, but this function is placed under one of the eight directorates of the Ministry, referred to as the Housing Policy Directorate, which lacks technical capacity (GSS, 2014). Besides the weak institutional framework for housing, Ghana"s legal landscape is replete with numerous and sometimes outdated laws on land ownership and management, land use planning, development controls, housing financing and mortgage, construction, rent charges, etc. which have a direct and indirect impact on housing delivery policy (GSS, 2014).

2.6 Demand and Supply of Housing

Understanding the interplay of the drivers of the demand and supply of housing is critical towards addressing any shortfall in housing. Consequently, where there are challenges, the supply side in broad terms is usually constrained by a poor

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policy environment (e.g., control of rents and prices of land and building materials) and weak institutional framework. While the imposition of price controls is aimed at making housing affordable, they have the unintended consequences of demotivating developers from investing in the sector, which in the long-term impacts negatively on the poor as new housing are seldom developed leading to hikes in rents due to housing shortage (Mayo *et al*., 1986).

Demand and supply are the key components of the operations of the housing market. The input markets (land, building materials, infrastructure, finance and labour) dictated by price must be combined with the supply-side agents (landlords, developers and construction firms) to produce houses and housing services. According to Mayo et al.(1986), homeowners and to some extent renters are also supply agents or producers if they maintain and upgrade their houses. In all these processes of housing production, relative price is critical as it dictates whether more or less housing or inputs are made available by the various actors or agents. For the housing market to work effectively there must be an interaction between the demand and supply sides of the market.

Ghana‟s current housing shortage is partly blamed on the policy of rent control and the general price control regime imposed throughout the 1970s through the early 1980s (GSS, 2014). This report reveals that overall, the national cumulative housing deficit seems to have peaked at about 970,000 units in 2000 and then declined to a little over 717,000 when the deficit is computed based on 6-persons per household per 2-bedroom unit. However, when the cumulated deficit is calculated based on 4-persons per household per 2-bedroom unit, it increases from over 2.5 million in 2000 to 2.7 million in 2010, a relatively smaller increase than in previous decades. Similar

trends are observed for the regions and the different city sizes. However, these computations do not take into account the number of shelters that do not have adequate facilities to be habitable and those requiring repairs or renovation before use, as these housing conditions are not captured by the population and housing censuses and other national surveys. If these are taken into account, the deficit would be larger than computed (ISSER, 2013).

It has been argued that rapid population growth without major corresponding increases in housing stock over the years is the main factor in the current acute housing deficit or shortage in Ghana (Bank of Ghana, 2007; GSS, 2013; ISSER, 2013). Rapid population growth is compounded by rapid urbanization (increasing shift of the population from rural to urban areas) as well as globalization as key drivers of the supply and demand for housing in the country (ISSER, 2013). It needs, however, to be stressed that the magnitude of the housing deficit differs based on the computation (such as the number of persons per household and the number of persons per room). Nevertheless, there is a consensus that a wide deficit or gap exists between the supply and demand for housing in Ghana (ISSER, 2013).

This is significant given the fact that analysis of the growth in housing types over the 1984 to 2000 period has indicated a drastic reduction in this type of housing (Grant, 2009). The growth rate of compound houses was even more impressive for the large cities, Accra, Kumasi, Tema and Sekondi-Takoradi, where access to housing by the poor and low-income groups is widely viewed as more challenging (World Bank, 2014). The materials used in the construction of a house give indications of not only the durability and the cost of the house but also, the health and socio-economic status of the residents or occupants.

Therefore, a consistent improvement in the materials used in the majority of housing units over time reflects an improvement in the living standards and well-being of the population. However, the type of building materials used in housing construction is dependent on the cost and availability, and the ability of the people to pay for the cost of a given material. This report reveals that local and poor-quality building materials such as mud bricks/earth, bamboo and leaf/thatch are extensively used in rural Ghana for the construction of dwellings, including the floor, outer wall and roof.

On the other hand, urban households tend to build with expensive and durable materials, many of which are imported from outside Ghana. The differences in the type of housing between rural and urban areas are partly due to the strict enforcement of the country‟s building codes and regulations which strictly forbid the use of local materials such as earth in urban areas; the relatively high purchasing power of the urban population and; the influence of foreign designs and architecture of urban housing.

2.7 Infrastructure and Access to Services

When housing is developed without the necessary basic infrastructure such as access roads and drainage systems as well as access to house services (water, toilet, waste collection and electricity) and community services (education, health, playgrounds and markets), housing can have described as inadequate. The availability of basic infrastructure and services as well as the governance systems for maintaining these contribute to a livable environment for households and promote the general well-being of the larger community (Newman, 2008). According to Owusu (2010), poor housing and living environment are often conceptualized and captured in health

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terms, however, they go beyond health to encompass other aspects of human well-being.

The institutional and regulatory framework for infrastructure and services provided in Ghana has undergone significant reforms in the last three decades. In line with the policy trend since the mid-1980s under the broad banner of economic liberalization and privatization, the state has increasingly drifted away as a provider to „an enabler‟ and „facilitator‟ of infrastructure and services provision. However, households‟ access to these services remained poor, and in many communities, these services are simply not available, especially those in rural and peri-urban areas (GSS, 2014).

In general, while the government‟s intention concerning the provision of infrastructure and services is clearly defined, financing and governance aspects remained critical challenges. The MMDAs, utility companies and other public institutions are mandated to provide these community infrastructures and services but inadequate funding and the lack of coordination both vertical and horizontal across various institutions remained daunting leaving many communities poorly serviced. Consequently, many neighbourhoods developed without requisite or commensurate infrastructure and services. In urban areas, this situation contributes to the development of slums and accounts for the growing incidence of the phenomenon in large Ghanaian cities while in rural areas, these services are simply unavailable.

Housing Financing

According to Teye et al. (2013) and Danso-Wiredu (2018), the existing housing financing system of the country is small and only targets a limited segment of the population, basically high-income earners in the urban formal sector as well as

Ghanaians living in the diaspora. Indeed, Warnock and Warnock (2008) in their assessment of housing finance systems in 62 countries including Ghana found that the country ranked least in terms of housing finance as a proportion of GDP: Ghana‟s total housing finance was 0.5 percent of GDP compared to Africa‟s average of 15.7 percent of GDP. As a result of the difficulties with the housing financing system, the Bank of Ghana (2007) notes that the typical Ghanaian household is often faced with three choices in the acquisition of shelter, namely, rent, build or mortgage a home.

The great bulk of housing in Ghana is provided through informal means by individuals acting out of their own volition to supply a home for themselves and members of their household and family, and with financing through informal sources, mainly self-financing and use of remittances (UN-Habitat, 2011). However, the informal means of financing housing usually results in incremental building. It has been estimated that the process of the incremental building could take up to 15 years for a single building to be completed, with funds subsequently getting tied into these uncompleted projects and the costs of construction ballooning in an unstable macro-economic environment (Bank of Ghana, 2007), plagued by high inflation and persistent depreciation of the local currency, the Ghana cedi. For a low-income earner, Obeng-Odoom (2008), it is estimated that it will take about 54 years for this individual to acquire a two-bedroom house, assuming such a person had zero expenses.

Nevertheless, the self-financing option remains the key viable option for many households desiring to own their homes, especially within the context of Ghana‟s existing limited and severely challenged formal housing finance system. This is because it allows households to acquire homes in the long term and to extricate

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themselves from the pressures of the unregulated rental market with its 2-3 years"
rental advance payments. Also, the self-financing option has the advantage of
allowing households to build at their own pace without undue financial pressure.

2.8 Historical Overview of Housing Development and Policy Changes in Ghana

The problem of housing affordability and a huge housing deficit is not a recent
challenge to Ghana. Since the colonial days, housing has been a problem in Ghana
and it has seen major historical responses, directed at solving this conundrum.
However, these interventions have over the years not yielded the outcomes capable of
resolving the housing problem (Arku, 2009; Konadu-Agyeman, 2001a). Ghana"s
housing industry has been described as being at a rudimentary stage (BoG, 2007).
Thus, this section tries to trace the historical account of the existing situation and
attempts to examine the scope of interventions that have taken place and the various
policy changes prominent in the housing sector of Ghana as well as how it has shaped
the affordability situation over the years.

To begin with, housing as a commodity fit into a market system where it is
traded, as done in western economies, has never been a part of Ghana"s housing
culture (Tipple and Korboe, 1998; Konadu-Agyeman, 2001a). Historically, housing in
Ghana has been the trust of the family system; houses developed (whether
individually or for extended family) were viewed as something belonging to the
whole family because lands for housing were communally owned or owned as
families (Konadu-Agyeman, 2001a). Thus, most Ghanaians were adequately housed
in structures belonging to immediate and extended family members. Konadu-
Agyemang (2001b) reports that as a result of this there was little or no demand for
both rental and owner-occupied housing to generate a housing market. However, the

upshot of "colonialization" leading to modernization and rapid urbanization in Ghana, necessitated the movement of people from their original homes (hometowns) to new places where they needed accommodation (Konadu-Agyeman, 2001b). The response to these new developments in Ghana was the beginning of somewhat of a housing market.

The subsequent sections give a brief account of the historical responses to the housing challenge to date. Housing in Ghana – Pre-Independence Era (Before 1957) Konadu-Agyeman (2001a) describes the posture of government in this period as a "noninvolvement stance". Housing provision by the colonial government was only targeted at the representatives of the British government and the representatives of European companies (Tipple and Korboe, 1998). According to Grant and Yankson (2002), they still maintained and enforced strict zoning and building codes for housing development in urban areas, especially in Accra to depict an orderly European character and ambience. However, following a plague outbreak in Kumasi and the 1939 earthquake in Accra, some improvements were seen in the government"s involvement in the housing sector (Tipple & Korboe, 1998; Konadu-Agyeman, 2001a; Danso-Wiredu, 2014).

Arku (2009) reports that the government-financed and created the Department of Social Welfare and Housing (DSWH) in 1945 to set out policies and see to the implementation of housing schemes. However, many authors have criticized the activities of the DSWH as just serving an urban few (i.e. earthquake victims, war veterans, junior civil servants). The DSWH supervised the completion of seven subsidized housing estates, which were located in Accra, Kumasi and Takoradi. No housing scheme existed outside these three urban centres and the majority of low-

income families did not benefit from these programmes (Arku, 2009). The government increased their involvement in housing delivery through the 1951 development plan; where over £2.5m was devoted to housing development (both public and private housing). The First Ghana Building Society (FGBS) was established in 1956 to also mobilize resources for housing.

2.9 Housing in Ghana – Independence Era (Between 1957- 1970)

According to Adarkwa (2012), the pre-independence era set in motion a pattern of spatial segregation in Ghanaian towns which continued to independence and the acute housing problems of Ghana spans from the neglect of certain parts of urban centres as well as the emergence of "Zongos" (migrant communities). Following independence, the government made housing the core of its social policies; adequate housing was seen as a right and a responsibility of the government (Arku, 2009). Arku, (2009) reports that in the "1959–64 Development Plan" the government proposed the construction of 6,700 housing units, 200 units for middle-income households, 1,500 units for low-income households, and 5,000 buildings for labourers at £2,000, £500, and £200 per unit, respectively".

Obeng-Odoom (2011) & Arku (2009) observe that the Ghana National Housing Corporation (GNHC), State Housing Corporation (SHC) and the Tema Development Corporation (TDC) were also established around this period to give a boost to public housing. During this period, Kwame Nkrumah launched the "Seven-Year Plan (1963/1964 – 1969/1970)" for national reconstruction and development. As a build-up to the previous investments made by the government, the plan proposed the construction of 60,000 new dwellings throughout the country for £44.5 million; £31.3

million for commercial housing and £13.3 million for low-income housing (BoG, 1963).

In line with this, additional government agencies were created to facilitate this move (Low-Cost Housing Committee/Programme (LCHC/P)). The plan entreated the Ministry of Communication and Works, as a matter of foremost priority to work out modalities to make the construction of housing very affordable to low-income households. However, the plan did not achieve its desired impacts due to the 1966 coup that toppled the Nkrumah government and; also because of the little attention for self-help housing and the government"s concentration on public housing and slum clearance to solve the housing problem (Arku, 2009; Obeng-Odoom, 2011).

2.10 Housing in Ghana – Post-Independence Era (Between 1970-1990)

According to Danso-Wiredu & Loopmans (2013), various housing interventions in the country before this era were not sustained owing to the economic decline of the 1970s. Tipple & Korboe (1998), observed that policies on the international front have been leading away from direct housing provision for low-income households by the 1970s. There were numerous unsuccessful attempts at introducing cooperative housing and site and services schemes, even though this was not directed at low-income households (Tipple & Korboe, 1998). The National Redemption Council (NRC) government attempted to save the situation by granting more funding to the LCHP and development of housing estates by the SHC and SCC; as well as the establishment of the Bank for Housing and Construction (BHC) in 1973, to support housing and construction; together with the active participation of the Social Security and National Insurance Trust (SSNIT) in housing development (Adarkwa, 2012).

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Similarly, in 1975 the government established the Public Servants Housing Loans Scheme (PSHLS) and the Armed Forces Mortgage Loans Scheme (AFMLS) to support housing developments for these two groups (Konadu-Agyeman, 2001b). According to Arku (2009) the chronic problem of housing worsened in the 1980s; with evidence of overcrowding, unaffordable housing, poor housing conditions and sanitation services. Obeng-Odoom (2011) observes that, due to the change in global economic policies and the dire economic situation in the country, the International Monetary Fund (IMF) and the World Bank encouraged Ghana to adopt the Structural Adjustment Programme (SAP), referred to as Economic Recovery Programme (ERP) in Ghana.

This move saw the active participation of the private sector in housing delivery. The government"s role in housing provision was reduced to creating an enabling environment for the private sector to provide housing (Arku, 2009). This also saw the entrance of private financial institutions like Ghana Commercial Bank (GCB), Standard Chartered Bank and Barclays Bank into the housing market to provide mortgage services. These were available to the few affluent and high-level government officials (Danso-Wiredu and Loopmans, 2013). Boamah (2010) also reports that the liberalization of the housing sector further led to the inauguration of the Ghana Real Estate Developers Association (GREDA) in 1988. Konadu-Agyeman (2001a) suggests that the further upturn of housing prices and the worsened cause of unaffordable housing in Ghana is an out-sprung from this period.

2.11 Housing in Ghana –The Current Face of Housing (1990-to date)

Following the reforms in the housing industry, the Home Finance Company Ltd (HFC, now HFC Bank Ltd) was established in 1991 (Boamah 2010b). This was to reinforce the posture of the housing market in Ghana by improving access to mortgage services for housing development. The government went on to develop the national shelter strategy in 1993 to give direction to urban housing in Ghana (Tipple and Korboe, 1998). In line with government policies, all subventions and subsidies to state-owned enterprises were withdrawn and the annual budgetary allocation to the housing sector reduced from about 12 percent in the 1950s to about 2 percent by the 1990s (Arku, 2009). This affected the various public housing projects on-going at that time and hence most of the low-cost housing programs stopped.

This period further deepened the neglect for low-income households in numerous housing programs initiated by successive governments. Again, it can be observed that the withdrawal of the government‟s direct involvement in housing development exacerbated the housing unaffordability problem and partly increased our inability to resolve the housing deficit. Interestingly, the government‟s deliberate withdrawal has forced it into a perpetual absence in the housing delivery system and currently prides itself as a "facilitator" in housing provision; consequently, the government has left this role to the private sector.

Danso & Loopmans (2013) and Ofosu-Kusi & Danso-Wiredu (2014) suggest that there is enough evidence to show that the private sector is more interested in providing housing for the small upper class in the country, and it is not surprising that there has been an increase in gated communities. The NPP government in 2005 staged a comeback by initiating the affordable housing project, which was aimed at

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producing 100,000 housing units in six locations in five regions of the country (Sam-Awortwi, 2010). This was a welcoming initiative which barring all its challenges could have responded to the housing problem of Ghana. However, the project started, and after the government lost power in 2008 to date, it has not been completed.

Again, successive governments have overlooked the completion of this project and made several failed attempts at initiating new affordable housing projects. Housing remains unaffordable and given the persistent neglect for low-income households and the rapid urbanization taking place in Ghana the problem of housing will further worsen in the next decade. The Face of Housing Demand and Supply in Ghana, Yeboah, Codjoe & Maingi (2013), reported on the major demographic changes that have taken place in Ghana as a result of urbanization and its repercussions on the urban-systems in Ghana.

According to Adarkwa (2012), the rapid urbanization process coupled with major economic and infrastructure development has changed the face of Ghanaian towns substantially over the years. These major changes occurring within the country have taken place along with major increases in housing development over the years. The current face of housing demand and supply in Ghana is a result of historical responses to housing delivery that have occurred over the years. As discussed in prior sections of this study, housing demand and supply are affected by the availability and affordability of housing components, the system of regulatory frameworks and the policies and actions of successive governments and the private sector.

2.12 State Intervention in Housing for Public Sector Workers

The need for the provision of housing for public sector workers started from the time government machinery was put in place, and started to participate in business for various reasons. It is for this reason that we have accommodation for senior government officials and some staff of public corporations. Ghana, just like many developing countries, governments historically have been directly involved in the housing provision. According to Arku (2009), during the colonial period (i.e., before 1957), the British-led administration was involved in housing schemes financed by the central government. This necessitated the creation of the Department of Social Welfare and Housing (DSWH), in 1945 to oversee the setting of policies and the implementation of the housing schemes. Between 1946 and 1948, the DSWH supervised the completion of seven subsidized housing estates, which were located in Accra, Kumasi and Takoradi-the three major urban centres (Arku, 2009).

He noted further that, these government buildings were inadequate, perhaps due to logistical constraints. The distribution was done for specific people such as war veterans, urban public and civil servants and colonial administrators. Nkrumah after political independence in 1957 made housing his topmost priority, occupying the core of its social policies, with the firm conviction that adequate housing was a right and that the government had an obligation to provide it. This necessitated the creation of several state-owned enterprises (SOE,s), notably the Ghana National Housing Corporation (GNHC), State Housing Corporations (SHC), and Tema Development Corporation (TDC). Tema Development Corporation was established with the mandate of providing housing units for the industrialized Tema Township with its working class. TDC dealt with the acquisition and the organization of Tema lands for

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the residential establishments, leading to the creation of communities 1 up to 8 complexes. The SHC on the other hand was established to provide housing in the nine regions for a public and civil servant. It also was tasked to provide long term home financing options for government workers (Kwofie et al., 2011).

According to Arku (2009) while the government-built houses were rented out at a considerably discounted rate to the workers employed by the SOEs as well as public and civil servants., in 1975 the government established the Public Servants Housing Loans Scheme (PSHLS) and the Armed Forces Mortgage Loans Scheme (AFMLS) to support housing developments for these two groups (Konadu-Agyeman, 2001b).

The PNDC/NDC government, from 1981 to 2000 devised several housing intervention plans. Examples include the Structural Adjustment Programme (SAP) and Economic Recovery Programme (SAP/ERP), Ghana Vision 2020, and The National Shelter Strategy (NSS) to help tackle the housing problems of the nation. Under the NSS in 1986, the national housing commission was formed to examine factors to ease the housing delivery crisis in the country. The commission came out with a policy geared towards creating an enabling environment for the private sector to take a leading role in the delivery of housing units from 1987-1990. The Vision 2020 plan from 1997-2000 was formulated to facilitate low-income housing through Social Security and National Insurance Trust Scheme. The concept was to enable contributors to draw part of their funds to acquire housing. The plan was however not effective due to its unsustainable nature as of the period under review. Notwithstanding, the idea of contributors drawing part of their funds to acquire housing is being revisited under Tier 2 of the country's new pension scheme

(NsiahGyabaah, 2009). The financial crisis which had trickled down from the 1970s into the 1980s had led to the introduction of the SAP to allow cash flow in the system. The liberalization aspects of the SAP led to the government losing control over the housing industry. The effects of high rents as a result of expensive building materials led to the development of more slums and informal settlements in the urban centres. In effect and based on these economic developments, the PNDC/NDC government made no visible contribution to housing from 1985-2000.

It can, however, be said that agencies affiliated with the government such as the Social Security and National Insurance Trust (SSNIT) with its interventions in housing projects and other accommodation units help relieve the government of the housing crisis throughout the nation from 1988 to the late 1990s. SSNIT had expanded its intervention in 1988 in social housing for the public, providing housing units below the market price for the general public (Kwofie *et al*., 2011). The scheme provided housing units in Adenta in Accra, Sakumono in the Tema area, Anaji in Takoradi, Koforidua, Wa, and Kumasi (Kwofie *et al*., 2011). Due to the financial crisis, SSNIT was unable to continue with its social housing and sold out most of its units (Kwofie *et al*., 2011).

The NPP government led by John A. Kuffour sought to reduce the crisis of the housing sector through the initiation of about 20,000 affordable housing units in 2001. In 2007 about 4,500 units ranging from bedsitter, the single and two-bedroom apartment had started at Borteyman and Kpone in Accra, Asokore Mampong in Kumasi in the Ashanti region, Akwadum site Koforidua in the Eastern region, Tamale, to be completed by June 2009. This was the new government‟s effort to ease

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the housing problems in the country. The main target group of this scheme was the civil and public servants (Nelson & Ayeh, 2009).

The NPP government from 2001- 2008, introduced twenty thousand (20,000) units of affordable housing in 2001. By 2007, four thousand five hundred (4,500) of these units had been started but none had been before the change in governments 2009. Unfortunately for the country, the uncompleted units have now become the home for squatters. Following the administration of the NDC from January 2009 to July 2012 did not continue with the affordable housing which had been initiated by the previous government. It embarked on a new housing plan known as the Ghana completed Housing Project; a private and public corporation between the STX Engineering and Construction Ghana and the Ghana government. Administrative and management disagreements so far have seen the project collapsed.

The NDC government under John Evans Attah Mills in 2009 in its quest to improving housing delivery in Ghana embarked on several housing programmes. The first initiative was the move to build over 300,000 housing units over the next five (5) years, through Public-Private Partnership. This was referred to as the STX housing project. The development of the housing units was for the low to the middle-income group and 300 units for Senior Public Servants, State Protocol and for visiting VVIPs. As part of the programme, the project was to develop the majority of the housing units in all the ten-regional capital of the country (Ghana News Agency, 2012a). So, from the above, it can be said that governments in the past have in one way or the other supported housing provision for public sector workers.

2.13 Factors Influencing the Choice of Affordable Housing

Research by Rivera & Tiglao (2005) explored the options preferences of households with only two employees who moved to a new home two years before the Metro Manila survey. To evaluate accessibility, dwelling, socio-demographic and neighbourhood variables, the authors used nested logit models. Their study states that in household decisions, accessibility variables such as shorter commuting times and lower commuting costs are prioritized relative to other characteristics such as residence and workplace location, land values, and population density. They also show that households tend to live far from their workplaces in suburbs, which conflicts with their desire for shorter commutes and lower commuting costs.

Zondag & Pieters (2005), in their study of the Netherlands, utilised a multi-nominal logit model to analyse various household types. Their results indicate that the role of accessibility in explaining the residential choice of the different household types is significant but comparably less when compared to demographic factors, neighbourhood amenities and dwelling attributes. Similarly, a study by Kim *et al.*, (2005a) employed a nested multinomial logit model to estimate the nested structure of housing choices in terms of the intention to change the residential location by homeowners in Oxfordshire, in the UK.

This study uses the specified preference approach that models the purpose of moving between accessibility, neighbourhood, dwelling and household characteristics according to the tradeoffs. This compares with the variables used in the housing choice empirical model, which are house prices, accessibility and neighbourhood. The authors, therefore, find that with more costly living prices, higher travel times, higher job costs, higher retail costs, higher population densities and residency in the central

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region, the likelihood of a household moving increases. Kim *et al*., (2005a) conclude that individuals prefer a residential location with a combination of shorter travel time, lower transport costs, lower density, higher-quality schools and lower house prices when calculating the indirect random utility functions of residential preference location.

Zondag & Pieters (2005) and Jun & Morrow-Jones (2011) dispute the results of Kim *et al*., (2005a). Both studies did not attempt to identify the extent of the contribution of classified housing characteristics to households' choice of residential location. Instead, they conclude that both accessibility and community amenities are essential in the behaviour of residential mobility and choice of housing location.

Also, Jun & Morrow-Jones (2011) used regression analysis to explain the option of denser neighbourhoods for a homeowner in Columbus, Ohio. In comparison to Kim et al. (2005a), for each of the explanatory variables used in the model, Jun and Morrow-Jones have a particular role; neighbourhood features rank the lowest with a restricted role, while accessibility factors and household features play moderate and significant roles, respectively. The multinomial logit model used by Sanit et al. (2013) shows that socio-demographic features, especially income and workplace location, play an important role in explaining the location decisions of people living near a rail transit system in Bangkok, Thailand, following this trend to rank features. Unlike Rivera and Tiglao (2005), Sanit et al. (2013) found that transportation variables in the minds of households are substantially less relevant, such as travel costs and travel time.

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A study by Acheampong and Anokye (2013) in Ghana states that family relationships, workplace proximity, relatively low land prices and house rentals are the most important explanatory variables for the choice of residential location in two of the peri-urban settlements of Kumasi. The study indicates that socio-cultural, housing and accessibility variables are substantially more important than neighbourhood-related housing attributes. Similarly, Nkeki & Erimona (2018) findings reflect on the role of socio-cultural cohesion and accessibility in Benin City, Nigeria, as the most prominent determinants of the household choice of residential location.

In comparison, these authors criticize the work of Jun and Morrow-Jones (2011), who argue that the function of community features is significantly more important than the characteristics of housing. In their analysis, the role of dwelling attributes was not taken into account by Nkeki & Erimona (2018). They considered socio-economic characteristics and found that the portion was significantly less important, such as Zondag & Pieters (2005) & Opaluwa and Aribigbola (2015).

The multinomial logistic regression used by Opaluwa & Aribigbola (2015) shows that in Lokoja, Kogi State, Nigeria, accessibility to work, distance to health facilities and housing costs, in particular, have a powerful effect on the residential location choice of households for all types of dwellings. The study's findings indicate that accessibility and dwelling characteristics are almost constant explanatory variables for the dwelling types considered, while attributes related to socio-economic factors are less significant. Ubani, Alaci & Udoo (2017) used push and pull variables in another study to describe household housing decisions in Port Harcourt Metropolis, Nigeria. Highly rated push factors include ownership of a home in a new area, high

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crime levels and vulnerability, they find. The top-rated pull factors include the protection of the new destination, the shift in the amount of income of the family and the status of homeownership in a new destination. The analysis did not attempt to statistically classify the significant determinants of households' choice of residential location in the study field.

In comparison to studies on continents such as America and Europe, a closer look at studies in Africa shows the value of socio-cultural qualities in the residential location choice of households. The potential explanation for this may be due to the cultural affinity of many people in an African environment. The results of the above empirical studies indicate that the variables influencing the preferences of households for residential locations differ from one geographical area to another and by type of household. The significant function of dwelling attributes in residence choice, however, remains constant during these studies (Zondag & Pieters, 2005; Acheampong & Anokye, 2013; Opaluwa & Aribigbola, 2015). Moreover, the results provide a sense of how their residential locations are chosen by citizens and households. Policymakers will work to change policies in a real and practical way by recognizing the needs of households. Therefore, research into the residential location preference of various types of households across different geographical areas is justifiable. It is on this basis that this study uses several housing characteristics to analyze their effect on tenant residential location choices in Nigeria's Bosso Local Municipality of Minna.

Housing characteristics such as number of bedrooms, family size, number of bathrooms and aesthetic views significantly decide the option of affordable housing in countries in the literature, according to López & Van Nes (2007). Unit size, aesthetic

views, the number of bedrooms and the number of bathrooms are housing features that substantially decide household range. The results in several countries endorse the current body of information (López & Van Nes, 2007).

2.14 Challenges in Providing Affordable Housing

Across the world and especially in the developing world, housing remains one of the critical development challenges because of the huge gap between the supply and demand for housing. Consequently, some have described the situation as a global crisis. In broad terms, the housing question is largely a case of housing demand outstripping supply and/or the price of housing is over and above the wage of the average worker. In both or either situation, individuals and households" resort to officially unapproved means to secure housing leading to the development of slums, especially in large cities and towns.

Many of the challenges faced by the poor can be linked to housing. This is because the housing environment represents an everyday landscape, which can either support or limit the physical, mental and social well-being of the residents (Songsore & McGranahan, 1993; Bonnefoy, 2007). The view is that adequate housing can be positively correlated with socio-economic benefits to both the occupants and the larger society (Newman, 2008). The rapid increase in population in Ghana has resulted in a large housing deficit, especially, in urban areas. It is projected that the country needs at least 100,000 housing units annually while supply is estimated at 35 percent of the total need.

Other studies put the country"s overall annual deficits between 70,000 and 120,000 housing units with only 30-35 percent of the annual estimated requirement being supplied (ISSER, 2013). While there may be disagreements as to the exact

estimate of the annual requirement, there is a consensus of a shortfall in the supply of housing, particularly in urban Ghana. Drawing heavily on the 2000 and 2010 Population and Housing Censuses, this report assesses the housing situation in Ghana and its implications for the country‟s socio-economic development. Specifically, the report analyses the trend of stock of houses, facilities and amenities within houses across different districts, namely metropolitan, municipal and other localities; land access and current land tenure arrangements and their implications for housing; the level of housing deficits; the various options for financing housing in Ghana and; policy recommendations and implications for the housing sector. Increasing the supply of land is said to be one of the first challenges governments have to tackle to increase the supply of housing.

According to the Bank of Ghana (2007), one critical factor that undermines owning a building in Ghana is the lack of secure, transparent access to land title. Land ownership and administration is reported to be very complex in Ghana with the formal modern system attempting to function in conjunction with the traditional system whereby local chiefs are mostly permitted to allocate lands. Although the latter is said to be a more accepted means of land dispensation in rural areas, it also applies in urban areas particularly the growing urban areas (World Bank, 2002).

Asare and Whitehead (2006) also note that because of discrepancies and inefficiencies in land administration in Ghana there is insecurity in land title and land tenure that disturbs the land market. This means that it cannot operate effectively to either enable the development of a formal market for a mortgage or to act as security for mortgage finance. There has also been a sharp rise in building materials over the last few years. Prices of cement blocks and roofing materials have all shot up.

According to experts in the construction industry, foreign building materials are more preferred to that of the local ones and these foreign ones are of less quality compared to the local ones.

According to UN-Habitat (2011), the Ghanaian market is flooded with cheap imported building materials which may not be as durable as home-produced equivalents and which weaken the market share of local manufacturing industries. Local building materials, such as burnt clay bricks, pozzolana cement and compressed earth could reduce housing cost by 20% (Asamoah, 2009). The issue of home financing has also been a major challenge affecting the supply of housing in Accra. The private real estate developers struggle to get loans from banks to put up mass affordable housing and sometimes have to partner with foreign investors who assess the viability of their investments.

The government is not left out in the issue of finance since funding is its major problem when it comes to supplying mass affordable housing schemes to the ever-growing urban populace notwithstanding the provision of infrastructure like electricity, good roads and water (Harbeb, 2013). Research conducted by the UN showed that Ghanaians do not borrow money to build houses; they borrow for business and use profits to build. Although there is a conventional formal sector financial system, notably through the Home Finance Company, which was set up ostensibly to serve ordinary Ghanaian households. Currently, however, the banks only deal with the few rich people and impose high down-payment and high interest rates (UN-Habitat, 2011). In April 2010, the lending rate was estimated to be around 30 % per annum. These and many other impediments make the supply of housing in Sekondi Takoradi very challenging.

2.15 Conceptual Framework: The Control Framework

In analysing the relationship between the strategy adopted by public sector workers in accessing affordable housing, the study adopted the Control Framework by Acioly (2012). He suggests that for a housing delivery system to be effective, equilibrium must be maintained in the availability, accessibility and affordability of all the various inputs of housing. Thus, the inputs for housing are guided by a regulatory (a control framework), legal and institutional frameworks that exist in a particular country. However, to each of these controlling frameworks, the external forces of operation that shape the outcomes of the frameworks are policies, strategies, instruments and actions; (including activities, programme and transactions) (UN-Habitat, 2010a).

It can be observed that the components of housing controls, the housing delivery system, while the control framework guides the availability, accessibility and affordability of these components. However, these frameworks are shaped by their policies, strategies, instruments and actions; which affect the availability, accessibility and affordability of the components. This shows a forward and backward relationship and how it impacts the housing delivery system. Collier & Venable (2013) strongly argue that "housing investment in African has been affected, directly and indirectly, by public policies that have prevented the formal sector from providing housing that meets the needs of ordinary households".

They further point out that such policies have only been enforced within the limits of the formal sector, thus if informality (which constitute 90 percent of housing delivery in Ghana) were efficient then urban residents would have been adequately housed. Informality does not also provide the answers to housing affordability.

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The outcome of this whole system of interrelationships can be positive or negative and this is what defines the housing situation of the country. In short, housing affordability is a function of demand and supply and this function is impacted by other factors. Hence, only a conscious housing market and policy environment that ensures the effective coordination of these relationships can ensure affordability of housing as shown below in Figure 1.
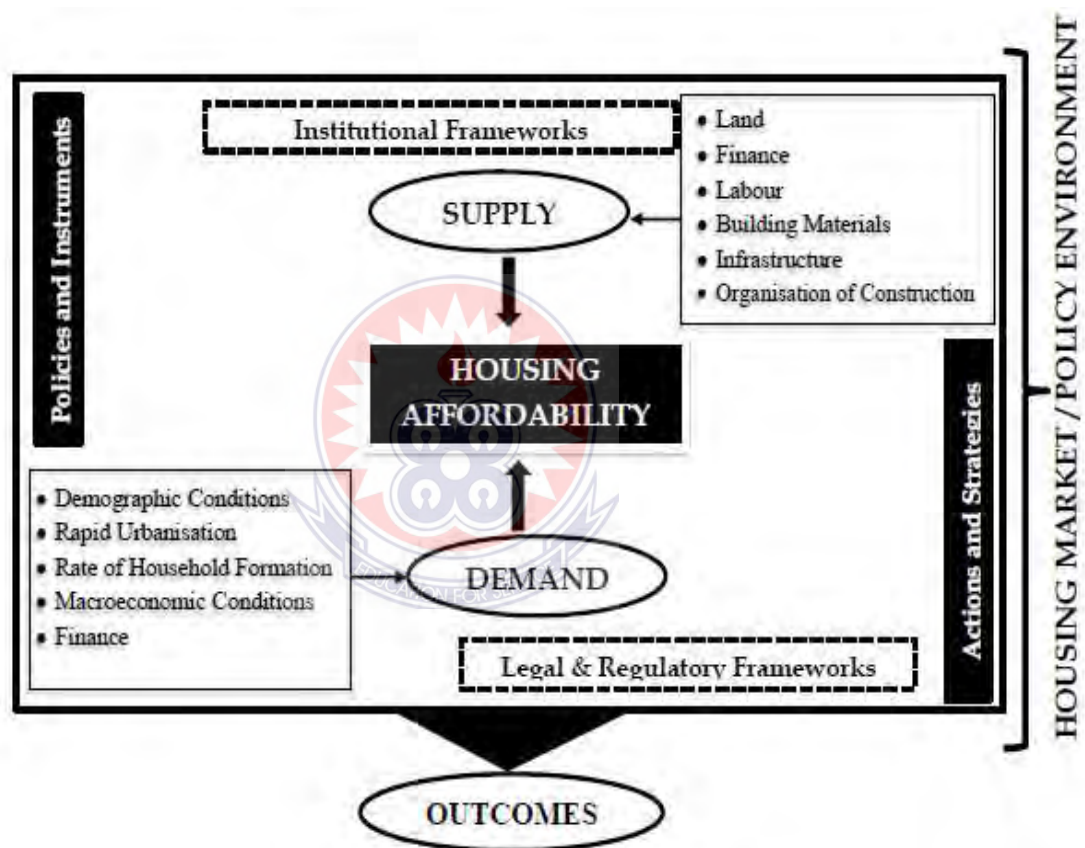

Figure 1: Housing Affordability in the Context of the Housing Market and Policy Environment

Source: Adapted from Acioly (UN-Habitat, 2011)

2.16 Summary of Literature Findings

From the literature reviewed above, it can be established that the government in the past and present have attempted and made significant interventions towards housing provision. Other researchers have also concluded that the governments in the pre and post-independence era have all supported and provided some form of housing for their workers. They also asserted that the government have attempted to go beyond the provision of houses for government workers and also the general public.

Despite all the intervention by governments, not all public sector workers have access to public sector housing facility and so will want to find out from the respondents their perception of public sector housing, its availability and affordability. An effort has been made in the discussions in this chapter to conceptualize an appreciation of the housing affordability problem. It seeks to build all the interactions it has with other theories, variables and how these interrelationships strengthen the phenomenon's understandings. The literature discussed in this chapter explored further the modern methods of measuring housing affordability. The review discussed the concept of housing when attempting to understand the market for urban housing and policy intervention. It addressed the various meanings given to housing over the years, and how they have affected the development of housing. Through this, it has been identified that affordability of housing is a function of housing demand and supply.

Again, a review of the historical development of housing in Ghana shows a significant impact on how various policy regimes have influenced housing development and equally shaped the problem of housing affordability. The literature review offers a concise description of the affordability definition. It attempted to trace

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its meanings from various viewpoints and addresses methods for calculating the affordability of housing. Therefore, the next chapter is devoted to discussing the research methodology and the methodological structure developed for this analysis.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter gives a detailed account of how data was obtained for the study. It gives a brief geographical description of the study areas chosen and the reasons for choosing such areas for the study. It also contains the research design, the population of the study, sample size, sampling technique, data sources, data collection instruments and procedures, data processing and analysis.

3.1 Study Area

The study area is the Sekondi-Takoradi Metropolitan Assembly. This study area was conveniently chosen by the researchers because of time constraints, logistics and cost. Sekondi-Takoradi Metropolis is located in the south-eastern part of the Western Region. The Metropolis is bordered to the west by Ahanta West District and the east by Shama District. At the south of the Metropolis is the Atlantic Ocean and at the northern part is Wassa East District. The Metropolis covers a land size of 191.7 km^2 and Sekondi-Takoradi is the regional administrative capital. Though the smallest district in terms of land size compared to the others in the region, the Sekondi Takoradi Metropolis is the most urbanized among the 14 districts in the region. The Metropolis has been divided into four (4) sub-metros. The four sub-metros in the Metropolis are Sekondi, Takoradi, Essikadu/Ketan and Effia/Kwesimintsim (Ghana Statistical Service, 2014).

Sekondi-Takoradi Metropolis has three main vegetation types, namely, mangrove, savannah woodland and tropical forest. The tropical forest is predominately found around the northern parts of the Metropolis and stretches to the east covering a large part. The savannah woodland is dotted around the middle belt and mangrove vegetation is found along the southern portion. The Metropolis is endowed with a river and two lagoons, the Kansawora river and Butua and Essei lagoons. The Kansawora River flows towards the Butua lagoon creating an extensive beautiful marshland. The climate of the Metropolis is equatorial, with an average annual temperature of about $22^{0}C$, experienced between January and March. Rainfall is bi-modal, with the major season occurring between March and July and the minor season occurring between August and November (Ghana Statistical Service, 2014).

The population of Sekondi-Takoradi Metropolis, according to the 2010 Population and Housing Census, is 559,548 representing 23.5 percent of the region‟s total population. The Metropolis has a household population of 532,516 with a total number of 142,560 households. The average household size in the Metropolis is 3.7 persons per household. The housing stock of the Metropolis is 60,705 representing 16.0 percent of the total number of houses in the Western Region. The average number of persons per house is 8.8. Over half (56.3%) of all dwelling units in the Metropolis are compound houses; 15.8 percent are separate houses and 13.9 percent are flat/apartment. Forty-two percent of the dwelling units in the Metropolis are owned by other private Individuals and 32.8 percent are owned by a household member. Only 1.3 percent of the dwelling units are owned through mortgage schemes (Ghana Statistical Service, 2014).

Fante is widely spoken in the Metropolis. There are also some other languages spoken. The indigenous people are predominately Ahantas. There are also nonindigenous settlers whose predecessors had migrated several years back from different parts of the world into the Metropolis, primarily for economic reasons. The distribution of the proportion of ethnic group in the Sekondi-Takoradi Metropolis is as follows Fantes 46.5 percent, Ahantas 12.2 percent, Asantes 12.2 percent, Nzemas 3.8 percent and Wassas 3.0 percent. The proportion of the rest of the ethnic groups is below 3 percent (Ghana Statistical Service, 2014).

Fishing is the key economic activity that is actively undertaken along with the coastal towns in the Metropolis namely, New Takoradi, Sekondi, Essaman, Ngyiresia and Nkotompo. The other economic activities in the Metropolis include manufacturing, metal fabrication, agro/forest products processing. Examples include West Africa Mills, Cocoa processing companies and Dupaul Wood Treatment Plant and other small-scale businesses like sachet water producers (Ghana Statistical Service, 2014).

Figure 2: The map of the Western Region of Ghana

Source: Ghana Statistical Service, GIS (2014)

3.2 Research Approach and Design

Creswell (2010) defines research design as the procedures for collecting, analyzing, interpreting and reporting data in research studies. Its function is to ensure that the data obtained answers the research questions as unambiguously as possible. It also helps to minimize the chance of drawing incorrect causal inferences from the obtained data. It ultimately directs the researcher as to how the study should be conducted. The researcher in this study combined both qualitative and quantitative methods in data collection. A developed questionnaire was used to collect data on the strategies used in accessing affordable housing, the factors influencing the choice of housing affordability among Public Sector Workers and the challenges that they

encounter in accessing affordable housing in Sekondi Takoradi. The mixed-method approach was adopted where the quantitative aspect dealt with the first two objectives and the qualitative aspect also dealt with the third objective where respondents voiced out their challenges in accessing affordable housing in the metropolis.

3.3 Target Population

The target population for this study was all public sector workers in the Sekondi-Takoradi metropolis. These include public sector workers who own households, renting from landlords/ladies and having any form of residence in the Sekondi Takoradi metropolis. This was also to obtain their views in terms of accessing affordable housing, what influence their choices and the various challenges that public sector workers encounter in the Sekondi Takoradi.

3.4 Sample Size and Sampling Techniques

The study employed purposive sampling techniques in selecting public sector workers in the Sekondi Takoradi metropolis of the Western region. Public sector workers were purposely sampled for the study since they were the target population. The researcher's interest was to explore how public sectors workers in the Sekondi-Takoradi metropolis assess affordable housing in the Western region. The study area was stratified into four strata based on the sub-metros in Sekondi-Takoradi. These are Sekondi, Takoradi, Essikadu/Ketan and Effia/Kwesimintsim. The sampling frame of all public sector workers in Sekondi-Takoradi was not readily made available to the researchers despite numerous efforts to obtain it from governmental agencies in the region. This stratification was done so that various public sector worker in the metropolis could be represented based on the locality and not have a biased responses from only a section o f the metropolis. Therefore, public sectors workers who were

readily accessible and willing to participate in the survey were sampled. Areas visited by the researchers included schools, health centres, ministries and security agencies in the metropolis. A total of 250 public sector workers willingly volunteered to participate in the study and were sampled from the four sub-metros in the metropolis. This was done carefully to ensure even distribution of the respondents in the various submetros based on the kind of work they do as public sector workers.

3.5 Data Sources and Collection Instrument

The primary source of data was collected through questionnaires. The questionnaire was developed through the review of related literature and experts" review about the various items. The questionnaires were administered to collect data related to the topic and objectives of the study. Before going to the field, these instruments were pretested among some selected public sector workers in the three different locations to ensure its relevance and understanding of respondents. Feedback from the pre-testing enabled a review of the questionnaire to ensure that it captured the relevant questions needed to answer the research questions.

The questionnaire contained both open and close-ended questions. Open-ended allowed some respondents to express their opinions and also allowed them to elaborate on their responses to questions without responses to provide options that correctly described their opinion on the subject matter. The questionnaire had three sections, Section A to C. The Section A covered the background information of respondents and the strategies used in acquiring affordable housing. Section B also covered the factors influencing respondents choice of affordable housing. These sets of items were on a 5-point Likert scale starting from least important (1) through to very important (5). A high score indicates that respondents consider the item to be

very important and vice versa. Section C captured qualitatively the challenges that respondents encounter in assessing affordable housing in Sekondi Takoradi.

The researcher with the help of research assistants distributed the questionnaires by visiting the various institutions where public sector workers were assessible in the metropolis. The distribution and collection of the questionnaire took one month, beginning with the distribution of the instrument to workers and collection at a set date from the respondents. Respondents were given ample time to fill out the instrument at their convenience and the researchers went back for them later.

3.6 Data Processing and Analysis

Before the data analysis, results from the field survey were edited and cleaned of any errors and inconsistencies. This was to ensure that the results were representative of respondents and unambiguous for data entry. Editing was done to ensure that the missing gaps within the instruments were appropriately corrected. Frequency distribution tables, bar charts and other descriptive statistics were used to analyze and present the results where appropriate. The determination of the factors that influence the choice of affordable housing employed exploratory factor analysis, a data reduction technique to come out with the factors. The software used for data processing and analysis were IBM SPSS version 23 and Microsoft Excel.

3.7 Ethical Considerations

This research was conducted ethically. Thus, respondents responded to the questionnaires in their own free will since they were made aware of the purpose of the research and participate voluntarily. No form of incentive was given out to respondents to respond to the questionnaires.

3.8 Chapter Summary

In this chapter, the researchers indicated that a mixed-method approach would be adopted in the research where the quantitative method would be used in answering the strategies used in assessing affordable housing and determinants of affordable housing choice whereas the qualitative aspect would look at the challenges encountered in assessing affordable housing.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.0 Introduction

This chapter demonstrates the analysis of the data, its interpretation and discussion with relevant literature. The results are illustrated in tables and graphs in an attempt to answer the research questions. The study sort to find out the various strategies used in assessing affordable housing, the determining factors that influence their choice and the challenges encountered in assessing affordable housing.

4.1 Respondents' Demographic Information

The demographic information of respondents who participated in the study was taken into consideration. Information on gender, age distribution, their religious affiliations, educational background, employment status, the number of years they have stayed in Sekondi Takoradi. Table 2 shows the background information of respondents who responded to the survey instrument.

Table 1: Background information of Respondents

Variables	Frequency	Percent
Sub metro		
Essikado-ketan	51	20.4
Takoradi	54	21.6
Sekondi	62	24.8
Effia Kwesimitim	83	33.2
Gender		
Male	137	54.8
Female	113	45.2
Age of respondents		
30 and less	82	32.8
31 – 35	85	34.0
36 – 45	51	20.4
46 – 55	25	10.0
56 and more	7	2.8
Years of staying in Sekondi Takoradi		
Less than a year	6	2.4
1 – 3	38	15.2
4 – 6	41	16.4
7 – 9	27	10.8
10 – 15	36	14.4
Longer than 15	102	40.8
Religious affiliation		
Christian	232	92.8
Muslims	14	5.6
Traditionalists	3	1.2
Others	1	0.4
Highest educational qualification		
Primary/Basic School	3	1.2
Secondary	15	6.0
Tertiary	232	92.8
Kind of Work		
Teachers	155	62.0
Policemen and women	25	10.0
Health workers	40	16.0
Civil service	30	12.0
Residence Status		
Permanent	216	86.4
Temporal	34	13.6

Source: Fieldwork, 2021

4.2 Strategies Adopted in Accessing Housing

To examine the various strategies adopted by respondents who participated in the study, their current accommodation, as well as how they were acquired and the financial resources used in acquiring them, was also examined.

Table 2, shows that the statuses of respondents in their various homes" outright ownership of their residences, whilst some, shared ownership (mostly with the family compounds, others too rented from the local authority and then those who rented from a private landlord, lived in houses provided from their job and other forms of residence respectively. It can be noted that the majority of the respondents rented from private landlord/landlady in their community whereas a few of them had accommodation from the workplace.

Table 2: Current status of housing tenure

Tenure	Frequency	Percent
Owned outright	41	16.4
Shared ownership	15	6.0
Rent from the local authority	12	4.8
Rent from private landlord/lady	155	62.0
Housing tied to job	20	8.0
Others	7	2.8

Source: Fieldwork, 2021

Respondents access various loan facilities to obtain their accommodation since renting houses comes with some financial commitment. Table 3 shows how respondents finance their residence. The various means adopted by the respondents to get their affordable housing follows. This finding is in line with the UN-Habitat

(2011) report that a bulk of housing in Ghana is provided through informal means by individuals acting out of their own volition to supply homes for themselves and members of their households and family, and with financing through informal sources, mainly self-financing and use of remittances.

Table 3: Financial Means respondent access for their affordable housing

Means	Frequency	Percentages
Mortgage	4	1.6
Personal saving	199	79.6
Informal loan	18	7.2
Others	29	11.6
Total	250	100.0

Source: Fieldwork, 2021

Figure 3 illustrate the modes adopted by respondents to acquire their affordable housing in the Sekondi Takoradi. From Figure 3, most of the respondents enquire themselves from house to house and move from landlord/lady to landlord/lady looking for available places they can afford to rent. This is followed by recommendations from either friends or relatives about such space or vacancies in various households. Furthermore, respondents rely on rent agents to assist in securing affordable housing in Sekondi Takoradi. Other means such as loans et cetera. were also used by respondents to acquire affordable housing either than the first three means mentioned. The lower percentage of public sector workers in Sekondi-Takoradi not financing their affordable housing using mortgage confirms the finding of HFC (2007) that indicated that most Ghanaians are unable to afford mortgage loans because their average salary falls below the minimum requirements for a mortgage

facility to be issued. Perhaps this contributes to why a greater percentage of the respondents finance their affordable housing from their personal saving rather than loans and mortgages from other institutions.
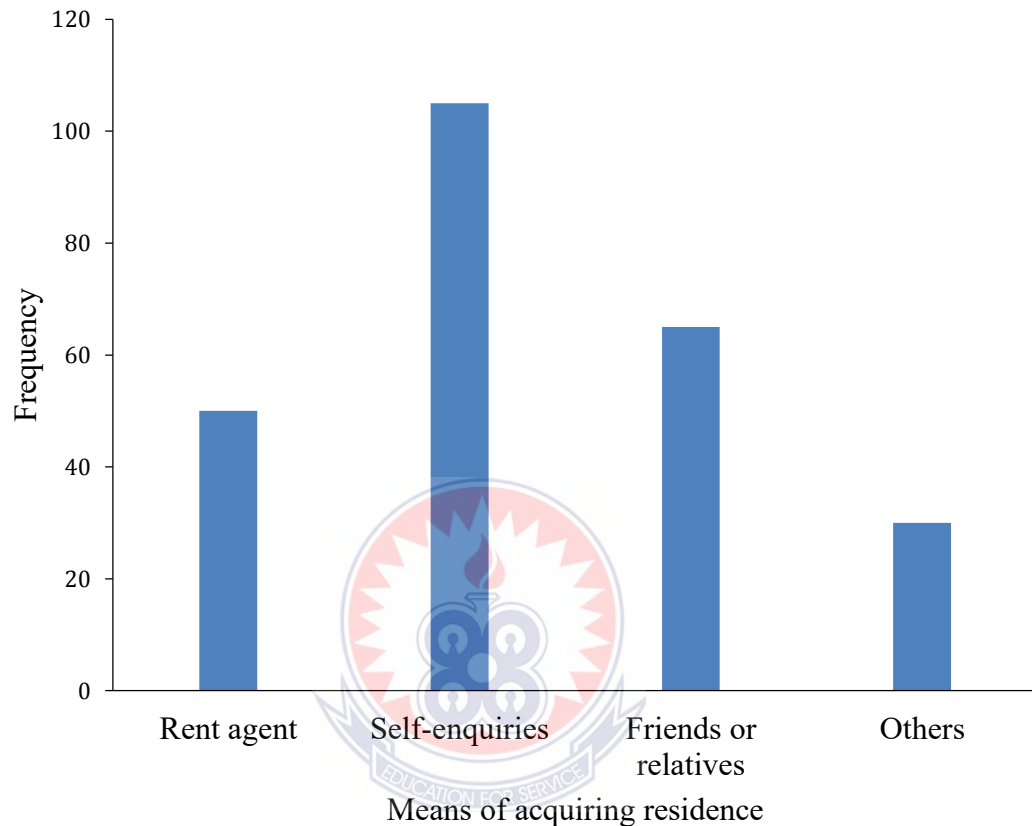
Figure 3: Mode adopted by Respondents in assessing affordable housing

Source: Fieldwork, 2021

4.3 Factors Influencing the Choice of Housing Affordability in Sekondi-Takoradi

The study examines the factors that influence the respondent"s choice of affordable housing in Sekondi-Tako radi. The data reduction technique, exploratory factor analysis was employed to obtain the factors that influence the respondent"s choice of affordable housing in Sekondi-Takoradi. A principal component factor analysis was conducted on twenty (20) indicators with varimax rotation. The Kaiser-Meyer-Olkin (KMO) measure verified the sampling adequacy for the analysis with a

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value of 0.849. This KMO value is interpreted as meritorious according to Hutcheson and Sofroniou guidelines (1999). It is also well above the acceptable limit of 0.5 (Field, 2013). This confirms the factorability of the dataset hence the usage of factor analysis for determining the factors. The Bartlett's test of sphericity was statistically significant ($\chi^2(190) = 1469.482, p = .000$) for the indicator variables, which indicates that the set of correlations in the matrix was significantly different from zero and thus the data is suitable for factor analysis.

Table 4 illustrates the total variance explained for the factor extraction. From Table 4, 6 factors with an explained total variance of 60.85% could be extracted using the Kaiser criterion of eigenvalues greater than 1.

Table 4: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.90	29.48	29.48	5.90	29.48	29.48
2	1.68	8.39	37.87	1.68	8.39	37.87
3	1.28	6.42	44.29	1.28	6.42	44.29
4	1.23	6.16	50.44	1.23	6.16	50.44
5	1.08	5.37	55.82	1.08	5.37	55.82
6	1.01	5.03	60.85	1.01	5.03	60.85
7	0.90	4.48	65.33			
8	0.83	4.13	69.46			
9	0.77	3.86	73.32			
10	0.71	3.57	76.88			
11	0.63	3.13	80.01			
12	0.59	2.96	82.98			
13	0.57	2.83	85.80			
14	0.52	2.62	88.42			
15	0.49	2.43	90.84			
16	0.44	2.18	93.02			
17	0.40	1.98	95.00			
18	0.38	1.89	96.89			
19	0.35	1.75	98.63			
20	0.27	1.37	100.00			

However, the scree plot of the indicator variables also suggests the extraction of 3 factors with an explained variance of 44.29% as illustrated in Figure 4. The extraction of three (3) factors from the scree plot are because the function appears to level up after the third point. These observations give an explained total variance ranging from 44.29% to 60.85% with the first, third and sixth components weighting 29.48%, 6.42% and 5.03% respectively. Three (3) factors were retained after rotation with a 0.3 cut off point since Pituch and Stevens (2015) contend that this value is sufficient to consider a variable meaningful in a model.
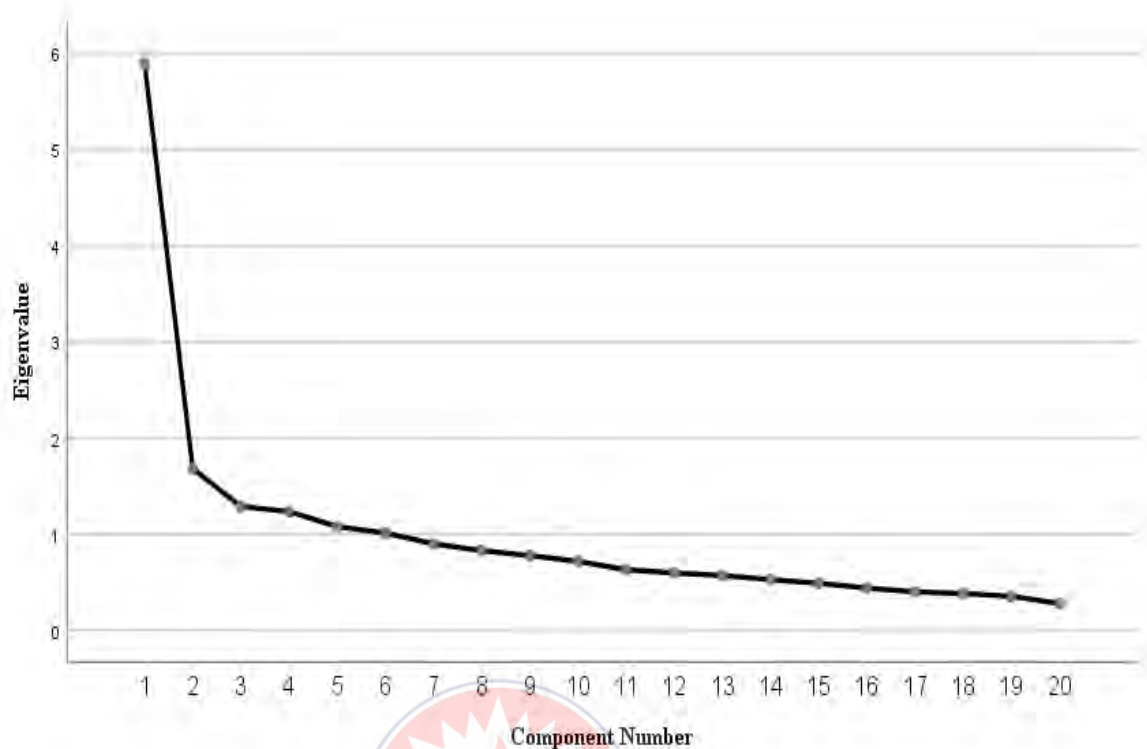
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Figure 4: Scree Plot of indicator variables

Source: Fieldwork, 2021

Table 5 shows the rotated factor loadings for the items used for the study. From Table 5, a maximum factor loading of 0.714 and minimum of 0.474 was obtained including items like access to the health centre, accessibility to the workplace, access to a child daycare centre and school, proximity to government establishment, availability of mortgages, taxation influence, interest rate, aesthetic view and building location. These items suggest that factor 1 corresponds to General Factor because it comprises three diverse determinants of affordable housing choice namely accessibility factor (4 items), financial factors (3 items) and housing characteristics (2 items) that influences respondents. These nine (9) indicators variables have an explained total variance of 29.48% and a relatively high reliability coefficient of 0.789. These three factors relate to one another in the sense that how

accessible the workplace is, affects the amount of money spend commuting every day. For the housing characteristics, there is a high cost of most residence that spacious and fully furnished and easily accessible. This supports Rivera and Tiglao (2005) study where they found that accessibility informs the choice of residence of people. Dwelling characteristics were also considered by respondents in their study as noticed in this study but were less prioritized relative to the accessibility factors.

Factor 2 with 7 indicator variables have 0.793 and 0.439 as maximum and minimum factor loading respectively. This factor comprises indicator variables like the number of bedrooms and bathroom, family size, parking area, type of building, location of the shopping mall or market and available public transportation reflecting the Housing Characteristics that respondents consider. The factor, Housing Characteristics has a total explained variance of 8.39% with a reliability coefficient of 0.762. According to López and Van Nes (2007), housing characteristics like number of bedrooms, family size, number of bathrooms and aesthetic views significantly determine the choice of affordable housing in countries in the literature which confirms the finding of this study that the number of bathrooms, bedrooms and family size affect the choice of affordable housing in the Sekondi-Takoradi.

More so, the last factor comprises three indicator variables namely household income, the unit size and the economic trends corresponding to the Financial Factors that respondents consider when choosing affordable housing. This factor has a maximum factor loading of 0.649 and a minimum of 0.370 with an explained total variance of 6.42% and a reliability coefficient of 0.567. These variables are related to one another since the unit size of a household directly affects the income and expenditure of the household. UN-Habitat (2011) indicated that most tenants in Ghana

mainly self-finances their housing which is affected by inflation and GDP of the nation thus, the financial factors relating to income and the economic trends in the nation also affect housing affordable choices since these variables affect respondent's decision to rent or build houses for themselves.

Table 5: Rotated Component Matrix for indicator variables

Items	Component		
	1	2	3
Availability of mortgages	**0.714**	0.014	-0.061
Access to health centres	**0.637**	0.395	-0.075
Taxation influence	**0.598**	0.013	0.349
Accessibility to working place	**0.515**	0.082	0.176
Access to child daycare centre and school	**0.513**	0.274	-0.019
Aesthetic views	**0.493**	-0.031	0.465
Interest rates	**0.489**	0.264	0.368
Proximity to government establishment	**0.476**	0.38	0.221
Building location	**0.474**	0.236	0.212
Number of bathrooms	-0.005	**0.793**	0.145
Number of bedrooms	-0.102	**0.709**	0.241
Location of shopping mall or markets	0.318	**0.566**	0.043
Presence of parking area	0.256	**0.555**	0.149
Availability of public transportation	0.289	**0.517**	-0.072
Type of building	0.206	**0.469**	0.417
Family size	0.136	**0.439**	0.427
Crime	-0.119	0.034	**0.649**
Household income	0.211	0.289	**0.619**
Economic trends	0.467	0.111	**0.521**
Unit size	0.245	0.364	**0.37**
Cronbach Alpha (Reliability Coefficient)	*0.789*	*0.762*	*0.567*

Source: Fieldwork, 2021

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4.4 Challenges in Assessing Affordable Housing in Sekondi-Takoradi

The study sort to find challenges that respondents encounter in accessing affordable housing in Sekondi-Takoradi. Respondents were asked to express their opinions by enumerating the various challenges that encounter in assessing affordable housing in the Sekondi-Takoradi. Findings from the responses on respondents challenges can be categotised into financial challenges, availability/accessibility challenges and other general challenges.

The financial challenges were made of challenges that relate to cost in assessing affordable housing. Examples include the high cost of rent demanded by landlords/ladies, high cost of rental agencies, difficulties in getting funds to pay for rents, difficulties in even getting rental agents, high cost of land and building materials.

The availability/accessibility challenges include difficulties in getting land (problem-free land), difficulty in getting reliable and credible rent agents in Sekondi-Takoradi and getting a room to rent in Sekondi-Takoradi. Respondents indicated that searching for a room to rent in the locality is very difficult since renters do not readily know places where there are vacancies. Respondents stated that some vacancies identified later turn out not to be worthwhile since the place is either too small or conditions not favourable. This relates to the housing deficit of the country thus making affordable housing access and availability very difficult for respondents. The 2000 and 2010 population and housing census of Ghana has reported that there is a housing deficit in the country of which Sekondi -Takoradi is not an exception. This challenge affirms the findings of the population and housing census as well as other studies reported by ISSER in 2013.

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General challenges constitute the ones related to proximity challenges, poor infrastructures like land acquisition challenges, landlord litigation, roads to the residence, good drinking water, security issues in the locale, shared facilities in residences and transportation challenges. Some respondents indicated that housing that was affordable to them either were far from their workplace, schools to their children and health centres in the community. Social amenities like good drinking water, motorable roads and reception were not in their best good in a place that they good afford. The Bank of Ghana (2007) indicated that the lack of secured and transparent access to land title, land administration complexity were the challenges that rival the housing in the country which affirms the general challenges identified in this study.

4.5 An Empirical Explanation of the Results in relation to the Control Framework

Housing affordability among public sector worker in Sekondi-Takoradi Metropolitan Assembly is a function of strategies used in accessing affordable housing, the determining factors and challenges influencing the choice of housing affordability. This function is impacted by the legal and regulatory framework of the housing market that ensures the effective coordination of these relationships can ensure public workers assessing affordable housing is shown in Figure 5.
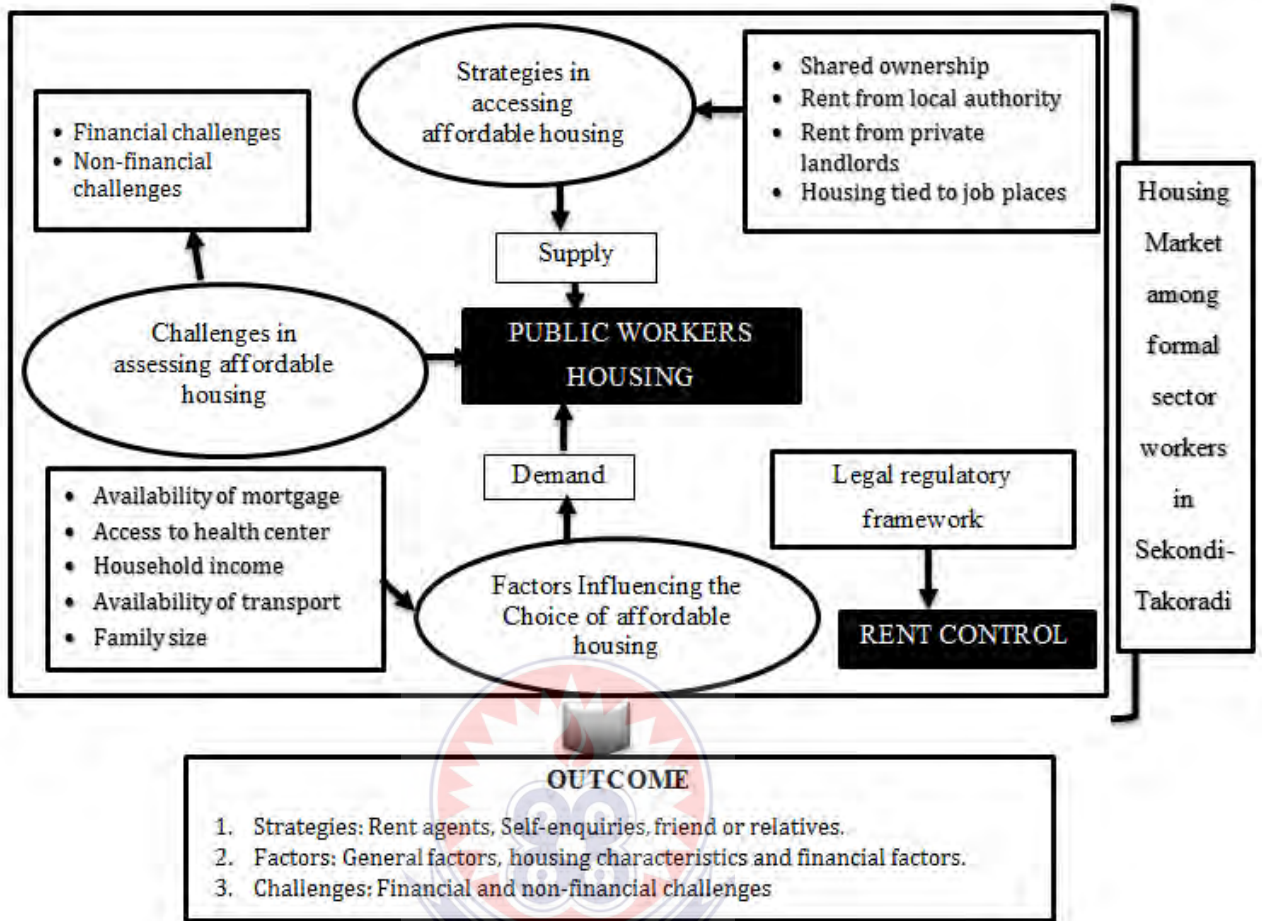
71

Figure 5: Empirical explanation of Acioly, 2011 concept of housing control framework.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Overview

This chapter presents a summary of the results and findings from the discussions. Conclusion and recommendations from the study are presented in this chapter.

5.1 Summary

The research is centred on affordable housing among public sector workers in the Sekondi-Takoradi in the Western region of Ghana. Specifically, the study examined the strategies used in accessing affordable housing, the determining factors and the challenges that respondents encounter in assessing affordable housing in Sekondi-Takoradi. The study adopted both quantitative and qualitative approaches with the quantitative addressing the strategies and choices of affordable housing while their challenges were qualitatively collected using a developed questionnaire. The target population were public sector workers in the Sekondi Takoradi.

A total of 250 public sector workers responded to the developed questionnaire with 137 of them being males and 113 being females. About 40% of them have lived in Sekondi Takoradi for more than 15 years whereas the majority of them were of the Christian faith. 86.4% of the respondents had permanent residential status whiles 62.0% of the respondents rent from a private landlord/lady.

The findings indicate that 80% of the public sector workers use their savings or money to finances their residence. It would be interesting to know that, most of the public sector workers acquired their residence through self-enquiries in their

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communities. They had to search by asking around the neighbourhood for vacant places to rent for themselves depending on how affordable it was to them. This was followed by aid from friends and relatives helping them in acquiring their residence. Rent agents and other means also followed in helping them access affordable housing in Sekondi Takoradi.

The most influential factor for public sector workers in choosing their affordable housing in Sekondi Takoradi a General Factor (i.e., accessibility, financial and housing characteristics), followed by Housing characteristics and lastly the financial factors.

The study also revealed that the challenges that public sector workers encounter in accessing affordable housing in Sekondi-Takoradi were financial, availability/accessibility and other general challenges.

5.2 Conclusion

Based on the findings and results, the following are the conclusions drawn from the study. Firstly, most public sectors workers sampled in the Sekondi-Takoradi metropolis live in a rented house from private landlord and landlady in the community with a few of them having their accommodation from their jobs. It is also worth noting that the majority of them finance their affordable housing using their savings and with just a few of them resorting to mortgages, informal loans and other means of finances.

Furthermore, respondents indicated that they did self enquires in their neighbourhood and community in their quest for a place to rents while some relied on friends, relatives and rent agent to access affordable housing.

Moreso, it is also worth noting that respondent choice of affordable housing was most influenced by the general factor (accessibility, financial and housing characteristics factors) followed by housing characteristics and lastly the financial factors. Respondents indicated that there were both financial and non-financial challenges that they faced in accessing affordable housing in the Sekondi-Takoradi metropolis. It is worth noting that these challenges include high cost of rent, high agent cost, high cost of building materials and land whereas difficulties in getting reliable and credible rent agents, available problem-free lands, housing closer to social amenities were some of the non-financial challenges.

5.3 Recommendations

The following recommendation can be made about the findings obtained in the study;

1. Public sector agencies should assist their employees by building enough apartments to accommodate them.

2. Rent allowance and other benefits should be given to public sector workers.

3. Government should build enough affordable houses to be purchase only by public sector workers.

4. Government should provide an interest-free loan to the public worker to build their apartment.

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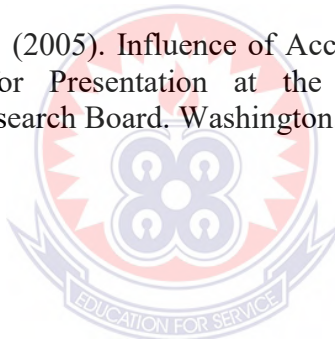
APPENDICES

APPENDIX:QUESTIONNAIRE

UNIVERSITY OF EDUCATION, WINNEBA
DEPARTMENT OF GEOGRAPHY EDUCATION

This study is being conducted by a Master of Education in Geography student of the Department of Geography Education of University of Education, Winneba. The purpose of the study is to find strategies used in accessing housing and the factors influencing the choice of affordable housing by public sector workers. It would be very much appreciated if you could spare some time to respond to the questionnaire. I wish to assure you that, all information volunteered for this study will be treated confidentially. It shall be used for the study only.

Thank you.

SECTION A: BACKGROUND INFORMATION

Kindly tick (√) or specify as appropriate

1. Gender

    a. Male [   ]   b. Female   [   ]

2. Age

    a. 30 or less   [   ] b. 31 – 35 [   ]   c. 36-45 [   ]

    d. 46 – 55   [   ]   e. 56 and older [   ]

3. Number of years of staying in Secondi Takoradi

    a. Less than a year [   ]   b. 1 – 3 years   [   ] c. 4 – 6 years   [   ]

    d. 7 – 9 years   [   ]   e. 10 – 15 years [   ]   f. Longer than 15

years   [   ]

4. Religious affiliation

    a. Christian [   ] b. Muslim   [   ]   c. Traditionalist   [   ]   d. other [   ]

5. Highest Educational Qualification

    a. Primary/Basic School [b. Senior High [   ]   c. Tertiary [   ]

    d. Other (specify): …………………………………………………………….

6. Employment Type:

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a. Self Employed/ Entrepreneur [   ]   b. Permanent Employee [   ]

c. Contract Employment Basis [   ]   d. Unemployed [   ]

7. Current Location……………………………………….………………

8. Profession of Respondent …………………………………………..

9. Are you a permanent resident in   Sekondi-Tarkoradi?

a. Yes   [   ]   b. No   [   ]

10. Are you

a. House Owner [   ] b. A renter [   ]c. Guest/ Visitor   [   ]

11. What is your current status of housing tenure?

a. Owned outright [   ] b. Shared ownership   [   ]   c. Rent from local

authority   [   ] d. Rent from a private landlord [   ]   e. Housing tied to

job   [   ]   f. Other ……………….

12. How long have you and your household lived in this dwelling?……years, months

13. How did you acquire your current dwelling?

a. Through a Rental Agent   [   ]   b. Self-enquiries   [   ]

c. Through friends or relatives   [   ]   d. other………………..…….

14. How did you finance to occupy your current dwelling?

a. Mortgage [   ]   b. Personal Savings or Cash   [   ]   c. Informal Loan

[   ]   d. Other …………………………………

SECTION B: FACTOR INFLUENCING CHOICE OF AFFORDABLE HOUSING

Please tick (√) only one of the options regarding your level of importance to the statements given on the following scale; least important=1, Less Important=2, Slightly Important=3, Important=4, and Very Important=5.

No.	Items	1	2	3	4	5
1.	Access to child daycare centre and school					
2.	Access to health centres					
3.	Accessibility to working place					
4.	Aesthetic views					
5.	Availability of mortgages					
6.	Availability of public transportation					
7.	Building location					
8.	Crime					
9.	Economic trends					
10.	Family size					
11.	Household income					
12.	Interest rates					
13.	Location of the shopping mall or market					
14.	Number of bathrooms					
15.	Number of bedrooms					
16.	Proximity to government establishment					
17.	Taxation influence					
18.	Type of building					
19.	Presence of parking area					
20.	Unit size					

SECTION C: CHALLENGES

What are some of the challenges you went through in accessing your dwelling?

………………………………………………………………………………………

………………………………………………………………………………………

………………………………………………………………………………………