SPATIAL PATTERN OF RESIDENTIAL SEGREGATION IN ZARIA METROPOLIS NIGERIA

BY

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DECLARATION

I declare that the work in this dissertation '**Spatial Pattern of Residential Segregation in Zaria Metropolis Nigeria'** has been carried out by me in the Department of Geography, Faculty of Physical Sciences, Ahmadu Bello University, Zaria. The information derived from the literature has been duly acknowledged in text and list of references provided. No part of this dissertation was previously presented for another degree at this or any other institution.

HALIDU Raliya Mahmud ....
Signature Date

CERTIFICATION

This dissertation titled "**Spatial Pattern of Residential Segregation in Zaria Metropolis, Nigeria"** meets the regulations governing the award of Masters of Science of Geography of Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This work is dedicated to my parents Alhaji Mahmud Halidu and HajiaKarimatu M Halidu.

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Thanks to Almighty Allah for giving me strength and ability to understand, learn and complete this study. Alhamdulillah.

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ABSTRACT

The Northern Nigerian region has been for time immemorial characterised by one form of residential segregation or the other. This segregation could be on the bases of religious, educational, income and occupation, all these have contributed to shaping the nature of towns and cities in Northern Nigeria. This study examines the spatial pattern of residential segregation in Zaria Metropolis, Nigeria and the objectives are to analyse the factors influencing residential segregation, assess the impacts of residential segregation and to map and identify the patterns of residential segregation in the study area. In conduct of the study data was sourced through both primary and secondary sources. Questionnaire was the tool for primary data collection. Purposive sampling technique was adopted in selecting 10 morphological units within Zaria metropolis namely, Kwarbai, Tukur-Tukur, Chikaji, Hanwa, Muchiya, Kufena, Samaru, Dogarawa, Gyallesu and Tudun Wada. On the other hand, respondents for the study were selected via systematic sampling technique at every 6^{th} interval. Yamane formula for determining sample size was used to arrive at 400 respondents. Data for the study were analysed within the SPSS environment using descriptive statistics mostly frequencies and percentages. Major finding of the study reveals that Zaria Metropolis is segregated on socio-cultural factors. Religion accounts for the highest form of segregation (55%), Economic consideration (26%) and security (12%) were adjudged the other reasons for residential segregation in the area of study. Analysis of data with respect to the pattern of segregation based on religion shows that Muslims were the majority of the inhabitants in areas such as Kwarbai (98%), Tukur- Tukur (92%), Chikaji (90%), Hanwa (92%) and Muchiya (73%). On the other hand, Christians were the dominant at Kufena (86%), and Samaru (52%). The study clearly shows that religion and ethnicity are the major determinants of residential segregation in the Zaria Metropolis. The study recommends among others, the need to imbibe the spirit of peace and harmony so as to boast mutual understanding and religious tolerance in the society. These should be spearheaded by all the stakeholders such as religious and community leaders, governments and non-governmental organizations to ensure peaceful and mutual respect for one another.

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CHAPTER ONE

INTRODUCTION

Background to the study

Residential segregation is a widely researched urban phenomenon in both developed and developing countries. The discourse exercise in this area has led to a prolific body of literature including the development of scientific measures of segregation (K'Akumu and Olima, 2007). Residential segregation is a form of separation that sorts population groups into various neighbourhood context and shapes the living environment and social space at the neighbourhood level. The residential neighbourhoods are often classified and segregated based on a variety of peculiarities.

Residential segregation has been defined in different ways by several authors in various disciplines. For instance, Kemper (2000) defines residential segregation as the spatial separation of population sub-groups within a given geographical area such as a large city. Such sub-groups can be formally defined in terms of age, occupation, income, place of birth, ethnic group or some other measures like race or religion. In a similar definition by Cundiff and Hudson (2002) residential segregation is seen as the spatial concentration of population groups. In line with this, Acevedo-Garcia et al (2003) reported that available evidence indicates that segregation by race/ethnicity is stronger than segregation by income.

However, Landrine and Corral (2009) referred to residential segregation as the geographical separation of whites from ethnic minorities in residential areas. Williams and Collins (2001) define residential segregation as the physical separation of the races in residential contexts. Aliyu, Salihu, Rozilla and Mohammad (2012) opined that, it is the process where two or more

communities that formerly lived together separate because of some factors. This could be because of either religious or ethnic reasons.

In the United States, for instance, the segregation of African-Americans is distinctive. Although most immigrant groups have experienced some residential segregation in the United States, no immigrant group has ever lived under higher levels of segregation that currently exist in the African-American population. In the early 20th century, immigrant enclaves have been never homogeneous to one immigrant group. In most immigrant ghettos, the ethnic immigrant group after which the enclave was named did not constitute a majority of the population of that area, and most members of European ethnic groups did not live in immigrant enclaves.

In Africa, the segregation of the natives from the Europeans came about through colonisation. Segregation was said to be suggested in 1897 (as a general health measure) when mosquitoes were discovered to cause malaria (Gale 1980). However, it was not adopted until 1908 due to the outbreak of the plague in Accra (Ghana). A disease reported to have claimed the lives of six million people in India between 1898 and 1907. The Colonial Office thus saw the introduction of the disease as a threat; hence, in 1910 it gave them more grounds to enforce segregation. Gale (1980) however opined that there were other important factors that made segregation popular in Northern Nigeria. The people in that region had no prior contact with the Europeans thus there were no merchants or professionals who could speak English. Social contact was so difficult thus leading to a more formal and distant type of relationship between the two groups.

Although Nigeria as a whole is experiencing rapid urbanization, individual cities have unique peculiarities in terms of histories and characteristics. A brief survey of this diversity will provide a more nuanced understanding of Nigerian cities. Nigeria provides diverse examples of historical urban development. A useful distinction that could enhance our understanding is

the classification of the cities into indigenous and non-indigenous. This distinction basically refers to the development or emergence of city relative to the colonial period. By implication, indigenous cities are those which originated prior to the period of the British colonial rule while those planned and constructed during the colonial period (1900-1960) are non-indigenous.

The residential pattern that existed in pre-colonial Nigerian cities was altered by the advent of British colonialism. The urban political structure of the colonial era was completely different from that of the pre-colonial era. The European administration led to the creation of new settlements in Northern Nigeria called the "*Sabon Gari"* (that is new town in Hausa Language) which was first established in Kano around 1911. At this time, Kano was already an Islamic city and was populated by the *kanawa* (the indigenous Kano people). These settlements were established to house servants and labourers of the Europeans, and non-natives of the North. Edewor (2011) reported that prior to colonial rule there was a heterogeneous form of settlement (there were people of various tribes and nationality living together) in the Northern Nigeria (for example in Kano) where citizenship was based on residence and occupation. However, the British resolved to put an end to this residential pattern. Spatial, legal and psychological boundaries between social, ethnic, or racial categories were imposed to enforce a clear division between so-called races and ethnic groups to make these categories visible, in everyday life.

The Sabon Garisettlements are now found not only in the northern Nigerian cities but also in the southern Nigerian cities and their peculiarity derives from their unique demographic composition, social orientation and religious characteristics. The Sabon Garisettlements in the Hausa-Fulani dominated northern Nigerian cities are inhabited by southern Nigerian migrants while those in the Yoruba dominated south-western Nigeria are domiciled by the Hausa Fulani settlers (Albert, 1993). Its abridged version, *Sabo,* became popular in south-western

Nigeria and they are found in such Yoruba cities as Ibadan, Ijebu-Ode andSagamu. In Igbo dominated eastern Nigeria, the Hausa-Fulani settle in the '*Abakpa* Quarters. These are, however, stranger settlements established by the strangers themselves through their continuous aggregation in given locations within the urban system. They are, however, patterned after the "Sabon Gari*"* settlements, which were established during the colonial era.

In Zaria, during the first decades of colonialism, heterogeneous population of migrants sprang up outside the city walls, in the present site of Sabon Gari. It was populated by the people from different parts of Nigeria, who had come to Zaria as a result of the railway and cotton ginnery. Some of the indigenes of Zaria even came and settled there (Edewor 2011). However, by early 1920s the British began to entertain some fears. They envisaged that this community of diverse people might create a situation that would not be in their (the colonialist's) interest. They felt threatened by the existence of this heterogeneous population domiciled in Sabon Gari. Consequently, they issued an order stating that Muslims must not live in Sabon Gari. They also enforced the regulation that non-indigenes could not live in Zaria old city. At the same time, the British reserved for themselves the European Reservation Area now known as the Government Reserved Area (GRA) (Perchonock, 1994). Eventually, the residential pattern of Zaria metropolitan area came to be a totally segregated one, dividing the indigenes from non-indigenes, Christians from Muslims, and the Europeans from Africans. This was a completely different picture from what obtained in the pre-colonial period in which everyone, regardless of ethnic origin had settled within the city walls (Edewor 2011).

Residential segregation give rise to a kind of structure which made conflict between the different separate communities that had been created inevitable. This was essentially because the cities were characterized by a hierarchy of citizenship rights, in which some individuals had more opportunities and more access to societal resources than others. This situation

perfectly suited the needs of the colonial power that sought to keep Nigerians internally divided so that they could not present a united front against colonial oppression. The strategy was very successful but it created problems which are still much part of Nigerian life some four and half decades after independence and they continue to perpetuate the interests of neo-colonialism (Edewor 2011). Some of these issues are the focus of this study which focuses on Zaria.

Statement of the Research Problem

Social Scientists have long studied patterns of racial and ethnic segregation because of the close connection between a group's spatial position in society and its socioeconomic well-being. Opportunities and resources are unevenly distributed in space; some neighbourhoods have safer streets, higher home values, better services, more qualitative educational facilities, and more supportive peer environments than others. As people and families improve their socioeconomic circumstances, they generally move to gain access to these benefits. In doing so, they seek to convert past socioeconomic achievements into improved residential circumstances, yielding tangible immediate benefits and enhancing future prospects for social mobility by providing greater access to residentially determined resources.

Research have been conducted on the dynamics and consequences of racial residential segregation in Europe and US metropolitan areas. Van Hamand and Clark (2009) explored in-depth the influence of race on residential segregation, relocation and mobility. However, the findings of such studies could not be generalised as they only employed limited number of sample data which is not enough to draw inferences and conclusion.

In the same vein, other scholars established that intangible attributes of location like ethnic background, skin colour, income differentials, social prestige and social status are the main points of contention that lead to residential segregation.Researchers that advance the above claim include Clark (1991), Telles (1992), White, Robert and Shilian (1994), South and

Crowder (1997), Bayer, Robert and Kim (2001), Iceland, Weinberg and Steinmetz (2002), Krysan and Farley (2002), Charles (2003), Mare and Elizabeth (2003), Bailey (2004), Bruch (2006), Anas (2006), Cheshire (2007). Galster and Cutsinger (2007) and Howley (2009). Their findings, however, could not be applicable to Nigerian settings as the tools employed for data collection and analysis in their researches are much more appropriate to European setting. Looking at the above findings of previous researchers, it could be realised that few researches were conducted on the implications and consequences of residential segregation, which include cultural identity, native inclination, safety, socioeconomic background, security and frequency of violence, religious inclination, ethnic background, indigeneship and the likes as having great implication on residential relocation, segregation and mobility.

Recent researchers such as Iceland, Daniel and Hughes (2014) studied the residential segregation of detailed Hispanic and Asian groups in the United States between the period of 1980-2010. In the study, they examined the segregation of several Hispanic ethnic groups. The study gauged the separation of each group from several alternative reference groups using two measures over the period. The analyses indicate that pan-ethnic segregation indexes do not capture the experience of specific groups. The overarching trend is that ethnic groups are becoming more residentially integrated, suggestive of assimilation though there is significant variation across ethnic groups.

Salihu, Rozillah and David (2015a) in their work; 'An evaluation of factors influencing residential segregation in selected Areas of Bauchi Metropolis in Northern Nigeria found that the main factors influencing residential segregation in the study area are individual and aggregate socio-economic characteristics and individual preference choice of neighbourhood.

Another study by Salihu, Rozilla and David (2015b) reviewed residential segregation and its consequences in Nigeria. Residential segregation in Nigeria was reviewed in phases that is during the pre-colonial, colonial and post-colonial era. The paper identified socio-spatial

division of households by income, inaccessibility of the poor to affordable housing and also ethno-religious conflicts as the main consequences of residential segregation in Nigeria.

Furthermore, irrespective of personality an individual has in a given society, residential segregation ignores his political, social and economic influence due to the fact that he is being sidelined (Van Ham and Clark, 2009). Dwelling and habitation in distressed neighbourhoods whether knowingly or unknowingly have great implication for the mobility of present and future generation yet unborn, as it excludes an individual from having many opportunities in his daily life. An individual who lives in segregated neighbourhood encounters many obstacles like benefiting from the social amenities, educational quality, white-collar job, safety, prestige, security, quality of social network, participating in politics and the likes. However, the findings of the past researchers have some discrepancies as they only looked at race as the main indicator of residential segregation. They underestimate other intangible or invisible attributes of location which also play a significant role in ascribing value to land and landed properties. Furthermore, their research is based on US context which has different cultural setting as compared to Africa in general and Nigeria in particular.

According to Muhammad (2007), Dung-Gwom and Rikko (2009), and Ostien (2009), the key factor that brought about residential mobility and segregation in Jos town could be summarised as: political control of Jos North local Government Council, indigene certificate, fear of political and economic domination, creation of Jos North, competition to control scarce resources, indigene and settler issue and appointment of traditional ruler (Gbong Gwom) in Jos. Unlike other researchers who looked at other indicators as the main determinants of residential segregation, in Jos town, the aforementioned reasons formed the basis for residential segregation. The Christian natives of Jos are afraid of being dominated by the Hausa/Fulani Muslims while the Hausa/Fulani Muslims feel that they are being marginalised in all governmental activities in spite of their habitation in Jos for many years.

In recent times ethno-religious crisis has led to residential separation along ethnic and religious lines, Gambo and Mirin (2012) studied ethno-religious conflict and settlement patterns in selected cities in Northern Nigeria (Zaria inclusive) where they reported that the outbreaks of religious violence have a great impact on settlement patterns in the town thus leading to the creation of such settlements along religious and ethnic lines in order to safeguard lives.

Similarly, Aliyu, Kasim, Martin, Diah and Ali (2012) on the other hand, in their study revealed the influence of intangible location factors (such as cultural identity, native inclination, safety, socioeconomic background, security, frequency of violence, religious inclination, ethnic background, indigeneship) on residential segregation in Jos, Plateau state. The study uncovered that residential segregation in Jos was greatly influenced by these factors, and this has led to change in the residential pattern of the town. The variations and trends in the sales and rental value of residential properties were said to be greatly affected by persistent residential segregation in Africa.

Although many researchers studied residential segregation and settlement patterns in some northern Nigerian states, based on accessible works little has been published on residential segregation in Zaria metropolis. It is in the light of the above that this work examines the pattern and factors responsible for residential segregation in Zaria metropolis. Zaria metropolis has witnessed increased population. This population is heterogeneous in composition with people from different socio ethnic, cultural, religious backgrounds. They are also economically different based on income and other yard stick of measurement. In the not too distant past, the sharp difference in residential segregation is not noticed but recently it is appearing discernible. Thus there is the need to conduct a research on the spatial pattern

of residential segregation in Zaria Metropolis. This research attempts to answer the following questions;

1. What are the factors responsible for residential segregation in Zaria metropolis?
2. What is the spatial pattern of residential segregation in Zaria metropolis?
3. What are the impacts of residential segregation in Zaria metropolis?

Aim and Objectives

This study is aimed at examining the spatial pattern of residential segregation in Zaria metropolis with the view to understand the spatial structure and the dynamics responsible for the nature and pattern of the different morphological units within the metropolis. The objectives of the study are to:

i. analyse the factors influencing residential segregation in the study area;
ii. assess the impacts of residential segregation in the study area;
iii. identify and map the patterns of residential segregation in the study area;

1.4 Justification for the Study

The study issignificant to understanding inequality in urban areas. It will also increase awareness and documentation of ethnic and religious disparities. Therefore, continued exploration of residential segregation is clearly warranted. Combining information on personal experiences of discrimination with indicators of neighborhood population composition and residential segregation would allow examination of whether residence in primarily minority neighborhoods suffers perception of discrimination.

Studying segregation explores various minority groups have similar effects on residential segregation outcomes. By understanding the complexity of residential segregation, policy makers can effectively construct strategies to minimize the negative consequences and to

enhance the positive impacts of living in segregated neighborhoods. Therefore, this study will hopefully help to elucidate thresholds above which segregation may have a detrimental effect on health outcomes.

1.5 Scope of the Study

The scope of this research covers Zaria metropolis. The spatial extent of this research study covers some selected neighbourhoods in both Zaria and Sabon Gari Local Government Areas; Kufena, Kwarbai A, Tudun Wada, Tukur Tukur and Gyallesu are selected from Zaria Local Government Area, while Chikaji, Muchiya, Hanwa, Samaru and Dogarawa neighbourhood were chosen from Sabon Gari Local Government Area. The knowledge extent of this research is to examine the spatial pattern of residential segregation in Zaria metropolis and the temporal extent of the study covers a period of 20 years that is, from 1996 to 2016.

CHAPTER TWO

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

2.1 Introduction

This chapter reviews existing literature related to the study on residential segregation conducted by different scholars around the world. The chapter also discusses the conceptual framework adopted by the study.

2.2 Conceptual Framework

2.2.1 Evolutionary Theory of Residential Segregation

This study abstracts some explanations which play significant roles in the study of residential segregation. Residential segregation that resulted from economic factors was an interpretation

of anthropological, cultural and social perspectives and was a synthetically result involving the effects of historical, institutional, economic, social and other aspects.

In retrospect, the study of isolation based on the human ecology was proposed by Robert Parker (1920). He points out that the isolation results from the different abilities of human beings to deal with competitiveness, especially which the economic isolation is the most important and common form of isolation, such as language, race or culture, can be attributed to the appropriate economic level (Park, McKenzie & Burgess, 1925). Burgess (1925) provided an example of residential segregation with a concentric pattern that upper-class families had a trend to live away from the city centre, demonstrating that the distance from a residential area to the CBD depends upon the wealth level of this area. This theory is known as concentric zone model.

Along with the in-depth study of human interaction after 50 years, Timms interprets the residential differences through social value and points out that it is a strategy that people choose the residential and migration places, in order to narrow the distance between the reality and expectation of their classes, and thereby keep away from the classes which they want to leave (Timms, 1971). Not only is the theory of isolation an economic issue, but also an evaluation of cultural and social identification. As a consequence, there is a "Micro cultural circle" which existed in the clusters of ethnic groups, including residents of different income groups.

It is demonstrated that urban space results from the value, cultural and social competitiveness from different social roles after the 1980s (Castells, 1983). This competence of social roles contributes to the development model, public policy and welfare, as well as urban renewal, leading to the causes of isolation which transform from a single economy and culture to a

more complex system. For example, Musterd (2005) highlights that it is required to interpret the isolation of race and sociospatial characteristics with a multi-dimensional logic based on the different welfare systems and public policies (including public residence, employment opportunities, housing information and transportation systems, etc.), economic factors, different views on immigration, as well as the historical land use (Musterd 2005). According to Peach (1999), only 5% and 10% isolation of Blacks and Bangladeshi in London could be explained by social class. Compared with Barcelona, there was less spatial segregation in Amsterdam where there were more social dwellings and stronger national welfare (Musterd and Fullaondo, 2008). It can thus be suggested that the reasons of residential segregation are required to be analysed by a broader social dimension, rather than the discrepancy of economy and culture.

2.2.2: Concept of Residential Segregation

Residential segregation generally is defined as the degree of distribution of a specific group within a specific physical region. Park (1926) who firstly defines residential segregation said that there was a link between the geographical distance and the social distance. Sabatini and Cerda (2001) believed residential segregation was the range of dimensional distance or concentration of the identical group or class in respect of demographic, economic or vocational characteristics. Thus it can be seen that for the definition of residential segregation, there is no single answer. Even now, the most widely accepted definition is given by Massey and Denton. They classify residential segregation into five dimensions, namely, exposure, evenness, centralisation, clustering and concentration. The main contribution of their theory covers all aspects that other research and literature have included. With reference to Massey and Denton (1988), the five dimensions are as follow:

- Evenness: describes groups' distribution discrepancy over geographical units within a city based on census records. If all geographic units in a city have the same minority group population proportion, the evenness of the unit will be maximised while segregation will be minimised. If the populations of a minority group in different geographical units vary a lot, this group tends to be segregated. For example, if a minority group makes 20% population of the 16 city as a whole and it wants a full evenness, all geographical units must have 20% population proportion.
- Exposure: means the degree of potential interaction or communication, within a geographic area or city, between a minority group and the other population. Exposure is inherently different from evenness, because exposure has nothing to do with the group's size, while evenness does.
- Concentration: is to measure how much physical space that a minority group occupies in certain areas within a city. If a group only occupies a relatively small area, it will be segregated.
- Centralisation: describes how close a minority of population lives to the city centre.
- Clustering: measures the level of a minority group's agglomeration in the unbalanced contiguous areas they live. Clustering and concentration look similar but are indeed different. Clustering is considered when the minority group lives in two contiguous census tracts, while concentration is considered when we don't take into account the contiguity of two census tracts where the minority group lives.

2.3 Literature Review

2.3.1 Causes of Residential Segregation

According to Royuela & Vargas (2010), reasons for residential segregation can be suggested to be categorised into two types, that is, internal and external reasons. Internal reasons result

from mutual effect of individual essence, limitation and predilection, while external reasons are the outcome of exterior environment which is not relevant to individual intrinsic quality. Specifically, internal reasons include two categories: income level and their willingness to live within the same group. Income level is the most popular and facile to be noted. Their willingness to live within the same group is the driver of residential segregation on the basis of ethnic group, religion, citizen hood and tongue. this can be seen as bias when the desire of people to live within the same group is strong. The external reasons also could be categorized into two groups: the public policy motive and housing market impetus. As practicedby some western countries, the side effect or direct effect of public policy can give rise to residential segregation on purpose or on accident. In Meens (2005) point of view, housing market impetus is one of the key factors to comprehend the course of residential segregation.

2.3.2 Adverse Impacts of Residential Segregation

Given that birds of all feather flock together, it has become clear the aggregation and segregation of a particular social group which has been a universal phenomenon for decades. However, the relevant theory has not been proposed until 1920 by an American sociologist who emphasises this social phenomenon resulting from the potential social issues regarding worries from the isolated group who lacks social integration (Royuela and Vargas 2010). For example, the weak group which is unable to integrate into normal social life is likely to overreact to society with dissatisfaction and indignation, such as the large-scale riots North African immigrants in France. The solidification and exploitation of social contradictions will be intensified when the space affiliates with the social stratification giving rise to the residential segregation. Precisely, the qualities of the residential areas and infrastructures of the disadvantaged groups affected by their social status would be lower than the city average. In short, these gathering spaces threaten an overall balance of the community.

Due to the negative impact of residential segregation, a study by Wang and Wan (1998) analysed the disadvantages of residential segregation from the perspective of culture and submitted that residential segregation deteriorated urban cultural ecological system that was composed of city, culture and people. Thus,Wang and Wan suggests the government should control the urban land use through the law of land price to settle the continuous development of residential segregation. Wan and Wang (2003) also analysed the social outcomes of residential segregation, and concluded that in order to realize social equity and improve social cohesion and vitality, the government should play a role of regulator and guider in the process of residential segregation, and actively safeguard rights and interests of low income groups during the urbanisation. Liang (2008) held the view that under the context of market mechanism, residential segregation was inevitable. The results of residential segregation were expanding based on class polarization, emerging social issues, increasing management cost and decreasing the city integration. The study proposed mixed inhabitancy pattern in large-scale and gathering in small-scale.

Some scholars hold the views that people should not control residential segregation. Li (1999) pointed out that people would prefer living in the neighbourhood which is in accordance with their social identity. Otherwise, it will lead to a second migration soon if they live in the residential area superior or below their class and also mentioned that planners compulsively arranged different classes within a neighbourhood in order to keep a balance in the society; however, it was more difficult to convince different classes to live in the same neighbourhood. Wan and Wang (2003) proposed that it violated the objective law of city development to arrange people of different occupations and income levels in the same neighbourhood, because there were differences between their values, lifestyle, education and demands of communities. Even living in the same area, it would not promote the frequency

and quality of their mutual communications. Instead, it could do harm to the cohesion, satisfaction and attachment of the community.

2.3.3 Review of available literature on segregation

Prior to the colonial administration in Nigeria there existed no residential segregation based on ethnic or religious lines. The divide and rule policy of the British colonial administrators in Nigeria brought about residential segregation through the creation of *'Sabon Gari'* settlements, which are occupied by the non-natives of Northern Nigeria. A narrative review was made on literature, about residential segregation in some parts of the world. An overview of residential segregation in West Africa are discussed; Literature was reviewed on residential segregation in Nigeria starting from the pre-colonial era, to the colonial and the post-colonial era, and the consequences of residential segregation. The consequences of residential segregation in Nigeria has been to date the main cause of divide along ethnic and religious lines, the colonial policies in Nigeria led to the emergence of residential segregation along socio-economic, ethnic and religious lines which have in turn affected the lives of the Nigerian people in many ways (Edewor 2011).

In the United States, segregation is often associated with the income level of the racial or ethnic group in question. Although many minority groups are segregated, the segregation levels of Blacks are significantly higher than those of other groups. Moreover, Blacks are more likely than other minorities to be hyper-segregated, i.e., to reside in mostly Black neighbourhoods that are surrounded by similar neighbourhoods in the centres of cities (Landrine & Corral, 2009). The segregation of Whites from minorities persists in the US not because the minorities are segregated but because, according to Turner & Fortuny (2009), the interaction of barriers, fears and preferences. White preferences also play a key role, most

whites and minorities would prefer to live in considerably more diverse neighbourhoods than they do (Krysan & Farley 2002).

The persistence of residential segregation in the United States is reported to be perpetuated by both private discrimination practices and through government policies. Leeuw et al (2007) stated that policies and practices of the United States government, as well as state and local governments, have helped to create highly segregated residential patterns across the United States. Many of the government programs and policies are said to concentrate poverty in communities of colour. Private housing treaties also discriminate against African Americans and Hispanics in renting or purchase of homes. Real estate agents restrict the entry of minority groups into white neighbourhoods by steering and restrictive covenants (Sugrue, 2008, Greenstein, Sabatini and Smolka, 2000). The African Americans are usually concentrated in inner city enclaves and public housing regardless of their socioeconomic status, they are less likely to move into areas that are more affluent.

According to Turner and Fenderson (2006), the link between neighbourhood racial and income composition remains the starkest for African Americans; neighbourhoods where blacks constitute the predominant minority group are the most likely to have high poverty rates and the least likely to be occupied exclusively by affluent households. However, contrary to what obtains in the United States and other parts of Europe, the situation of minorities in London differs. In the U.S., minorities are outpaced in suburbanisation by the white population. In London, research has revealed that there is continuing suburbanisation of ethnic minorities and rising home ownership, with a decline in White home ownership in suburban London. The minorities in London were also shown to be concentrated in social and private rented housing in both inner and outer London (Hamnett & Butler, 2009).

In Malaysia, according to Thong (1978) the colonial administrators isolated themselves from the Asians by residing on the hilly west bank of the river Klang which have presently become the residence of the upper echelons of society. In furtherance of this, the colonial policies have led to residential segregation among the lower income Malays and Chinese on the east bank, thus leading to the perpetuation of China town and Malay settlements. This brings to light residential segregation along ethnic and income lines. In a related report by Ramli & Jamaludin (2012), the British colonial "divide and rule" policy was said to be the reason why, the Malays, the Chinese and the Indians were never integrated as one community. The policy geographically segregated these individual communities into three different areas; the Chinese were concentrated in urban areas, the Malays were mainly in rural areas and the Indians were in rubber plantations.

In Africa, residential segregation cannot be discussed without referring to the colonial period. In West Africa, the British colonialist separated their quarters from those of the natives. Edewor (2011) reported that prior to the colonial era there was co-habitation in Nigerian cities among people of various nations, social and ethnic origins. He opined however that the British put an end to that pattern of residence by imposing spatial, legal and psychological boundaries between social, ethnic, or racial categories to enforce a clear division between so-called races and ethnic groups to make these categories visible in everyday life. In a report by K'Akumu & Olima (2007) residential segregation in settler colonies like Kenya, Zimbabwe and South Africa originated as racial segregation policies of the state. Residential segregation of the colonial regimes was instituted and implemented through land policy thereby giving it a spatial dimension; this gave rise to segregation by the state. Several legislations were passed in South Africa but the Group Areas Act of 1950 was reported to be the most

systematically applied. It gave the government power to demarcate where each racial group could live and own property and control all property transactions between different racial groups.

2.3.3.1 Residential segregation in colonial West Africa

The practice of housing segregation in British West Africa was not part of the general pattern of racial segregation practiced in other British colonies. Gale (1980) reported that the system practised in West Africa was mainly as a result of the outbreak of plague and yellow fever epidemics in 1908 and 1910 which necessitated the medical authorities to recommend residential segregation as essential to safeguarding the lives of the European officials. The policy of segregation was the most resented features of the colonial rule and the Africans disapproved the heavy investment of their tax money in providing reservations and bungalows for the Europeans, the removal of well-to-do Africans from their large homes, and the absolute neglect of the local towns.

Segregation had not been practised in West Africa in the 19th century although it was the practise by the British colonial masters. People on the coastal areas of West Africa mingled easily with the British since the 15th century. The discovery of the mosquito as the vector for malaria in 1897 led to the recommendation of segregation as a preventive measure. In 1898 the Royal Society through its Malaria Investigating Committee recommended that the Europeans should be segregated from the natives because it was viewed as the only way of preventing malaria. They were further reported to have said that the native children were the primary reserves for malaria, and since there were limited resources at the disposal of the Europeans to prevent malaria, the most feasible option was to segregate Europeans from the natives. Many governors at that time realised the danger of such policy and they were able to enforce other health measures until 1910. Governor William MacGregor of Lagos opposed

such policy on health grounds. Being a medical doctor and a British health official, he advocated that the Europeans remain among the natives (believing that with separation on colour bias the source of contamination will remain) and employ ways of eradicating the disease (and mosquitoes) permanently. He also opposed it on humanitarian grounds believing that it will lead to social problems and he wanted no racial problems in Lagos. Macgregor's health program involved the eradication of mosquitoes, free distribution of quinine and introduction of hygiene and sanitation courses in local schools (Edewor, 2011).

Although the European death rate was reported to have decreased around 1910 with the adoption the health program, segregation schemes were still adopted. The Hill Station above Freetown was completed between 1900 and 1910 in spite resistance from two past governors on the movement to the station. The first event that necessitated the adoption of segregation was the outbreak of the plague in 1908 in Accra, Ghana. The disease was said to have claimed the lives of over six million people in India between 1898 and 1907. The principal medical officers of the British West African colonies called for the segregation of the Europeans from the natives and recommended that 400 yards' distance from native towns be adopted. However, the event that absolutely made segregation enforceable was the outbreak of the yellow fever in Sekondi, which claimed the lives of nine Europeans. The most reported conflict over the adoption of segregation between the European officials and medical officers were those over Gambia, the Gold Coast and Northern Nigeria. The adoption of the scheme in Gambia began in 1913 and it resulted in the removal of well-to-do Africans from their Clifton-Marina Road area in Bathurst. They were relocated to the land reclaimed from the edge of the large un-healthy Half-Die swamp. In the Gold Coast the segregated areas selected were Kumasi, Sekondi, Dunkwa, Tarkwa, Axim, Cape Coast, and Winneba. The officials had by 1914 built enough bungalows for the occupation. All these projects were at the expense of

the natives. Although the then governor of the Gold Coast Sir Hugh Clifford strongly opposed segregation on social grounds and argued that it was unfair to lavishly spend the tax money-which was largely collected from the natives-on the European officials. He was however not successful in his fight.

In Northern Nigeria the medical officers in that region were reported to be more conservative, the type that would want to live in separate quarters from the natives, and the natives had no prior contact with the Europeans. There was no social contact between the two groups thus a formal and distant relationship developed between them. The Muslims were particularly said to be more pleased with the Europeans living separately because they feared that they may adulterate their religion. Segregation in this region and the Northern part of the Gold Coast were said to be less offensive than those of Freetown and Lagos. The medical officers in Northern Nigeria wanted Africans that were non-natives of the land to live in their own separate areas so that they do not enjoy a commercial advantage over the Europeans in the area. This act of the officials was what led to the realisation of new towns popularly known as the *Sabon Gari.* In 1911 a standard plan was developed in Nigeria having three categories of towns which contains: European cantonments or stations which was exclusive of any Africans, alien towns near the cantonment which would contain non-native traders, missionaries, and other immigrants, and regular native towns. The European stations were to be 'garden cities' having a European standard of living. Minna was one alien of the towns. These events are the genesis of the present pattern of residential settlements in Nigeria and other African countries.

2.3.3.2 Residential segregation in pre-colonial Nigeria

The region of Nigeria was predominantly rural in the pre-colonial era. This is not, however, to suggest the absence of cities in the region at that period. Indeed, such Nigerian cities as Ibadan and Kano were among the largest cities in the continent of Africa at that time. Many

of the cities had long been in existence before the advent of colonialism. The city of Kano, for example, had existed for at least 900 years before the British colonized Nigeria. Similarly, Benin City has a long history (Edewor, 2011).

Nigeria has a long history of urban development particularly in the northern and southern parts where a substantial number of the cities existed centuries before the advent of colonial rule. Nigeria provides diverse examples of historical urban development. A useful distinction that could enhance our understanding is the classification of the cities into indigenous and non-indigenous (Edewor, 2011).

This distinction refers to the development or emergence of a city relative to the colonial period. By implication, indigenous cities are those that originated prior to the period of the British colonial rule while those planned and constructed during the colonial period (1900-1960) are non-indigenous. Kano is an indigenous city. It traces its origin to the era much before the arrival of the British, approximately 1000 A.D. and it is among the oldest continuously occupied cities in the whole of sub-Saharan Africa. However, it was not until the 14th century that it developed its Islamic character, after the coming of Islam. With the consolidation of Islam, Kano became a major terminus of trans-Saharan trade and this supplemented its role as a centre of Islamic teaching and education. Like other northern savannah cities, Kano grew within city walls. The main market, the government buildings and the central mosque were located at the centre. The houses of the rich and powerful then clustered around them found away from this core were smaller markets and denser housing, and with the little markets at the gate of the city. Groups of craft manufacturers as blacksmiths, cloth dyers, weavers, potters and the like were organised in to special quarters.

These crafts were often family-based and they were inherited. Thus, residential differentiation was based on crafts and some degree of occupational specialization.

The residential pattern that existed in pre-colonial Nigerian cities was altered by the advent of British colonialism. Prior to that time, there was a form of cohabitation among people of various nationals, social and ethnic origins. However, the British resolved to put an end to this residential pattern. Spatial, legal and psychological boundaries between social, ethnic, or racial categories were imposed to enforce a clear division between so-called races and ethnic groups to make these categories visible in everyday life (Edewor, 2011).

2.3.3.3 Residential segregation in colonial Nigeria

The urban political structure of the colonial era was completely different from that of the pre-colonial era. Be it in the indigenous cities like Kano, or in the non-indigenous or new ones like Jos, residential segregation was the norm and it was based on religion, ethnic origin and race. The *Sabon Gari* system in northern emirate cities was the epitome of this British-imposed policy, based on the principle of divide and rule. For example, the settlement known as *Sabon Gari* (which means 'new town' in Hausa language) in northern Nigeria was first established in Kano around 1911. At this time, Kano was already an Islamic city and it was populated by the *Kanawa* (the indigenous Kano people) who vehemently resisted the British colonisation in 1903. The colonial authorities became keenly aware of the need to respect the sanctity of Islam in Kano. Consequently, the *Sabon Gari* settlement was founded for the dominantly Christian southern Nigerian migrants who trooped into the city. As the *Kanawa* distanced themselves from the colonial authorities most especially on religious grounds, more southern Nigerians migrated into Kano to serve the Whites. This way, the image of *Sabon Gari* as a settlement of 'strangers' was consolidated (Uchendu, 2010; Edewor, 2011).

Albert (1996) commented that Kano is segregated into sub-communities. These are, *Birni* for the indigenes; the *European quarters* for the colonial administrators and other white people; the *Sabon Gari* for the southern Nigerians and other West African immigrants; *Tudun Wada* for the Muslim non-native northerners who work for the whites and; *Gwagwarwa* for the non-Muslim northern Nigerians. It should be emphasized that the colonial pattern of residential segregation in these cities was not chosen by the Nigerians themselves. Rather, it was deliberately established and enforced by the colonial power. In Zaria, for example, during the first decades of colonialism, heterogeneous population of migrants sprang up outside the city walls, on the present site of *Sabon Gari.* It was populated by people from different parts of Nigeria, who had come to Zaria as a result of the railway and cotton ginnery. Some of the indigenes of Zaria even came and settled there. However, by early 1920s the British began to entertain some fears. They envisaged that this community of diverse people might create a situation that would not be in their (the British) interest. They felt threatened by the existence of this heterogeneous population domiciled in *Sabon Gari.*

2.3.3.4 Residential segregation in post-colonial Nigeria

The establishment of the *Sabon Garis* (new towns) and *Tudun Wadas* during the colonial period in Kano, Zaria and other parts of the north was reported to be done with intent of avoiding direct contact with the indigenous people based on the policy of indirect rule and residential segregation. These new settlements were situated adjacent to the traditional cities for the non-natives (Dung-Gwom, 2008). Albert (1996) reported that many types of segregated sub-communities are now found in Nigerian cities. The segregation in these cities is religiously motivated, ethnically motivated, professionally motivated and economically motivated. The *Sabon Gari* settlements are now found not only in the northern Nigerian cities but also in the southern Nigerian cities and their peculiarity derives from their unique demographic composition, social orientation and religious characteristics.

The *Sabon Gari* settlements in the Hausa-Fulani dominated northern Nigerian cities are inhabited by southern Nigerian migrants while those in the Yoruba dominated south-western Nigeria are domiciled by the HausaFulani settlers. Its abridged version, "*Sabo",* became popularized in south-western Nigeria and they are found in such Yoruba cities as Ibadan, Ijebu-Ode and Sagamu, -these Hausa settlements in Yoruba land according to Blair (1966) are called *Zongo or Sango*. In Igbo dominated eastern Nigeria, the Hausa-Fulani settle in the 'Abakpa Quarters'. These are, however, stranger settlements established by the strangers themselves through their continuous aggregation in given locations within the urban system. They are, however, patterned after the *Sabon Gari* settlements, which were established during the colonial era (Albert, 1996; and Osaghae & Suberu, 2005).

Odoemene (1990) also reported that the Hausa migrant enclaves in Enugu carry names such as *Garki*, *Ama Awusa*, and *Hausa Quarters* (*Ogbe Hausa* as reported by Uchendu, 2010); These enclaves exist in the midst of their host communities and have been reported to be less radical than those in the core Hausa lands. Bearing in mind the general aims and the specific objectives of the British colonial administration in West Africa, Asike and Nwaka (1999) opined that the British administration was not interested in developing the cities in a way that would realise and maximise their positive role in the overall development of the region. Urban planning in the region was merely to provide enclaves or escapes where temporary migrants from the homelands could be posted to organize increased productivity. With such a limited objective and a narrowly defined role for the region, the colonial planning approach was simple. Its strategy was basically to regulate and control the physical growth of the cities within a graded framework. Land use, zoning and building bylaws were designed to minimise costs and to separate the colonisers from the colonised. Therefore, the traditional (older)

sections of the towns were simply ignored and contained, while serious planning efforts were concentrated on the establishment of new areas.

According to Nwaka (2005) planning and housing were used as instruments of segregation and social policy - to ensure that the small community of Europeans was protected in segregated high quality residential reservations. Blair (1966) reported that in Africa as people ascended to higher ranks of power they took up residence in formerly occupied European residential areas, or in isolated medium housing estates. As the African elites crossed the ethnic class line they foreshadow the egalitarian residential pattern that was typical of traditional local African communities where people of different class and occupation resided on one street, and herald the rise of one-class neighbourhoods which were common in the Western nations. Blair went further to say that the attainment of new status positions was expressed by dissociation from the traditional group and association with another group in better surroundings. The African elites created and separated by residence as well as income, education and standard of living from the masses of people. Such exodus affected the community by depriving it of leadership and taxable income. The segregation system imposed by the British colonialists is still present in the modern or post-colonial Nigeria.

These laws were reported to be inherited without much thinking on the part of the government (Nwaka, 1999: 2005).The result of the British inherited planning policies through the Town Planning Laws, and the Nigerian property market led to the development of the three distinctive residential neighbourhood types in almost all Nigerian cities. These neighbourhoods are referred to as the high, medium and low density residential areas (Asiyanbola, 2003) and government reservation area for top government officials and successful business people with varying housing standard and amenities based on demand and supply forces (Oyebanji, Akintoye and Liyanage 2011).

2.3.4 Pattern of Residential Segregation

Pattern ofresidential segregation has been reported by many scholars to exist in several ways. It mostly takes the form of racial segregation which is most prevalent in the United States, ethnic (Gale, 1980; Albert 1996, Hartog & Zorlu, 2009; Edewor, 2011; etc.), income (Edwards, 1970, Anderson et al., 2003;), education, occupation and religion (Shuttleworth & Lloyd, 2001; Fong& Chan, 2008; and Agrawal, 2008;).

Residential segregation of the colonial regimes was instituted and implemented through land policies which gave rise to a spatial dimension. The policies were encoded in legal decrees and enforced, for example, the Group Areas Act 36 of 1956 in South Africa. This marked segregation by the state. The spatial dimension of segregation went beyond the mere separation of residence. The containment policy that complimented the implementation of residential segregation resulted into gender segregation (where women and children were not allowed into the city) and occupational segregation-where entry of the unemployed 'idlers' were restricted. Apart from racial segregation, the colonial regime also attempted to separate Africans into ethnic enclaves; resulting in ethnic segregation (K'Akumu & Olima, 2007).

2.3.4.1 Racial and ethnic residential segregation

Ethnic segregation refers to a spatial separation of ethnic groups from each other. In particular, it often manifests as a separation of minority populations from natives. As a concept, it is often used and understood in a negative way particularly in policy discourses (Wessel & Soholt, 2010). This form of residential segregation is reported to be more prevalent in countries like the United States of America and South Africa. The segregation in South Africa was believed to date back to the Dutch rule of 1652, however the modern form was said to be consequent upon the gold and diamond exploration in the 19th century. Segregation transformed into apartheid in 1948 and continued until 1990. After the election

of the Nationalist Party in 1948, laws were passed, in which individuals were characterized at birth as White, Asian, Coloured or African. Apartheid forbade interracial sexual relationships and marriages and social institutions, such as schools, restaurants, and libraries were firmly divided by racial boundaries. Following the election of 1948, Africans were allowed to work in white designated areas but citizenship into larger South Africa was a dream. Africans were forced to live far from the centre of the city and they were only allowed to enter the city for work during the day and retire to their homelands after the day work, and thus the city was "white by night" (McClinton & Zuberi, 2006).

Ethnic residential segregation has been a visible and salient aspect of urban life in the U.S. This is particularly due to the massive waves of immigration experienced during the 19th and early 20th century. Cities in the US have been reported to be home to a large African American population, which is, and has consistently been, residentially segregated from the native-born white population (Massey & Denton, 1993; Petrescu-Prahova, 2008). No other ethnic group in America has had to endure the pervasiveness and intensity of residential racial segregation that blacks have experienced and continue to experience (Oh, 1995).

According to Massey & Denton (1993), the isolation and continued discrimination of black Americans by private and institutional practices have disenfranchised blacks from the urban housing market, which has led the creation of ghettos. Oh (1995) and Fossett (2001) both reported Massey and Denton as stating that ethnic segregation in a city may result to “hyper segregation” where there is evidence of one or more of the following geographical traits:

(1) Unevenness occurs when blacks are overrepresented in some parts of a metropolitan area and underrepresented in other parts;

(2) Racial isolation occurs when a racial group predominates in an area thus leading to no contact with members of other racial groups. It may also result from uneven distribution in the city's population;

(3) Clustering occurs when individual ethnic neighbourhoods are tightly clustered to form "one large contiguous enclave", for example, the formation of ghettos;

(4) Concentration occurs when members of ethnic group are concentrated within a very small geographic area;

(5) Centralization occurs when members of an ethnic group live in neighbourhoods located within and around the urban core area, that is, disproportionately located within a central neighbourhood.

Petrescu-Prahova (2008) stated that studies (such as those of Massey & Denton, 1989; Waters, 1999) have shown that segregation exists within ethnic groups. Caribbean Hispanics had been found to display a degree of segregation from white Hispanics, highly segregated from black Hispanics and non-Hispanic blacks. Also similar characteristics were observed in West Indian immigrants, who strive to distinguish themselves from native blacks, who are the most stigmatised and discriminated segment of the U.S. population.

However, contrary to what is obtainable in areas like the US, no evidence was found on the existence of mono ethnic neighbourhoods in The Netherlands. The higher concentration of non-Western immigrants in the large cities occurs in neighbourhoods with a high degree of diversity from several origins (Hartog & Zorlu, 2009).

2.3.4.2. Residential Segregation by Income

Income residential segregation has been found to differ greatly among income groups in ghettos. Edwards (1970) discovered that non-white families of different income level are

segregated to a degree, which is moderate in an absolute sense but approximates that of similar income groups in Milwaukee's White community. Segregation is greatest between those families that differ most in level of income. Although the distinctions are less pronounced, segregation between family types (such as families' in high income groups, young couples without children, old couples with children, and the likes) also reflects this positive relationship between social distance and spatial distance. Those family types that differ most in life style were found to be the most segregated from each other. Although patterns of income segregation are not well documented as ethnic segregation, it has been reported that between 1970 and 1990, residential segregation according to income level increased, especially among African Americans and Hispanics (Acevedo-Garcia et al., 2003). Residential segregation by income is however not reported to be very significant in Africa (Sanni & Akinyemi, 2009).

Residential segregation by income often leads to the poor families having to live in poor neighbourhoods which often lack basic infrastructure as the families do not earn enough money to seek for better housing. Anderson et al. (2003) reported that housing affordability problems affect moderate-income as well as low-income families. In the United States, no state offers a minimum wage sufficient to allow a family with one full-time worker adequate earnings (at 30% of income) to afford the federal fair-market rent for a two-bedroom apartment.

Residential segregation by income has been reported by Fry & Taylor (2012) to have increased in the last three decades across the United States. The increases are related to the long-term rise in income-inequality, which has led to the shrinkage in the share of neighbourhoods across the US. These neighbourhoods which are predominantly middleclass or mixed-income decreased from 85% in 1980 to 76% in 2010, and a rise in the majority

lower income (12% in 1980 to 18% in 2010) and majority upper income (from 3% in 1980 to 6% in 2010). They opined that despite the long-term rise in residential segregation by income, it remains less pervasive than residential segregation by race. Farley (1977) reported also that racial segregation is much more extensive than social class residential segregation.

According to Schelling (1971) colour is correlated with income, and income with residence. Schelling thus opines that even if colour was not considered in making residential choices and no discriminatory measures are exercised, Blacks and Whites will not be randomly distributed among residences. Income is believed to be the separating mechanism in this case.

2.3.4.3 Residential segregation by religion

A faith-based neighbourhood is essentially a social network of persons of the same faith, reinforced by the presence of a religious institution/place of worship. The faith-based social network is not geographically bound. The network and ties may be based on the association with the place of worship, but certainly not just because the congregants live side by side in a neighbourhood (Agrawal 2008). In many societies, people have formed settlements that are religious based or having been segregated from the dominant religious group.

Fong & Chan (2008) in a study conducted in Canada discovered that residential segregation was based on religious groups. They found out that the Christian population were not segregated from one another (their indices for sub-groups were quite low) however Jews and Hindus were the most segregated religious groups. Jews were also found to be significantly segregated from Muslims, Hindus and Buddhists with an Index of Dissimilarity of over 0.65, while they showed moderate segregation with Christians (about 0.58). Similarly, Mehta (1969) reported that the Jews and Parsees, and the Christians, tend to be highly segregated

and decentralized in Poona. And Agrawal (2008) disclosed that although religion played a role in the formation of faith-based ethnic neighbourhoods in Canada it was however weak.

Residential segregation by religion was also reported to exist in Northern Ireland where the Catholics and Protestants are highly segregated. The high levels of segregation in Belfast, Derry and mid Ulster were in part explained in terms of the history of the troubles in these places. All these areas were focuses for violence and had a history of territoriality which had been shaped by sectarianism. The local social history of housingmay also have had an impact on the differing religious structure of the Northern Ireland Housing Executive (NIHE) estates in different district councils in Northern Ireland (Shuttleworth & Lloyd, 2001; Poole & Doherty, 1996).

Dung-Gwom & Rikko (2009) reported that the spate of ethno-religious violence is entrenching the divide in Nigerian cities along ethnic, cultural and religious lines. Most Nigerian cities has developed a divide along religious lines. The separation of settlements among the two groups (Muslim and Christian) is solely for security or safety. Similar studies by Aliyu et al. (2012), Uchendu (2010) and Gambo & Omirin (2012) support these findings in Jos, Bauchi, Kano and Kaduna states.The landscape of religion is found to be more highly segregated in contrast to the landscape of ethnicity (Brimicombe, 2007).

2.3.4.4 Residential segregation by occupation

Blacks with professional jobs are highly segregated by residence from professional whites (Farley, 1977). Blacks who had the same skills and qualification as whites were reported to be discriminated against concerning wages and residence. Darden (2001) stated that the black workers in Britain, like those in the US, were given lower status jobs and paid lower average wages than their white counterparts. Because of the lower wages paid to the blacks, and the

unemployment rates among them, it limits their housing preferences (Massey & Denton, 1993).

Wagmiller (2007) studied the spatial segregation of jobless black men in urban America and discovered that jobless black men are more segregated from employed men than other men from other racial and ethnic groups are. They were less uniformly distributed throughout the metropolis and more isolated from employed men. They are concentrated in a small physical space and congregated closer to the centre of the city.

2.3.4.5 Residential segregation by gender

The spatial dimension of segregation went beyond the mere separation of residence especially in South Africa. The containment policy that complimented the implementation of residential segregation resulted into gender segregation where women and children were not allowed into the city (K'Akumu & Olima, 2007). This form of segregation is mostly in the Islamic nations of the world where women are segregated from the men in almost all aspects of life. However, this form of segregation is not very common.

2.3.5 Factors influencing Residential Segregation

People get separated along many lines and in many ways. There is segregation by sex, age, income, language, religion, colour, taste, comparative advantage and the accidents of historical location. Some segregation results from the practices organizations; some are deliberately organised; and some results from the interplay of individual choices that discriminate, or some from specialized communication systems, like different languages. And some segregation is a corollary of other modes of segregation: residence is correlated with job location and transport (Schelling, 1971).

According to Leeuw et al. (2007), segregation has a plurality of causes, such as private discrimination, historical and current government policies, income differentials, and preference. Schelling (1971) was also of the view that two main processes were usually omitted in discussions on segregation, these being organised action and economically induced segregation. Those through organised action could be legal or illegal, coercive or merely exclusionary, subtle or flagrant, open or covert, kindly or malicious, moral or pragmatic. While the other process is largely but not entirely economic involves the separation of rich people from the poor, the skilled from the unskilled, the educated from the uneducated, the poorly dressed from the well dressed in where they work and live, and eat and play, in whom they know and whom they date and whom they go to school with. The organised segregation involves civil rights and the economically induced involves social equity - since making economic decisions on where to live often involves discrimination on colour basis. The three mechanisms are interwoven and it thus makes it not easy to draw the lines separating 'individually motivated' segregation, the more organised kind, and the economically induced kind. Moreover, these three are reported not to be the only mechanisms to segregation (Mustard 2005).

Residential segregation is said to originate either due to discrimination such as ethnic prejudice. It may also result from the choices or preferences, that is, members of various population groups may choose to live separately from other groups and sub-urbanisation (Acevedo-Garcia & Lochner, 2003b; Bayer, McMillan & Rueben, 2001). K'Akumu & Olima (2007) similarly reported that residential segregation may occur for two main reasons; social prejudice (state activated) or the malfunction of an economic system (market activated). And it may also arise due to religious intolerance. Aliyu et al. (2012), Gambo & Omirin (2012), Dung-Gwom & Rikko (2009), Uchendu (2010), Brimicombe (2007) and Poole & Doherty

(1996) have also reported that mistrust and misconceptions amongst the different people and ethno-religious groups have often created conflict situations, which explode into religious violence. These violent clashes have led to residential segregation among religious groups. Edewor (2011) has reported that evidence from the literature shows that, three major factors: socioeconomic status, family status and ethnic status are the causes of residential segregation.

Anderson et al. (2003)reported that increasing spatial (residential) segregation of households are caused by income, ethnicity, or social class. However, spatial segregation based on income has been shown not to be very significant in Africa (Sanni & Akinyemi, 2009). Also Fry & Taylor (2012) asserted that factors that may cause income residential segregation in the United States are historical settlement pattern; local housing policies, zoning laws, real estate practices and migration trends; and the characteristics of the local economy and workforce. The NPR Staff (2012) also holds the same view and in addition believe that housing discrimination and even a city's physical layout can lead to income residential segregation. Summarising the general causes of residential segregation from past research; Petrescu-prahova (2008) classified the causes into three main categories: physical characteristics of the urban environment, individual and aggregate socioeconomic characteristics, and individual preferences for neighbourhood composition.

Residential segregation by income has been reported by several researchers to develop as a result of neighbourhood sorting. Bayer et al. (2001) related that theory work in economics and other fields have provided knowledge about the forces underlying observed segregation patterns. They observed that Schelling's models of social interactions emphasized the role of preferences for neighbourhood racial composition, showing how even small differences in such preferences can give rise to high levels of racial segregation and produce important

dynamic phenomena such as “neighbourhood tipping”. That individual preference, through conscious or unconscious efforts, can usually aggregate to form universal or collective preferences (Schelling, 1971). While in Tiebouts theory, the emphasis was on preferences for local public goods, with households sorting across communities offering different public goods packages that are excludable based on location; residential stratification based on race or income was likely in these neighbourhoods to the extent that household preferences for local public goods vary with these characteristics.

In terms of preferences, households care about more than just the race of their neighbours or the level of local public goods provision when making their location decisions; they make trade-offs among the wide variety of housing and neighbourhood attributes associated with the available choices, and their demands for a given attribute vary with household characteristics. People may attach high value on the quality of the neighbourhood school, while some may place a premium on the accessibility of the home to their jobs. The distribution of households across neighbourhoods within a metropolitan area usually arises through a complex sorting process. While racial segregation may be attributable in part to households’ preferences over the race of their neighbours, the correlation of race/ethnicity with other household characteristics makes it likely that many other factors contribute to the observed segregation patterns (Bayer et al., 2001). Some of the factors considered by families in selected neighbourhoods in Canada were affordability, accessibility to schools and workplaces, transportation, shopping, and proximity to worship places (Agrawal,2009).

A study conducted in the city of Ibadan, Nigeria by Sanni and Akinyemi (2009) revealed that families decided on the area to live through residential district preferences. In addition, the main factors found to affect their decision were environmental quality (such as good roads,

water supply and so on), security of tenure, socio-cultural factors, closeness to work, the chance of getting a vacancy in the family compound, and cheap accommodation.

CHAPTER THREE

THE STUDY AREA AND METHODOLOGY

3.1 Introduction

This chapter presents the methodology of the research. It presents the research design, data sources, instrumentation and data collection procedure. Characteristics of the study area were also summarized.

3.2 The Study Area

This study is focused on Zaria Metropolis. Zaria Metropolis consists of two Local Government Area: Zaria Local Government Area and Sabon-Gari Local Government Area. Itis located between latitude $11^0$3'N and 11^0 15' N and longitude 7^0 3'0"and 7^0 50' E (Figure 3.1) and is about 686m above mean sea level. In terms of total land area, it covers about 45,567Km^2.It falls within the tropical savannah (Aw) climate, according to Koppens World Climate Classification. It lies in the natural vegetation of the Northern Guinea Savannah, some 80 km North of Kaduna town, along the major high way from Kaduna to Kano State. The area spread from Shika in the north to Dutsen Abba in the south west and from Dambo in the east to Wusasa in the west (figure 3.1).

3.2.1 Historical Growth

Zaria formally known as *Zazzau* or *Zegzeg* historic traditional emirate and local government council in Kaduna State, Northern Nigeria with its headquarters at Zaria city. The kingdom is traditionally said to date from 11th century when king Gungume founded it as one of the original *Hausa Bakwai*. As the southernmost state of the Hausa *Bakwai*, it had the function of capturing slaves for all Hausa Bakwai from the northern markets of Kano and Katsina. Islam was introduced about 1456 years and there were Muslims Hausa rulers in the early 16thcentury. Later in the century, Zazzau ruler Queen Amina enlarged her domain by numerous conquests including including those of the Nupe and Jukun kingdoms. By the end of the century, however Zazzau was rename to Zaria (Gihring,1984).

3.2.2 Demography

Zaria metropolis has a population of 408,198 as at 2006 (NPC 2006). The population size according to the NPC 1996 of the selected communities was 117,013 and the projected population size as at 2016 of the selected community is 349,613. Zaria last projected population is 975200 in 2015. This was 0.535% of the total Nigerian population. The population is an ethnic mix in which Muslims, Hausa and Fulani people predominate.

3.2.3 Economy

Zaria's economy is a combination of primary, secondary and tertiary sectors. Staples are guinea corn and millet, and cash crops include cotton, groundnuts and tobacco. The study area is considered by some to be a main centre of Hausa agriculture, not only is Zaria a market town for the surrounding area, it is the home of numerous artisans, from traditional crafts like leather work, dyeing and cap making, to tinkers, print shops and furniture makes. It is also the centre of textile industry that for over 200 years has made elaborately hand embroider robes that are worn by men throughout Nigeria and West Africa. There are a number of commercial activities from trading, hawking, commercial cycling but to mention a

few Banking, educational, recreational, hotels are some of the tertiary economic activities found (Gihring, 1984).

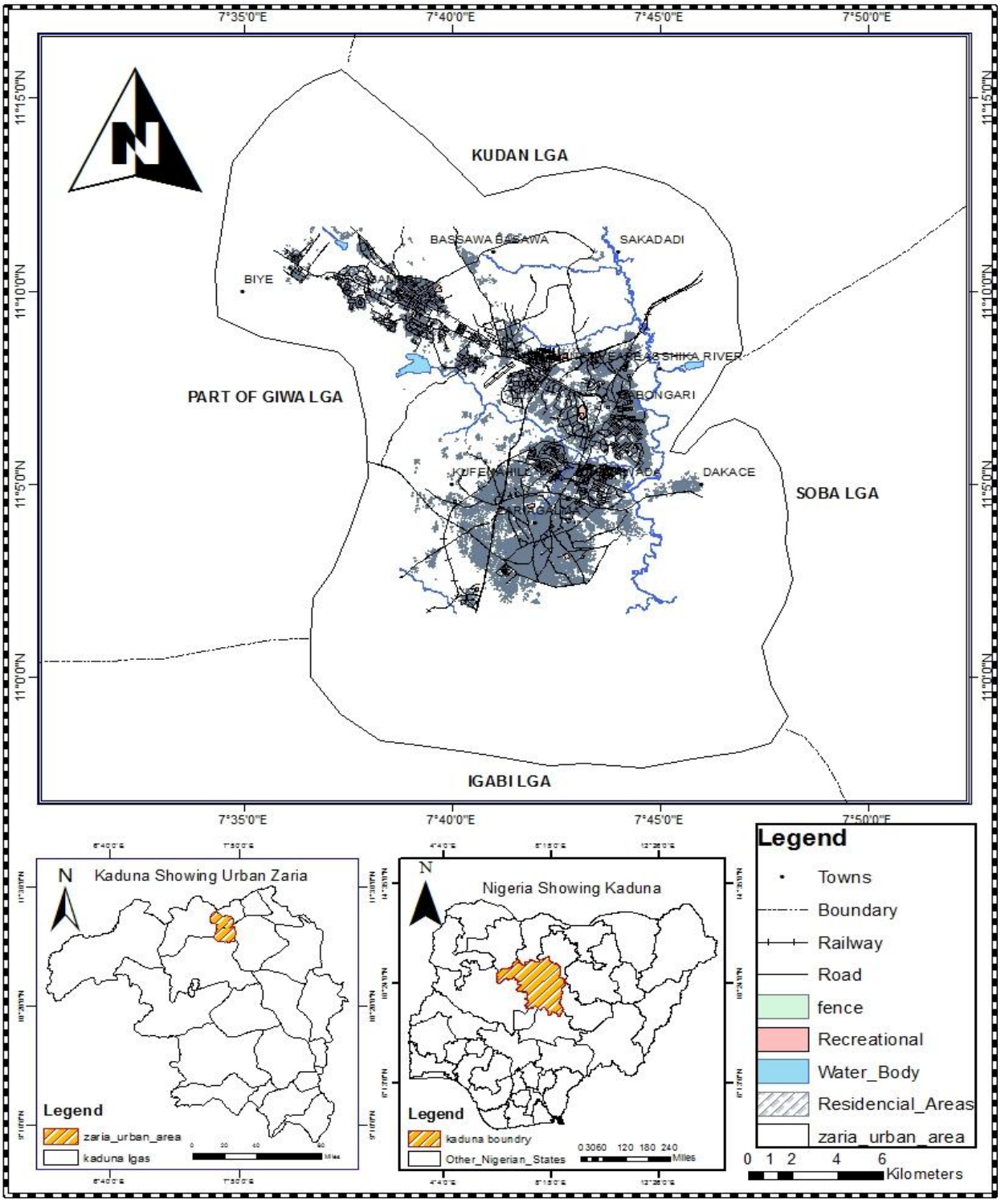


Figure 3.1: Administrative Map of the Zaria Metropolis

Source: Kaduna State Ministry of Land and Physical Planning, 2016

3.2.4 Transportation

Because Zaria is north of the rail junction at Kaduna, it has equal rail access to the seaports at Lagos and Port Harcourt. However, currently only the railway to Lagos is functional, as the eastern line of Nigeria's rail network is not operational. This means the study area has access to Lagos and Kano to the north, not Port Harcourt. The study area is also accessible from Jos, Sokoto, Katsina and Kaduna by road. This means the study area has access to the northern and southern parts of the country (Gihring, 1984). Intercity transport is conducive with commercialbuses, tricycles and motor cycles available

3.3 Methodology

3.3.1 Reconnaissance Survey

A reconnaissance survey was carried out as a first step in the execution of this study. This survey was carried out within two months, from January 2016 to March 2016. Oral interviews and observations were made by the researcher of the various neighbourhoods on residential segregation. This helpedto get familiarized with the study area, and it also gave an insight on the research problem.

3.3.2. Types and Sources of Data

3.3.2.1 Primary Data

The primary data source required for the study was gathered through administration of structured questionnaire to sampled respondents. The questionnaire dwells on socio-economic and demographic characteristics of respondents as well as factors responsible for their choice of new neighbourhoods. It also enquires on factors that facilitate residential segregation in Zaria metropolis. The research method employed in mapping the residents involved a field survey using mobile topographer to record the coordinates of the areas, geo-referencing and digitizing within the GIS software environment.

3.3.2.2 Secondary Data

Map of the study area was extracted from the administrative map of Kaduna State obtainable from the States Ministry of Land and Physical Planning and also by digitizing base map. Historical information on settlement growth, neighbourhood population from National Population Census 2006, journals, textbooks, thesis on related topics and other relevant information from the Internet were used.

3.3.3 Sample size and Sampling Techniques

Steely and Yamane formula as expressed by Isreal (1992) on sample size was used to select the sample size from a population of the selected wards 349,613.

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

Where:

n = sample size

N = total population size under investigation

1= constant

e = 95% level of confidence

Therefore: $n = \frac{N}{1+N(e)^2}$

$$n = \frac{349613}{1+349613\ (0.0025)}$$

n =399.9

Therefore, the sample size n = 400

Table 3.1 shows the number of questionnaires that had been administered in each of the area under study. The number of questionnaires administered in each of the neighbourhood is based on the projected population size of Zaria metropolis. The population size according to the NPC 1991 of the selected communities was 117 013 and the projected population size as at 2016 of the selected community is 349,613.

Table 3.1: Selected neighbourhoods and sample size

Name of neighbourhood	Population census (1991)	Projected Population (2016)	Sample size	Percentage (%)
Kwarbai	29195	50718	58	14.5
Tudun Wada	42,778	74313	85	21.25
Gyallesu	21712	37718	43	10.75
Kufena	13,800	23973	27	6.75
Tukur Tukur	15195	26397	30	7.5
Chikaji	12644	21965	25	6.25
Dogarawa	6889	11,962	15	3.75
Samaru	15,168	26,350	30	7.5
Hanwa	9002	15,639	18	4.5
Muchiya	34,871	60,578	69	17.25
Total	**201,251**	**349,613**	**400**	**100**

Source: Field Survey, 2016

Purposive sampling technique was used to select neighbourhoods for the study. The research is an urban basedstudy therefore the neighbourhoods were selected based on the level of its urbanization in the study area. A systematic sampling technique was used for the

respondents via the use of questionnaire by the researcher with the help of two trained field assistants. The questionnaire was administered to any member of the households within the neighbourhoods at a starting point and continue at every 6thinterval.

3.3.4 Method of Data Analysis

Data collected through the administration of questionnaire were analysed using descriptive and inferential statistics. Data are presented in form of tables showing frequencies and percentages, following each table is the descriptive analysis of the findings. Similarly, charts and graphs were used where necessary to depict the flow of phenomenon under study. Cross tabulationwas used to establish the categorical nature of the data and allow for easy comparison of variables. Cross tabulation was used to examine relationship within data that may not be readily apparent in order to reveal how the dependent variable varies from one group to the other. Cross tabulation was used to find the pattern of residential segregation in the study area. For clarity, analytical technique used for each objective is presented.

Objective 1: Examination of the factors that influence residential segregations in the study area.

Information collected using questionnaire from the respondent perception on the factors influencing residential segregation wasanalysed using descriptive statistics such as frequencies and percentages.

Objective 2: examination of the implications of residential segregation in the study area.

Data collected on the implications was analysed using descriptive statistics. The result is presented in tables of frequencies and percentages; graphical illustration was also used for effective comprehension.

Objective 3; identification and mapping the pattern of residential segregation in the study area.

Socio economic characteristics of the respondents were cross tabulated with the area of residence to show the pattern of segregation in each neighbourhood. Coordinates and other relevant information on each sampled location were collected. The coordinates were then retrieved into the GIS environment and then converted into point shapefiles to enable the spatial representation of the exact locations of the sampled areas. Local knowledge was then used to properly draw demarcation around each location using the "Add new shapefile'' function in ArcGIS, each polygon was colour coded different for visualization purposes and also attributed with the information collected from the field to geographically show these areas alongside their unique characteristics all in one map. The ESRI's ArcGIS version 10.2 Software was used.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the analysis of data collected from the field. The research is aimed at assessing the spatial pattern of residential segregation in Zaria Metropolis, Kaduna State. The findings were derived from responses obtained by use of questionnaire administered to sampled respondents. Four hundred(400) copies of questionnaire were administered but 394 were returned as valid hence used for this study.

4.2 Socioeconomic Characteristics of Respondents

4.2.1 Distribution by gender

Information about the gender of the respondents were collected and analysed. The purpose of this is to capture the gender distribution of the respondents included in the study such that views of both genders were captured. The essence of this finding is to try as much as possible to capture the views of both sexes regarding residential segregation and choice of place of abode. Figure 4.1 presents the result.

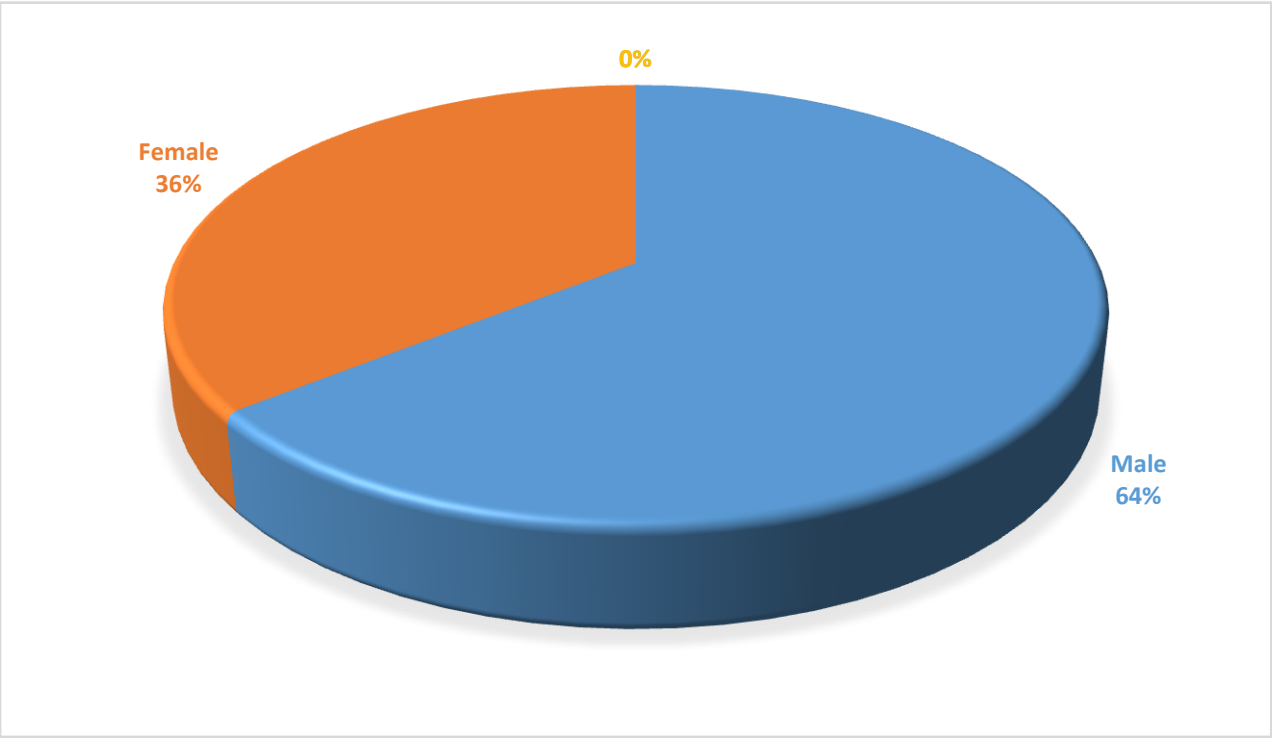


Figure 4.1: Gender Distribution of the Respondents

Source: Field Survey, 2016

Data in Figure 4.1 reveals that males were the major respondents with 64% of the total population while females were approximately 36%. Therefore, the males were more than the females. The dominance of the males could not be surprising due to the fact that the society is patriarchal and the responsibility and decision of providing and selecting shelter lies solely on the males as head of households.

4.2.2 Age of the respondents

Data ware also collected on the age of the respondents. The work considered the age level of the respondents as its represents the maturity of the respondents to be able to give accurate information due to their experience. The results are shown in figure 4.2

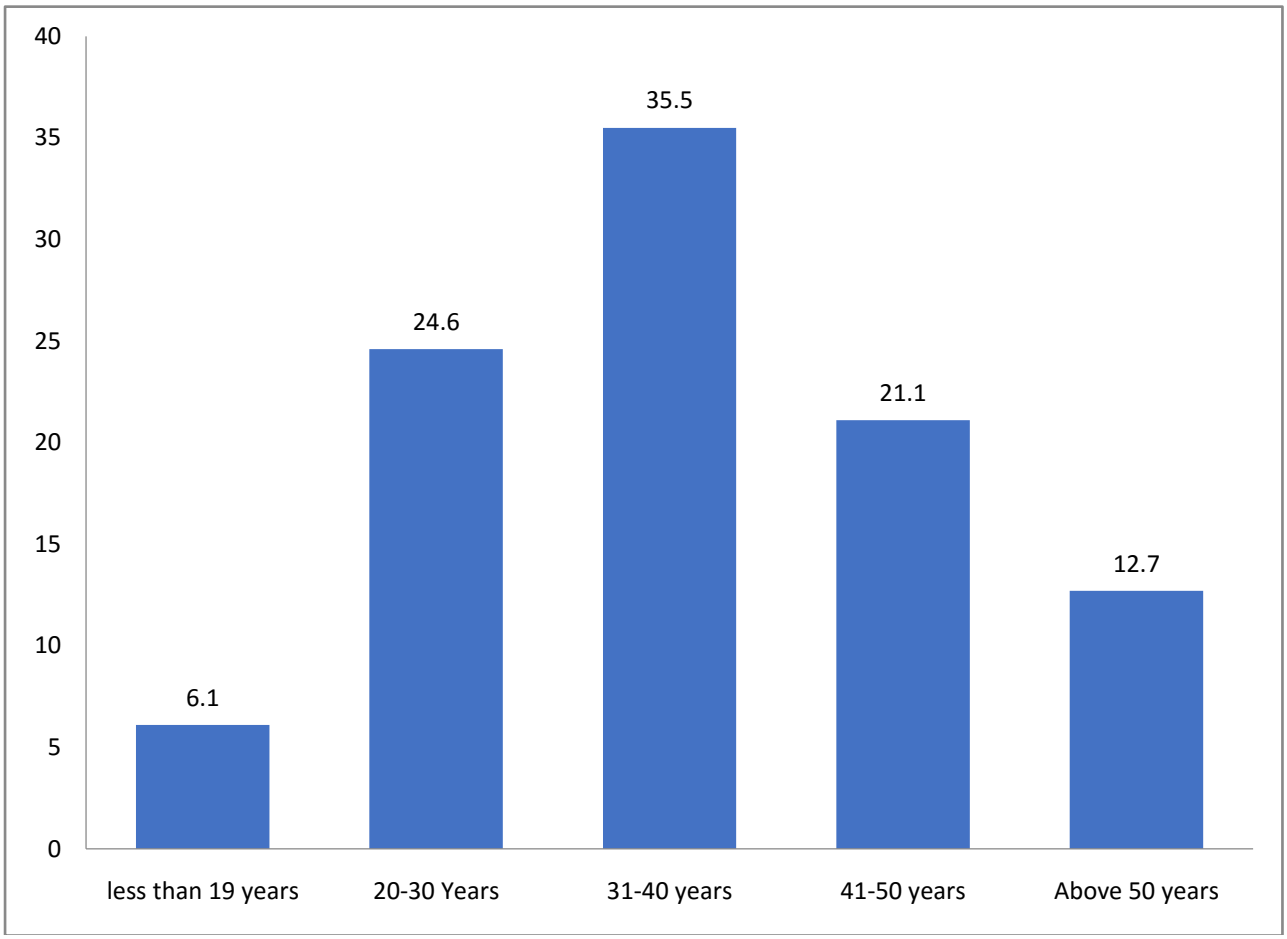


Figure 4.2: Age of the Respondents

Source: Field Survey, 2016

Data in figure 4.2 reveal that the age group 31- 40 years is the majority accounting for approximately 36% of the respondents. This is followed by age bracket of 20-30 years with approximately 25% and those within the age group of 41 – 50 who account for approximately 21%. This results indicate that majority of the respondents were within the mature age of 20 years and above. Therefore,the study consider the solicited views as valid and authentic in relation to study because they were considered to have enough experience of the area. Similarly, the age groupings of the respondents show them as providing sufficient insight into housing needs, location needs as well as factors that determine respondent choice of place of residence.

4.2.3 Marital status

Marital status of the respondents is presented in Figure 4.3. This information will in the cause of analysis of data provide an insight into the nature of residential mobility and consequently segregation between married and single respondents in the study area.

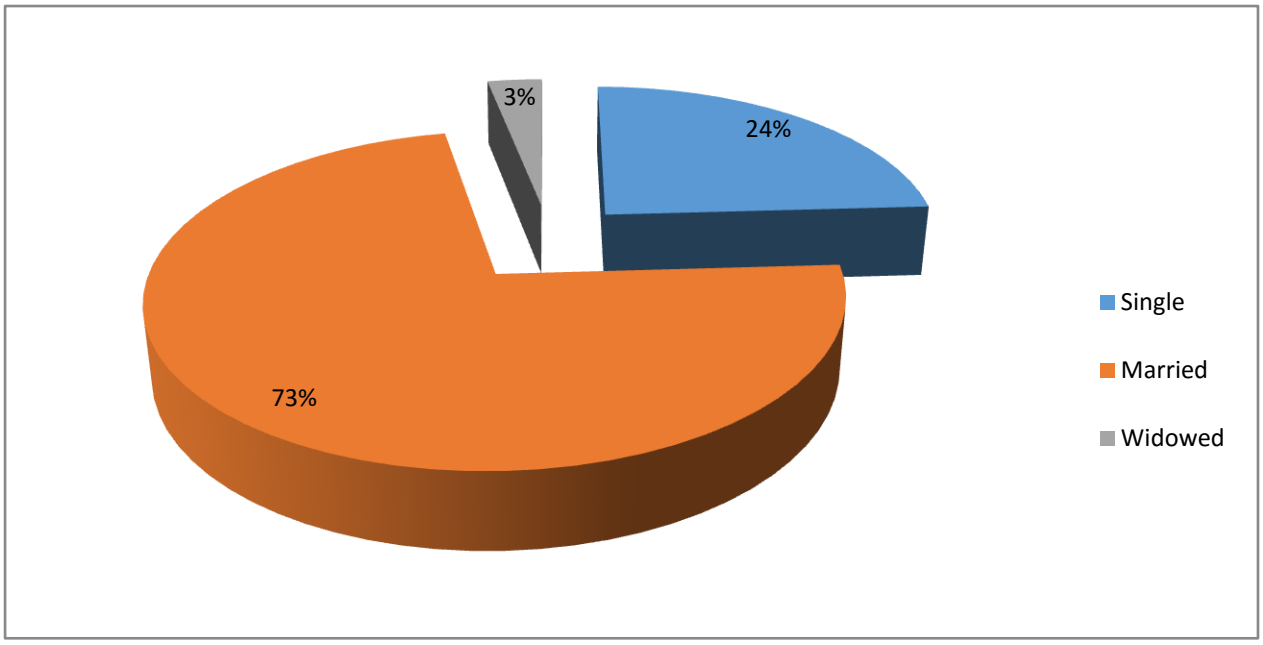


Figure 4.3: Marital status of the respondents

Source: Field Survey, 2016

Information in figure 4.3 reveals that majority of the sampled respondents 73% were married while 24% are single and 3% of the respondents were once married but are now widows. This indicates that married men and women have the most captured views in the study.

4.2.4 Religious affiliation

Data on the religious affiliation of the respondents is very important in this study. Religion is one of the major factors leading to residential segregation in Nigeria and the study area inclusive. Religious affiliation of the respondents is presented in figure 4.4.

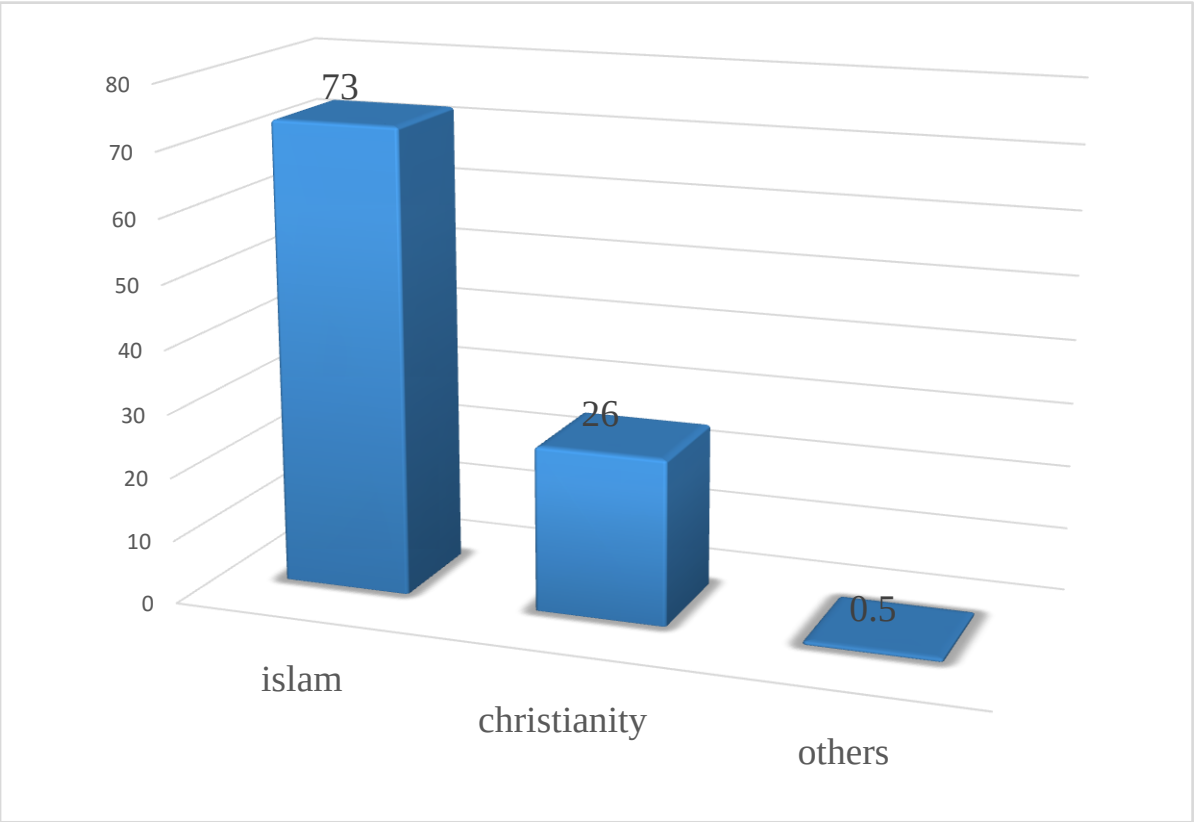


Figure 4.4: Religious Affiliation of the respondents
Source: Field Survey, 2016

Information in figure 4.4 shows that the most dominant religion in the study area is Islam which has 73% of the respondents while 26% are Christians. By implication Islam and Christianity are the most dominant religions in the study area though there exists a few adherents of other religions such as traditional faiths. This finding is in line with that of Fong & Chan (2008) in a study conducted in Canada that residential segregation was based on religious groups. They found out that the Christian population were not segregated from one another (their indices for sub-groups were quite low) however Jews and Hindus were the most segregated religious groups. Jews were also found to be significantly segregated from Muslims, Hindus and Buddhists.

4.2.5 Ethnicity of the respondents

Ethnic distribution of the respondents is presented in Table 4.1. The cosmopolitan nature of Zaria made it to have a heterogeneous population which is spatially segregated on the basis of culture, ethnicity, religion and a host of many other socio economic factors. Therefore, the diverse ethnicity of respondentswill expectedly enrich the findings of this research.

Table 4.1: Ethnic distribution of the Respondents

Ethnic Groups	Frequency	Percentage
Hausa	200	50.5
Yoruba	75	19
Igbo	57	14.5
Others	62	16
Total	**394**	**100**

Source: Field Survey, 2016

Table 4.1 depicts the ethnic composition of the sampled population. The study area is dominated by the Hausas which accounts for approximately 51%, This is followed by the Yoruba with 19%, Igbo and other ethnic groups such as Nupe, Ebira and Igala accounted for approximately 15% and 16% respectively.

4.2.6 Income distribution

Income is not evenly distributed anywhere and this is also true for places where income earners reside. The difference in income level varied spatially within the study area.

Segregation has been found to differ greatly among income groups. Income often leads to the poor families having to live in poor neighbourhoods which often lack basic needs and infrastructure as families do not earn enough money to seek for better housing. Anderson et al (2003) reported that housing affordability problems affects moderate income as well as low income families.

Table 4.3: Income distribution of the respondents

Income per month	Frequency	Percentage
Less than N50,000	87	22.1
N50,000-N100,000	107	27.2
N100,000-N200,000	125	31.7
Above N200,000	75	19
Total	**394**	**100**

Source: Field Survey, 2016

Result in Table 4.3 reveal that respondents with monthly income of less than N50,000 constitutes 22%. These categories of people are regarded as the low income earners. Respondents with monthly income of N50,000 – N100,000 followed with approximately 27%. Respondents earning between N100,000 – N200,000 occupies the highest percentage of respondents with approximately 32% which are regarded as the middle income earners or middle class and finally the high class respondents which has a monthly income of above

N200,000 has 19% of the total respondents. This shows that income is not evenly distributed in the study area.

4.2.7 Level of education

Data on the level of education of the respondents were also captured in the study which is also a basis for segregation. Information on the respondent level of education is presented in table 4.4

Table 4.4: Education attainment of the respondents

Educational Level	Frequency	Percentage
Primary	12	3.1
Secondary	71	18
Tertiary	270	68.5
No Formal Education	41	10.4
Total	**394**	**100**

Source: Field Survey, 2016

Data presented in Table 4.4 show that majority of the respondents (68.5%) are educated and have attended tertiary institutions, 3% are Primary School Certificate holders, 18% have attended secondary schools, and 10.4% of the respondents had no formal education. The dominance of educated respondents will shed more lights on the nature and intricacies of residential segregation in the study area.

4.2.8 Occupation of the respondents

Occupation of people most often determines their income levels which also have a further effect on choice of neighbourhood of residence. Table 4.5 presents the occupational distribution of the respondents.

Table 4.5: Result on Occupational Distribution

Occupation	Frequency	Percentage
Civil Servant	151	38.3
Trading/Business	126	32
Farming	44	11.2
Others	73	18.5
Total	**394**	**100**

Source: Field Survey, 2016

Information in Table 4.5 shows that 38% of the respondents are civil servants, 32% are engaged in trading and business, 11% are farmers and approximately 19% of the respondents are engaged in other occupations such as driving, masonry and other handcrafts.

4.2.9 Duration of stay in the Area

Data on the duration of stay in the area is presented in table 4.6. This helps the study to obtain grounded first-hand information on the study area pertaining to the growth, development and transformation of the area under study. Experience as they often say, is the best teacher

Table 4.6: Result on Duration of Stay in the Area

Years in the Area	Frequency	Percentage (%)
Less than 5 years	25	6.3
5-10 years	67	17
10-15 years	61	15.5
15-20 years	99	25.1
Above 20 years	142	36.1
Total	**394**	**100**

Source: Field Survey, 2016

Investigation into the duration of stay of respondents in their respective areas as shown in Table 4.6 reveals that 36% of the respondents had spent over 20 years in their area, 17% stayed in the area between 5 – 10 years, approximately 16% were in the area between 10 – 15 years and 6% had stayed for less than 5 years in the neighbourhood. This implies that the respondents had acquired some experience in the area since the majority had spent a reasonable number of years in their area.

4.3 Factors Determining the Pattern of Residential Segregation

Residential segregation persists in virtually every major city in the world. The rise in income inequality in particular, has helped to sustain segregation between members of disparate socioeconomic communities. While the negative effects of segregation are well documented, the rapid growth of suburbs, and the subsequent spread of poverty there in, presents a new questions and the effect of residential segregation on metropolitan areas as a whole (Corey

Chen 2014). The factors discussed in figure 4.6 have an important role in influencing people's decision in the choice of neighbourhood.

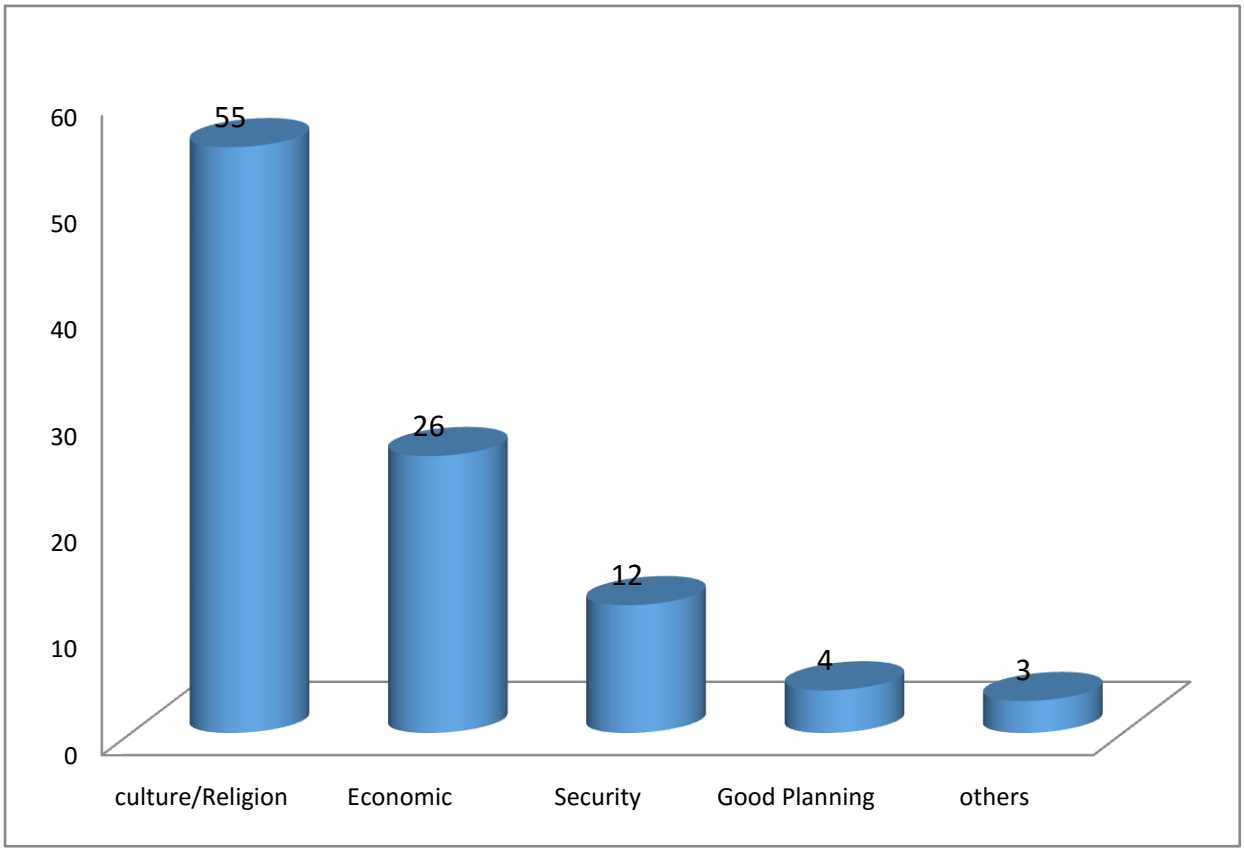


Figure 4.5: Factors that Influences Respondents choice of residence

Source: Field Survey, 2016

Investigation into the major factors that influencerespondent choice of place of residence shows that culture/religion accounts for 55% of the sampled respondents, whereas economic reasons come second with 26%. Security influences the decision of 12% of the respondents while 4% attributed their reason to good planning or lay out of the environment. This finding is not surprising because the emergence of Sabon Gari in Northern Nigeria is to accommodate non-natives who predominantly are non-Muslim and non-Hausa speaking. Those who choose economic reason on the other hand are mostly those who prefer to settle very close to sources of their businesses or livelihood, affordability of housing, nearness to market and motor parks. The findingis contrary to the work of Salihu and Rozillah (2015)

who revealed the factors influencing residential segregation inBauchi metropolis have been identified as mainly individual and aggregate socioeconomic characteristics, and individualpreference/taste/choice of neighbourhood. Salihu and Rozilla established that there is a significant relationship between residential segregation the factors influencing residential segregation in Bauchi metropolis.

Table 4.7: Extent to which the factors choice of residence among respondents

Factors	Extent	Frequency	Percentage (%)
culture	To a great extent	71	18
Economic reasons	To an extent	164	41.6
Security	Neutral	137	34.8
Good planning	To a low extent	22	5.6
Others	**Total**	**394**	**100**

Source: Field Survey, 2016

Analysis of data with respect to the influences of socio-economic characteristics of respondents on their choice of locations reveals that approximately 42% of the respondents claimed that certain socio-economic parameters influence their choice to an extent. Exactly 18% stated that the culture influences their choice to a great extent. If the two respondents were combined the total will be close to 60% of the respondents who felt socio-economic parameters influences their choice of residential neighbourhood. It should be noted that approximately 35% of the respondents choose a neutral response for security, This could be connected to the fact that most urban dwellers particularly the urban poor are more

preoccupied with having roof over their heads rather deciding for themselves the best place to reside.

4.4Implications of Residential Segregation

4.4.1Residential segregation and peaceful coexistence

It is the view of some of the respondents that segregation results in peaceful co-existence as people in segregated communities often share the same beliefs, culture and other aspects of life. Instances of clash of cultures in such neighbourhood will surely be reduced to the barest minimum. On the other hand, other respondents are of the opinion that segregation makes some segregated neighbourhoods easy target during crises while according to them un-segregated neighbourhoods evolves the spirit of understanding, tolerance and peaceful co-existence.

Table 4.8: Residential Segregation and Peaceful Coexistence

Response	Frequency	Percentage
Yes	292	74.5
No	102	25.5
Total	**394**	**100**

Source: Field Survey, 2016

From Table 4.8 majority of the respondents (approximately 75%) claimed residential segregation ensures peaceful co-existence among residents withsimilarity in religion, ethnicity or level of income while 26% of the respondents were of the view that residential segregation does not foster peaceful co-existence. One of the major challenges confronting urban areas in Nigeria is the issue of peaceful co-existence. The heterogeneous nature of urban areas often makes it vulnerable to ethnic and religious crises. This is a common phenomenon in cities like Kaduna and Kano state.

4.4.2 Residential segregation and security

Nigeria since independence has remained a multi-ethnic nation state, which has been grappling and trying to cope with the problem of ethnicity on the one hand, and the problem of ethno-religious conflicts on the other. This is because over the years ethnic and religious intolerance have led to incessant recurrence of ethno-religious conflicts, which have given birth to many ethnic militias (Salawu, 2010). Ethnic and religious conflicts are assuming an alarming dimension that their management has become non-negotiable in a peaceful and democratic Nigeria. The transfer of power from the military to civilian in 1999 witnessed a rising spate of ethnic, religious and communal conflicts with devastating consequences on lives and property.

Table 4.9: Opinion on Residential Segregation and Security

Response	Frequency	Percentage (%)
Yes	265	67.3
No	127	32.2

Total	**394**	**100**

Source: Field Survey, 2016

The essence of human existence or grouping is to ensure security of lives and properties. From table 4.9, approximately 68% are of the opinion that residential segregation poses security threat while 32% are of the opinion that residential segregation does do not pose security threat.

4.4.3 Segregation and assimilation of diverse groups

Table 4.10:Residential Segregation and Assimilation of diverse groups

Response	Frequency	Percentage
Yes	185	48
No	205	52
Total	**394**	**100**

Source: Field Survey, 2016

Investigation into whether segregation inhibits assimilation of diverse groups in the study area shows that 52% of the respondents are of the opinion that segregation does not inhibits assimilation while 48% claimed that residential segregation inhibits assimilation of diverse groups in the study area. According to most of the respondent's segregation does not inhibits assimilation on the basis of the fact that residents of Zaria engaged in trading activities with all other ethnic groups. A lot of people from the southern Nigeria have restaurants in schools, hospitals, ministries etc which people patronize. *Garri* and *Amala* for instance, have become

more or less a common food to some residents who are neither Yoruba nor from the southern part of the country. Assimilation according to some respondents is a product of respect and understanding of natural differences and peculiarities of different ethnic groups.

4.4.4 Residential segregation suspicion and distrust

Residential segregation can lead to suspicion and distrust among members from different neighbourhoods. Respondents were asked on their opinion on whether residential segregation leads to suspicion and distrust among segregated neighbourhoods and the finding is presented in table 4.11.

Table 4.11: Opinion on segregation suspicion and distrust

Respondents opinion	Frequency	Percentage
Yes	210	53.3
No	184	46.7
Total	**394**	**100.0**

Source; Field Survey, 2016

Table 4.11 shows that approximately 53% of respondents are of the view that segregation breeds suspicious and distrust among communities while approximately 47% are of the view that segregation does not breed suspicious and distrust. It is obvious in some un-segregated neighbourhood's certain ethnic groups do not rejoice with others during festivities, they don't go for burial of people from other religious beliefs and they hardly eat food prepared by people of other faith. This often results in suspicion and distrust. Furthermore, in the event of crises people from the minority groups within the majority are always feeling insecure.

4.5 Origin of Segregation

Segregation has a long history because it started during the colonial rulers with the advents of new settlements especially in the Northern part of the country and Zaria in particular. It is important to also note that even before the arrival of colonial masters, a unique form of occupational segregation or grouping of household is common in Northern Nigeria. Areas like, *Anguwan karfe (Makera*) refers to areas where blacksmiths live.*Anguwan Liman* area inhabited by mostly Islamic scholars from where the Chief Imam of the city mosque is chosen, *Durumin Mai Garke* refers to quarters occupied by butchers (*Mahauta*), *Yan Tukwane* is an area occupied by those engaged in pottery and *Marina* (area inhabited by dyers) to mention but few. Respondents were asked on the origin of residential segregation in the study area and the finding is reported in table 4.12

Table 4.12: Origin of Segregation

Origin of Segregation	Frequency	Percentage
Colonial Policy	73	18.5
Income Differentiation	90	22.8
Poor Physical Planning	9	2.3
Occupational Differences	66	16.8
Ethnic/Religious Differences	156	39.6

Total	**394**	**100.0**

Source: Field Survey, 2016

From the data collected on the origin of segregation in the study area, approximately 40% are of the opinion that ethnic/religious differences are the major factor that bring about segregation, followed by income differentiation with 23%.Approximately 19% of the respondents are of the view that segregation originates from the colonial policy, 17% believeoccupational differences and 2% are of the view that residential segregation originates as a result of poor physical planning of the environment.

4.6 Pattern of Residential Segregation in Zaria Metropolis

In this section the place of residence of respondents was cross tabulated with some socio-economic characteristics of the respondents such as, religion, ethnicity and occupational backgrounds.

4.6.1 Area of Residence and Religion

Segregation is highly determined by religion in most areas. In the study area, the proportion of Muslims are larger among areas such as Kwarbai, Tudun wada, Gyallesu, Tukur tukur, Chikaji, Hanwa, Dogarawa and Muchiya. Conversely, the proportion of Christians is larger in areas such as Kufena and Samaru. But also few Christians are found to leave in Tudun Wada, Gyallesu, Muchiya and Dogarawa. Thus, generally speaking, religion is one factor that determines the proportion of residence in the study area.

Table 4.13; Religion and Area of Residence

Source: Field Survey 2016

Area of Residence	RELIGION			
	Muslims	Christians	Others	Total
Kwarbai	98	2	0	100%
Tudun wada	71.6	28.4	0	100%
Gyallesu	76.6	23.4	0	100%
Kufena	13.8	86.2	0	100%
Tukur Tukur	92	8	0	100%
Chikaji	90	0	10	100%
Dogarawa	66.6	33.3	0	100%
Samaru	48.3	51.7	0	100%
Hanwa	91.7	8.3	0	100%
Muchiya	72.9	27.1	0	100%
Total % within area of residence	**73%**	**26%**	**0.5%**	**100 %**

Table 4.13 provides the cross tabulated information between place of residence and religion of residents. The essence here is to see whether religion plays a very significant role in residential choices.It is obvious that Muslims were the majority of the inhabitants in areas such as Kwarbai (98%), Tukur-Tukur (92%), Chikaji (90%), Hanwa (92%), Dogarawa (53%)

and Muchiya (73%). On the other hand, Christians were the dominant at Kufena (86.2%) and Samaru (51.7%). The separation of settlements among the two groups (Muslim and Christian) is solely for security or safety. Similar studies by Aliyu et al. (2012), Uchendu (2010) and Gambo & Omirin (2012) support these findings in Jos, Bauchi, Kano and Kaduna states. Figure 4.6 present a map of the study area which showsthe neighbourhoods segregation base on religious believe of the respondents. Each religion is represented with a different colour on the map.

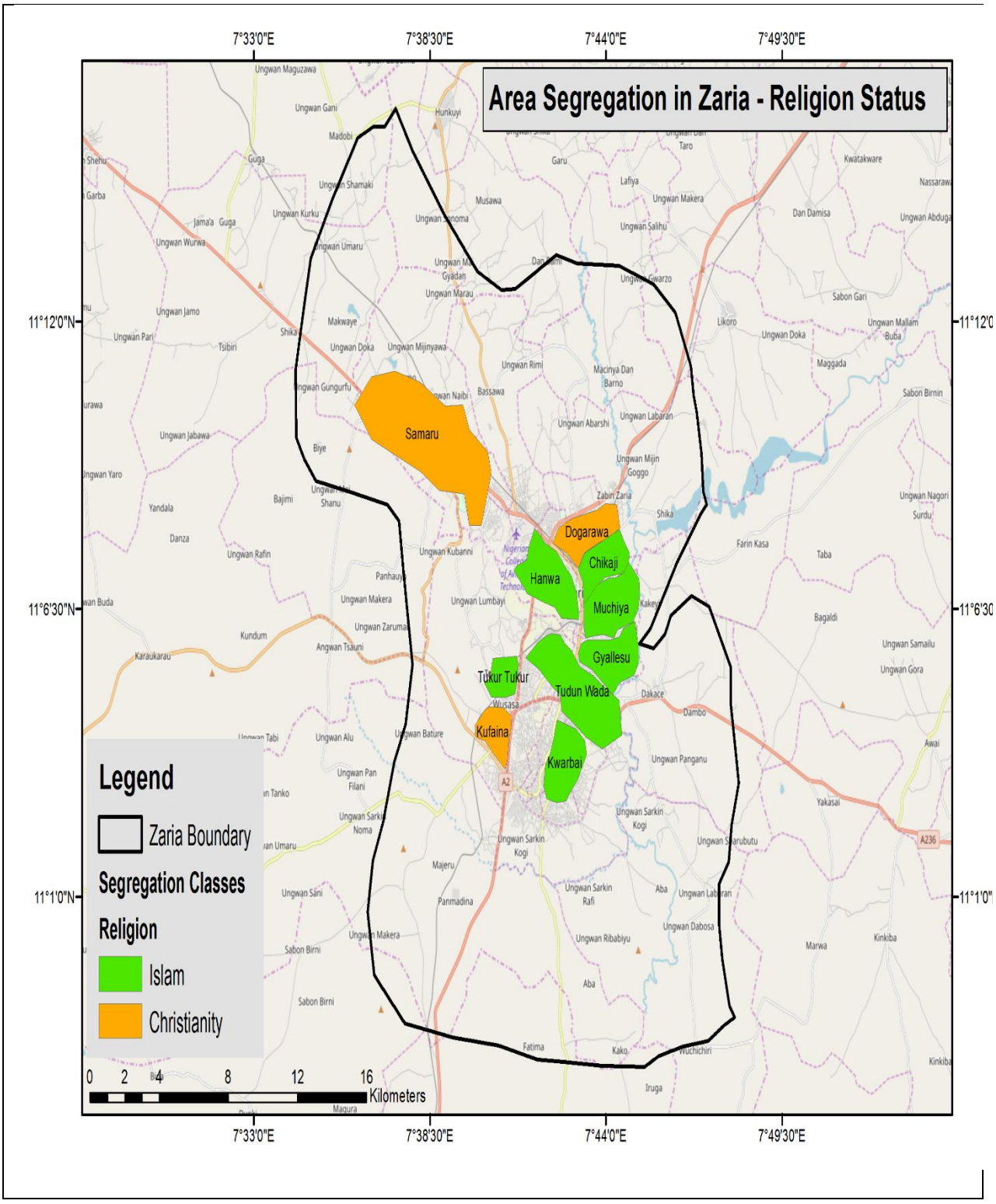


Figure 4.6: Pattern of Residential Segregation Base on Religion.

Source: Field Survey, 2016

Table 4.14: Ethnicity and Area of Residence

Area of Residence	Ethnic Groups				Total
	Hausa	Yoruba	Igbo	Others	
Kwarbai	94.1	0	2	3.9	100%
Tudun wada	44.2	29.5	8.4	17.9	100%
Gyallesu	44.7	21.3	19.1	14.9	100%
Kufena	13.8	6.9	41.4	37.9	100%
Tukur Tukur	60	16	0	24	100%
Chikaji	20	40	10	30	100%
Dogarawa	53.3	13.3	33.3	0	100%
Samaru	27.6	27.6	37.9	6.9	100%
Hanwa	83.3	16.7	0	0	100%
Muchiya	50.8	15.3	15.3	18.6	100%
Total % within area of residence	**50.5%**	**19%**	**14.5%**	**16%**	**100%**

Source: Field Survey, 2016

Attempt was also made in Table 4.14 to cross tabulate area of residence and ethnic background of the respondents and to assess whether ethnicity greatly influence residential segregation. From the Table it was obvious that Hausa people are the dominant group at Kwarbai (94.1%), Tukur-Tukur (60%),Hanwa (83.3%) and Dogarawa (53.3%). Yorubas are

dominant at Chikaji (40%), they also have sizeable concentration of 13% at Dogarawa. The Igbo are dominant at Kufena (41.4%) and Samaru (37%) and Dogarawa (33%). For other tribes Kufena has the highest concentration (37%) and this is followed by 30% at Chikaji. It is glaringly clear that there is a kind of relationship between ethnic concentrations of migrants from southern part of the country in the study area. For instance, Igbo and Yoruba were the dominant groups at Kufena and Samaru with cumulative percentages of 100% and 65.5%. It could also be observed in the table that where ever Igbos and Yoruba's dominate other ethnic group are also in sizeable number.

Figure 4.7 presents a map of Zaria metropolis showing segregation by ethnicity. Neighbourhoods are categorised based on the level of ethnic segregation, that is highly segregated neighbourhoods, moderately segregated neighbourhoods and lowly segregation neighbourhoods.

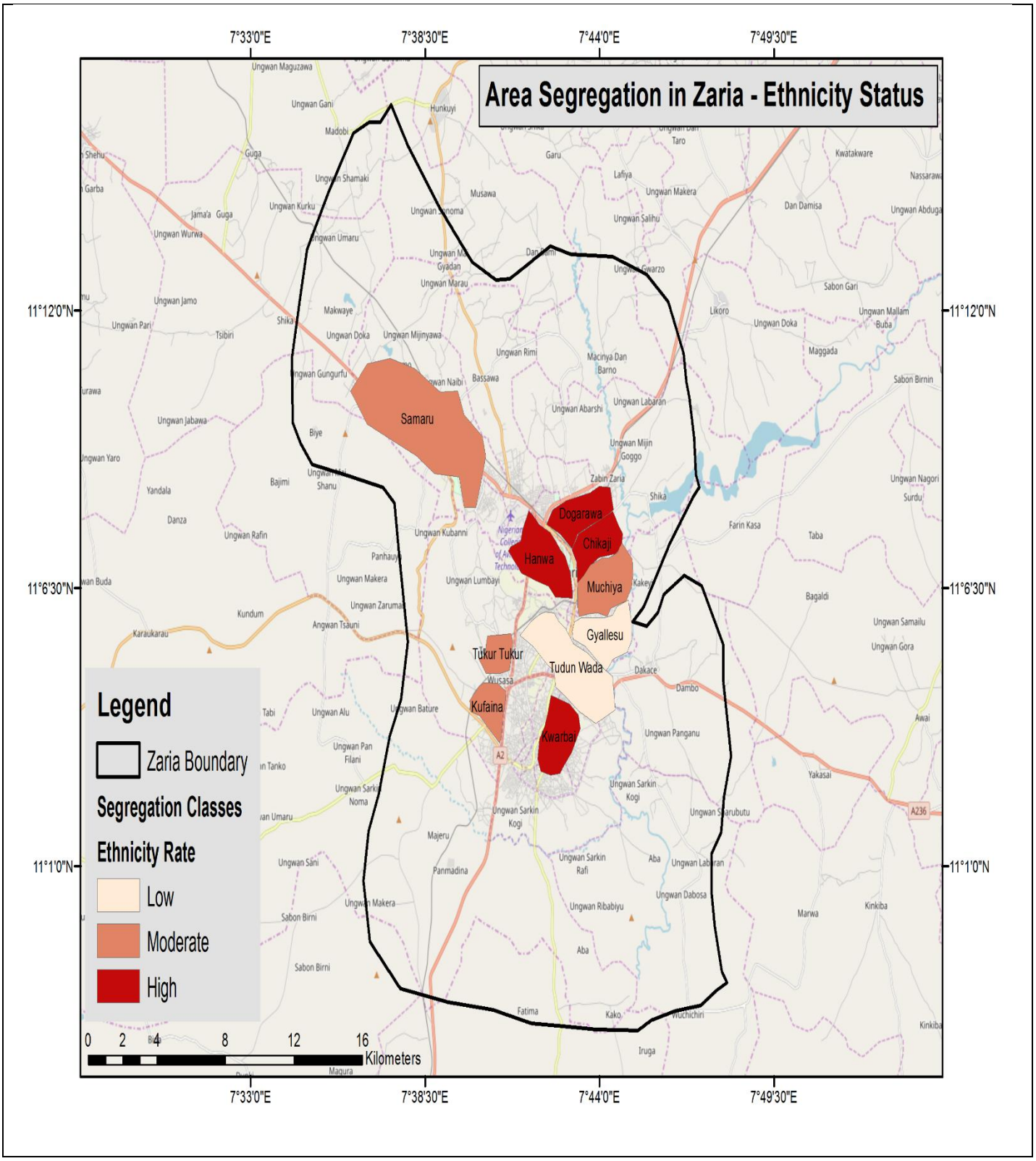


Figure 4.7: level of Ethnic Segregation

Source: Field Survey, 2016

Table 4.15: Occupation and Area of Residence

Area of Residence	Occupation of Respondents				Total
	Civil Servant	Trading/ Business	Farming	Others	
kwarbai	72.5	7.8	0	19.6	100%
Tudun wada	35.8	31.6	9.5	23.2	100%
Gyallesu	42.6	27.7	8.5	21.3	100%
Kufena	44.8	6.9	24.1	24.1	100%
Tukur tukur	44	32	0	24	100%
Chikaji	0	50	40	10	100%
Dogarawa	0	86.7	0	13.3	100%
Samaru	37.9	41.4	0	20.7	100%
Hanwa	66.7	25	0	8.3	100%
Muchiya	15.3	47.5	27.1	10.2	100%
Total % within Area of Residence	**38.3**	**32**	**11.2**	**18.5**	**100%**

Source: Field Survey, 2016

Based on the information in Table 4.15, it is clear that civil servants were the dominant groups at Kwarbai (72.5%) and Hanwa (66.7%). On the other hand, traders and businessmen were more at Chikaji (50%) and Dogarawa (86%). Farmers are also prominent at Chikaji (40%), Muchiya (27.1%) and Kufena (24%). This could be due to the fact that these areas fall within the fringe belt of Zaria. Occupations were less uniformly distributed throughout the metropolis and more isolated from employed men. They are concentrated in a small physical space and congregated closer to the centre of the city.

The research revealed that the patterns of residential segregation in the study area are based mainly on religion, ethnicity and occupation. Figure 4.8 presents the pattern of residential segregation in the study area.

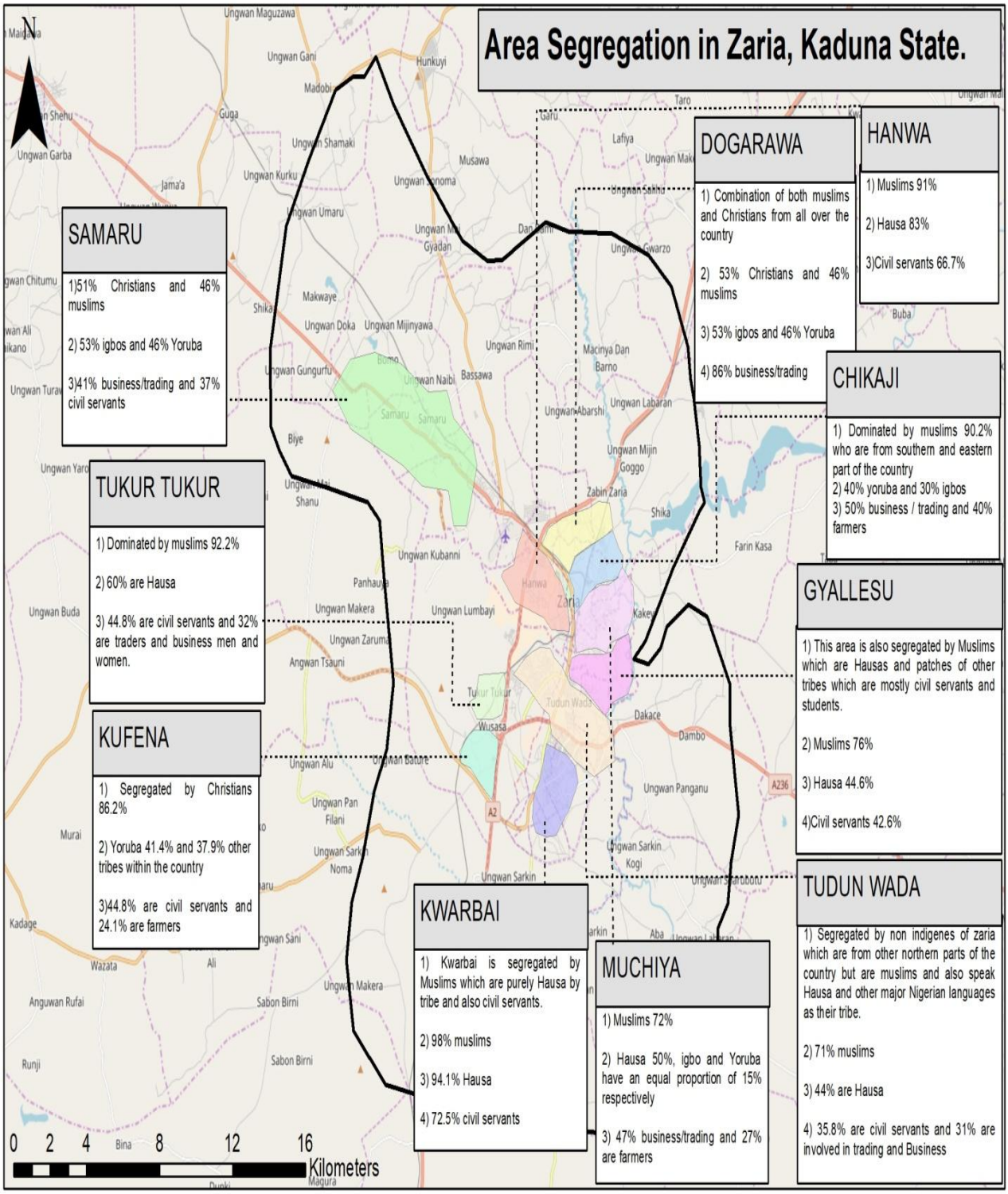


Figure 4.8: Pattern of Residential Segregation in Zaria Metropolis

Source: Field Survey, 2016

From figure 4.8, Zaria metropolis is segregated by a number of factors which include religion, ethnicity and occupation. Kwarbai is segregated with 98% Muslims where by 94% are Hausa and 73% are civil servants. Therefore,based on this research Kwarbai is segregated (occupied) by only the indigenes of Zaria who are all Muslims and a high percentage of educated literates who are civil servants. Tudun Wada is dominated by the non-indigenes of Zaria which are from the northern parts of the country and are Muslims and also speak Hausa. But the area has a mixed economic class of both civil servants and business men and women who occupyapproximately 36% and 31% respectively. Gyallesu is mostly dominated by civil servants and students because of the presence of ABU Kongo campus and FCE Zaria. 71% of the population are Muslims and approximately 45% are Hausa and 55% are a mixed of other Nigerian languages especially Yoruba who has 21%. Kufena is one of the most segregated area in Zaria metropolis which comprises of areas like Wusasa and Kuregu areas and are dominated by Christians 86%, 41% are Igbos and approximately 38 % are a mixture of other Nigerian tribes such as Fulani, Chongai, Baju, Igala and Ebira. About 45% are civil servants, 24% are farmers and business men and women respectively. Tukur Tukur area has 92% of Muslims and 60% are Hausa and 24% are a combination of other Nigerian tribes such as Nupe and Igala. Approximately 45% are civil servants and 32% are involved in trading and business. Therefore, the areas in Zaria local Government are segregated by religion and ethnicity.

Chikaji, Muchiya and Dogarawa are areas that are segregated (i.e dominated) by non-indigenes which are involved in business activities and a combination of different ethnic groups who settle for the purpose of business and trading. Chikaji has 90% and who are mostly Yoruba 40% and other minor Nigerian languages of 30%. Muchiya is dominated by Hausa 51% and 15% of both Yoruba and Igbo respectively. Hanwa is segregated by educated

civil servants which are Muslims and Hausa. Lastly Samaru has a combination of both Muslims and Christians with approximately 49% and 52%. It is mostly dominated by Igbo (38%), while 28% of both Hausa and Yoruba and are mostly business men and women. About 48%, 38% are civil servants and 10% engage in other occupation mostly studying or schooling in tertiary educational institutions.

Therefore, patterns of residential segregation in Zaria metropolis arebased on religion, ethnicity and occupation. Thefindings are almost inline with the findings of Salihu and Rozilla (2015) who revealed the patterns of residential segregation in their study area (Bauchi Metropolis) are based mainly on income, religion and ethnicity.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the major findings of the study in the study area (Zaria). Recommendations were drawn from the major findings of the study and the chapter ends with a conclusion.

5.2 Summary

Segregation remains a remarkably common persistent and difficult problem for cities of all types. Like many social phenomena, residential segregation grows out of simple interaction between individual but manifests as a complex resilient phenomenon at the scale of the city.

In this research, residential segregation in Nigeria has been reviewed from the pre-colonial, colonial to the post-colonial era. Residential segregation in the study area was revealed that prior to the British colonial rule there existed no residential differentiation based on ethnicity or race, people of diverse tribes and nationals cohabited in the north. The creation of residential segregation by the colonial administrators brought about the emergence of new settlements (Sabon Gari and Tudun Wada) which housed the southern Nigerians living in the north. Several scholars have reported that the residential segregation by ethnic and religious grounds in Nigeria is a factor which has led to the present inaccessibility of the poor to affordable security, inadequate provision of infrastructure in mostly high density residential areas and most importantly the cause of ethno-religious conflict in across Nigeria.

Data for this study were collected from a total of 394 respondents selected from 10 morphological units of Zaria namely, Kwarbai, Tudun Wada, Gyallesu, Kufena, Tukur-

Tukur, Chikaji, Dogarawa, Samaru, Hanwa and Muchiya. The broad aim of the study is to examine the spatial pattern of residential segregation in Zaria.

The major findings of the study reveal that residential segregation exists in Zaria and there seem to be relationship between segregation and socio-economic characteristics of respondents. For instance, religion, occupation and ethnicity play a prominent role in the decision of respondent with regards to the choice of where to stay. Results of cross tabulations on area of residence and variables like religion, occupation, tribe, educational background etc provide insight into the nature and pattern of residential segregation in Zaria.

Findings on area of residence and religion show that Muslims were the majority of the inhabitants in areas such as Kwarbai (98%), Tukur-Tukur (92%), Chikaji (90%), Hanwa (92%), Dogarawa (67%) and Muchiya (73%). On the other hand, Christians were the dominant at Kufena (86%)and Samaru (52%). Similarly, findings on place of residence and ethnicity reveal that Hausa were the dominant group at Kwarbai (94%), Tukur-Tukur (60%), and Hanwa (83.3%). While the Yoruba's were dominant at Chikaji (40%). The Igbos were dominant at Kufena (41%) and Samaru (37%). For other tribes Kufena has the highest concentration (37%) and this is followed by (30%) at Chikaji.

Occupationally, civil servants were the dominant groups at Kwarbai (73), Tudun Wada (36%), Kufena (45%), Tukur-Tukur (44%) and Hanwa (67%). On the other hand, Traders and businessmen were more at Chikaji (50%) and Dogarawa (86%). Farmers are also prominent at Chikaji (40%), Muchiya (27%) and Kufena (24%).

5.3 Conclusion

It is the contention of this study that residential segregation is part and parcel of all human settlements. People often feel comfortable living in an area where a lot of residents shares a lot of things in common. The rising cases of insecurity and ethnic conflict in Nigeria exacerbate distrust and subsequent segregation of neighbourhoods within the major urban centres in Nigeria. Several scholars have reported that residential segregation by ethnic and religious grounds in Nigeria is a factor which has led to the present inaccessibility of the poor to affordable housing, security, inadequate provision of infrastructure in most residential areas, and most importantly the cause of ethno-religious conflicts in across Nigeria.

Having collected and analyzed data on residential segregation in Zaria, it can be concluded that the factors influencing residential segregation are culture/religion, economic reasons and security. The pattern is revealed in such a process that certain ethno-religious group dominate in one area while occupational categories are dominated also in certain areas. No doubt this pattern leads to suspicion and harmony depending on the nature of segregation and dominant group in the area. as long as the variables influencing segregation present themselves in Zaria, residential segregation will continue to persist with the attendant positive and negative consequences.

5.4 Recommendations

This study wishes to recommend the need for further research in the area of residential segregation focussing beyond the spatial pattern of the segregation. On this note, the study recommends as follows:

i. There is a need for a study that will examine the consequences of residential segregation on the segregated units and how such segregation breeds either peaceful coexistence or insecurity in Zaria Metropolis.

ii. It is also suggested that there is a need for a study to examine the planning aspect of segregation in the study area. Certain areas are provided with basic infrastructure while in other areas they are deficient in infrastructural facilities. This will go a long way in enhancing urban governance through planning for all.

iii. Housing condition particularly quality of housing varies between and among segregated units, thus, there is a need for a study to examine such phenomenon.

iv. Finally, more emphasis should be placed on the public through enlightenment and advocacy on the importance of living together, peaceful and mutual coexistence, teaching of good morals and religious instructions since Islam and Christianity are the major religions in the study area and Nigeria. A situation should be created where both Christians and Muslims would be gathered to share about their religious belief and relate with one another under a conducive atmosphere.

The essence of these suggested research is to provide a holistic approach to the study of residential segregation so as to ensure sustainable growth, development and management of the urban environment.

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APPENDIX

QUESTIONNAIRE

Dear Respondent,

I am a Postgraduate student of Department of Geography, Ahmadu Bello University Zaria, carrying out a research on "Spatial Pattern of Residential Segregation in Zaria Metropolis, Nigeria.

Please kindly answer the questions below. The information supplied would be used mainly for academic purposes and shall be treated as highly confidential.

Thank you.

SECTION A: SOCIOECONOMIC INFORMATION OF RESPONDENT

1. Gender:

a) Male b) Female

2. Age:

a) Less than 19 b) 20 - 30 c) 31- 40 d) 41 – 50 e) Above 50

3. Marital Status:

a) Single b) Married c) Divorced d) Widowed

4. Religion:

a) Islam b) Christianity c) Others(Specify).....

5. Ethnic Group:

a) Hausa b) Yoruba c) Igbo d) Others (specify) .....

6. Level of income per month:

a) Less than N50,000 b) N50,000-N100,000 c) N100,000-N200,000 d) Above N200,000.00

7. Level of Education:

a) Primary b) Secondary c) Tertiary d) No formal education

8. Occupation:

a) Civil servant b) Trading/Business c) Farmer d) Others (specify)

9. a) Name of Area of Residence.....

b) Duration of Stay in the Area

a) Less than 5 yearsb) 5-10 yearsc) 10-15 years d) 15-20 years e) Above 20

SECTION B: FACTORS THAT INFLUENCE RESIDENTIAL SEGREGATION

10(a). How could you describe the factor(s) that influence your decision to stay in this area

i. Economic
ii. Cultural/Religious
iii. Environmental
iv. Security
v. Good Planning
vi. Others (Specify).....

10 (b). Kindly list the nature of the factor(s) that influence your decision to reside in this area

Fa FACTORS	Sp Specific Factors
E Economic	
Cu Cultural/Religious	
En Environmental	
Se Security	
Go Good Planning	
Ot Others	

11. Extent to which the factors influence your decision

i. To a large Extent
ii. To an Extent
iii. Neutral
iv. To a low Extent
v. To a very Low Extent

12. In your opinion do Residential segregation ensures peaceful co-existence?

i. Yes
ii. No

13. Do you think Residential Segregation poses security threat?

i. Yes
ii. No

14. Do you think Residential Segregation inhibits assimilation of diverse groups and interest in the study area?

i. Yes
ii. No

15. To what factor(s) can you ascribe the origin of segregation in the study area

i. Colonial Policy
ii. Income Differences
iii. Poor Physical Planning
iv. Occupational differences
v. Ethnic/Religious differences

16. In your opinion do you think Residential Segregation breeds suspicion and distrust among members of the community?

i. Yes
ii. No

18. Can you suggest ways through which integration of diverse communities and interests can be achieved?

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.....
.....

THANK YOU.