DEVELOPING A FRAMEWORK FOR THE RECONSTRUCTION OF HOUSING FOR THE INTERNALLY DISPLACED PEOPLE DUE TO CONFLICT

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Dedication

I would like to thank Almighty Allah that keeps me alive and gives me the opportunity to carried out this peace of research by saying Alhamdulillah. I dedicated this research to my lovely wife and wonderful children.

Declaration

I Yakubu Abdulkadir Abdu declare that this research was carried out by me based on the University of Salford requirement that will lead to the award of PhD degree under the guidance of Dr Kwasi Gyau and Dr Chika Udeaja.

I declare that no portion or part (s) of this study was submitted to University of Salford or any other institution in partial fulfilment for the awards of degree, master's degree or any other type of degree.

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Yakubu Abdulkadir Abdu

List of Abbreviations

AH	Affordable Housing
A	Approaches
AAOC	Approaches Adopted in Other Countries
AAL	Availability of affordable land
BKC	Boko Haram Conflict
BS	Borno State
BM	Building materials
C	Conflict
C	Corruption
CS	Crisis Management
CBA	Cash-back Approach
CARHIDPs	Challenges Associated with Reconstruction of Housing for the Internally Displaced People
DMT	Disaster Management Theory
DMC	Disaster Management Cycle
DOM	Disaster Operation Management
DMP	Disaster Management Principles
DDA	Donor Driven Approach
FHA	Federal Housing Authority
GODA	Government/Owner Driven Approach
HNC	History of the Nigeria Conflict
HS	Hybrid System

IEG	Islamic Extremist Group
IDPs	Internally Displaced People
INCH	Impact of the Nigeria Conflict on Housing
LTU	Limited Time due to Urgency
M	Maiduguri
MD	Manmade Disasters
MB	Modular Building
NCH	National Council on Housing
NPF	Nigeria Police Force
NN	Northern Nigeria
NEMA	National Emergency Management Agency
NNC	Nature of the Nigeria Conflict
ODA	Owner Driven Approach
ODHA	Owner Driven Housing Assistance Approach
PC	Political Conflict
PCR	Post Conflict Reconstruction
PS	Panelised System
PWHRS	Post-war Housing Reconstruction in Sri-Lanka
PH	Participatory Housing
QC	Quality Control
SR	Scarcity of Resources
SSL	Shortage of Skilled Labour

Abstract

As a result of Boko Haram conflict in Nigeria, many people have been displaced and a lot of houses destroyed. The displaced people are presently domiciled in different temporary camps across the country and the camps are in bad condition without electricity, clean drinking water, food, medical attention, security and education among others. However, the biggest challenge the displaced people are facing is lack of decent housing which has exposed these group of people to all sort of environmental and man-made dangers such as rape, crime, child labour, prostitution and diseases, most especially women and children. Therefore, this research aims at developing a framework for the reconstruction of housing for internally displaced people (IDP) due to conflict. In so doing, relevant literature including the ones relating to the different types of approaches utilised for the reconstruction of housing for IDPs was evaluated as building blocks to the development of a conceptual framework. Furthermore, abductive approach comprising survey and case study strategies as well as mixed data collection methods (questionnaires and semi-structured interviews) were adopted. This led to the collection of both quantitative and qualitative data. The questionnaire was distributed to the IDPs and housing construction professionals whilst the semi structured interviews were conducted with housing construction professionals as part of data triangulation. Descriptive analysis was carried out to describe the quantitative data using SPSS whilst thematic approach was adopted to analyse the qualitative data using NVivo. The findings revealed that Maiduguri town that was designed to house two million people but because of Boko Haram conflict, the city presently accommodates up to five million people which has overstretched houses in Maiduguri. A house that is built for a family of two or three people now accommodates between nine to ten people due to high demand. However, approaches that can be adopted for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri were identified. The research further identified the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, and how to overcome or address the challenges. All these findings were used to finalise the conceptual framework. The framework will provide useful guidelines to government, housing construction professionals and other stakeholders such as NGOs, international development agencies etc. For the formulation and implementation of far reaching policies/strategies towards proving housing for IDPs due to conflict.

Chapter 1:   Introduction

1.1 Background

Post-conflict reconstruction is a global phenomenon considering the number of people displaced and the quantity of housing destroyed due to natural and man-made disasters such as flood, earthquake, tsunami, conflict, war, terrorism among others. Post-conflict reconstruction is carried out to rebuild the areas or structures affected by the conflict such as schools, bridges, hospitals houses, roads for maintaining peace and development. The major activity during post-conflict reconstruction is the rebuilding of houses destroyed during conflict to rehouse the internally displaced people (Abdu, 2017). Compared to normal housing construction projects that do not require the involvement of the end users in the reconstruction. Reconstruction of housing for internally displaced people is dynamic and complex in nature, because of the social, cultural and economic requirements that are very dynamic. Therefore, there is a need for the adoption of effective and appropriate approach or strategy (Davidson, 2010). Post-conflict housing reconstruction project that fail to adopt appropriate approach or strategy based on the scope of the destruction, ignore the challenges that can delay or hinder the reconstruction such as the culture of the displaced people, their religion, their environmental condition, lack of favourable government policies, technical and technological support mostly become unsuccessful (Kaklauskis, 2010). This is because the project will not produce the required result or outcome that is acceptable by most of the beneficiaries.

Despite the need for more research in the area of post conflict housing reconstruction and wider interest amongst government, NGOs, researchers, professionals and the need to discover new ways that will assist in improving the existing practice and future outcomes of post conflict housing reconstruction (Blanco et al, 2009; Hair and Amaratunga, 2011). But there are still few researches conducted on the approaches used for the reconstruction of housing for the internally displaced people (IDPs) (Abdu, 2017). However, in the process of planning and designing such important projects little or no attention is given to the challenges that can delay or hinder the success of such housing reconstruction projects (Abdul, 2019; Lizarralde and Bouraoui, 2010). Previous research conducted on post disaster housing reconstruction indicated that ignoring the challenges completely or refusing to give them

maximum attention can affect the success of any housing reconstruction project. This means that the houses reconstructed will not reflect the needs of the beneficiaries which can lead to rejection or the houses being abandon or go through serious alterations which can lead to waste of resources. Therefore, before undertaking such projects there is a need to understand different approaches or strategies used for the reconstruction of housing for the IDPs and the challenges that can delay or hinder the reconstruction.

The common problem of post-conflict housing reconstruction is the unacceptability of the outcome of the project and lack of satisfaction amongst the beneficiaries with the houses (Lizarralde and Bouraoui, 2010), which is due to failure to adopt the right approach. Adoption of appropriate approach for the reconstruction of housing for IDPs has become a problem to those with the responsibility of rehousing displaced people and housing construction engineers. The reason is that most of the time the project is being carried out without considering what the displaced people want or their needs which is a clear indication of lack of understanding of different approaches used for the reconstruction of housing for the IDPs (Abdu, 2017). In other words, it is a clear sign of lack of knowledge of approaches used for the reconstruction of housing for IDPs. if the housing reconstruction failed in rebuilding the lives of the displaced people their condition will deteriorate and become worse than the way it was after the destruction (Schilderman and Lyons, 2011). So, it is important to ensure that the displaced people did not experience additional personal disaster by helping them to regain their normal lives back through adopting appropriate approach or strategy that will produce results that will be acceptable by the beneficiaries (IDPs).

The idea of 'Building Back Better' after experiencing conflict allow sense of understanding amongst political, cultural, social and economic concepts, along with broader function of housing construction (Brunt and Lund, 2008). The success of post-conflict housing reconstruction project rest on the internally displaced people participation in the reconstruction process, their sense of dignity, social understanding, economy and cultural identity as well as government and non-governmental organisations commitments (Barenstein, 2006) (Afolabi et al, 2018). Otherwise, post-conflict housing reconstruction could be regarded as an effort towards rebuilding the community rather than rebuilding individuals or seen as an act of aid towards the families displaced due to conflict (Brun and Lund, 2008). Regrettably, most of the housing reconstruction projects lack coordinated

decision making that will assist in producing the required results that will meet the need and aspiration of the beneficiaries.

According to schilderman and Lyons (2011) most of the post conflict housing reconstruction projects they have studied seems to prefer rebuilding over providing support to individuals or families denying those that wanted the support to be cared for at some point or at a later stage. They further explain that, in some housing reconstruction projects that are through finance the displaced people use part of the reconstruction loans to improve their lifestyle or for personal use in other words they will used the funds for other purposes such as farming, business (Saleh et al, 2020), instead of using the money to reconstruct their houses to suite their standard of living. Some of the victims may use the funds to expand the size of their houses or build additional room in their houses which according to Carrasco et al, (2016) is something unstoppable because some of them feel this is the only way to improve their standard of living. Though, post-conflict housing reconstruction in most cases improve the quality of the houses affected or destroyed better than before the destruction occurs. Even though reconstruction of housing for IDPs is dynamic and complex but the housing must meet some certain standards.

According to Da Silva (2010) the housing must be culturally, religiously and climatically appropriate, standard, easy to maintain and rebuilt in collaboration with the end users (IDPs). The housing should not only meet the needs of the end users, but also reflects their lifestyle, in terms of the size and configuration of the living spaces. Any constraints in the demands of the displaced people can make them dislike their living environment (Gaffarianhoseini et al, 2014), and if the lack of satisfaction continue to some extent the displaced people may encounter stress, poor health condition, discomfort, mal-adjustment, and pathological conditions. When people are dissatisfied or not happy with their housing condition they will try by all means to move to another house or to alter the house they are living in to suite their lifestyle, and if they are not able to do so either because of some certain challenges like lack of resources or choice they will begin to suffer from long-lasting dissatisfaction or discomfort (Ukoha and Beamish, 1997). The primary aim of this research is to develop a framework for the reconstruction of housing for internally displaced people due to conflict.

Nigeria in the past has witnessed different kind of violent and armed conflicts which some are caused by different religious groups and some are caused by youth groups who felt their

region is being neglected when it comes to sharing of resources, but the destruction caused by Boko Haram terrorist is different and enormous (Abdu, 2017; Ahokegh, 2012). For instance, the destruction caused by the violent conflict that erupted between Christian and Muslims in Jos was within Plateau State, and the destruction caused by the Niger Delta Avengers and the Niger Delta militants took placed within the creeks of Niger Delta. But the destruction caused by Boko Haram terrorist group took placed in many north eastern states and spreads to other north western states. Since the death of Mohammed Yusuf, the leader of Boko Haram terrorist the group has carried out several attacks using bomb and snip attacks which as a result many people have been killed some are displaced and a lot of houses were destroyed across Nigeria.

According to human right organisation in Nigeria over three thousand five hundred people were killed, and more than two thousand houses were destroyed from 2009 to 2012 by the Boko Haram terrorist (Agbiboa, 2014). In April 2013, one hundred and eighty-six people died during a crossfire between the group and combined team of military, police and civil defence which as a result two thousand one hundred and twenty-eight houses and other structures were destroyed (Agbiboa, 2013). In July 2013, the group attack a boarding school in Yobe State and burned twenty-nine students including a teacher and killed forty-four people while praying in the mosque and destroyed many houses during the attack (Clothia, 2012). The group show their strength when they attack and destroyed many houses in Marte, Mobbar, Gubio, Guzamala, Abadam, Kukawa, Kala-Balge, and Gobaru-Ngala local government areas of Borno State (Agbiboa, 2013). By January 2015, the group have taken over fifteen local government areas out of twenty-seven in Borno state destroying many houses in the process. However, based on the physical analysis conducted by Borno State government with the support of donor agencies and stake holders in 2015, to determine the quantity of houses destroyed by Boko Haram terrorist. The analysis shows that one million houses were destroyed across the twenty-seven-local government in Borno State (Shettima, 2016). It was because of the destruction of lives and properties caused by Boko Haram terrorist across Nigeria that president Goodluck Jonathan stated that,

"*fighting Boko Haram terrorist is much more difficult than the civil war Nigeria fought from 1967 to 1970* (Jonathan, 2015).

Therefore, reconstruction of houses destroyed by Boko Haram terrorist in Maiduguri should be consider a priority, considering the number of people that were rendered homeless and most of them are women, children and old people (Abdu, 2017). Justification of the research to highlight the gaps in the focus of the research is next

1.2 Research Justification

Reconstruction of housing for internally displaced people (IDPs) is a global phenomenon considering the number of people displaced and the quantity of houses destroyed due to man-made disasters such as conflict, war, terrorism, among others. In the past, Nigeria has witnessed its own portion of conflicts because of tribal, political, religious and economic differences but all these conflicts caused little destruction when compared to the destruction caused by Boko Haram (Abdu, 2017). The group have carried out several attacks which as a result more than four million people have been displaced (Shettima, 2016), and one million houses were destroyed across the twenty-three local government areas in Borno State apart from the houses destroyed by the group in other states like Yobe State, Gombe State, Adamawa State and Bauchi state. In Maiduguri, the capital city of Borno alone over fifty thousand houses and other structures such as schools, hospitals, markets, offices were destroyed during the conflict. Internally displaced people can be defined as group of people who lost their shelter and livelihood due to war, terrorism or conflict (Abdu, 2017).

Most of the displaced people are presently in different make shift camps spread all over the country and many of the temporary camps are breeding places for inhuman and undignified conditions which in turn give rise to a multitude of appalling factors ranging from lack of bare social amenities, security needed to survive to rape and death and exposure to diseases and malnutrition (Abdu, 2017). However, lack of housing has exposed these group of people especially women and children to environmental and man-made dangers like diseases, child abuse, child labour, prostitution, crime, rape, etc. Even though, these problems are common in the societies but the IDPs particularly women and children are exposed more to all these dangers because of their houses destroyed by Boko Haram terrorist. Therefore, providing housing for these group of people will play significant role towards their rehabilitation, resettlement and integration back into the community and will also improve their living condition.

It was understood that, in an urgent need to rehouse the IDPs in Maiduguri, Borno State government in collaboration with stake holders constructed two bedroom houses without considering the needs and preferences of the displaced people and adopting the appropriate approach which as a result the houses were rejected and abandoned by the beneficiaries because the houses did not reflect their lifestyle. For example, the two-bedroom house cannot accommodate a family of five or four and it is against the culture of the IDPs for male and female from the same family to sleep in the same room and majority of the IDPs have a big family and the houses were constructed far away from the IDPs original homes. These are all indication of lack of knowledge or understanding of different types of approaches used for the reconstruction of housing for IDPs and challenges that can hinder the success of the reconstruction from those responsible for rehousing the displaced people.

Most of the literature written by some authors like Smith, 2013, Hair and Amaratunga, 2011, McDonald, 2003 and other scholars related to this area of study focused on post disaster housing reconstruction. The literature reviewed in this research also show that there are many researches that were carried out on post-disaster housing reconstruction, but few researches are conducted on post-conflict housing reconstruction. Despite the campaign and widespread interest from government, NGOs, researchers, professionals towards the need for more researches to be carried out on post conflict housing reconstruction to discover new ways of improving the existing practice and future outcome (Blanco et al, 2009; Hair and Amaratunga, 2011). In addition, there is lack of clear framework, guiding principles or policies specifically designed for the reconstruction of houses destroyed due to conflict within the building construction industry in Nigeria that can be used as a guide for the reconstruction of houses destroyed due to Boko Haram conflict in Maiduguri, Nigeria.

Therefore, this research examine different approaches utilized for the reconstruction of housing for internally displaced people, challenges associated with reconstruction of housing for internally displaced people due to conflict and in relation to challenges associated with reconstruction of the internally displaced people houses destroyed due to Boko Haram conflict and how to overcome the challenges will be composed within the context of framework that will serve as a building block to achieve the overall aim of this research (Van Tonder et al, 2020).

1.3 Research Aim

The primary aim of this research is to develop a framework for the reconstruction of housing for internally displaced people due to conflict.

1.4 Research Objectives

The following objectives are going to be addressed by the researcher to achieve the aim of this research.

- To examine the nature of the Boko Haram conflict and the effect of the conflict on housing in Maiduguri, Nigeria

- To explore different types of approaches used for the reconstruction of housing for internally displaced people due to conflict and approaches used by other countries

- To critically examine the challenges associated with reconstruction of housing for internally displaced people and in relation to internally displaced people in Maiduguri, Nigeria

- To develop and validate the framework for the reconstruction of housing for internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria

1.5 Research Questions

1. What are the approaches used for the reconstruction of housing for internally displaced people due to conflict

2. What are the challenges associated with reconstruction of housing for internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria

3. What are the benefits of having well developed framework for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria?

1.6 Scope of the research

Based on the systematic review of researches on post conflict reconstruction carried out, it was understood that post conflict reconstruction is carried out to rebuild structure and other services destroyed during conflict such as houses, schools, bridges, hospitals and roads among others (Davidson, 2010). But the major activity during post conflict reconstruction is the reconstruction of houses destroyed during conflict in order to rehouse the displaced people. Therefore, this research aims at developing a framework for the reconstruction of housing for the internally displaced people due to conflict. The Framework is necessary because there is lack of framework or guiding policies specifically designed for the reconstruction of housing destroyed due to conflict within the building construction industry in Nigeria.

The framework explored different types of approaches used for the reconstruction of housing for internally displaced people (IDPs) and their success in different countries, challenges associated with reconstruction of housing for IDPs and in relation to reconstruction of housing for the IDPs due Boko Haram conflict in Maiduguri, Nigeria. This research focuses on the reconstruction of the IDPs houses destroyed by the Boko Haram terrorist in Maiduguri, Nigeria, most importantly the IDPs houses destroyed in Borno State (Abdu, 2018). The researcher will limit the scope of the study to IDPs houses destroyed in Maiduguri, since there are other people displaced due to Boko Haram conflict across Nigeria**.** For example, Adamawa, Gombe and Bauchi but the majority comes from Borno State. These groups of people are facing different kind of problems ranging from lack of clean water, food, medical care, cloths but this research will focused on their biggest problem which is lack of housing.

1.7 Brief Research Methodology Adopted in this Study

While conducting a research, there is a need for the researcher to come up with a clear research approach and methods irrespective of what the researcher plans to study (Fellow and Liu, 2003). This is because it will show the actual direction of the study and the rigorous or procedures through which the study will undergo. Research methodology is an organized way of conducting a research (Remenyi and Williams, 1998). It also explained the suitable approach to a problem that can be put into practice in the process of conducting a research

such as philosophy, approach, strategy, data collection methods techniques and procedures. Many scholars have introduced different types of methodological framework, but the most familiar research methodological framework used by social sciences is the 'Research Onion'.

Research onion consists of six different layers which include research philosophy, approach, strategy, methods, time horizon and research choice (Saunders et al, 2009). The research onion served as a guide to researchers towards selecting the suitable methodology for their research. It is known that there is no single research strategy or process that is considered better or appropriate when conducting a research, instead it all depends on the research process that match or fits with the type of research a researcher is conducting. It is also understood that the adoption of a research methodological process depends on its suitability, resources, time, research questions, issue at hand and other skills of the researcher (Easterby-Smith et al, 2012; Denscombe, 2010; Remenyi et al, 2005). The aim of this research is to develop a framework that will be use as a guide for the reconstruction of housing for internally displaced people due to conflict. Therefore, after critical review of the methodological process and approach outlined by number of authors like Saunders et al, (2012), Crotty, (2003), Kagioglou et al, (2000), it was decided to adopt the research onion introduced by Saunders et al, (2012) as a guide towards achieving the aim and objectives of this research. In this research, the philosophy adopted is pragmatist because they believe any research conducted through objective, observable phenomena and based on subjective views or meanings can produce valuable knowledge. After selection of the philosophy that underpinned this research, then the researcher selected the approach that is suitable for this research. In the process of conducting research, there are many approaches a researcher can select from which include deductive, inductive, retroductive, abductive but deductive, inductive and abductive are the most common approaches used by researchers. The selection of research approach for this research was influenced or based on the research philosophy adopted in this research, and the aim and objectives also play crucial role in adopting abductive approach. The approach was adopted because of its flexibility and its quite different from other approaches. However, it is important while conducting a research to identify the type of research study one is undertaking. According to Saunders et al, (2012) there are three different types of research study that include exploratory, descriptive and explanatory studies. Therefore, considering the aim and objectives of this research and the

explanation provided by Saunders et al, (2012), on the three types of research studies this research is classified as exploratory study.

After identifying the type of research study, the research strategy adopted in this research to answer the research questions that will lead to achieving some objectives to solve a problem is case study and survey strategy. However, there are two research methods available from which a researcher can select one or mixed the two in a single research though it all depends on the research philosophy adopted by the researcher. Quantitative and qualitative methods are both used for data gathering and analysis and the disparity between the two methods is that quantitative method is used for gathering data in numbers while qualitative method is used for gathering data in words (Blaikie, 2009). The main aim of this research is to develop a framework for the reconstruction of housing for internally displaced people due to conflict. The building construction industry is made of up different individuals with different knowledge like civil engineers, surveyors, builders, architects among others. These people have different cultures, knowledge and experience but they continue to provide services to the public according to construction industry practice. Therefore, since this is the case the sequential explanatory mixed methods are adopted to achieve the aim and objectives of this research.

Adopting mixed methods in this research will allow the researcher to use both quantitative and qualitative methods of gathering data and analysis in a single study to gather in-depth information which is not possible to gather using a single method (Creswell, 2009; Andrew and Halcombe, 2009). Mixed methods also allow the use of quantitative and qualitative methods one after the other or separate from each other (Saunders, 2012). In this research both quantitative and qualitative methods were used to be able to triangulate different sources of data to do away with the bias data. However, questionnaire was distributed to internally displaced people and building construction professionals, and interview was carried out with building construction professionals during the data collection and analysis as part of research techniques adopted in this research. The quantitative data was gathered from the IDPs and the housing construction professionals through questionnaire and the qualitative data was gathered through semi-structured interviews with housing construction professionals so that to have a good measurement and clear understanding of the phenomena under study (Collis and Hussey, 2014). After highlighting the type of method/s adopted in this research, the time horizon or how the research will be carried out was also identified.

Time horizon relates to the way the researcher intends to carry out the research or wants the research to be. Whether the research will be like a "snapshot" within a period or will be like a diary or in a form of snapshots or activities that will be carry out within a specific time frame? Though, it all depends on the research questions. The snapshot type of research is called cross sectional while a diary type of research is referred to as longitudinal. The aim of this research is to develop a framework that will be use as a guide for the reconstruction of housing for internally displaced people due to conflict. Therefore, this research is considered as cross-sectional type of study because the research will be carried out as a snapshot within a period in the building construction industry in Nigeria to achieve the set objectives.

The selection of data collection techniques depends on the research aim, resources available to the researcher and skills. As such, before taking any decision on how to gather the actual data needed to answer research questions, it is important to know the kind of data to be gathered, from where it will be collected and who will provide the data (Blaikie, 2010). There are two different ways of collecting data and two kinds of data which are directly connected with quantitative or qualitative methods (Saunders et al, 2009). A researcher can adopt a single method of data gathering and analysis or use more than one method of data collection and analysis in a research (Saunders, 2012; Bryman, 2006). However, the two data were also referred to primary and secondary data.

The primary data is a data gather through questionnaires, interviews, audio recordings, observations, video, emails among others (Collis and Hussey, 2009; Yin, 2014; Remenyi et al, 2005). The secondary data is a data which is already store or kept for other purposes related to the area the researcher is investigating or conducting research on (Hussey and Hussey, 1997). This data can be gathered from journals, books, articles, newspapers, thesis, previous research etc. In this research, both the primary and secondary data were used to achieve the aim and objectives of this research. The mixed strategy, approach and methods adopted in this research will allow the researcher to carried out a research that will contribute to the existing knowledge, improve the knowledge of the housing construction professionals which will lead to the improvement in practice. It is believed that knowledge can only be improve when researchers begin to adopt mixed strategy, approach, methods in a single research.

1.8 The Structure of the Thesis

This thesis is structured or organized in different chapters which include chapter one, chapter two, chapter three, chapter four, chapter five, chapter six, chapter seven and chapter eight. Chapter one introduced the research area which include the background of the research, research justification, aim of the research, research objectives, research questions and scope of the research. The chapter also provide brief research methodology employed in the research, the way and how the thesis was organised or structured and finally the summary of the chapter.

Chapter two reviewed the literature related to the area of this research which begin by reviewing the definition of the concept of disaster, natural disaster, manmade disaster, disaster management theory, disaster management principles, disaster management cycles. The chapter also examined the concept of post conflict reconstruction, background of Nigeria as the case study, history of Nigerian conflicts, nature of Boko Haram conflict, impact of Boko Haram conflict on housing in Nigeria. The chapter further examined the concept of internally displaced people, the need for the reconstruction of housing for internally displaced people due to Boko Haram conflict in Nigeria, definition of housing, affordable housing theory, theoretical framework that underpinned this research, approaches used for the reconstruction of housing for internally displaced people and challenges associated with reconstruction of housing for internally displaced people.

The chapter further reviewed different approaches adopted for the reconstruction of housing for internally displaced people by some countries for example, post war housing reconstruction in Sri Lanka, Post war housing reconstruction in Al-Burjain Lebanon, post-earth quake housing reconstruction Hansin-Awaji Kobe, Japan, early framework developed based on literature reviewed, key elements of the framework, approaches used for the reconstruction of housing for internally displaced people, challenges associated with reconstruction of housing for internally displaced people and summary of the chapter.

Chapter three provide explanation of the research methodological procedures adopted to achieve the aim and objectives of this study. It also explains the basis through which the research questions are designed for the data collection. The chapter start by introducing the chapter, then explain different research philosophy, philosophical position or stand that underpinned this research, research approach, type of research study, research strategy, and

research methods used in this study. The chapter further explained the time horizon, research techniques, type of sampling, data analysis techniques used in this study, thesis write-up, validity and reliability, triangulation, ethical issues considered in this research and summary of the chapter.

Chapter four provide in details analysis of the quantitative data gather from both the internally displaced people and the housing construction professionals. The chapter begin by introducing the chapter, analysis of the profile of the respondent's (IDPs) gender, approach to adopt for the reconstruction for housing for IDPs in Maiduguri, challenges associated with reconstruction of housing for IDPs in Maiduguri, Nigeria. The chapter also provide analysis of the quantitative data gather from the housing construction professionals, data analysis and presentation of the findings, respondents' years of experience in housing, section one summary. Section two discussed approach to adopt for the reconstruction of housing for the IDPs in Maiduguri, Nigeria, challenges associated with reconstruction of housing for IDPs in Maiduguri, Nigeria and chapter summary.

Chapter five presents qualitative data analysis from the one-on-one interviews conducted with housing construction professionals as part of the sequential explanatory mixed methods adopted in this research. The chapter begin with analysis of the interview data using NVivo software then approaches used for the reconstruction of housing for internally displaced people due to natural or manmade disasters, appropriate approach to adopt for the reconstruction of housing for internally displaced people due to Boko Haram conflict in Maiduguri, advantages and disadvantages of the approach, challenges associated with reconstruction of housing for internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria, how to overcome the challenges, and the summary of the chapter.

Chapter six presents the discussion of the findings from the literature reviewed, quantitative data gathered from the questionnaire presented to the internally displaced people and housing construction professionals as well as the one-on-one interviews conducted with housing construction professionals. The chapter presents the discussion of the findings on the history of the Boko Haram conflict in Nigeria, best approach to adopt for the reconstruction of housing for internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria, challenges associated with reconstruction of housing for internally displaced people in Maiduguri, challenges that can delay or hinder the reconstruction of housing for internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria, and chapter summary.

Chapter seven presents the modification and validation of the framework for the reconstruction of housing for internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria. The framework was initially developed based on the literature reviewed related to the area of this research in chapter two. Validation of the framework is necessary in order to improve its contents or the concepts. The chapter begin with the introduction of the concept of internally displaced people and the need for the reconstruction of housing for internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria, modification of the framework, challenges that are associated with reconstruction of housing for internally displaced people due to Boko Haram conflict in Maiduguri, validation of the framework and summary of the validation as well as summary of chapter seven.

Chapter eight as the last chapter in this research presents the conclusion and recommendations that emerged from this research and the achievement from the aim and objectives earlier identified in chapter one. The chapter first and foremost provide brief summary of all the chapters in this research then the research justification, aim and objectives of this research, contribution to the knowledge, generalisation, limitation of this research, recommendations and conclusion as well as concluding observations. There is also references and appendices at end of this research. Chapter summary is next.

1.9 Summary of chapter one

This chapter provides the summary of this research work beginning with the background of the research, research problem that lead to the justification of this study which resulted to the need for the development of a framework that will be use for the reconstruction of housing for internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria, aim of the research, objectives of the research, research questions, scope of the research, brief research methodology adopted in this research and the way the thesis was structured or organised. The next chapter presents the complete review of the existing literature related to the area of this research to provide theoretical background to the research.

Chapter 2:   Literature Review

2.1 Introduction

The previous chapter provided the background of this research, research justification that lead to this research, aim of the research, objectives of the research, research questions. The chapter further discussed the scope of the research, brief research methodology used in this research, structure of the thesis and the summary of the chapter. This chapter will critically examine the literature related to this area of research to understand the nature of the current knowledge in the area of this research, and the process through which this was developed to achieve objectives 1, 2, 3 and 4. The findings from the literature will be the foundation for the development of initial framework. The chapter begin with the review of the concepts of disaster, types of disaster, disaster management theory and process, post-conflict reconstruction, background of Nigeria, impact of Boko Haram conflict on housing in Nigeria, meaning of internally displaced people, meaning of housing, affordable housing theory, the need for the reconstruction of housing for the displaced people due to Boko Haram conflict in Maiduguri, Nigeria. The chapter also reveals the theoretical framework that underpinned this research, approaches used for reconstruction of housing for internally displaced people due to natural or man-made disasters, challenges associated with reconstruction of housing for internally displaced people. However, the chapter further introduces approaches adopted for the reconstruction of housing for internally displaced people in Sri Lanka, Al-Buruj, Lebanon and Hasin-Awaji Kobe, Japan and early framework developed for the reconstruction of housing for internally displaced people due to conflict. The chapter conclude with the summary of the findings from the literature.

2.2 Disaster

Disaster can be defined as anything that can caused or lead to destruction of lives and properties or result to destruction of human and material resources. Natural and manmade disasters have caused a lot of damage to human and built environment around the world. The impact of these disasters has been noticed by the entire world in the past, due to increase in destruction of lives and properties. Jaiswal et al (2011) pointed out that in 2010 alone, there are about three hundred and seventy-three natural disasters that occurred around the world,

which caused the deaths of about two hundred and ninety-six thousand people and directly or indirectly affected two hundred and eight million people and believed to have cost up to 110 billion dollars. ISDR (2003) further explained that the two powerful earthquakes in Russia and the heat wave in Haiti are among the fatal disasters that made 2010 the worst year of the two decades.

The concept of disaster has been defined in different ways by different authors in the field of disaster. Smith (2013) defined disaster as a social phenomenon that occurs unexpected or due to human actions and societies suffer tremendously due to the destruction of lives and properties. McDonald (2003) believe that disaster can happen naturally or because of a hazard which is caused by human actions or anything that can possibly harm people and their properties. For example, in a situation where hazard turns to active reality and caused damage to the human and built environment, that automatically becomes a disaster. But Haigh and Amaratunga et al. (2011) argued that, even though the causes of disasters differs, but their impacts on communities, natural and built environment is similar, but the level of destruction varies. Though, the impacts may differ depending on the nature of the disaster and the economic potential or status of the environment affected by the disaster.

The destruction caused by natural disaster around the world has increased significantly, especially in the coastal parts because the area is overcrowded with people and increasingly growing due to the economic potential of the area which encourages people to move there in search of livelihood. Societies are exposure to disasters is not because of their closeness to hazard, but as a result of socio-economic and infrastructure factors. Smith (2013) pointed out that there is a relationship between risk and disaster, and both can be affected by human conditions and actions. It is believed that people are vulnerable to hazard in different ways, but they can reduce the vulnerability through proper planning. The impact of a disaster can be different, even though it all depends on where it occurred and how the people affected understand it.

It is possible to minimise the impact of disaster if it occurred in an environment where people are highly protected, even though disasters occurs without notice otherwise, but if it occurs in an environment or location where people are not safe or protected the impact can be enormous. Palliyaguru et al. (2014) argued that disaster risk can be managed by reducing people vulnerability or exposure to hazards or by enhancing people knowledge of disaster

management and incorporating some elements into disaster risk reduction process to reduce the destruction caused by disasters, through understanding hazards and reducing individual vulnerability. The global communities will continue to live under the threat of deadliest disasters, and the impact of these disasters on societies and economy will increase. Generally, women and children are the most vulnerable in disaster situations. For example, after the Nepal earthquake in 2015, it was estimated that over two thousand nine hundred children out of eight thousand nine hundred and seventy thousand people that was killed by the earthquake (Gautam, 2017; Subedi and Chhetri, 2019 cited in Basnet, 2020). Since there are different views about disasters and their impacts. Some scholars believe there are two types of disasters namely natural and manmade disasters. This research focused on manmade disasters and conflicts to be specific.

2.2.1 Natural Disaster

When disasters are mention many people start thinking about natural hazard events, but it is not only the case. Natural disasters are disastrous events that are naturally cause by volcanic eruptions, earthquakes, floods, tsunami etc. Natural disasters are also referred to Acts of Allah (God) (Saluf, 2007 cited in Bal Krishna, 2020). Turner and Pedgeon (1997) further reviewed natural disasters and explained that there are natural disasters that emerges from under the earth's surface such as volcanic eruption and tsunami and natural disasters that originates on the earth's surface include avalanches, landslides. The natural disasters that are metrological or hydrological are windstorms, cyclones, typhoons, hurricanes, tornadoes, hailstorms and snowstorms, sea surges, floods, droughts, and the biological disasters include locust swamps and communicable diseases.

Bohari and Rashid (2001) stated that in the past many countries across has experienced different types of natural disasters such as cyclones, floods, landslides, volcanic eruptions, earthquake etc. For example, between 1947 to 1981 five hundred and fifty-four hydrological disasters occurred when compare with two hundred and eight geological disasters that took place in that period. Out of the two categories floods occurred frequently then follow by tropical cyclones then earthquake. Even though floods occurred more often but tropical cyclones and earthquakes caused more destruction and displacement. In the last few decades natural disasters such as droughts, floods, earthquakes, storms, tropical cyclones, wild land fires and volcanic eruptions have caused enormous destruction which as a result the

economic loss has increased to nearly ten times. Though, the natural disasters that occurred were not the worst in this era, but the destruction they caused in terms of human, material and economic loss has worsened due to the following reasons

- Increase in the occurrence of natural disasters; though this was explained differently and have been the subject that attract extensive debate: global warming, climate change, damage to the ecological balance through corrupt reduction of natural resources by man, deforestation, environmental evolution causing the earth's structure and behaviour.

- Population growth and people moving or settling in areas that are exposed to earthquakes, floods, landslides and other natural disasters. Poverty and increase in population were the reason why people move to exposed and hazardous areas where houses are affordable and cheaper whilst the rich move to safe locations with good houses.

- Economic situation in developing countries; poverty and economic conditions of many people in the developing countries are responsible for people being exposed to disaster because they cannot afford to leave in safe areas, and they want to stay close to places with job opportunities. In addition, economic issues were responsible for increase in houses and other structures being exposed or vulnerable which may be due to lack of knowledge or understanding of the risk by the policy makers, and or used of sub-standard building materials by building construction engineers or contractors.

In addition, the assessment carried out by the United Nation revealed that one hundred thousand people lost their lives each year due to natural disasters alone, and the cost of the destruction is expected to reach three hundred billion dollars every year by 2050 (United Nation background paper cited in McDonald, 2003). The effects of the destruction caused by both natural and man-made disasters have affected people in different ways, which as a result different government, disaster management practitioners, non-governmental organisations are making a lot of efforts to find ways or strategy for disaster risk reduction and management. Despite the efforts made, it is still a difficult challenge because political and economic priorities have often dominated the discourse preventing decisive action to be taking. That's why at the 1992 Rio summit about one hundred and seventy-two countries participated in the conference that examined the connection between sustainable development and environment.

This led to another climate change conference leading to Kyoto agreement which introduced a framework that will reduce global warming by minimising carbon dioxide emissions. However, in 2002 another conference held in Johannesburg which deliberated on how to create solid foundation for the implementation of sustainable development, but lack of strong commitments was the stumbling block. Within the context of United Nation actions, intensive efforts were made towards developing policies or guidelines that will enable communities to be more resilient to disasters and carry out developments that will not increase their vulnerability to hazards. Even though, no country is safe from natural disaster but developing countries are more vulnerable because of their inability to reduce the effect of disasters. It was estimated that 97% of the people killed by natural disasters each year are from developing countries and the cost of economic loss in connection to gross domestic product surpass the one in develop countries (UN International Strategy for Risk Reduction-background document to WSSD cited in McDonald, 2003).

The need to improve society vulnerability was also emphasised because the attention given to disaster response and humanitarian aids has taken so much funds that could have been used for risk reduction and reconstruction. The area of natural and man-made disasters is very broad and governments, disaster management experts and researchers are becoming more and more worried and reviewing, analysing trying to find ways of reducing the impacts of these disasters on human and built environment (McDonald, 2003). In trying to cope with disaster, housing and other buildings mostly are the major weakest link, because houses, bridges, roads, and other structures that serve as security or protect us become the most unsafe places to be when the disaster occurs. Increase in disaster occurrence and cost of destruction in terms of human and material can be attributed to the fact that contemporary communities are like urban and suburban inhabitants. Therefore, if disaster occur in a less populated areas it passes without causing much destruction but when it occurs where there is many people and buildings it causes serious destruction.

The major destruction caused by disaster is the destruction of houses which make it very difficult for the displaced people to recover physically, mentally and financially. The effects of natural disasters like earthquakes, storms, floods on housing and other structures has shown that many countries lack or have no guiding procedures regarding building standards that will help to minimise the damage cause by disaster on houses and other structures (McDonald, 2003. Even though, it would be very difficult to predict natural events, but it is

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possible to make sure people can escape to safety when disaster occurs, and houses and other structures suffer very little from disaster.

2.2.2 Man-made Disaster

When we talk about disaster we must talk about human suffering; manmade disasters are quite different from natural disasters. Disasters created by man can come in different forms such as conflict, terrorism, war, diseases, unable to cure or prevent communicable diseases, geological disasters, financial crises, unfavourable economic and social policies can form an important part of manmade disaster. Harding (2007) explained that when these disasters occur, they can last for a long period to the extent they can stop the development of the area affected. The author further suggested that man-made disaster should not be regarded as a devastating event that produces many casualties, rather should be consider as inevitable decisions taken by some powerful governments or organisations to protect their interest to achieve their goals. These disasters are responsible for causing a lot of suffering among the vulnerable groups most especially women, children, poor people and older people. The definition of disaster has continued to expand and presently it has included manmade disasters (Harding, 2007; Epstein and Harding, 2020). The level of destruction caused by the natural disaster was noticed worldwide, but the impact of man-made disasters on society and built environment is much broader.

UNICEF et al (2003) revealed that millions of people have been displaced from 1990 to 2003 from forty-eight different locations out of fifty-nine conflicts and it was estimated that over one million four hundred thousand children were killed during the conflict. However, in 2003, it was estimated that over twenty million people died due to lack of medicines and proper medical checked of HIV/AIDS disease which as a result fifteen million people became orphans and 80% of these people are from sub-Saharan Africa. Noguchi (2002; Noguchi, 2010) believed that the level of poverty in the developing countries was responsible for producing over one hundred and ninety million child labourers between the age of six and thirteen years, even though most of the developing countries are in rich with natural and human resources more than some of the developed countries.

Noguchi (2010) further explained that 1% of the diseases affecting most people in the developing countries are directly associated with environmental risk due to poor sanitation and hygiene and contaminated water is the prominent risk factors responsible for causing

over one million six hundred thousand premature deaths annually. Burton and Hicks (2005) believed that global communities will continue to experience destruction of lives and properties if they refuse to come together and find a common solution to man-made disasters most especially terrorism.

Conflict: Conflict can occur when there is a clash of political, social, economic interest between individual, groups, and communities or because of religious differences. Pfetch (2012) pointed out that conflict can last for so long when it occurred and can involve group of people, states, organisations that are not willing to compromise their interest rather pursue their interest to a logical conclusion. Conflict is irreconcilable discussion between individual, groups or communities in the process of pursuing certain goals or when groups, individual are pursuing the same goal and, in the process, try to prevent other groups or individual from pursuing the same goal.

Billon (2018) pointed out that conflict is part of society and has significant influence over the evolution of society and it causes societal integration and disorder. Previous research conducted within disaster management have concentrated more on natural disasters such as disaster impact, disaster risk reduction, post-disaster recovery and reconstruction instead of focusing on the impacts of man-made disasters on human and built environment (Nel and Righarts, 2008). The nature of conflict across the world and impacts of internal and intrastate conflicts raised the need for the development of new policies and modalities for post conflict reconstruction. Many countries have witnessed different kind of conflicts in the past which result to total breakdown of socio-economic activities of the affected communities. The amount of resources that is allocated for relief activities has increased from 2 percent in the past to 10 percent recently due to displacement (Righarts, 2008). Though, conflict has affected both the developed and developing countries, but the impact of conflict on third world societies like Sudan, Libya, Congo, Liberia, Nigeria was enormous.

Many countries across the world most especially African countries has witnessed one form of conflict or another in the last fifteen years due to political, religious, economic, ethnic differences. Conflict when it occurs can spread across borders affecting neighbouring countries, that is why most of African countries share boarder with or is near a country that has experience or witnessing one form of conflict or another. Some of the conflicts that occurred recently in Africa are internal conflicts and most of the time the transition from conflict to peace is hindered by insecurity, uncertainty and recurrence of conflicts before achieving peace and stability.

Conflict has hindered the progress of many African countries to some extent destroying the social and economic development recorded for many years. Internal conflicts have become the major caused of displacement in Africa, which has directly or indirectly affected almost each country. The disruption of economic activities, human and physical structures are so overwhelming but are all part of the destruction caused by conflict. The major factors responsible for causing conflict are associated with economic, social and political power struggle, but some of the conflicts are associated with struggle for scarce resources. However, there are some conflicts in Africa that are usually caused by western countries or political elites in order to divide and rule, but it is very rear for conflict to occur due to one of these factors alone without issues of marginalisation of the minority, unemployment, poverty among others. Sometime conflict can change to war or terrorism if it last for so long. For example, Boko Haram conflict which started purely as a religious conflict and later change to political conflict because the politicians are using the conflict to mismanage the country's resources and for political gains. Political conflict is discussed next.

Political Conflict: this type of conflict can occur before, during or after election between members of political parties. Political conflict can also occur when a candidate of political party A believe to have win the election and the umpire decide to announce the candidate of political party B as winner, or when the candidate of political party A connive with the umpire to manipulate the election result in his favour or verse-versa. That's why in anticipation of political conflict before; during and after election many governments in Africa involved security agencies in the election process to prevent destruction of lives and properties (Haynes, 2009). Presently countries like Nigeria, DRC and Kenya are witnessing different kind of conflicts caused by different group, such as Boko Haram, Niger Delta militants, Niger Delta Avengers in Nigeria, Al-Shabaab in Kenya all could succeed due to inefficient political leadership at various levels.

Even though, the current government in Nigeria has made a tremendous progress towards the fight against Boko Haram terrorist by recapturing all the local government areas that were under the controlled of Boko Haram terrorist and secured the release of 106 Chibok schoolgirls out of 220 girls abducted by the terrorist. The concept of terrorism is discussed next.

Terrorism: Terrorism is an attack carried out by individuals, group of people with the sole aim of instigating fear and anxiety in the society (Eisenberg and Silver, 2011), Terrorism can be defined in different ways. Schmid (2011) sees terrorism as an attack carried out by

individual, group of people as a fear-generating strategy for political, economic and social gain which cause psychological discomfort. Terrorism is among the disasters created by man to achieve certain aim and objectives. For example, for political, economic, religious, social reasons among others. This act of terrorism is very difficult to control because it is unpredictable and can happen at any time and anywhere. Disaster management theory is discussed next.

2.3 Disaster Management Theory

Major disasters occur frequently, and the number of people affected by these disasters has increased in the last few years. In recent years, the field of disaster management and humanitarian activities was given more attention (Galindo and Batta, 2013), and presently there are different literature that is related to this field. Disaster management focuses on managing and minimising the impact of disasters. For example, reducing the destruction of lives and properties, providing quick and effective assistance to the communities affected by disaster etc. Kelman et al. (2016) see disaster management as an activity that involves planning and reacting towards disasters before and after disaster to minimise the risk and impact of the disaster. However, disaster can be managed when disaster management agencies concentrates on the activities within disaster management process, and these interconnected activities are associated with disaster management and control.

Disaster management process explains step by step process towards responding to disasters and how disaster management practitioners, government and communities can plan to minimise the impact of disaster, response during and after disaster as well as how to recover from the disaster when it occurred (Amaratunga et al, 2011). Therefore, it is necessary to take all the stages within disaster management process serious to have adequate preparedness, reduce the risk and vulnerability of people and buildings towards disaster. McLoughlin (1985) further divide disaster management process into four stages, which include mitigation stage, preparedness stage, response stage and recovery stage. Mitigation is a process of reducing the impact or damage caused by disaster and preparedness is a process of preparing, planning before disaster occur to respond effectively towards disaster.

While the aim of disaster response is to react to the needs of disaster victims by providing relief materials such as foods, medicine, clothes, water and temporary camps to reduce

suffering and outbreak of diseases within the community affected. The recovery stage is a period where the victims or the displaced people are being rehabilitated by the government of in collaboration with stake holders and donor agencies and reconstruction of the structures destroyed by the disaster such as housing, roads, schools, hospitals among others.

Thomson (2012) believe a well-designed relief network can play significant role in disaster management process and serve as a link between preparedness and response stage. Galindo and Batta (2013) suggested the need for disaster operation management (DOM) to enhance disaster management process considering the impact of disaster on human and built environment. Disaster operation management is a set of organised activities that take place before, during and after disaster occurs with intention of reducing its impact on human and built environment. Search and rescue of disaster victims and distribution of relief materials are part of the activities in emergency response. Search and rescue usually happen from the beginning of the emergency operation to help the injured and to locate the victims who are trapped in the building.

Distribution of relief materials such as food, water, medicine and clothes to disaster victims is one of the important aspects of disaster management that is the reason why disaster management practitioners concentrate more on emergency operations through developing different types of operation research models that can be used to solve emergency operations problems. Von Engelhardt and Jansz (2015) pointed out that when a devastated disaster occurred and caused a lot damaged to communication and transport system, this will make it impossible to have valid information to coordinate the distribution of relief material successfully and can also cause problems that can lead to poor emergency operation. For example, late distribution of relief material, or relief materials could not reach the displaced people can be considered as a new disaster. Disaster management principles are discussed next.

2.3.1 Disaster Management Principles

Considering the damage caused by disasters on human, built and natural environment, government, disaster management practitioners and academicians turn their attention towards developing an efficient and reliable framework that will be used to reduce the effect of disasters (Palliyaguru et al., 2014). Though, different theories were developed that are useful

in terms of understanding disaster and its impact on natural and built environment. Disaster can disrupt people's lives regardless of where it occurs and can cause a lot of damage in different ways. The damage caused by a disaster cannot be estimated and ascertain in financial terms because human life is beyond measure and the impact of disaster on communities can be either directly or indirectly. However, contrary to what has been written in the past about disaster general trends it is still not enough to make people understand the impact of disaster on community and their shelter. Therefore, it is important to understand the impact of disaster on people to clearly appreciate how individual, society, families are directly or indirectly affected by disaster (Vatsa, 2004).

The destruction of lives and properties caused by disasters is not the same across communities, but it all depends on how vulnerable the location is, the nature and condition of the houses people live in, access to reliable information and resources. The vulnerability attached to these factors exist in both developing and developed countries even though, the physical aspects of vulnerability is more common in developing countries. It is believed that the poor sections of the society are more exposed to disaster risk. For example, most of the people that died because of Bhuj earthquake of 2001 are the middle class. The impact of disaster across social classes is so complex because, constant employment, insurance, loan and asset assist the middle class in the society to cope and recover quickly from disaster (Agency, 2015). While the low-income earners have few options compared to rich people in terms of responding to disaster since they cannot afford insurance and have single source of income and less asset. For example, in Vietnam, individual or family with huge assets and capital recover and survive while the poor families or individual without savings went down with the shock.

Moser (1998) explained further that, communities are exposed to wide range of risks associated with disaster; and for an individual or community to be resilience towards the impact of disaster, they need to understand the level of their vulnerability. The degree of their resistance depends also on the resources available to the communities when faced with any kind of disaster.

1. **Risk:** In the past few decades, the term Risk has become one of the areas where rigorous and empirical research are carried out, the area of risk analysis has continued to grow fast, concentrating on risk assessment and management (Birkmann, 2007).

Risk management revolves around communication, mitigation and decision-making process. Disaster risk reduction includes a systematic process of development and use of different policies, strategies as well as practices to reduce the adverse consequences of disaster (ISDR, 2005). The adverse impact of disaster can be minimised by adopting a suitable and efficient disaster risk reduction approach or strategy.

2. **Vulnerability**: According to Chrisman and Ibert (2012) the term vulnerability was used and explained in different research areas such as hazard, disaster, human science, psychology and economics which as a result led to significant theoretical differences. In the last thirty-nine years, the term has become a major aspect of disaster risk study. However, there is a growing debate on how to characterise vulnerability in theory and practice of disaster risk management (Birkmann, 2007). Vulnerability is a concept that explained a different kind of destruction experienced by communities because of natural disasters. There are a different group of scholars that elaborated on the term vulnerability focusing on different aspects of the term ranging from the immediate impact of hazard and its consequences on people conditions for example, ability to cope or reduce exposure to hazards.

Miller et al. (2014) believed that people are vulnerable to hazards or disasters in different ways, but they can minimise the vulnerability. ISDR (2005) adds that vulnerability is some sort of conditions that are determined by economic, physical, social and environmental factors, which are responsible for increasing the vulnerability of individuals and communities towards disaster. The authors further explained that there are other factors that increase people vulnerability towards disasters such as poverty, armed conflict, terrorism, population growth and other developmental problems. As such, it is necessary to control societal vulnerability towards disaster to reduce the impact of disasters.

Palliyanguru et al. (2014) stated that, due to increase in vulnerability, disaster risk reduction is regarded as one of the key aspects towards mitigating the impact of disasters therefore, it is important to incorporate disaster risk reduction into approaches, policies and programmes at various levels of government. Considering the importance of disaster risk reduction, the world conference on disaster risk reduction that took place in Kobe, Hyogo, in Japan, introduced a framework for action

that will runs between 2005 -2015 in order to build resilient communities. The framework was adopted by 167-member nations and among the goals, the framework seeks to achieve includes

- To ensure that disaster risk reduction is considered a priority at all levels of government with a strong reason for implementation

- To understand and control disaster risks

- To adopt knowledge and innovation as a way of building resilience at all levels of government

- To minimise the major risk factors

- To make disaster preparedness more efficient for quick and effective response at all levels of government.

According to Davies et al. (2009) there are different disaster risk reduction measures which include policy and planning measures, preventive measures, coping and adaptive measures and community capacity building measures. Policy and planning measures are applied at the federal level to incorporate disaster risk reduction into decision-making process or framework. Physical preventive measures are applied to minimise infrastructural vulnerability to hazards and disasters. While physical coping and adaptive measures are infrastructures that are designed to cope and withstand any kind of disaster and Community capacity building measures are used in training and retraining of communities as capacity building to be able to respond and cope with any kind of disaster.

3. **Resilience:** The term resilience has been defined by different scholars in different ways and the definition of resilience varies but centred on the same aspect. Brand and Jax (2007) defined resilience as the ability of people or system to cope with disturbance caused by hazard or disaster and recover to some extent by restoring the functions of the people or system back to normal. Martin-Breen and Anderies (2011) see resilience as the capacity of people to expect, prepare for and adapt to any kind of changing conditions, resist, respond to, and recover simultaneously from disruptions. The concept of resilience was adapted in other fields such as psychology and engineering for a long time. Alexander lately was able to trace when the concept of

resilience was used from Seneca Elder to Francis Bacon to Tomes who used it first in relation to disaster recovery after the earthquake in Shimoda, Japan in 1854 (Alexander, 2013). Prior to this development, the concept of resilience was also used in medicine and psychology where it was used in studying traumatised children to examine and understand the capability of individuals who are under stress to retain their psychological state and adjust to any kind of situations because of disaster.

Park et al. (2013) further explained that there is an increase in research recently on disaster management concentrating specifically on natural and manmade disasters. Martin-Breen and Anderies (2011) considered resilience that is related to physical systems to be engineering resilience due to the amount of time it takes for the system to recover to equilibrium. Under this situation, the system is believed to be in a stable condition and resilience largely is based on the people to return to normal after experiencing disruption. However, the resilience that is connected to the physical system is considered as engineering resilience which concentrates on how system recovers and get back to equilibrium. What this means is that the methods of assessing engineering resilience policies will concentrate on how to increase function based on the nature or features of the disaster as well as the factors responsible for reducing the time needed for the system to return to normal.

This further explains how policymakers conceived the concept of resilience, for example, United Nations International Strategy for Disaster Risk Reduction (UNISDR) used the concept of disaster resilience to include assessing and mitigation of risk. National Academy of Science sees resilience as a process that includes preparedness, response, recovery, mitigation and adaptation. The reports of the national academy of science focus on disaster risk reduction protocols and adaptation even though the reports did not explain what adaptation means other than as a process of using the existing methods. Beccari (2016) defined disaster resilience as a continuous process of managing risk which is the foundation of building resilience societies, and consistent risk assessment and management can be regarded as resilience building. Disaster management cycle is discussed next.

2.3.2 Disaster Management Cycle

Disaster Management cycle is an important activity that is mainly used for controlling disaster and its effect on communities since in 1970. There is a debate between scholars and disaster management practitioners on the origin of disaster management cycle which has caused misunderstanding due to the influence of concepts such as sociology, psychology, geography have over its history (Amaratunga et al, 2011). Disaster management cycle is so complex to explain because the disastrous events it manages. Coetzee and Van Niekerk (2012) see disaster management cycle as a process of managing the impact or destruction caused by natural disasters. Disaster management cycle can also be defined as interrelated activities carried to reduce the destruction caused by disaster on people and built environment.

Coetzee and Van Niekerk (2012) divide disaster management cycle into four phases, which include Mitigation, preparedness, emergency response and relief, recovery and reconstruction. The cycle was further categorised into two main sections. The preparedness and mitigation were referred to as risk management activities while emergency response and relief, recovery and reconstruction as crisis management activities. Therefore, to minimise the impact of disasters and to be disaster resilience, there is a need to concentrate on all the aspects within disaster management cycle. Figure 1 show the disaster management cycle by Kawata (2001).
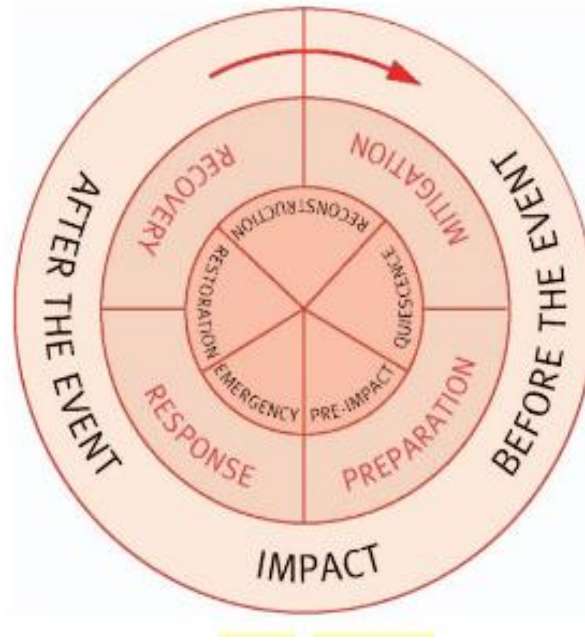
Figure 2.1 : Disaster Management Cycle. (Sources; Alexander, 2002)

Different diagrams have been developed to explain the way these activities within disaster management cycle are carried out. The activities within the cycle operate closely and often overlapped since the main objective is to manage different kind of disasters.

1. **Mitigation**: this is a process of controlling or minimising the impact of disaster on human and built environment. Mitigation usually is carried out to ascertain the buildings that are exposed to disaster or people that are leaving in houses that are vulnerable to disaster, in order to take measures that will reduce their vulnerability towards disaster when it occurs. Mitigation includes the entire actions and process or planning that can reduce the impact of disaster (Gregg and Houghton, 2006). This can be achieved by identifying the actual risk attach to disaster and reducing it; either through changing the entire process of managing disaster or adopting old structural approaches which include stop banks or seawalls or by changing people behaviours or mindset and examining the structures that are vulnerable or at risk.

   The change in behaviour or mindset encompasses different aspects such as planning on how to use land; to discourage people from building on the vulnerable or hazardous areas; to provide easy access for quick emergency response and evacuation; and to create linkage and resilient societies. In practice, proper land use planning can minimise the risk originating from many disasters, but the habit of

building structures on disaster vulnerable areas makes it difficult to reduce the risk. Strengthening of buildings and structures that are vulnerable to disaster and increasing the height of the floor can minimise to some extent the impacts of disaster (Ronan and Johnston, 2005).

2. **Preparedness**: this is a process of empowering individuals who may be directly affected by the disaster or individuals who are in the position to assist the people affected by disaster with the knowledge or tools that will increase their chances of coping with the impacts of disaster. Preparedness also includes educating the vulnerable communities about disaster and how to manage and minimise the effect of disaster, providing regular training and retraining of the staff of the emergency management agencies, use of disaster monitoring and warning mechanism, development of quality response strategy or methods, creation of resilience societies that are well prepared.

3. **Emergency Response and Relief**: this is the phase within disaster management cycle that received much attention in terms of funding, planning and time (Gregg and Houghton, 2006). This is a process of reacting or taking some decisions after disaster occurred or during a disaster, to control and minimise its impacts on human, economy and built environment. The fact is that majority of the countries do not have the ability or capacity to stop disasters from occurring most especially the natural disasters; therefore, the most important thing to do is to find a way to minimise the impacts of such disasters which is possible by reducing the level of risk. Nevertheless, ability to response efficiently towards disaster is necessary in any disaster situations since it involves some processes of collaborative efforts to use resources, personnel to carry out some activities such as providing relief materials, search and rescue operation, rehabilitation and resettlement.

4. **Recovery and Reconstruction**: this is a process of rebuilding the lives of the displaced people back to the way it was before the destruction or better than it was before the disaster occurred. Recovery and reconstruction usually start when the response operation is completed and sometimes recovery and reconstruction can take longer time even though, it all depends on the number of people displaced and the quantity of houses and other buildings destroyed by the disaster. Presently there are

number of studies on comprehensive recovery processes and for any recovery to be successful (Norman, 2004), the natural, built, social and economic environment must be included. The environments are interconnected, and communities depend so much on them.

- The natural environment; this is an environment that normally provide amenities to the communities such as shelter, recreation, psychological stability or wellbeing, resources, employment among others.

- Built environment; this provide life supporting utilities and infrastructures such as housing, school, hospital, offices so that people can live, work and socialised.

- Economic environment; this is an environment that is responsible of providing goods and services, employment among others.

- Social environment; this environment provides level playing ground for association, community development, freedom of speech, networking among others.

The recovery stage consists of different activities such as rehabilitation of victims, restoration of their livelihood, and rebuilding or reconstruction of the areas affected by the disaster (Becker et al, 2008). Though the recovery stage is time consuming but is believed to be among important activities within disaster management cycle. The stages or activities within the cycle are not discreet rather they are interconnected and preferable should be incorporated throughout the disaster management planning process. Failure to make a good decision about the risk reduction method or methods to adopt can affect the level of preparedness and the type of response operation required. The level of preparedness of the people affected by disaster and the disaster management experts can determine if an event can be regarded as disaster.

For example, 20% of the people leaving in New Orleans where left stranded due to failure of government and the people responsible to provide means of evacuation without resources or means of transport to leave the area before the hurricane Katrina's landfall (Laska and Morrow, 2007). Therefore, the quality of response provided after disaster will play significant part in the way the people affected recover from the destruction both physically and mentally. The experience gathered from the response stage can be incorporated into the disaster risk reduction and preparedness planning process. It is also important for the risk reduction

measures to be part of the recovery process to increase the level of people or communities resilient and minimise the degree of their vulnerability towards disaster. However, the use of remote sensing technology has played significant role towards disaster management most especially for mapping and monitoring the activities of tropical rainforest, tropical coastal wetlands among others.

Different figures have been developed to explain the way these activities within disaster management cycle and other related activities are carried out within a given time, even though there was an argument about the way such a cycle is conceived or visualised. The Figures 2.1 and 2.2 are overviews, and it must be understood that there is every tendency to notice some exceptions within each figure. Based on general practice, all the activities within disaster management cycle are interlinked and carried out to some extent before, during and after disaster occurred. Disaster most of the time occur in different forms, and while undergoing recovery at one location then moving straight into another recovery process. Similarly, disaster response is believed to be the first activity after disaster, but it is not unusual for the response to commence before the disaster occurred.

Coetzee and Van Niekerk (2012) further divide disaster management activities into two different parts, which include pre-disaster risk reduction activities and post-disaster recovery activities. There are number of activities within disaster management cycle which are carried out in different stages, but the focus of all the activities is towards disaster management.
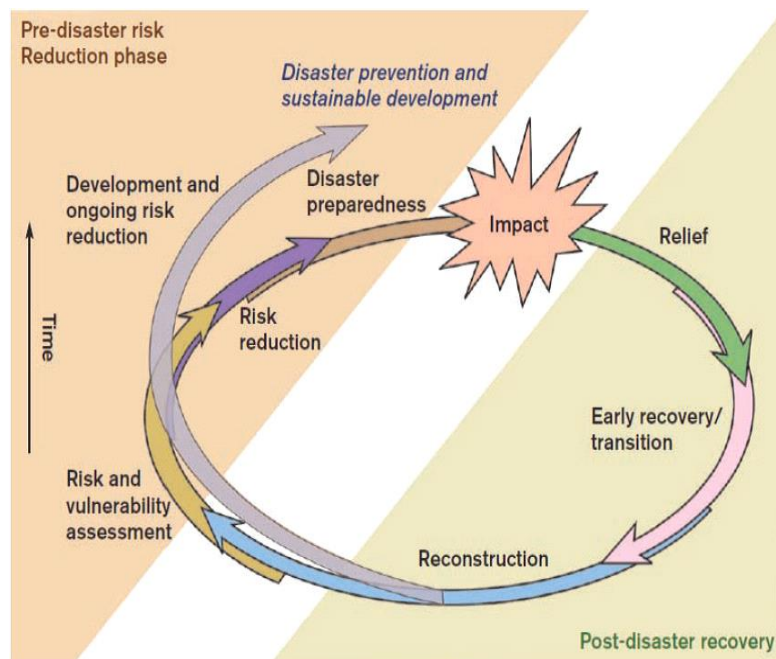
Figure 2.2: Disaster Management Process (Sources Smith, 2001)

Pre-disaster protection stage includes different activities such as risk and vulnerability assessment, risk reduction and disaster preparedness. Risk and Vulnerability Assessment is carried out to understand how exposed communities are towards disaster. Risk reduction is aim at reducing the risk of communities and built environment towards disaster. Disaster Preparedness is concerned with the level of preparedness or readiness of communities towards responding to disaster when it occurred in terms of short term and long-term preparation, early warning, emergency planning, rescue and methods of evacuation.

1. **Risk and Vulnerability Assessment**: at this stage risk and vulnerability assessment is very important to understand how expose communities and structures are towards disaster. There could be reasons why a disaster occurred in a "community A" for example, and may cause very little or no destruction, while in "community B" the same type of disaster may occur and caused serious destruction of lives and properties. For instance, an earthquake occurred in Los Angeles and killed not more than 100 people, but the same earthquake with the same magnitude and strength occurred and killed over 19000 people in Gujarat, India (Coppola, 2007). The differences in the casualties from the examples are due to lack of conducting regular risk and vulnerability assessment on the areas affected.

   Risk and vulnerability assessment are carried out to measure the tendency of the environment, individual, and group of people, community or country being affected by the consequences of disaster. The measurement can be carried out on physical, social, economic and environmental related issues. Vulnerability can be minimised by taking some actions capable of reducing its consequences and vulnerability can also increase by taking some actions that can increase its propensity. For example, reinforcing a house to resist the influence of earthquake will reduce the housing vulnerability towards disaster, as well as minimising the risk to avoid loss.

2. **Risk Reduction**: this is a process through which the consequences or the likelihood of the disaster occurrence is reduce to minimal. If the possibility of the disaster and the expected consequences of disaster is minimised, then the risk reduction is effectively reduced (Ansell and Wharton, 1997). Otherwise, any human action that increases the possibility of disaster to happen or increase the consequences of disaster

therefore, disaster risk will increase. RICS (2009) and McEntire (2010) suggest that there is a need to conduct risk and vulnerability assessment to understand the extent at which communities and infrastructures are exposed to the risks of hazard and disasters. Conducting vulnerability analysis will make it easy for the disaster management professionals to identified buildings that need reinforcement or that will be move to safe location, since it is impossible to stop people from building houses within the coastal area.

Thus, it is necessary to reinforce every structure that is within the potential tsunami, flood disaster area, but it is not easy to build coastal barriers such as brick wall, revetments and seawalls all the time. Bosher et al. (2007) add that understanding community and infrastructure vulnerability to disaster will help in developing a reliable mitigation plan. Mitigation activities include structural and non-structural measures aim at reducing the consequences of natural, environmental degradation and technological disasters. Activities such as vulnerability assessment, risk reduction and preparedness are carried out as a pre-emptive approach while activities carried out during or after a disaster such as recovery and reconstruction are regarded as a reactive approach.

The poor proactive approach towards disaster management can lead to the serious destruction of human, built and natural environment while efficient proactive approach towards disaster can minimise the level of destruction of human, built and natural environment (Lin Moe et al., 2007). Therefore, a combination of proactive and reactive approaches is important to manage disaster successfully.

3. **Disaster Preparedness**: are early measures taken to react effectively towards the consequences of disasters. This includes provision of early warning mechanism, removing people and relocation of structures from vulnerable areas to disaster free areas (Lin Moet et al, 2007). Providing humanitarian assistance, intervention or providing means of livelihood to the victims are all part of the relief activities. Post-disaster recovery stage comprises a range of activities which include provision of relief materials, early recovery and reconstruction. Immediately after the survivors are rescued, then the next priority is the supply of relief materials such as food, medicine,

water and other means of livelihood to avoid loss of life, this can last for few days or weeks after the disaster.

The next stage is the rehabilitation of the victims which commences after the rescue operations and supply of relief material with the aim of bringing back normalcy within the affected communities, then rehabilitation which depends on the number of people affected by the disaster. After the rehabilitation the next activity is the reconstruction of the areas affected by the disaster, which sometimes can be a short-term or long-term activity depending on the nature of the destruction caused by the disaster.

4. **Relief**: supply of relief materials to the people affected by disaster normally commence immediately after the rescue operation to reduce suffering the victims are passing through. Relief materials can include provision of food, clean water, medical care, cloths and temporary camps. Provision of relief materials can last for months or years though it depends on the impacts of the disaster and until when the houses of the victims are reconstructed or rebuild.

5. **Early Recovery**: this is a complex, gradual, and expensive process that requires time and resources. Early recovery normally begins with removal of debris of the structures destroyed by the disaster before reconstruction of the structures and services damaged by the disaster, so that the communities affected can have their life back (Pheng and Chuan, 2006).

6. **Reconstruction**: this is the last activity carried out after disaster occurs in order to rebuild the structures and services destroyed by the disaster such as bridges, schools, hospitals, houses etc. Reconstruction mostly start after recovery and the activity can last for years depending on the number of people displaced or that are rendered homeless and the quantity of houses destroyed by the disaster. Reconstruction of housing is one of the major activities during post-conflict reconstruction.

2.4 Post-Conflict Reconstruction

Post conflict reconstruction is carried out after conflict to rebuild the areas damaged during conflict to restore the structures and services destroyed for peace and development. Post-

conflict reconstruction is like every concept, there is no single or acceptable meaning of post-conflict reconstruction. Murithi (2006) define post-conflict reconstruction as an activity carried out after conflict by government of the affected communities and sometimes with the support of non-governmental organisations, civil societies and stakeholders to rebuild the areas affected by conflict. post-conflict reconstruction is a complex activity that cannot be undertaken without achieving peace and security in the affected communities, because without peace and security there will be no meaningful development that can take place. That's why many experts within the disaster management believe that post-conflict reconstruction should support the transition from conflict to peace situation in the conflict zones or areas first before the commencement of reconstruction (World Bank, 1998). Post-conflict reconstruction does not stop at repairing of physical structures or rebuilding of the economy status of the areas affected the way it was before the conflict rather post-conflict reconstruction is about creating an enabling environment for development and existence of peaceful society.

2.4.1 Post-Conflict Reconstruction in Focus

After the Second World War United Nations, World Bank, International Monetary Fund and Non-governmental organisations played an important role by providing a lot of resources for post-war reconstruction (Sultan, 2005). The post-war reconstruction of Germany and Japan set a good example of the importance of post conflict reconstruction and nation-building in some countries like El-salvador (1991), Cambodia (1993), Kosovo (2000), Afghanistan, Iraq (2003) and Gaza in (2009). Recently post-conflict reconstruction has developed and become an outstanding concept with a special history. The objectives of post-conflict reconstruction have gone beyond providing humanitarian aid or relief materials and include promoting regional agenda, international stability, peace and security as well as democracy building.

Kemps et al (2009) reviewed literature on post-conflict reconstruction and nation-building and arrived at some conclusions. The first conclusion is that there is lack of enough theory or literature on post-conflict reconstruction and the post-conflict reconstruction carried out in Iraq in the last few years was not successful based on the assessment conducted by the Inspector General of the reconstruction (SIGIR) which was titled the "Hard Lessons". The assessment concludes that post-conflict reconstruction is a difficult project and the United States find itself or was found in post-war reconstruction efforts which the country did not

expect and was not able to understand (Kamps et al., 2009). The assessment also traced the existence of post-conflict reconstruction gap or gaps in terms of the number of post conflicts or war reconstruction projects to be carried out or that have been carried out and the number of such reconstruction projects that was successfully completed. It is believed that the gap exists due to increase in spending on security, building materials, logistics, changes in reconstruction priorities and cost of maintenance.

The US New York Times article of December 2008 alleged that, five years after United State undertake its biggest post-war reconstruction project apart from the Marshall Plan in Europe after the second world war, the United State government did not have any policy, technical ability in place that is required to carried out such an important task. However, five years after United States invasion of Iraq, the government was not able to develop any policy or framework that encompasses planning and contingency operations whereby diplomacy, development and military actions are all-inclusive. The second conclusion is that the word "post-conflict reconstruction" is not properly defined (Dodge, 2006), and the term has been used in different situations.

Post-conflict reconstruction is like any other concept, can be defined in different ways because there is no single acceptable definition of post-conflict reconstruction. Murithi (2006) sees post-conflict reconstruction as an activity carried out by governments with the support of non-governmental organisations, civil societies, and stakeholders after a conflicts or war to rebuild the damaged areas for sustainable peace and development. It also includes some aspects such as political leadership, social and economic development, security, gender and justice. Knight (2003) pointed out that disaster management practitioners, scholars, non-governmental organisation (NGO) and united nations department of humanitarian activities have realised the fact that, post-conflict reconstruction is a multi-faced activity that cannot be carried out when the conflict is ongoing or without peace returning to the affected areas.

World Bank (1998) suggests that post-conflict reconstruction should begin with supporting transition from conflict situation to peace within the affected state by rebuilding the socio-economic activities of the state to give hope to the people affected and the community. Considering the nature of internal and intrastate conflict, the official announcement of end of hostilities does not mean that the transition from conflict to peace is achieved, but rather indicates a good sign towards that direction. Post conflict reconstruction is not only about

reconstruction of the physical structures, nor does it refer to rebuilding the socio-economic settings that exist before conflict. Violent conflict, if it last for long can change a society to the extent it will be difficult to regain its previous status; instead what is paramount is the reconstruction of enabling environment for the existence of peaceful society.

World Bank (1998) believed that there are two major objectives of post conflict reconstruction which include; to facilitate and support existence of sustainable peace at the end of conflict and to play crucial role towards social and economic development. The economic development depends on how successful the transition from conflict to peace is and on the rebuilding of the internal economy as well as access to financial and technical support from abroad. That is the reason why reconstruction of the areas destroyed due to Boko Haram conflict in Nigeria, most especially reconstruction of the internally displaced people houses destroyed during the conflict will play a significant role towards achieving lasting peace and development. The background of Nigeria is discussed next.

2.5 Background of Nigeria

British influence control over what is now called Nigeria, Africa most populous nation came about in the 19 centuries. Nigeria has a total land area of 923,768sq.km (356,768 sq. mi) and Nigeria is the fourteenth largest country in Africa (Agency, 2015). Its coastline on the Gulf of Guinea stretches to 774 km (480 mi). Nigeria shares an international border of 2,470 km (2,513mi) with four neighbouring countries Niger Republic, Chad, Cameroon and Benin Republic (Ajayi, 1980). Nigeria perhaps is not only bigger in land mass which makes it bigger than Texas in the United States, but also has the largest population in Africa with 280 million people. However, with this population, Nigeria was ranked as the seventh biggest nation in the world in terms of population. The country has more than five hundred ethnic groups out of which three are the most prominent and largest, which include Hausa, Yoruba and Igbo. Nigeria witnesses many constitutions after the Second World War, which provides Nigeria with a great autonomy and Nigeria got its independence from the British colonial masters in the year 1960.

After the independence, Nigeria was divided into three regions, comprising the Northern Region, Western Region and Eastern Region. The northern region was dominated by the Hausa/Fulani and western region was dominated by Yoruba tribe while eastern region

dominated by Igbos. After sixteen years of military rule in 1999, a new constitution was drafted and genuine peaceful transition from military to a civilian government for the second time took place (Agency, 2015). The government was faced with the task of reforming the petroleum-based economy whose revenue generated from the oil have been stolen and squandered through corruption by government officials, politicians, some powerful companies who are close to the government, mismanagement as well as institutionalisation of democracy. It was observed that Nigeria continues to experience a long-lasting religious tension which was encouraged by the political class in the process of capturing political power.

Figure 2.3: show the map of Nigeria (Source: Map of Nigeria, 2019)

The 2003 and 2007 general election most especially the presidential election was characterised as per from being free and fair due to the irregularities and violence, which is part of the reason why the opposition candidate went to court to challenge the result of the election. Presently Nigeria is witnessing its longest period of civilian rule since independence in 1960. The presidential election of 2007 marks the first civilian to civilian transition of power in Nigeria history. The history of Nigeria conflicts is discussed next.

2.5.1 History of the Nigeria Conflicts

Nigeria is divided into three regions the Northern part which is predominantly Hausas practising Islam religion and Western part which is predominantly Yoruba's with majority practising Christianity and few practising Islam while the southern part is predominantly Igbos and other tribes practising Christianity. Northern Nigeria is made of up nineteen states out of thirty-six states in Nigeria, and Northern Nigeria is the original home of the Boko Haram terrorist. It is also home to over one hundred and twenty million people with 95% believed to be all Muslims (Agbiboa, 2014). There is quite large number of Christian minorities as indigene of the area that migrated from the southern part of the country. Most of the Muslims in the North are Sunni those that follow the teachings of the Prophet Muhammad (SAW) estimated to be 95% (Danjibo, 2009), and spreads across Qadiriyya and Tijjaniyya groups.

There are other Islamic groups in the North such as Izala, Shiites, Tijjaniyya but Jamaatul Natural Islam (JNI) is the recognised and the biggest umbrella of the Islamic organisation in Nigeria with the responsibility of coordinating and controlling Islamic activities. The Hausa/Fulani, Tiv, Gwari, Jukun and Birom ethnic groups dominate the Northern part of Nigeria (Falola, 1998). However, with the decline of Nok and Sokoto who controlled the Central and Northern Nigeria between 800 B.C.E and 200 C.E. The Hausas/Fulani took over the controlled of the region because they have close relationship with Kanuri people of Kanem in Bornu and the Hausas aristocracy accepted Islam in the 11 C.E. Agbiboa (2013) believe that the issue of radical Islamism is not a new phenomenon in the Northern Nigeria because of the violent crisis that took place in the past, in Kano, Kaduna and Borno State respectively. These conflicts did not come as a surprise for many who are familiar with complex nature of the religion in Northern Nigeria.

Hickey (1984) argues that Maitatsine uprisings in Kano State has its own motivation which can be traced to its roots and the radical way of practising Islam which is so common after the Danfodio jihad in the early decades of 19 centuries. Usman Danfodio carried out his jihad against a group of Hausa leaders who he considered as hopeless elites of his own era. After the jihad, Danfodio established Sokoto caliphate which is now called Sultanate Council between 1804 to 1808 under the provisions of Islamic Law across northern Nigeria (Hiskett, 1973). In 1903 Sokoto caliphate and Borno Emirate fell under the British colonial rule and

the local authorities were confronted by the Islamist that are opposed to British colonial presence and the idea of unifying Northern and Southern protectorates. Ikelegbe (2010) argued that the controlled of the caliphate by the British colonial and its cordial relationship with British colonial and post-colonial states was responsible for exposing the caliphate to corrupt influence of political leaders.

Mohammed Marwa was the leader of Maitatsine group an Islamic teacher who migrated from Marwa in the Northern part of Cameroon to Wambai area of Kano in 1945. Marwa rose to become an Islamic extremist who believed Islam is overshadowed by the corrupt influence of the western states. Marwa mobilise the local poor Muslims in the city of Kano who believed that the political elites are not true Muslims, against western influence and refused to recognise political authorities. The local poor Muslims listen to Maitatsine because he is against the insincerity of the political elites and the disaffection shown to the poor by the rich in the society and promise to pray for the honest and sincere individual in the society for Allah salvation.

The followers of Maitatsine distance themselves from any Muslim who they believe in their own way is not following the Islamic teachings, leave in an isolated area to avoid contact with the poor Muslims and reject any wealth and material things believing it has direct connection with Christianity or western values. The violent clashed between Maitatsine followers and Nigeria Police Force lasted for more than ten days in 1980. The federal government set up a committee of enquiry to find out the immediate and remote causes of the violent conflict and the committee summited its findings in 1981. The committee found out that over four thousand five hundred people were killed apart from members of the Nigeria Police Force that also lost their lives during the conflict. The Nigerian Army were able capture and killed Maitatsine which signal the end of the conflict. There are other violent conflicts associated with radical Muslim extremist that took placed after Maitatsine crisis in Northern part of Nigeria.

Sheikh Abubakar Mahmud Gummi was a prominent Islamic Scholar and was respected by many Muslims in Northern Nigeria. There was a time he mentioned during one of his lessons that if you are a Muslim, it's not right to vote for non-Muslim in an election where there is Muslim as a candidate (Aguwa, 1997). Sheikh Gummi also initiated the establishment of sharia courts in the Southern part of Nigeria and he further argued that Nigeria should be

considered as an Islamic country. The style of preaching and what he preaches influence a lot of Muslims to become extremist Muslims in Nigeria. This also led to the burning of some churches in Kano by some Muslim extremist in 1982 which indicated the beginning of the religious conflict in Nigeria. The nature of the recent conflict in Nigeria is discussed next.

2.5.2 Nature of the Boko Haram Conflict

In 2009 an Islamic extremist group called Boko Haram from the North Eastern Nigeria emerged even though the group have been in existence for many years, but their activities was noticed in 2009. The word Boko Haram is a combination of words derived from Hausa word Boko, which means (Book), and Haram is an Arabic word, which ideally means impermissible (Forbidden). Combined, Boko Haram means Western education is forbidden in Islam, even though Islam permit and encourage Muslims to seek for both Islamic and western knowledge. It is important to understand that, most of the Muslims in the North before believed the Hausa word "Boko" western education originally has some sort of falseness and deception attached to it. Though, this remained the same even in the recent times regarding the western books because, they contained some write-ups that are against the Islamic teachings. Onuoha (2012) further argued that, even though Boko Haram has distanced themselves from their earlier proclamation that western education is forbidden, but still the group adopt another slogan western culture is forbidden which still show that they are against the western values or life.

The difference between the two slogans as the member of the group explained, the first slogan gives the general expression that our group is against seeking for western education. This is not correct, while the new slogan explained our believed in the supremacy of the Islamic values, since it comprises education but not western education precisely. The group are also called Jama'atul Ahlas sunnah Lida awati Wal jihad (JASD). The group was formed in 2002 by Mohammed Yusuf with the sole aim of influencing Borno State government to establish Islamic legal system (Sharia) in Borno State. Mohammed Yusuf was born in Maiduguri in 1970 in a village called Girgir in Yobe State (Danjibo, 2009). He is one of the members of Salafi group who was a student of Ibn Tamiya a prominent Islamic Scholar who was born in 1263 C.E. in Harran, Mesopotamia. This region is among the regions that form an ottoman empire in the 16 centuries.

Yusuf builds a big Islamic centre in Maiduguri that comprises Mosque and School where many of the poor Muslim families across the North and neighbouring countries like Chad, Cameroon enrolled their children to learn Arabic. The centre also serves as a training ground for the future extremists that will have the same Islamic belief with him in order to fight the government (Danjibo, 2009). The group succeeded in recruiting more than 270 thousand members within Nigeria and across the borders of Niger, Chad and Cameroon. The members of the group comprise of different people from a different profession which includes retired bankers, bankers, University Lecturers, politicians, unemployed graduates, homeless people (Agbiboa, 2013), Migrants from the other neighbouring countries and Drug addicts. Most of the Boko Haram members were drawn from Kanuri tribe, the Kanuri's contribute 4% of the total population in Nigeria and Mohammed Yusuf is from this tribe.

The group became violent as a result of misunderstanding between them and law enforcement agencies in the process of enforcing a new safety law in Bauchi State which was introduced by the government. The law required all motorcyclist riders to wear a crash helmet while driving, but most of the members of the group refused to abide by the law and continue to drive without helmets (Agbiboa, 2013). The law enforcement agencies decided to enforce the law by arresting anyone driving without crash helmet and unfortunately majority of the people arrested were members of the group. This led to a violent clash between the group and law enforcement agencies causing the death of seventeen Boko Haram members because of crossfire.

In July 2009, the group place of worship was searched by the combined team of military and police where guns, ammunition and some materials used in making explosives were found and seized by the security officers. After the operation, the group mobilised their members and stage a violent attack against security agencies which caused the death of many civilians and police officers (Danjibo, 2009). The violence was contained when the joint operation between military and police burn the mosque the group used as their headquarters and captured and killed Mohammed Yusuf together with over eight hundred Boko Haram members. Since the death of Mohammed Yusuf, the group has carried out attacks that have killed thousands of people from all parts of Nigeria, and the number of people dying continues to increase every day.

This as a result the human right organisation stated that more than three thousand five hundred people were killed from 2009 to 2012 due to Boko Haram violent attacks. In April 2013, more than one hundred and eighty-six people were killed after a crossfire confrontation between the group and Join Task Forced which as a result Baga town was burnt completely. However, over two thousand one hundred and twenty-eight houses, forty cars and other structures were destroyed during the attack. The impact of Boko Haram activities was noticed when the group took over the controlled of Marte, Mobbar, Gubio, Guzamala, Abadam, Kukawa, Kala-Balge and Gamboru Ngala local government areas of Borno State (Chothia, 2012). The group also attacked boarding school in Yobe State on the 6 of July 2013 and burned twenty-nine students and a teacher alive and killed about forty-four people while praying in the mosque in Borno State.

Considering the threat posed by Boko Haram terrorist in 2012 the then president Goodluck Jonathan stated that the fight against Boko Haram is much harder than the civil war Nigeria fought from 1967 to 1970. Following the death of Yusuf and many of his followers, the group decide to maintain a low profile with a hidden leadership structure a situation that does not require military attention. In 2010, the group suddenly re-emerged with new strategies and devastating attacks which include the bombing of the police headquarters in June 2011 and United Nation building in August 2011 (Chothia, 2012). The group carried out several attacks from January to October 2012, that killed more than nine hundred people, which is more than the people killed between 2010 and 2011. The impact of the Nigeria conflict on housing is discussed next.

2.5.3 Impact of the Boko Haram Conflict on Housing in Nigeria

According to Crossman (2014) people exist and live in conflict which is not by accident, but because of the nature of man and man pitch against his fellow man and man overview could not end the search on why violent conflict occurs in society. Thus, the need to understand and reveal the causes of conflict or some conflicts continues to become the basis for developing effective conflict management framework. Nigeria in the history has experienced different kind of destruction due to violent conflicts caused by different groups like Maitatsine group, Niger Delta Militants, Niger Delta Avenger and recently the destruction caused by Indigenous People Of Biafra (IPOB) but the destruction caused by Boko Haram conflict is different (Ahokegh, 2012). Boko Haram terrorist group has claimed to be responsible for

different bomb attacks and snip activities carried out within Northern Nigeria in the last ten years that is pushing the nation towards disintegration.

The activities of Boko Haram terrorist have increased housing demand in Nigeria, especially in the north-eastern part, where is considered the battleground between the group and the military. The group have killed more than two hundred and fifty thousand people in Nigeria and estimated to have displaced five million people and destroyed many businesses across north-eastern Nigeria since the conflict started, forcing many people to move or relocate to other places. In the early days of the conflict the group targeted the outskirts towns or villages of Maiduguri because they are close to their base or hideout overpowering the communities and establishing their rules in those areas (Almad, 2016 cited in TRTWorld)). This trend was changed when the military flushed out the group and recaptured the villages and towns they have occupied for long. The group move further down to far villages destroying houses, mosques, churches, markets and other buildings which raised the question of which religion does the group belongs to?

The presence of the group in all over the towns and villages was the reason why many people fled out for safety to avoid violence and torture from the hands of the Boko Haram terrorist. In 2016, the International Displacement Monitoring Centre revealed that two million Nigerians left and abandoned their homes and move to urban areas close to the major crisis zones because of fear of being killed. However, out of the two million people that left their homes only ten percent of them were given place to stay in the official humanitarian temporary camps in Nigeria's thirteen (13) states, most of which are in Maiduguri-the battle ground or centre of the conflict. Many of the people fleeing the trouble areas like Maiduguri, Bama, Gwoza, Gobaro Ngala, Kwanduga to the central city sold their houses at very cheap price. A house that is worth ten thousand dollars ($10,000) the owners sold it at two thousand five hundred dollars ($2,500).

The people brought a lot of money in suite cases and bags with them looking for affordable houses to buy in conflict free areas. The prices of houses in the safe areas were going up every day because of high demand and the housing developers saw a great opportunity to make more money (Almad, 2016 cited in TRTWorld). The conflict has pushed a lot of people out of Maiduguri but has also brought many hotel users like the expatriates, NGOs,

humanitarian agencies, government agencies, researchers all these people squeeze into a small city competing for places to sleep.

There are many people chasing very few available houses and hotels in the safe places in Maiduguri. This has created a big market for the commercial property owners in Maiduguri who are now struggling to meet with high demand of housing and accommodation. According to Bako the director of urban planning and development board, Maiduguri was originally built to accommodate not more than two million people but now accommodates almost five million people because of Boko Haram conflict. This has really put pressure on properties most especially housing and social amenities in the central city, because a house that was built for a family of two or three people now accommodates up to ten people. it is almost impossible to find a vacant land in the central city for any kind of development.

Considering the number of houses and other structures destroyed by the Boko Haram terrorist in Borno State, in 2015 the government created ministry of reconstruction, rehabilitation and resettlement with aim of rebuilding the communities affected by the destruction, reconstruct the internally displaced people houses in order to rehouse them and to reduce pressure on properties in Maiduguri when the peace and stability is achieve. But some researchers believe that Nigeria government does not consider displacement of people as serious problem that will have negative impact on the security of the country rather, they argued that the government is much more interested in fighting the Boko Haram terrorist through procurement of military hardware than focusing on the issue of internal displacement.

There is also the lack of proper record of the number of people displaced which attributed to increase in the attacks carried out by the Boko Haram terrorist, because most of the times the food items and other means of interventions become short. In recent years, the number of people that need housing continue to increase with a new finding from the IDMC showing that apart from the two hundred and seventy-nine displaced in 2017, another four hundred and seventeen thousand people were displaced from January to June 2018. The need for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria is discussed next.

2.6 Internally Displaced People

The notion of internal displacement due to violation of human rights is an old phenomenon. The United Nation gave displaced persons special attention in 1990s. Later in 1998 UN commission on human rights came up with a guiding policy for internal displacement. Even though the commission grants non-governmental organisations NGOs, stakeholders and other corporate bodies permission to assist internally displaced persons. The commission also places the responsibility of IDPs rehabilitation, reconstruction and resettlement on government agencies. Internally displaced people are victims of natural or man-made disasters or humanitarian crisis. Kalin (2008) defined internally displaced people as group of people who involuntary leave their homes, personal assets and become refugees in their own country in order to avoid the consequences of war, terrorism, violent conflict or as a result of tsunami, earthquake, flood among others.

According to Adewale (2016) there are over 5,235,300 people that are forced to leave their homes who are currently leaving in various temporary camps across Nigeria. These people include those who are victims of Boko Haram conflict and ruthless attacks across the country, religious and inter-communal crisis as well as counterinsurgency operations by the security agencies (Adewale, 2016). The figures above show how helpless and vulnerable internally displaced people are and the level of misery these people are going through. Nigeria has been witnessing crisis since independence due to ethnic and religious differences which makes it difficult for the people to live in peace. Adesoji (2010) further explained that Nigeria has witnessed the emergence of different ethnic militia groups since when the country returned to democracy in the third republic.

The names of the groups are so scary as their aims for example, Maitatsine group, Odudua People's Congress (OPC), Egbesu Boys of Africa, Movement for Actualisation of the Sovereign State of Biafra (MASSOB), Niger Delta Militants, Niger Delta Avengers and Boko Haram terrorist. The need for the reconstruction of housing for the IDPs due to Boko Haram conflict is discuss next.

2.6.1 The Need for the Reconstruction of Housing for the Internally Displaced People due to Boko Haram Conflict in Nigeria

The concept of internal displacement due to natural or manmade disasters and violation of human rights is an old phenomenon. In 1990 United Nation started giving serious attention to internally displaced people and in 1998 the united nation commission on human rights came up with a guiding policy with regards to internal displacement. Though, the commission grants non-governmental organisations (NGOs), stakeholders and other corporate bodies the permission to assist internally displaced people but the responsibility of rehabilitation, reconstruction and resettlement of the IDPs lies on the government. Internally displaced people are group of people who are displaced due to natural or manmade disasters or due to humanitarian crisis. Kalin (2008) sees internally displaced people as individuals or group of people who are forced to leave their original homes and become refugees in their own country due to natural or manmade disasters. In this research, internally displaced people are referred to a group of people who are displaced due Boko Haram conflict in Maiduguri, Nigeria.

Nigeria have experience different crisis since independence and this is due to ethnic and religious differences which makes it very difficult for the people to live in peace (Bassey and Dokubo, 2011). Most of the crisis where caused by different militia groups since when the country returned to democracy in the third republic. The names of these groups are as scary as their set objectives. For example, the Maitatsine, the Odudua People`s Congress (OPC), the Egbesu Boys of Africa Congress (EBAC), the Movement for the Actualisation of the Sovereign State of Biafra (MASSOB), the Niger Delta Avengers (NDA) among others. The conflict caused by these groups is nothing when compare with the violent conflict caused by Boko Haram terrorist in terms of displacement and destruction of built environment.

Boko Haram terrorist has carried out series of attacks in the last ten years which as a result many people have killed, and some have been displaced. Most of the displaced people in Nigeria are from Borno State the original home of the terrorist group as well as the war field between the terrorist and the Nigerian Army. The internally displaced people are faced with different kinds of challenges in various temporary camps they are leaving in ranging from lack of clean drinking water, medicine, food, clothes, security, good sleep among others. But the biggest problem these people are facing is lack of reasonable housing which Maslow

classified in his theory of hierarchy of needs as physiological needs. The condition of the temporary camps these group of people are domiciled in is raising a serious concern about the level of attention they are receiving from the government and agencies responsible for their rehabilitation and resettlement. This is because most of the camps have no basic social amenities like electricity, medical room or facility, water, school or learning facility etc. Therefore, providing housing to these group of people will improve their living condition and inspire them to reach their maximum potential because at this point what they need is housing.

2.7 What is Housing

The concept of housing is multi-dimensional and complex but can be generally defined in economic terms. Housing is regarded as one of the basic needs of every human being and access to quality and affordable housing played crucial role in individual lives (Assaf et al., 2010). Housing has a great impact on the socio-economic advancement of a country as well as contributes to the growth, stability and health conditions of a society which can lead to the development of a country. Habitat (2009) defined affordable housing as a house that a family can acquire within a long period without pressure, which can sometimes take up to 14 to 30 years. However, the payment period can be determined by family purchasing power and the financial assistance the family might receive in the process as loans, subsidies or credits.

Stone (2006) further explain that affordable housing can be seen as a relationship between people and housing because left to some people every housing is affordable at whatever price, but for some people no matter how cheap housing is, it's not affordable unless if one can have it for free. Abed et al. (2013) add that affordability in housing markets is considered a major challenge facing low-income earners and household due to the high cost of construction materials. Affordability can be measured by understanding the relationship between family income and the cost of housing; therefore, in order to understand this relationship, there is a need to differentiate families according to their income. However, Wiesel et al. (2015) believed it is important to understand the method used by government in calculating income limit for affordable housing provision by using median family income, which is referred to area median income.

The area median income is the actual earnings of the family at the middle of the income distribution; this means some of the family members earn much while some earn less. Litman (2013) opined that in order to understand the importance of affordable housing provision it is also necessary to understand the problems connected to unaffordable housing. Some of the problems associated with unaffordable housing include

- Families experience financial stress

- Families spend large part of their earnings on housing

- Leaving low-income earners without enough funds to buy their essentials

Since affordable housing is such a future investment that can add value to the owner, in terms of lives sperm and comfort. Therefore, affordable housing policy and provision is a crucial aspect that requires urgent attention globally (Baker and Beer, 2007), in order to reduce the high demand for affordable housing for the low-income earners in the society. The affordable housing theory is discussed next.

2.7.1 Affordable Housing Theory

Different government around the world have made efforts to tackle or overcome the challenges associated with providing adequate, affordable and quality housing to their citizens in the last few decades. Recently Nigeria government embark on construction of over fifty thousand affordable housing units per year for the low-income earners to reduce affordable housing deficit (Abed et al., 2013). The issue of affordable housing is a global phenomenon as a lot of migrants move to the cities in search of livelihood. The scarcity of employment and low-income has made it difficult for people to afford most low-cost housing, which as a result most people live in a squatter settlement that has poor or without social services (Ademiluyi, 2010). The continuous increase in urbanisation and in population growth in some big cities in the developing countries contribute largely to the high demand for affordable housing, whilst some big cities in the developed countries have witnessed low population growth which as a result contribute to the low demand for affordable housing in such countries. There is a wide gap between affordable housing demand and supply in the developing countries when compared with the affordable housing situation in the developed countries. Asfour (2017) sees housing as one of the most important basic human needs and among the major components for sustainable growth and development of a society. Keiner

(2005) Categorised sustainable development from a general perspective and classify it into three interactive concepts, which includes social, economic and environment.

Armitage and Mercier (2009) sees housing from social perspective and argued that housing does not only provide shelter to an individual, but also provide security as well as improve lives of the individual. Abed et al. (2013) viewed housing from the economic perspective as a potential investment individual family can make in their lifetime that can yield profit in the future. Housing sector contributes 10% of the world gross domestic product and responsible for creating over 6% of the world jobs (Habitat, 2009). Housing demand has increased globally in recent time and it will continue to grow as population growth and urbanisation increases day by day. However, building construction sector is among the industry that is not penetrated by individual and private companies in the past. Even though, the sector creates different opportunities for development and range of challenges to cope with. Theoretical framework that underpins the need for the reconstruction of housing for the internally displaced people due to conflict is discussed next.

2.8 Theoretical Framework for Understanding the Factors for the need to provide housing for the internally displaced people due to conflict

In the previous sections, different literature related to housing were discussed which include the impact of the Boko Haram conflict on housing in Nigeria, displacement caused by the conflict and the need for the reconstruction of the internally displaced people houses destroyed by the Boko Haram terrorist in order to rehouse them. The literature also discussed the concept of housing and affordable housing, explore different approaches used for the reconstruction of housing for IDPs due to natural or manmade disasters and the challenges associated with reconstruction of housing for IDPs due natural or manmade disaster and in relation to reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. The literature further examined different approaches adopted for the reconstruction of housing for IDPs by some countries in different situations.

This section seeks to highlight the theoretical approach and concepts connected to housing need from variety of perspectives of the framework. This includes different elements, factors

for understanding the complex nature of housing need. Since this section seeks to provide answer to questions related to reconstruction of housing for internally displaced people due to conflict in a specific location in order to solve housing problem. Theoretical approach in relation to housing need is adopted to develop a framework. The theory delivers a framework in which housing can be considered and provide a clear understanding of the elements within the context of this research. There are different theories that talk about housing but the theory that underpinned this research is the Maslow theory of hierarchy of needs. So that, the basic elements or factors related to housing need can be understood by examining the Maslow's theory of hierarchy of needs.
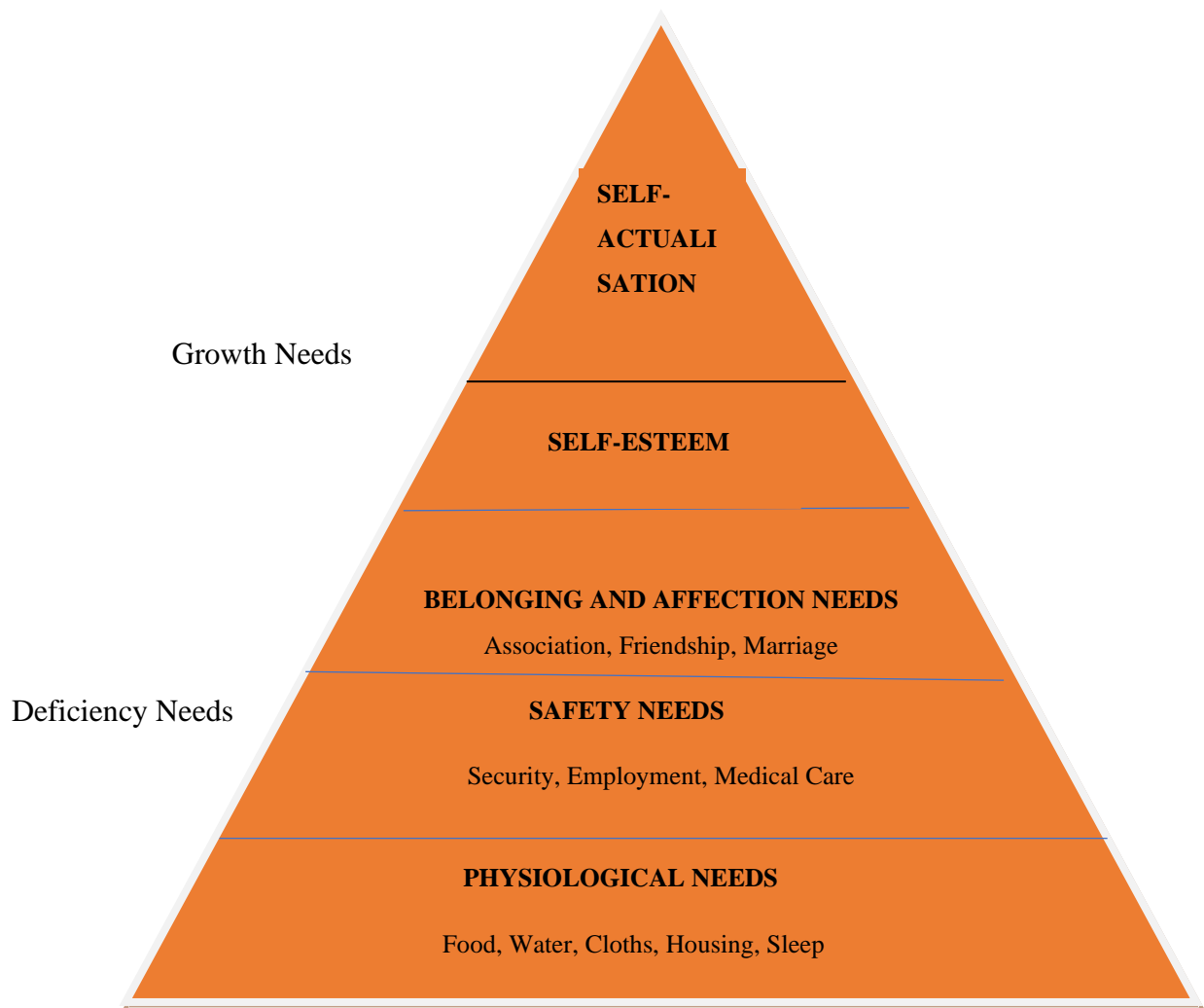
Figure 2.4: Maslow Hierarchy of Needs (Adopted from Poston, 2009)

In the theory Maslow divided human needs into five stages or levels which comprises physiological needs, safety needs, belonging and affection needs, esteem needs, and self-actualisation needs. The five levels of needs can also be divided into what Maslow called deficiency needs and growth needs. The physiological needs such as food, water, cloths housing, sleep is considered as the major and essential needs which Maslow placed at the bottom of the ladder. Safety needs such as security, employment, medical care occupied the second stage from the bottom while belonging and affection needs like association, friendship marriage and sense of connection at the third stage from the bottom. However, Esteem needs such as respect, status, recognition, strength and freedom were placed second from the top and Self-actualisation needs which allows a person to desire to reach their maximum potential or become whatever they desire in life. The theory was initially explained inform of

pyramid with essential needs at the bottom and the need for self-actualisation and transcendence at the top.

The basis of the theory can be traced to the fact that a person, individual most basic needs must be met or provided before they can desire or aspire for the high needs or motivated to aspire for their biggest needs. The physiological, safety, belonging and affection and esteem needs can be called the deficiency needs 'D-needs' while the self-actualisation needs are referred to as growth, being or transcendence needs 'B-needs' (McLeod, 2018). The deficiency needs emerge as a result of lack or unavailability and are believed to inspire people when they are not realised. Similarly, the motivation to realise such essential needs will increase and become high the longer the period the needs are denied. But, in the case of the internally displaced people the longer the needs are denied or not provided by the government the less motivated and hopeless they become, because of the physical and psychological effect of the conflict on them.

The displaced people can only be motivated to realise the high needs if the government assist them with physiological needs such as food, clean water, medicine, cloths and most importantly housing. The theory emphasises that a person, individual basic needs must be actualised or provided before they will focus on the high needs or before they will want to have the secondary needs.

Maslow used the word metamotivation to explain what drive or encourage some people to aspire for needs beyond the basic needs and work hard to achieve those needs. Human brain is a system that is so complex in nature with different processes taken placed at the same time likewise there are different kind of motivations in various stages or levels of Maslow hierarchy of needs that can also take place at a time. The theory explained clearly these levels of needs and their satisfaction levels in different words that includes relative, general and primarily. For example, instead of saying that a person concentrates on a certain need at a specific time, it can be said that a certain need "occupies" the individual mind. Nevertheless, different needs within various levels of Maslow hierarchy of needs can occupies individual mind at the same time. Maslow believed that there is possibility for individual to be thinking or to have different level of needs in their mind at a given time, that's why he concentrated on highlighting the common and basic types of needs and the criteria through which they can be actualised or met.

2.8.1 Physiological Needs

Physiological needs are theoretical position used to explain the foundation of motivation, and the needs are the major foundation of Maslow theory of hierarchy of needs. Physiological needs such as food, water, health care, housing and sleep are considered as the major physical requirement for human survival. In other words, physical needs are regarded as general human needs that every person should aspire to have no matter their situation or condition. Based on the theory, physiological needs are the first needs in the hierarchy and in the internal motivation. The theory stresses the need for people to actualised the physiological needs first before they can desire for the needs in the next level or at the top, because if the essential needs are not realised it can lead to a person being unhappy and if someone remain unhappy for so long their level of motivation reduces, they become hopeless, agitated and unfulfilled. Physiological needs can be view as a traits and state. Physiological needs as a trait are the basic needs or demands that will not change and they are what every person need while physiological needs as a state are the unpleasant decrease in desire and the increase in the motivations to actualise the basic needs.

Therefore, the theory suggests that for a person to desire or aspire for the high needs the physiological needs must be realised first and foremost before moving to the next level of needs. Consequently, if an individual is struggling to provide himself with physiological needs such as food, water, health care, housing, sleep which are considered as the basic needs of every individual, then it will be very difficult for the person to have motivation or desire for safety needs such as security, employment, medical care. Certainly, these physiological needs are the foundation of all needs, because a person that is missing everything in life his motivation will be towards the basic needs (Maslow and Lewis, 1987). Likewise, the internally displaced people that lost all their livelihood due to conflict in an extreme way the motivation will certainly be towards the physiological needs more than any other need.

However, a person that needs food, personal protection or security, love or affection, and self-esteem would most likely wants to have food first before anything else. The internally displaced people lack food, clean water to drink, medical care, cloths, security, affection but they would prefer to have food and water first before needing anything else. Physiological needs are considered by Maslow as the first and most important needs of every person because of their value to human existence and believe all other needs are secondary until these needs are met.

- Food is one of the basic requirements and important biological needs of every individual for their survival and for their body to function properly and optimally. If the internally displaced people cannot find food to eat or unable to eat for many days, it will be impossible for their body to function optimally. However, if someone stays hungry for long period of time the person can easily become weak and sick and if someone become weak and sick because of hunger can easily die (Maslow and Lewis, 1987). For example, if all the needs of the displaced people are not met or satisfied, and their mind is dominated or occupied with physiological needs, then every other need will automatically become non-existence, less important or will be push aside. A person that is very hungry will not want anything apart from food. He will thoughts of food, remembers food, thinks about food, sees food, smells only food and wants only food at that moment.

- Water is among the physiological needs that every person must have access to in order to survive. Water is as important as food to human life because they both allow human body to function optimally and grow (McLeod, 2018). Food and water are inter-connected because one cannot cook food without water and after eating or as someone is eating will equally need water to drink. Therefore, the internally displaced people need clean drinking water for their body to work optimally and in order to survive. If the displaced people struggle or cannot have clean water to drink it will be difficult for their body to function properly as water helps in digesting food. For instance, a person that has food but lack or needs water, personal protection or security, friendship, confidence will want to have drinking water first because that is the most important need among his needs.

- Cloths are view as one of the basic needs of every individual and people should desire to have dress because nobody can go out naked without wearing a dress. People wear dress to cover their body and protect their body from being exposed to harsh weather condition. Cloths also differentiate between a person that is mentally sound and someone that is mentally incapacitated. For example, the dress of mentally sound person will be clean and neat, while the dress of mentally incapacitated person can be rough, dirty or torn. It is only when someone have a dress to wear, he/she can go out of their home, relate with other people, go to work, farm, hospital, but if someone is in need of a dress to wear it will be difficult for the person to go out of their home,

seek for employment, mixed with people, go to office or even associates with other people.

The internally displaced people need cloth that's why they are nervous to meet with people or associate with others that are not among them. Lack of cloths also restrict these group of people from practicing their religion, going out of their temporary camps to seek for employment, medical care, going to farm etc. However, if the displaced people cannot have dress to wear it will be difficult for them to concentrates or desire for other needs if not cloths. After satisfying food, water, clothing needs the next need will be the housing need.

- Housing is also considered as one of the physiological needs or basic needs of every person and access to decent housing play a big role in individual life therefore, people should aspire to have a house. Housing is an essential commodity that plays significant role towards individual general wellbeing, contributes to the growth, stability and health condition of every society which can lead to progress of a country (Andrew, 2007). If someone lack housing or live in a housing that is in a poor condition, it will be impossible for the person to have a stable mind set or motivated to desire for other needs like belonging and affection needs. That is the reason why the internally displaced people find it almost impossible to have a deep sleep or a stable mind-set that will motivate them to think about their next need. This is because the temporary camps they are domiciled in across the country are in poor condition and lack electricity and basic needs needed to survive such as food, water, medical care.

Lack of decent housing has exposed these group of people particularly women and children to all sort of dangers ranging from rape, child abuse, child labour, prostitution, crime, diseases, drug abuse among others. Housing is considered as a source of comfort and it provides personal security to every person because it protects people from being exposed to environmental and human dangers. As such reconstruction of the internally displaced people houses destroyed by the Boko Haram terrorist in Maiduguri will play big part towards their rehabilitation and reintegration back into the community as well as motivates them to desire or progress to the next level of need.

- Sleep is considered as one of the physiological needs of every human being and people must desire to have adequate sleep. Having enough sleep every day is an indication that someone is in good and stable health condition. If someone cannot sleep or unable to have enough sleep every day is a sign that the person is sick, or something is wrong with him. The internally displaced people are finding it very difficult to sleep because of the poor condition of the temporary camps they live in as well as fear of being attack by the Boko Haram terrorist due to lack of housing. Their lack of sleep is also connected to the psychological trauma they have passed through during the conflict and lack of adequate care and security around the temporary camps.

2.8.2 Safety Needs

The way the physiological needs are require throughout people life so does the need for people to be protected or feel safe from attack. Safety needs are more of psychological in nature and may vary for each person though it depends on where the person is in life (Poston, 2009). Safety needs are theoretical position that view security, employment resources, and medical care as the second most important needs of every person. When someone physiological needs are realised or met, then the need for what was categorised as safety needs will arise (Maslow and Lewis, 1987). The need for safety needs can be traced back to early childhood because for a child, this type of need arises as a need for safe home and environment that is secured, with love and affection. When the child family or parents is disorganised and these things are not met or unavailable makes it impossible for the child to move further to the next needs (Poston, 2009) because the child become afraid and anxious (Hopper, 2020). While for adult, this type of need can be related to employment, security, resources, medical care.

- **Security need**; is among the safety needs that every individual should desire most especially in the developing countries particularly in Africa where people hardly leave in peace due to political, religious, ethnic, tribal differences or as a result of economic interest. This is the reason why people living in this part of the world stuck at this level of need. In the developed countries people safety needs arise mostly during emergency situations e.g. war, disaster but in developing countries the need for safety is both in normal and emergency situations. People wants to live under law and order

to be able to experience sort of control in their life, which can be realised by family and society through policing, schools, business, and health care (McLeod, 2018).

The major reason why people desire for safety is to have stability in their life, to be able to move freely around their houses, neighbourhood or area at any time without being afraid of attack as well as to feel safe and secure. It is also the need to feel safe and secure in workplace. It is agreed that fear and anxiety can fades or weakens someone motivation to progress or move to the higher needs in the Maslow's hierarchy of needs (Poston, 2009). This is obvious because the internally displaced people feel unsafe because they cannot move freely in their temporary camps for fear of attack from the Boko Haram terrorist which have affected their social life and weaken their motivation towards progressing to their next need. People need personal protection, security, employment, financial security, law and order, free from fear of being attack, social stability, health and wellbeing (McLeod, 2020). These needs are the reasons why people desire for savings account, car insurance, health insurance, accident and injury cover (Maslow, 1943).

- **Employment need**; is one of the safety needs require by every individual and people must seek for employment in order to be safe job wise. If someone is employed or self-employed, he/she can be able to have regular income or earnings from the job or business which they can use to satisfied their other needs without being worried. That is the reason why, if someone is not able to get a job or loses his job the worry of not getting the job and losing the job will have effect on the person's social life and will make them to regress (Poston, 2009). The internally displaced people have lost virtually all their livelihood due to Boko Haram conflict and some of them even lost their loved ones during the conflict which has not only destroyed their life but also affected them psychologically. This has also instilled fear and anxiety in their mind as to whether they will ever recover or have their businesses, jobs, farms back.

- **Medical care need**; this is considered as one of the safety needs of every human being therefore, people should aspire to have access to medical care. When someone feel safe in his house and environment, safe about his job and in workplace, safe financially the next safety need in his mind will be medical care. Medical or health care is regarded as important as other safety needs and people should and must have access to medical care for them to be healthy. For someone to be healthy he/she must

have access to a doctor that will examine their health condition to be able to prescribe the right medicine or drugs for them whenever they are sick in order to remain in good health condition. If someone is sure of medical care whenever the need arises that will give them confidence and motivate him/her to aspire or go for the next need.

Lack of medical care is one of the major problems the internally displaced people are facing in different camps across the country because the government agency responsible for the wellbeing of this group of people could not build clinics or temporary hospitals where these people can go and receive medical care. In some camps where there is clinics you will find out that the doctor/s cannot cope with the number of people that required medical attention or the sick one's and the medicine available is not enough or are for common sickness like headache, cough not for life threatening sicknesses such as malaria, high fever, diabetics etc (Abdul, 2020). Therefore, if the displaced people cannot have access to quality medical care, it will be impossible for them to be in a good health condition that will motivate them to desire for affection or love, reach their maximum potential or become what they want to become in the future.

2.8.3 Belonging and affection needs

After satisfying or achieving the physiological needs and the safety needs the next need someone will desire is the belonging and affection needs, which are to belong on a social level. The need to belong and affection can only become necessary or priority when physiological and safety needs have been adequately achieved and sustained (Poston, 2009). The need for belonging and affection can arise or felt when a person developed a desire to be part of a political party, football club or have a relationship with others. For example, an individual can desire to have a girlfriend, intimate friend, or desire to get married and have children. Though, this need can change depending on individual current life situation. For the internally displaced people their current life situation is not encouraging because they are still in need of physiological and safety needs. It is only when these needs are realised and sustained one can desire or want to belong to a social club or have girlfriend or family. As such this is the best time the internally displaced people need affection or love from the government to get out of their condition.

If the government can show affection to the IDPs by reconstructing their houses destroyed by Boko Haram terrorist in Maiduguri will play significant role towards motivating them to desire for belonging and affection. For example, to desire for relationship with others, to have friendship, intimate relation, to get married and have children etc. The desire for belonging must be developed because of its impact on someone's self-esteem (Poston, 2009). If an individual desire for belonging in the hierarchy level is low or a person is viewed negatively by peers in the group, the person might become nervous and may pull out from the category of people in which the person fits in socially. Likewise, if the displaced people desire for affection or love is low, they might develop some sort of fear and anxiety to not want have girlfriend, intimate relationship, or to get married and have a family.

2.8.4 Self-esteem needs

Once physiological, safety and belonging and affection needs are achieved and sustained, then an individual will desire for the next need which is their self-esteem needs. Self-esteem like the physiological, safety, belonging and affection needs must also be sustained. It is at the top level of deficiency needs. During growth, when talking about individual's self-esteem, it can be a source for individual awareness. An individual can begin to build his self-esteem from the early age e.g. two years. Maslow's theory of hierarchy of needs highlighted two different types or levels of self-esteem which include the lower and the high types of self-esteem.

- Lower type of self-esteem; this type of self-esteem is connected to an individual ego, which means that there is a need for someone to be respected or appreciated by other people. This type of self-esteem can be satisfied or achieved when a person has a good status, reputation, or being recognised as famous in the society etc. In life, these things take a lot of hard work and sacrifice to achieve and sustained. An individual also might have to get some sort of support and validation for this type of self-esteem to be sustained.

- The high type of self-esteem that Maslow discussed is related to self-respect. This type of self-esteem does not need much protection since it is achieved through individual accomplishment and it remains part of the person or who the person is. For example, if someone has gained respect for himself it is very difficult to lose the respect, for it to fade away or taken away from the person. The individual or people

that have achieved the self-esteem usually are happy with who they are. The idea of self-belief or capability that is established in what the people or person do encourages this type of self-esteem. This type of self-esteem should not be misunderstood with someone that having low or high self-esteem because people with low self-esteem mostly have little opinion of themselves and their personal image (Poston, 2009), which as a result the person will have inferiority complex.

The internally displaced people have gained self-esteem considering what they have accomplished individually before the conflict and presently their self-esteem is low because of their circumstance, which is the reason why they have low opinion about themselves. Considering this fact, Maslow struggles to believe that most of the people with low self-esteem are because of their psychological problems, but it can be agreed that, the reason why the displaced people self-esteem is low is because of the trauma they have been passing through which affected them psychologically. The reality here is that if someone don't like himself or don't appreciate what he is or what he has achieved or accomplished in life therefore, the person will be critical of himself (Poston, 2009). Living in such mood can lead to emergence of negative self-thoughts and pose a challenge towards achieving personal success.

Low self-esteem can have impact on the low and high self-esteem. For example, if someone has low self-esteem, the lower type of self-esteem will affect the person socially. The person might try for instance, to frequently request or validate feedback from his friends or peers about their social life. However, in respect to higher type of self-esteem, a person with low self-esteem can show a lack of respect for himself and the target they set out for themselves would be unrealistic or unachievable, or in some situations, these targets are placed on other people instead of themselves. It is interesting that all the physiological, safety and belonging and affection needs are often achieved or met in the developed societies, but few people can achieve these needs in the developing societies (Poston, 2009). Come to think of, if many people had very little respect for themselves or appreciate themselves in the grand scheme of things.

2.8.5 Self-actualization needs

Maslow defined self-actualization as the single component of being in the hierarchy of needs pyramid. What this means is that not being part of the deficiency needs as the way they are in the bottom of the hierarchy (Poston, 2009). Self-actualization is independent from the other needs but there must be some sort of permanent satisfaction of all the deficiency needs which can be best described as what we want or seem to be, based on the general standards. Self-actualization is a very important internal discussion that every individual will have or establishes at one stage or another in their lives. To do that, the individual must have achieved or satisfied all the previous needs. This is because, as soon as the physiological, safety, belonging and affection and self-esteem needs are permanently achieved or satisfied, then the person can shift his/her attention towards becoming what they want to become in life or reach their maximum potential.

But if these needs are not permanently met, it will be difficult for someone to focus towards self-actualization. That is why if the government felt to provide or assist the internally displaced people in achieving their previous needs it will be very difficult for them to focus their attention towards actualizing their maximum potential or becoming what they want to become in life. Generally, if someone is hungry, tasty, or feel unsafe or in need of affection or love their attention will be towards satisfying these needs which will distract their concentration on self-actualization (Poston, 2009). For example, the internally displaced people presently need food, safety and affection therefore, their attention is towards satisfying these needs which is distracting them from focusing on self-esteem or actualizing their potential. When it comes to self-actualization, it is very difficult to understand or find out how someone feels about something or it may be the decisive factor in understanding how someone relates to himself and his capabilities.

Individuals that are self-actualizers often concentrates on the key things that defined who they are. However, as soon as self-respect is actualised the person can use whatever it takes to improve or better themselves to be able to stay focused towards overcoming issues that might arise in relation to deficiency needs. People that are self-actualizers can be generative in nature because their attention is no more towards pleasing or making others happy like giving back or sharing part of who they are. In relation to other aspects, it can be spiritual considering someone's life, status or who the person is in the society (Poston, 2009). When someone become familiar with who he is and is contented with that, then realistically have

attained the level of being able to self-actualize. Therefore, by attaining this level in life comes a sense of peace and stability which can be the driven force to concentrate on the high task in life for example, encouraging ethical standards in life.

But when someone realise who he is and is not happy with that, then eventually the person will not be able to self-actualize. For example, the internally displaced people are well familiar with who they are due to their situation or condition and they are not happy with it, which will make it difficult for them to be able to self-actualize. There is a more desire to concentrate on making oneself life better, increasing someone's knowledge and talents. The actual meaning of self-actualizing is being able to understand oneself while being comfortable and willingly accepting of anything that the person discovers. The common question everyone must answer is, do you really like and accept who you are? As soon as the question is answered therefore, the self-respect is actualized. The moment a person gained respect for himself or herself, it will remain with the person and no one can take it away from him or her. Therefore, within this context, Maslow is right by placing self-actualization in a stage or level on its own which increases the need of it being separately from the deficiency needs.

The disagreement with this theory is that, how does it link to the humanistic psychology? as to whether there is enough evidence to back this hierarchy of needs in relation to how people develop emotionally (Poston, 2009). Maslow came up with a notion that the stages within the pyramid along with development process is the same with the way people experience psychological growth. The main argument is that every individual can regress back or considered every other aspect of the stages in the pyramid important and in such a way that it is not similar with the Maslow's theory. For example, some people may be desperate in need of belonging and affection needs than safety needs or esteem needs. Another good example is the internally displaced people who are desperate in need of food, water, medical care, cloths, sleep in the various camps they are living in. As such, they will prefer to have or choose physiological needs over safety needs as well as safety needs over belonging and affection needs because of their condition.

Therefore, many professionals think that Maslow's hierarchy of needs did not go in sequence as the way it was initially proposed. This is because if the idea of self-esteem for instance, is to be develop in children from the age of two then why did Maslow placed it at the top of the hierarchy of needs? Many humanistic psychologists are not in support and challenge some of

these ideas even though Maslow was an advocate of humanistic psychology (Poston, 2009). However, another area of his work challenged is that Maslow defined self-actualizers as individual of many achievement such as former presidents, CEOs, VIPs. Have been said that, it is very hard to placed importance on the idea of self-actualization. How importance is the idea of self-actualizer? The best way to answer such question is by saying that individuals can be at different stages of their development and all of them can be considered as self-actualizers in their own way.

2.9 Approaches used for the Reconstruction of Housing for the Internally Displaced People due to Natural or Manmade Disasters

Apart from the destruction of human, the most common destruction caused by disaster is the destruction of houses. Housing reconstruction is the major activity during post conflict reconstruction, and in the process of planning and designing the reconstruction there are number of approaches that can be adopted such as government driven approach, owner driven approach, donor driven approach. It is believed that housing reconstruction for IDPs must meet the different conflicting needs or preference of the displaced people (Karunasena and Rameezdeen, 2010), because any post-conflict housing reconstruction that did not consider what the beneficiaries want there is every possibility they will reject or abandon the houses. Therefore, it is important to understand the needs and preferences of the displaced people before adopting any approach in order to produce the needed outcome.

However, post-conflict housing reconstruction project that involves the displaced people can be successful based on the scope of the reconstruction. Disaster provides an opportunity for academician's professionals and stakeholders in the construction industry to study and understand different approaches used for the reconstruction of housing for IDPs as well as their suitability, advantages and disadvantages or their success and failure. The government of Sri Lanka has adopted two approaches towards post-disaster housing reconstruction as a result of tsunami in 2005 that killed more than two hundred and seventy thousand people (Karunasena and Rameezdeen, 2010), and destroyed assets and structures worth over nine hundred million dollars. The approaches include donor driven and owner driven as (Cash-based approach).

1. **Government Driven Approach**: under this approach, the government will handle or oversee the reconstruction from beginning to the end through housing construction engineers who might be selected from the ministry of works and housing, or any other ministry or parastatals that is directly connected to housing provision. This type of approach allows the government to plan and carried out the reconstruction project without involving the beneficiaries (IDPs) in the reconstruction, which is the reason why housing provided through this process always fail in meeting the needs and preferences of the end users (Abdu, 2018).

2. **Donor Driven approach**: In this approach, the donor whether it is government, United Nation, a non-governmental organisation (NGO) or international organisation whoever is funding the reconstruction project will lead or handled the construction from the beginning to the end, in collaboration with consultants and the contractors hired to carry out the project. The major problem associated with this approach is that housing provided under this approach might not replicate the needs and preference of the victims.

3. **The Owner Driven approach**: This approach was adopted by some government and donor agencies in different disaster situations and in different places. In this approach, the victims of the disaster handle the housing reconstruction project while the government and donor agencies responsibility are only to provide financial and technical assistance to the victims. The owner-driven approach is receiving much attention even from the donor agencies (Ratnayake and Rameezdeen, 2008). For example, IFRC and RCS were the major donor during the post-tsunami reconstruction in Sri Lanka and adopt owner-driven approach to construct 15,120 houses out of 22,350.

Though, the donor-driven approach is the major approach most of donor agencies used in Sri Lanka (Bernstein et al., 2006). Research has been carried out to compare the success of these two approaches in different ways but only a few on housing reconstructions. The opportunity to conduct research on the advantage and disadvantage of the two approaches was created since there are many houses constructed using both approaches in Sri Lanka.

Bernstein et al. (2006) conduct a research on different method or strategy used during post-disaster housing reconstruction in Gujarat, India in 2001, and acknowledged five approaches, which include Owner-driven, subsidiary housing, participatory housing, contractor-driven in situ and contractor-driven approach ex nihilo. Out of the above-mentioned approaches, the contractor-driven in situ and contractor-driven ex nihilo were often used in the post-disaster reconstruction.

Bernstein et al. (2006) argued that the owner driven approach is a new strategy or phenomenon that is rarely used in housing reconstruction. This strategy is also called "cash-based" or cash-grant approach and can serve as an alternative to relief materials even though, the approach has some weaknesses. The proponents of the cash-based approach outlined some strengths and weaknesses of the approach as against the distribution of relief materials after a disaster.

- Empowering the affected communities with different choice

- Quick delivery

- Cost-effective

- Encourage local markets and business

The weaknesses include

- Misappropriation of resources

- Injection of much money can lead to inflation

- Insecurity

Another approach that can be adopted towards affordable housing construction is Off-site construction (OSC). This is one of the new innovations that are not common in the construction industry. Shahzad et al. (2014) carried out some studies on off-site housing construction in different case studies for example, in Newcastle, Perth, Brisbane, Melbourne and Robina, and found out that there are number of houses constructed using off-site construction approach in Australia. However, there are number of benefits or advantages associated with off-site construction approach which include

- Makes construction process easy

- Minimise construction time

- Produce quality building (Housing) that are tried and tested from the factory

- Cost effected in a situation where resources are very scarce

- Provide good working conditions and minimised workers risk on-site

- Availability of skill labour

The above off-site construction aspects are the findings discovered from the Australian research and can be considered as recent and applicable. Off-site construction is not a new idea or method in housing construction, but the concept is used as a building procurement strategy which is not often being used until recently. Initially, it was used as concrete precast building strategies, but suddenly there is the emergence of the use of off-site construction using steel for production. Off-site construction approach that uses concrete precast was used in the UK for housing reconstruction purposes after the Second World War and in the 1970s for social housing construction as well as in some fast-growing countries such as Hong Kong and Singapore for mass housing construction (Shahzad et al., 2014).

This approach was also used in Australia and presently it's key to most of the housing under construction even though, the approach is restricted for use in external walls. Shahzad et al. (2014) further explained that using off-site construction approach can create new construction problems associated with designs, supply chain, transportation and installation processes, which can be assessed in order to allow the emergence of new and cost-effective approaches.

The unitized building (UB) approach to project procurement is different from the usual concrete precast that used organised steel and steel sheet cladding, the lightweight solution used in the United Kingdom, because it is very light in weight, strong, durable, accurate, normal movement and create flexibility within internal planning and vigorous architectural solutions (Boyd et al., 2012). The modular building approach was introduced in the United States in 1986 and since then it was widely adopted in different situations. This is another building construction approach that comes in form of shipping containers whereby each housing or building unit will have a specified number of functions when the units are mounted and connected to each other, and then a complete building is produced. Special

designs are selectively achievable where the tighten locking and the self-levelling connector will connect the lower and the upper modular units to ensure the weight of the building. The modular building is like unitised building and some of the past buildings constructed include the Hero building which used container materials before as cladding system, which has been replaced presently by flat steel sheet.

Off-side construction popularity increased in 2004 when UK housing cooperation used modern methods of construction in the construction of 25% of the social housing it's funded. However, there are also some government agencies in Victoria that show interest in off-site construction such as Vic Urban and few other projects were commissioned for example the one hundred and fifty housing unit projects in Coburg (Elnaas et al., 2013). However, there was no genuine policy or programme from the government that can determine the future of off-site construction in Victoria. The off-site construction with different components and modules can be classified as level 2 which is (non-volumetric preassembly), level 3 volumetric assembly and level 4 modular and portable buildings.

There are some aspects of Little Hero Apartments that are classified as level 4 of off-site construction. The foundation, substructure as well as the podium are considered as site built, while the pods mounted over the podium are considered as off-site construction. Elnaas et al. (2013) see off-site construction as the ability to produce large quantity and high quality and efficient products according to standard manufacturing policies or principles common to most of the industries. The potential advantages of off-site construction are noted, but still, there are some challenges that hinder the incorporation of off-site construction as part of standard building construction practice to serve as general procurement methodology. The analysis of the construction projects in Melbourne provides an insight about the future of off-site procurement in Australia and specifically about the construction of multi-storey building apartments. The Little Hero apartments (Boyd et al., 2012), the seven-storey building apartments designed by Fender-Katsalidis and build by Hickory through a partnership called Unitised Building in Melbourne CBD. There are different types of off-site construction which include the following

4. **Off-Site Preassembly:** Off-site preassembly is a process through which construction materials, components, equipment and prefabricated parts are produced at an off-site area prior to being transported to the location where it will be installed. These parts

are those building components such as roof trusses, staircase, precast concrete beams, piping, floors and columns.

5. **Hybrid Systems:** Hybrid system or pods are fully constructed or prefabricated houses or structures which are already made from the factory. In this system, all finishing, and finishing is already done from the factory and transported to the location for installation.

6. **Panelised System:** The penalised system is the use of premanufactured structural systems such as structural framing pieces that are constructed at an off-site location prior to being transported to the site for installation. The components include doors, windows, cladding, insulation and timber frames.

7. **Modular Buildings:** Modular houses look like pods and the houses consist of many different sizes of rooms. Modular buildings can come in form of a factory houses, blocks of flats or apartments that are finished from the electrical works, plumbing and trim work. However, after the completion, the module houses or apartments will then be move to the site for permanent installation on a separate constructed foundation.

Boyd et al. (2012) further explained that the main reason why contractors and construction engineers being sceptical to use off-site approach is the fact that, it is very difficult to understand the value of such approach. The off-site approach is not common in practice, therefore, most of the decision taken regarding off-site construction where purely based on weak evidence instead of rigorous data. Among the reasons why off-site construction is not popular in the construction industry is the traditional tendering principle whereby tenders are determined, and decisions are taken based on the cost of the building and how long does it take.

Ophiyandri et al. (2010) opined that post-conflict housing reconstruction that is based on community approach has yield success in the reconstruction of many houses destroyed by natural or manmade disasters, for example, in Iran, Gujarat and Indonesia. Ahmed (2011) conducted a critical literature review on post-disaster housing reconstruction in relation to developing countries and found out that there are so many factors responsible for the success of post-disaster reconstruction which includes availability of resources, support and cooperation of the communities affected, government support, community participation and

understanding of the local culture or conditions. Coffey and Trigunarsyah (2012) analysed some research conducted on post-disaster reconstruction and found out that there are factors responsible for the failure of some post-disaster housing reconstruction projects which include diversion of project resources, waste of project resources, relocation, ignoring local culture and lack of community participation. However, Davidson et al. (2007) further elaborate on the importance of victim's participation in post conflict housing reconstruction. Some of the cases of post conflict, war housing reconstruction is discussed next.

2.10 Challenges Associated with Reconstruction of Housing for the Internally Displaced People due to Natural or Man-made Disasters

Compared to normal housing construction, reconstruction of housing for internally displaced people due to conflict, war, earthquake, flood is dynamic and complex in nature, with socio-cultural and economic requirements, therefore, require appropriate approach. Post-disaster housing reconstruction projects that lack appropriate approach that can produce the require result, ignore the culture of the beneficiaries, lack adequate resources, environmental condition, lack favourable policies or laws, technical and technological support or conditions most of the time become unsuccessful because the outcome will not meet the needs and preferences of most of the end users (Haigh and Amaratunga, 2011. Despite the need for further research and increase in interest shown from government and non-governmental organisations, media professionals, academicians within the area of post-conflict housing reconstruction to look inwards for new ways of enhancing the general practices used for the reconstruction of housing for IDPs in order to improve the subsequent or future outcomes of post-conflict housing reconstruction projects. The challenges that hinder the success of post conflict housing reconstruction projects are most often given very little attention or consideration when planning and designing such important projects (Saunders and Graham 2011). Previous research conducted in post conflict housing reconstruction practices indicated that overlooking these challenges totally or refusing to give them maximum attention can delay or hinder the reconstruction projects completely.

However, the houses if reconstructed might not reflect the needs and preferences of the end users (IDPs) or the houses might undergo some sort of modification or alteration to suit the

end users or being abandoned which will result to waste of resources. These challenges are not the only challenges that can arise in the process but are the major challenges.

1. Lack of involvement of the displaced people

Many post-disaster housing reconstructions projects carried out in the past most especially post-disaster housing reconstruction refuse to involve the end users and any housing reconstruction project that did not involve the people affected stand a chance of becoming unsuccessful and might end up destroying the unity of the affected community (Alam, 2010; Lyons et al, 2011; Lemanski, 2011). For instance, the post-flood housing reconstruction carried out in Bangladesh revealed that pit latrine toilet where build near some houses without involvement of the affected people in the design and consulting the neighbours caused serious problem among the neighbours. The post-disaster housing reconstruction carried out in Indonesia after the Tsunami in 2004 was subcontracted by majority of the donor agencies who are financing the projects and the project was supposed to be carried out by the people affected (owner driven approach), instead the housing reconstruction was given to the big construction companies.

The construction companies did not involve the people affected and refused to consider the needs and preferences of the end users which as a result the houses reconstructed by these companies were structurally considered sub-standard, culturally inappropriate and did not reflect or meet the financial requirements. This as a result increase tension and discomfort among the Acehnese communities. Lack of community participation in the reconstruction process especially planning and design was the reason why the displaced people reject the houses build by the companies (Smirl and Lisa, 2008)). However, there are some decisions taken by the government authorities without considering the needs and preferences of the displaced people during the housing reconstruction in Cankiri, Turkey (Dikmen and Nese, 2005), which as a result many people were not happy with the houses.

Another good example of the effect of lack of involvement of the displaced people in the post-disaster housing reconstruction process can be seen in the housing reconstruction carried out after the 2001 earthquake in Gujarat, India. The government instead of involving the displaced people in the housing reconstruction process, since they are the end users but decided to subcontract the reconstruction projects, which led to the people loss their historical (Barenstein, 2010) and cultural identity and long lasting psychological and social consequences.

2. Problems associated with involvement of the internally displaced people

Though, involvement of IDPs in the reconstruction of their own houses has been recognised as the key towards successful post-conflict housing reconstruction, but it can also have serious effect on the progress of the affected community if the major principles of community participation are not considered or ignored (Mafukidze and Hoosen, 2011). Such an opposing view was revealed in a community participation study carried out by Lizarralde et al (2010) concluded that the community housing reconstruction approach adopted in African cities of Netreg, Freedom Park and Mfuleni caused urban fragmentation and few opportunities for economic growth. They further argued that the success of post-disaster housing reconstruction projects does not rely on community involvement or participation in the project and believe that some aspects of community involvement in the housing reconstruction need to be review.

In the process of reconstructing houses for the displaced people due to Indian Ocean Tsunami in December 2004, a Sri Lankan Local non-for-profit agency called Foundation of Goodness (FoG) invested so much time in designing two storey houses. The people affected were involve in the designing and the model was produced before the actual reconstruction began. Initially the people accepted the idea of building two storey houses thinking the second floor will reduce the degree of their vulnerability towards future disaster

3. Building Materials: contribute more than 70% of input to housing construction in developing countries, particularly in Africa. Building materials contribute more than half of the entire housing expenditure in Nigeria. However, due to the high cost of building materials, reconstruction of housing becomes a great challenge and can hinder the reconstruction of housing for the IDPs (Ugochuku and Chioma, 2015). Another challenge associated with building materials is that majority of contractors, housing developers, housing construction engineers prefer to use imported building materials and technologies instead of using the local building material and construction technologies available that are less expensive and environmentally friendly.

The imported building materials are very expensive and increase the cost of housing considering the value of the foreign currency when compared with the local currency. This is the reason why some governments that are faced with the task of providing housing for the IDPs due to natural or man-made disaster for example, Pakistan, Iraq, Afghanistan and Nigeria will have to spend a lot of resources to rehouse the IDPs. However, low-income earners in Nigeria also find it very difficult to own or afford housing delivered through

public-private partnership (PPP), because the cost of imported building materials alone will take 70% of a decent low-income housing unit.

4. Availability of Affordable Land: Land is regarded as the backbone of any type of housing construction in any society and the difficulty of having access to vacant and affordable land has reduced affordable housing provision drastically. In Nigeria lack of vacant and affordable land has reduced affordable housing reconstruction to 70%. Lack of land that will be used for urban development and specifically for the construction of new houses for the IDPs in case there is a need to relocate them will be a big challenge in most developing countries (Akeju, 2007). The scarcity of land result to the high demand of land, increase the cost of land, illegal ownership of land, encourages overcrowding of neighbourhood which leads to the growth of squatter settlements and high cost of house.

5. Scarcity of Resources: The use of resources has increased significantly due to the increase in urban growth and change in living standard of people in countries with good economy. There is a shortage of revenue generation in the developed countries and in the developing countries like Nigeria, Saudi Arabia, Qatar, Iran who relies so much on revenue generation from oil and presently there is a shortfall in the price of crude oil in the international market (Abed et al., 2013). There are other challenges apart from the fall in the price of crude oil that is responsible for the reduction in the revenue generation from crude oil production and sales in Nigeria. For example, the pipeline vandalism and crude oil theft by the Niger delta militant groups among others.

6. Ignoring the culture/needs of the IDPs: it is understood that the internally displaced people have better knowledge of what their needs and preferences are better than anyone but most of the housing reconstruction are being carried out to meet the requirements of the housing construction engineers rather than reflecting the needs of the beneficiaries. That is the reason why the projects are being rejected or abandoned by the IDPs when the housing construction engineers or implementers superior interests override the beneficiary's interest (Lloyd-Jones and Mind, 2010). For example, a field research was carried out between 2008-2009 in Chennai, India to reveal the problems of ignoring culture of the displaced people. In some of the newly constructed apartments the toilet doors were fixed near the kitchen and that was considered inappropriate and unhealthy arrangement.

Another culturally complex matter that was completely ignored was the positioning of the room doors because most of the apartments had three of the room doors directly opposite each other and based on the cultural belief of the community such arrangement will bring bad luck or problem. The beneficiaries have no choice but to change the position of one door. This problem could not have arisen if the beneficiary's cultural beliefs were considered during the designing or redesigning of the apartments (Shaw and Ahmed, 2010). Contrary to the majority views that reconstruction of housing for displaced people due to natural or man-made disasters is not always true, because even in slums or appalling affected areas or villages the displaced people will reject houses that did not reflect their socio-cultural and economic needs. For example, a research carried out on reconstruction project in Colombia showed that the reconstruction of infrastructure like roads, industries, sanitation networks, were given priority by the displaced people (Lizarralde et al, 2010) more than their houses because of their importance to the communities.

7. Relocation: government and those with responsibility of rehousing the internally displaced people always have plan of relocating or moving the IDPs to another location. Relocation of the IDPs from their original place or home to a different and new location is often challenging because they don't easily accept relocation which may lead to additional deprivation or needs. However, in the process very little consideration were given to the importance of the location or place in terms of the development of the community identity, socio-cultural and economic relations (Boano and Camillo, 2011; Perry et al, 2011). For example, after the earthquake of 2000 in Cankiri, Turkey most of the houses reconstructed in situ were fully occupied but the houses constructed at the new location were abandon by the displaced people because the houses did not meet their needs.

 In addition, after the earthquake in Gujarat, the Gujarat state disaster management authority (GSMDA) explained its rehabilitation and reconstruction policy which contains three main agender; relocation of the villages that are completely destroyed, providing assistance for the reconstruction of houses that are severely damage and those that are less affected through contractor driven approach in situ and assistance for the reconstruction of houses and other buildings destroyed in urban areas. After the reconstruction, survey was conducted based on the policy approach adopted and the result showed that the houses reconstructed through participatory approach were accepted by 90.8% of the beneficiaries (Bareinstein and Iyangar, 2010), and those that were reconstructed through contractor driven approach 70.1% of the

displaced people expressed their satisfaction, but the houses delivered under donor driven approach were rejected by 77.2% of the beneficiaries.

Past housing reconstruction practices and recent studies acknowledged that relocation of IDPs due to natural or man-made disaster require planning and good understanding of the planners and the IDPs because its beyond just relocating people. Relocation is a big task that can lead to rejection of the project outcome if the process failed to relocate the entire life of the IDPs. For example, in Sri Lanka, the fishing communities that was relocated to miles away from their original home find it very difficult to access their only source of livelihood i.e. the sea (Boen and Jigyasu, 2005). They were also unhappy and devastated because they were not able to take any sort of job.

8. Corruption, fraud and waste of reconstruction funds: reconstruction of housing for the IDPs is dynamic and complex therefore, require well-coordinated and rigorous approach. Apart from the normal or inherited problems like inflexible and short period of completion, high expectation or demand from the donor agencies, post conflict housing reconstruction projects can be delay or hinder due to corruption and fraud. Large amount of reconstruction funds can be wasted on things that are not useful and bribing government officials or funds being diverted for personal used. For example, in an urgent need to provide temporary housing for the IDPs after the 2004 tsunami in Sri Lanka, huge amount of money was spent on tents and when the tents arrived it was discovered that the design or style is not suitable for coastal climate use and therefore, they could not use them. However, donor agencies that financed some of the housing reconstruction projects in Sri Lanka after the earthquake in 2004 had to used large part of their resources to rebuild their relationship with the government when they become unhappy with the slow progress of the project.

9. Limited time due to urgency: the urgent need to reconstruct the internally displaced people houses destroyed due to natural or man-made disasters in order to rehouse them in good time most of the time affect the outcome of the project. This can also lead to ignoring the building procedures or laws, use of substandard building materials, building errors, ignoring the socio-cultural and economic needs of the beneficiaries. Though, the urgency from the government to rehouse the IDPs in time may be due to their living condition.

2.11 Approaches Adopted for the Reconstruction of Housing for the IDPs due to Natural or Manmade Disasters in Other Countries

2.11.1 Post-Earthquake Housing Reconstruction in Hansin-Awaji Kobe, Japan

The key objective of post-disaster housing reconstruction is to ensure the communities affected most especially the displaced people return to their original homes. Reconstruction of housing for the internally displaced people due to natural or manmade disaster is one of the major activities during post-disaster reconstruction. In the process of reconstruction of the houses, there are many approaches that can be use depending on who is going to manage or handle the reconstruction, provide the funds and technical support for the construction. The approaches include; government driven approach, owner driven approach or cash base approach, donor driven approach, off-site preassembly housing approach, modular housing approach among others. The owner driven approach is an approach that allows the displaced people to take control of their housing reconstruction. Maly and Shiozaki (2012) pointed out that whether the approach is call owner driven, community driven, IDPs driven or self-assisted housing reconstruction projects there are indications of wide interest towards the use of participatory approaches to post-disaster housing reconstruction. The owner driven approach has received wide recognition especially within the international post-disaster reconstruction communities and was considered as the most straight forward and reliable approach towards reconstruction of housing for IDPs.

In comparison to different housing reconstruction approaches adopted in Gujarat, the approach was defined as the one that allows the displaced people or the affected communities to carry out the reconstruction work by themselves with financial and technical support (Barenstein, 2006). Owner driven approach does not necessarily mean the owners will build their houses alone without any support or assistance but based on available building codes they should take control of the process of rebuilding their houses. Though, owner driven housing reconstruction is a good example of approach that is generally people-centred focusing on a group of people within the community affected that lost their houses due to

natural or man-made disasters. The idea behind the owner driven approach is to allow the affected people to reconstruct their houses by themselves so that the houses will reflect their needs and preferences to avoid rejection or abandonment at the end. The word "owner driven" generally means a post-disaster reconstruction process whereby the government provide resources or building materials and technical supports for the displaced people to reconstruct their houses by themselves. For example, after the earthquake in Kobe there are some scenarios where the displaced people build temporary houses without any financial or technical support from the government, stake holders or donor agencies.

The word "Jiriki" is a Japanese word which means "self-strength or power" and was used to describe structures build by people specifically the temporary houses built by the communities after the earthquake in Kobe. This can also be noticed in some post-disaster housing reconstruction titled "Achieving people-centred, integrated housing reconstruction" the World Bank safer homes stronger communities which explains the importance of owner driven or displaced people-centred housing reconstruction. Some scholars like Coffey and Trigunarsyah (2012) also used the word people-centred in 'Building Back Better': Delivering people-centred housing reconstruction at Scale. The main aim of this is to examine and highlight the possibility of building mass housing through people participation and development for and of local people 'displaced people-centred housing reconstruction. Coffey and Trigunarsyah (2012) argued that donor driven housing reconstruction approach is not suitable, and the owner driven is too exclusive in nature.

They also stressed the significance of moving from supply-driven relief method to more of a rebuilding method that is more of supportive-driven and displaced people-centred. The idea of displaced people-centred housing reconstruction is to allow the IDPs to take part in the planning, designing and in the reconstruction process in general to avoid issues connected to their traditional, cultural and religious way of life. The word owner driven is often used interchangeably with owner driven and displaced people centred. It is right to stressed that the displaced people should lead the reconstruction process of their houses and should be allow to take decisions that will affect their future, because after a disaster what the government in collaboration with humanitarian and donor agencies should do is to ascertain what the people affected can do, then the government will do the rest (Maly & Shiozaki, 2012). However, recently international development organisations dealing with post-disaster reconstruction projects have highlighted the importance of displaced people-centred

reconstruction approach in several articles (UN-Habitat, 2010), and the notion that people should take the centre stage of human development (UNDP, 2011). For example, the Indian ocean tsunami in 2004, the government of Indonesia adopted the displaced people-centred reconstruction process (BAPPENAS, 2005), and the approach was also recognised by the Asian coalition for housing rights and collaborators in Sri Lanka (ACHRC, 2005). In these examples, the "displaced people-centred" was viewed as process, while "putting displaced people at the forefront" of the reconstruction is like allowing the affected communities to take decisions that will shape the reconstruction and their future.

The displaced people centred housing reconstruction can be understood as an approach that support the people affected by the natural or man-made disasters to take control or play a major role in taking key reconstruction decisions. However, apart from this important aspect, it is believed that displaced people-centred housing reconstruction is so broad in terms of policies, process and design. Displaced people involvement in the housing reconstruction is not enough without favourable policies that will assist in solving all the problems of the affected communities. The reconstruction policies must consider the needs and preferences of the displaced people, because a successful owner driven housing reconstruction projects requires the support of government, enough resources and technical support to avoid creating gaps among beneficiaries and unnecessary delays.

Japan is one of developed countries in the world with vast experience in managing disasters with a recognised legal framework and effective policy towards disaster prevention, response and reconstruction. The post-disaster housing reconstruction process in Japan is organised and standardised in such a way that the process begins with evacuation, providing temporary camps and reconstruction of permanent housing for the affected communities which was all planned by the government. The earthquake that took place in Hanshin-Awaji with magnitude of 7.2 reported to have caused the death of six thousand three hundred people and displaced over two hundred and twenty thousand people and destroyed one hundred and forty-nine thousand houses across the city of Kobe (Hiramaya, 2000). Majority of the houses destroyed were within the dense low-rise areas of Kobe city where most the houses there are low-cost rent row houses built with wood which as a result majority of them caught fire after the earthquake.

The debris from the earthquake scattered all over the place blocking the streets making it very difficult for the emergency vehicles to get access to these areas, but the neighbours were able

to control the fire using extinguishers. The fire lasted for days burning and destroying the entire houses within areas. Compared to the destruction caused by the fire in Kobe city, where the areas razed down by the fire were mostly home to many low-income earners and low-cost private rented housing. The wooden houses are affordable and cheaper to rent because they are made with wood that's why the destruction was very high in such areas. Therefore, the government will have to spend a lot of money to reconstruct the houses because the vulnerable low-income earners are mostly the victims in these areas.

The government did not provide any financial assistance to the families affected immediately for them to reconstruct their houses, instead the government build temporary houses in accordance with the disaster relief act. The disaster relief act stated that temporary housing in japan should be available to people that lost their houses due to fire, flood, and those who their houses collapsed or cannot have access to housing even with their own money. Edgington (2010) argued that the disaster relief act did not reflect the reality considering the level of destruction and the number of people displaced due to the earthquake. The fundamental principles of owner driven approach towards reconstruction of houses for displaced people was apply directly in japan at some stages (a) at the policy that encourage and support the displaced people and housing reconstruction that also support rebuilding their life (b) at the policy that allow the displaced people to participate and their views include in the reconstruction process (3) that support the housing reconstruction that reflects the needs and preferences of the displaced people and their environment.

During the reconstruction process of the Hanshin-Awaji, Kobe there are some important issues associated with owner driven housing reconstruction that are considered crucial which include; (1) to make sure that the problems of all the people affected by the disaster are solved irrespective of their gender, age, family structure and the extent of the damaged to their housing. (2) the housing reconstruction process should be as straight forward as possible to restrict relocation and unstable lifestyle. (3) the displaced people should live together and the process of resettling them back to their original home should be supported in accordance with outcome of disaster mitigation. The government provide resources through the local government for the construction of only forty-eight thousand five hundred temporary housing. The first set of thirty thousand housing units were constructed at the end of March 1995, while the remaining housing units were completed eight months after the earthquake. The temporary housing was one story steel house with two bedrooms and 26 metres of space

area per house, the houses were built quickly which as a result they become very hot inside during the summer and very cold inside during the winter. The houses were allocated to people through raffle draw with special consideration given to the older people and other vulnerable people. The idea of given additional treatment to the vulnerable members among the displaced community is recommendable, even though the entire members of the community and other members of the community that are desperately in need of assistance are ignored, without considering the effect of isolating the vulnerable people together in temporary houses, even when the impact of the earthquake on the community networks was approach holistically.

The random selection of the occupants is the cause of the communities being disconnected and displaced from their original neighbourhoods as well as many elderly and vulnerable people find themselves in temporary houses. The displacement has made them to leave the place where they had lived for decades and now, they are leaning in neighbourhood where elderly people hardly know their neighbours and they constitutes almost 30 percent of the people living in the temporary houses (Edgington, 2010), and having 14 percent of the total population of the city. The cases of solitary death became rampant where an elderly person will have passed away in his house and people will not know or noticed for days which shows the elderly people are living alone without any helper or assistant. The construction of temporary housing led to the emergence of another group in need of urgent housing assistance precisely older people and low-income earners. At the end of 1995 it was clear that 47 percent of the families occupying temporary houses have elderly people as members, and by early 1996 the percentage reduced to 42 percent (Hiramaya, 2000). However, only 40 percent of the people living in the temporary houses are working, and 34 percent of the occupants are retired civil servants relying on pension. Around 70 percent of this people earned up to 2.5 million Yen a year and 29 percent earned below 1 million Yen a year which is equivalent to $10,000.

The major challenges associated with the temporary houses is that they are built far away from the city, the building materials used are sub-standard, absence of social amenities, small living areas, absence of insulation. The temporary houses built in the city of Kobe also lack social amenities, spaces and majority were built in some hidden locations which make it very difficult for the people to go to work and other places. This as a result many people were not comfortable moving into such houses instead, they remained in emergency evacuation camps

or centres for a year before the they were forced out of the centres (Edgington, 2010). The number of people living in the temporary houses continue to reduce drastically, though three years after the earthquake many families were still living in such houses and by 1998 over 43 percent of the temporary houses are still occupied.

After the construction of temporary housing as the immediate shelter for the displaced people due Hanshin-Awaji earthquake, public housing was later constructed by the government as part of the reconstruction process. The post-disaster housing reconstruction after Hanshin-Awaji earthquake was to provide material compensation in form of temporary housing then followed by post-disaster public housing construction in a one-size-fits-all approach. This type of approach was criticised because of it inflexible and one-way (single track) approach and lack of its supports for the low-income groups of the affected communities (Koshiyama, 2011). The major problem with this one-way approach was that it overlooked the landlords who wanted to reconstruct their shops, houses, apartments concentrating on one-way of constructing houses for the disaster victims that are in needs of urgent housing, allowing every other person to help themselves. Furthermore, the one-way approach was not flexible because if the affected communities reject it from the beginning of the construction of emergency housing or at later stage of temporary housing, they will not be able to have same support at the stage of temporary or public housing.

Those that decided to live close to their children school, place of work or near their businesses instead of moving into the temporary houses are not given any kind housing assistance, and If the temporary housing constructed under one-way approach did not reflect or meets the needs of the affected communities then they will have to look for another alternative. Alongside these issues, inherent to an inflexible one-way approach, there are other several issues associated with the way temporary housing were constructed specifically in Kobe. For example, the nature of houses themselves, location, distance, completion time, the process of allocating the houses. Though, some of temporary houses are not far from the original neighbourhoods of the affected communities which was the standard. However, even those with small businesses experienced more difficulties because moving away from their former locations to where the temporary housing is located made it very difficult to rebuild their businesses.

There are many scenarios where the displaced people instead of accepting houses built through the one-way (single-track) approach by the government decided to rebuild their

houses (self-built) and businesses. This is does not necessary mean that the people reconstructed their houses and the businesses by themselves, but rather they finance the project without any financial assistance from the government. Unlike the temporary housing constructed by the government, self-built disaster reconstruction is the best approach towards rebuilding businesses. The one-way (Single-track) housing construction approach adopted in Kobe for the reconstruction of temporary housing and disaster public housing recreated many challenges such as location, construction delays, accessibility, mode of selecting the beneficiary from the affected communities.

Therefore, since these challenges are associated with one-way (Single-track) approach and can make the lives of the occupants uncomfortable, then self-built (owner Driven construction) is the best approach that will keep the occupant close to their original home or neighbourhoods without the need to move. However, for the people that use self-built approach to rebuild shops, stores, warehouses, companies will help them to restart business quickly. On one hand, the money spent by the government to construct temporary houses is for one-use structure that might last between three to five years. On the other hand, the money spent on self-built (owner driven) houses, shops, warehouses will be an investment and will not to be waste or abandoned. Still after facing all these challenges the government is not willing to change its approach towards post-disaster housing reconstruction.

The major aspect of post-disaster reconstruction is the reconstruction of the displaced people houses because they will not continue to live in emergency evacuation centres, temporary camps or temporary houses for the rest of their lives. Therefore, the government policy towards reconstruction of permanent or original housing of the displaced people due to Hanshin-Awaji earthquake was to construct disaster public housing that is like the temporary housing, where there is only one kind of assistant available even though, there are other disaster housing such as cooperative housing, elderly people support housing among others. The disaster public housing was the only housing type available for the displaced people. The post disaster permanent housing reconstruction in Kobe was carried out by government (government driven approach) with displaced people having little or no control over their housing choices. Compare to temporary housing most of the public housing were constructed far away from the displaced people original homes which made it very difficult for them to regain their daily life back again. To depend completely on public housing when there is no indication within the housing reconstruction process that landlords or owners of the rented

houses will be given any kind of assistance or support to reconstruct their houses, shops and rented properties. The post-disaster permanent housing reconstruction three years housing plan developed by the Kobe city emergency which was made available to the public in 1995 emphasised the need to begin with reconstruction of seventy-two thousand housing units within two years. ten thousand units as public housing meant for the low-income earners, thirty thousand five hundred units as subsidised housing which include semi-public housing, and replacement housing and low-cost reasonable-income private rented housing (Harayama, 2000). In 1996, one year after the Kobe city emergency plan Kobe restoration housing plan was introduced to tackle temporary housing issues and to meet the needs of the elderly and the poor therefore, the number of public housing units were increased from ten thousand to sixteen thousand. This target will be achieved by letting out the private rental housing to the public and through construction of additional new housing, but the actual number of housing units in the plan remain seventy-two thousand units.

The government constructed 24,512 public housing in Kobe which was considered substantial, but the public housing constructed in the areas that experienced wide destruction the housing constructed cannot replace the 30,642 units of affordable low-rise wooden houses in Kobe (Olshansky et al, 2005). For instance, in Nagata area, over 11,710 low-rise wooden houses were destroyed, but only 3,171public housing units were constructed.

The central government also introduced new subsidies with the aim of reducing the cost of public housing rent by amending the public housing act of 1996 in order to include income-sensitive housing rent system. The cost of housing rent is usually determined by individual income, location and size of the house. The new state subsidy was to last for five years after moving in (Hirayama, 2000), which was constantly renewed many times. Though, income restrictions on public housing were removed and thirty percent of the houses are kept for the elderly, disable and single families as priority houses. The people living in the temporary houses were given much consideration moving into the disaster public houses and in 1996, 60 percent of the new constructed public housing were kept aside for the temporary housing occupants. However, in case one of the occupants was not chosen through the raffle draw for the 60 percent of the housing units kept, he or she can still apply for the remaining 40 percent available for the people affected by the disaster.

In 1998, the 60 percent of the public housing units kept for the temporary housing occupants were increased to 80 percent (Hirayama, 2000), because the demand for public housing raised

more than the supply. By end of May 1998, over one hundred and twenty-three thousand seven hundred people applied for the twenty-six thousand five hundred and fifty-nine housing units available (Olshansky et al, 2005). There are some issues highlighted that are associated with the public housing constructed which include: (1) construction delays (2) the accessibility was limited mostly to the elderly and the low-income earners among the displaced people (3) the houses were built far away from the city (4) the same scenario with temporary housing, the procedure of moving into the permanent disaster public rental houses caused some distraction in the lives of the displaced people. Again, the one-way (single-track) approach was to even though, there were some issues with the mode of moving into the disaster public housing, there were other ways create that will provide financial assistant for the low-income earners to reconstruct their houses apart from depending on the disaster public housing.

2.11.2 Post-War Housing Reconstruction in Sri Lanka

This chapter discussed different approaches adopted for the reconstruction of housing for the internally displaced people in Sri Lanka, Lebanon, Japan to have a clear understanding of the success and failure of the approaches used in such situations. In Sri Lanka, after the civil war in 2009, it was estimated that over one hundred and fifty thousand houses from the northern province were destroyed. The region was considered as the battle ground of Liberation Tigers of the Tamil Eelam (LTTE) and Sri Lankan Army, which makes it the most affected province in Sri Lanka. Considering the number of houses destroyed during the conflict the government of Sri Lanka sees the need to reconstruct houses that are fully destroyed and repair those that are less affected (Adelakun, 2014). The government believe in people-centred or owner driven approach which as a result majority of the reconstruction projects in northern province were based on community involvement and participation in the housing reconstruction process. This includes government-led and government funded housing reconstruction projects, but there are many post conflict housing reconstructions executed by non-governmental organisations under the owner driven housing assistance (ODHA).

The major operational reason of adopting ODHA by the NGOs was to physically involve the affected communities in the reconstruction, so that the houses will meet their needs. The only support the NGOs provide mostly under this type of approach is the financial assistance and the expertise or technical support needed. The government preferred community driven

housing approach (bottom-top approach) over the government or donor driven housing approach (Top-down Approach). As a result, the government financed the millions of housing scheme (MHS) which was carried out from 1984 to 1989. The aim was to assist the IDPs to rebuild their houses. The approach also creates an environment through which the local people, government officials, political elites will collaborate with one another to provide constant discussion and feedback as well as to come up with financing criteria that is flexible for the IDPs to contribute money for the housing reconstruction and or to the labour (Gunasekara, Philips, Romeshun, & Munas, 2016). Even though, the MHS recorded success, but there were serious challenges associated with its execution which include rigid repayment criteria, inflexible nature of the loan, selection of the beneficiaries from the affected communities and government bureaucracy. The ODHAA adopted by different organisations to reconstruct housing for the IDPs after the civil war in 2009 was different from the MHS adopted by the government of Sri Lanka in terms of the nature of the programme and the way both were carried out. The housing reconstruction project was financed by the European union (EU), Aus-Aid and Swiss agency for development and cooperation (SADC) and executed by UN-Habitat (UNH) and SADC (AETS, 2012). The donor agencies and other organisations responsible for executing the project adopted owner driven housing reconstruction approach (UN-Habitat, 2016), which was aimed at empowering the IDPs to enable them to manage their own housing reconstruction project.

The housing reconstruction started in 2011 and was completed in 2014, across all the five districts in the northern province. The districts include Jaffna, Mullaituvu, Kilonochchi, Vavuniyar and Mannar. The aim of the project was to deliver permanent housing to the IDPs who have returned to their community. Though, the housing reconstruction scheme was carried out in accordance with the procedure, type of technical assistance and beneficiary selection criteria introduced by the north-east housing reconstruction programme (NEHRP) (Seneviratne, Amaratunga, & Haigh, 2015), but the intention of the NEHRP was to coordinate the reconstruction of houses in the north and the east part of Sri Lanka, which was achieved by attaching some criteria to ODHRA. However, for both the north-eastern housing reconstruction scheme and the housing reconstruction scheme, the housing assistance was provided to the IDPs through cash grants and before each beneficiary was considered they had to meet the following criteria: a) the beneficiary had to be a permanent residence in the village b) genuine land ownership was required c) the beneficiary had provide any kind of

financial assets d) and the housing to be reconstructed had to be among the houses affected by the war (ibid, p.3). In addition, the housing reconstruction scheme ensured that the beneficiaries (IDPs) did not receive housing grant from another source, because there were many housing reconstruction projects going on at that time.

The assessment carried out during the housing reconstruction project revealed that 93 percent of the IDPs had low income and 22 percent are within the vulnerable group for example, families with disability, women-headed families, single-headed families among others (Gunasekara et al., 2016). The beneficiaries selected were given cash grant of LKR 550, 000 to reconstruct a house that was fully destroyed, and others were given LKR 250, 000 to repair a house that was less affected during the war. The sponsors arrived at these figures based on the estimate presented by the IDPs. The actual cost of reconstructing a house as of the time the reconstruction project was on going was LKR 750, 000; therefore, each beneficiary had to bring LKR 250, 000 as contribution to make the balance.

The cash grant was distributed to the beneficiaries in instalments within nine months of the reconstruction period, but the IDPs had to reconstruct their houses by themselves. Many NGOs in Sri Lanka and donor agencies such as United Nation (UN) World Bank and other development partners provide resources and technical assistance for the reconstruction and repairs of all the affected houses. Despite the success recoded by different post disaster housing reconstruction approaches most especially community driven housing approach (CDHA), which is also referred to as owner driven housing approach (ODHA). There was growing concern from the government officials in Sri Lanka, stake holders, donor agencies, non-governmental organisations on the disadvantage of adopting ODHAA to reconstruct housing for the IDPs in regions affected by the war.

The investigation carried out by the world food programme in 2012; found out that many of the IDPs that have been resettled are working hard to generate enough income that will cover the cost of rebuilding their houses (Gunasekara et al., 2016). Though, the approach has solved the housing problem, but at the same time has left IDPs with the task of repaying the money spent on rebuilding their houses. The general assessment carried out on the post war housing reconstruction projects revealed that though there was so much satisfaction among the IDPs with the ODHA scheme, but there is serious indebtedness these group of people are facing. The assessment further found out that the vulnerable and IDPs are finding it very difficult to

repay the financial assistance they received to rebuild their houses. Therefore, there is a need for the Sri Lankan government to review the loan and the repayment terms and come up with the best possible way for the IDPs to pay back the loan without going through additional stress or difficulties.

2.11.3 Post War Housing Reconstruction of Al-Burjain in Lebanon

The world has been experiencing different kind of natural and manmade disasters, which as a result many people have been killed, some are displaced and a lot of properties such as houses, bridges, schools, hospitals were destroyed. In the past, most of the housing reconstruction carried out in different locations adopting top-bottom approach has recorded very little success globally, because the focus was largely on the progress, standardisation and technological remedies. In top-bottom approach, where there is a need for the reconstruction of large quantity of housing units the prefabricated skill and expert decision is considered as the best way of solving the problems associated with wide-range of housing destruction as a result of natural or manmade disasters.

In top-bottom approach, the needs and preferences of the internally displaced people such as culture, religion is being ignored due to anxiety to resettle the displaced people. However, top-bottom approaches most of the time overlook the nature of the complexity of the built environment and the nature of the locations affected and its potentials. Subsequently, the outcome of the project under such approach will end up producing very costly and in affordable housing units, which most of the times lead to abandonment or alteration to the houses by the end users (Barakat & Zyck, 2011). That's why; there is wide misconception about such approach when it comes to reconstruction of large number of housing units for the IDPs in many European countries.

Contrary to what have been said about the outcome of top-bottom approach, many researchers have encouraged the adoption of bottom-up approach towards reconstruction of housing for IDPs due to natural or man-made disasters (Ganapati & Mukherji, 2019). The bottom-top approach allows the involvement of the displaced people in the reconstruction process, use of local building materials, appropriate technology, integrating building and development to be part of guiding principles towards overcoming post conflict or war housing reconstruction. Indisputable, the bottom-top approach has a lot of advantages if the

reconstruction process is well planned and implemented. The approach is very easy to implement and cost effective, and houses reconstructed under this approach will reflect the needs and preferences of the displaced people.

Though, this is not an easy effort, because it involves different ideas, policies and practices, but it requires clear interpretations of the different aspects involved in the reconstruction process not just the physical aspects of the reconstruction alone, as the approach is beyond the traditional blue-print for construction of housing units as it is under top-bottom approach. It also creates an avenue where the displaced people, construction engineers, stakeholders will interact with each other about the reconstruction activities such as designing, number rooms, space among others. This is important in order to identify and overcome issues related to the needs and preferences of the displaced people, challenges as perceived by IDPs and experts too. El-Masri and Kellett (2001) point out the importance of owner driven approach towards reconstruction of housing for IDPs and how close or similar it is to the traditional ways or processes.

'Post-war housing reconstruction' is a 'continuous learning process' for the people affected who must learn to 'develop it' for themselves so that they can 'develop with it' (El-Masri and Kellett, 2001). The displaced people will be living in the houses after the reconstruction therefore; the issue of 'sense of place and people sense of belonging' to the reconstruction process can be well achieved at some point, but it must be inculcated from the early stage through involvement of the end users. The bottom-top approach (owner driven approach) requires proper planning whereby the experts will have to change their role of being authoritarian and become supervisors or organisers. The change is from imposing and directing to actual supporting and empowering as it was explained by El-Masri and Kellett (2001) in their definition of the role of architects during housing reconstruction project. Under this type of approach, there is a need for good understanding between the displaced people or the community affected and the donor agencies, stakeholders, government whoever is funding the reconstruction project, because lack of understanding is one of the major challenges that hinders post-conflict housing reconstruction projects.

All these issues highlighted shows clearly that bottom-top approach towards reconstruction of housing for displaced people due to conflict or war should concentrate on the reconstruction process rather than the product and on development instead of building. This is achievable

through understanding the local conditions, pattern of the settlements, skills labour available, available resources and methods of finance among others. Considering the scope and the consequences of conflict and war in the developing countries, the challenge of reconstruction is how to plan and carried out such projects based on full understanding of the local conditions and the needs and preferences of the displaced people. Therefore, post conflict housing reconstruction should be multi-dimensional, serve as capacity building programme, empowerment programme and as a way of encouraging local governance (El-Masri & Kellett, 2001). This without any doubt would enhance IDPs participation, overcome challenges associated with post conflict housing reconstruction, capitalising on the existing processes or practices, making the best use of the limited resources available, and increasing collaboration between the government, building construction engineers, IDPs and local communities.

Before the war started in Lebanon, the villages were under transformation and redesigning as part of modernisation process. Lebanon has witnessed devastating civil war that caused serious destruction and internal displacement. It was estimated that over one hundred and sixty-seven thousand people were killed and more than seven hundred and fifty thousand people were displaced and properties worth $12 billion was also destroyed during the war (El-Masri & Kellett, 2001). Considering the size of a country like Lebanon with total area of about 10,452km and population of not more than three million five hundred thousand people to have loosed such number of people was absolutely devastating. In the city of Mount which was considered as one of the major areas affected by the war constitute of two hundred and thirty-six villages, and one hundred and twenty were destroyed to some extent out of which sixty of the villages were destroyed completely.

In the last sixteen years of crisis in Lebanon, conflict occasionally occurred affecting different parts though it depends on how fast its spreads within the country. However, from 1982 to 1985, As-Shuf district of mount has witnessed very intense conflict which as a result many communities are displaced, and a lot of properties were destroyed. The neighbouring villages of Al-Burjain and Ad-Debbie are two communities that have experienced different kinds of destruction and they normalised their sorrow, misery and disruption as part of their normal life. The Al-Burjain village is situated in As-Shuf district 39km away from Beirut, with 60% of Sunni Muslims and 40% Maronite Christians. At the time when the war started, the actual size of a households was three hundred and twelve families with an average of 5.5

persons in each household (El-Masri & Kellett, 2001) and the total population was expected to reach three thousand and twenty-three by 2015. However, 70% of the population were literate, and majority of them graduated from the university. In terms of the community career structure, 10% are farmers, while 40% works with public sector and 50% were in private sector and some work as self-employed. Though, it was due to unproductive nature of the agricultural sector that encouraged the people to take salary jobs.

After the war in Lebanon, the government sees the need for the reconstruction of the areas affected by the war most especially the houses destroyed during the war. Post-war reconstruction is a very dynamic and complex process, and for any reconstruction to be successful it must take into cognisance the socio-economic and cultural aspects of the area affected and not just the physical aspects. The reconstruction should also be concern about the internally displaced people condition, financial ability and perceptions about the reconstruction. The government of Lebanon does not have any intention of taken full responsibility of reconstructing the houses destroyed during the war therefore, there was misperception by the community regarding the role of different actors such as government agencies, IDPs, donor agencies, committee set up by the villages affected and stakeholders.

Though, in terms of housing, the IDPs preferred the use of local materials along with building skills that can be obtained at a very reasonable price. They believe the use of both local and modern materials is a decision capable of responding to the socio-economic differences and to the different age and gender groups. In terms of the design and features of the houses, the group preferred terrace with a garden within the house, local source of water (a well) that they will be using to collect rainfall and some space for future use or expansion when the need arises (El-Masri & Kellett, 2001). The displaced people believe that the reconstruction should solve all the challenges faced by the villages before the destruction such as lack of roads and bridges linking different areas within the villages, lack of social facilities, lack of education, lack of adequate water supply, lack of financial and technical support for farming and agricultural products and the compressed nature of the villages. They also see reconstruction as an opportunity to re-form or transform the society affected to become better than it was before the war to promote peace, unity and development. The role of the actors varied and was assessed based on their commitments, participation in the reconstruction process.

While from the part of the IDPs, there was very little enthusiasm shown towards rebuilding the houses by themselves using their own resources, but they were ready to take part fully in the reconstruction and contribute within their own capacity. Participating in the sense that, they will be involved in the planning, designing, monitoring and can even participate as unskilled labourers. This can reduce the cost of rebuilding the houses, avoid problems that might arise during and after the reconstruction, speed completion among others. The willingness of the displaced people to use their own money and start reconstructing their houses immediately after the return of peace and certainty was conditional. Most of the displaced people are familiar with the role of the village committee which was to serve as a link between the IDPs, government and donor agencies. The role expected to play by the committee are of mutual benefit such as planning of the village and infrastructure, resolving disputes or disagreement among the IDPs or between the government officials.

Despite the leadership role of the committee, majority of the IDPs believe that the success of the reconstruction will depend on the total co-operation of all the IDPs, and the cooperation should be mainly on brotherhood and respect for one another. The IDPs see the war as a social disaster that have caused serious damage beyond the physical destructions of properties as such local labour and building materials should be used to create job opportunities and empowered the communities. They also believe that the government should focus not only on reconstruction of the houses, but also rebuilding the social facilities such as roads, bridges, school, hospital destroyed during the war for the benefit of everyone.

In 1991, the war in Lebanon came to an end and the reconstruction process started in 1993. The reconstruction focuses on providing cash compensation to the IDPs, rebuilding of the infrastructures, formation of reconciliation committee and the establishment of ministry of internally displaced people's affairs that will head the return of the IDPs to their original homes. This approach encountered so many challenges such as lack of resources, government bureaucracy, political differences or disagreements, and logistics problems. This shows that still the lesson of bottom-up approach towards reconstruction of housing for IDPs has not been understood, and that local initiatives have not been channelled towards skill acquisition, human empowerment, capacity building within a wide-ranging and sustainable community development approaches (El-Masri & Kellett, 2001). This also proved that despite the efforts made and the resources committed very little success recorded, even though most of the displaced people from the two communities of Al-Burjain and Debbie have return to their

original homes with the help of ministry of displaced people affairs, national council of the displaced people and different reconciliation committees for returnees and residents.

On one hand, it is right for one to appreciate the efforts made in overcoming the insecurity challenges and the psychological traumas the communities have been passing through, by making it possible for the people to move freely within their communities without fear of being attack or killed, and freedom to decide whether to go back to their original home are great achievements, which was very difficult to achieved in many countries that experienced conflicts or war. On the other hand, the issue of religion and different cash compensation given to the victims to reconstruct their houses and the killing of a family member seem to encourage them to become self-centred. This is because the approach was not able to bring the IDPs together regarding the reconstruction of their houses and the approach also felt to bring the victims together through the common practice of formation of local committees and subcommittees through which they will agree on common direction and approach towards reconstruction of their villages, and discuss the future of their communities beyond reconstruction.

In addition, despite the cash compensation the reconstruction has not improved the condition of the villages in terms of housing style or types, building materials used and the building practice in such a way that it complements the old-style (Harb, 2008) and the modern way in order to encourage continuity and locally made buildings.

In Burjain, there were issues of urban effects or inspirations in terms of the types of housing, building materials, and architectural designs. The cash compensation is the reason why the victims adopted individual approach to reconstruction avoiding mutual interests and the problem of accessibility within the village. The actual approach can only inspire the IDPs to return to their original homes but not sure if they will stay. This is because, the IDPs have moved to other places, and have already settled down in such places of refuge in terms of housing, school, hospitals jobs among others (El-Masri & Kellett, 2001). Furthermore, there was an indication that it will be very difficult for these group of people to abandon their places of refuge and move back to their original homes due to the condition of their villages and limited opportunities. This might result to their original houses being used for other purposes such as vacation, occasions, holidays or the houses might be sold to different people from different places. Doing this will increase segregation, or they might demand

compensation and ownership right can be established, but they are not ready to spend so much for reconstruction.

It was understood that the cash compensations given was not fully used for the reconstruction and community development using local initiatives which will improve the social, economic and infrastructural conditions of the villages. This shows that the complex nature of reconstruction has not been appreciated by the people involved, when the complexity can be threadbare and understood. Therefore, post war or conflict housing reconstruction should be culturally rooted and based on empowering and development of the displaced people or the communities affected, involvement of competent institutions and experts to monitor, manage and control the reconstruction process. The post-war housing reconstruction of Al-Burjain in Lebanon has highlighted some key issues which have teach important lessons about owner or community driven housing reconstruction approach in that country and in other countries within this context. Some of the key lessons learnt include;

- Post-war housing reconstruction do bring change to socio-economic condition of the affected communities in terms of empowerment and capacity building

- The willingness of the displaced people to lead the reconstruction of their houses by themselves

- The idea of wider reconstruction that will include social and economic instead of concentrating only on the physical reconstruction using top-bottom approach

- Financial support alone without technical support will not be enough towards achieving successful post-war or conflict housing reconstruction

- The formation of local committees mostly is for them to mediate and reconcile the two groups involved in the war or conflict, which should extend to include bringing the affected people together to agree on a common approach to adopt for the reconstruction of the affected areas.

Bottom-up approach towards post-war0r conflict housing reconstruction should take into consideration the difficulty and the efficiency of the reconstruction processes. The difficulty has to do with the need to change and adopt the common practices and actions, and the needs to discuss and keep a close relationship with the affected communities. Efficiency in terms of

responding to the needs and preferences of the displaced people and dealing with different issues associated with the project. Post-war reconstruction should be carried out based on clear understanding of different aspects and through give-and-take relationships, careful analysis of the conditions of the affected settlements before and after the disaster to identify the needs, challenges, problems, opportunities and constraints. This can enhance reconciliation and participation of the displaced people, individuals within the affected communities and relationship of the professionals responsible for the reconstruction in order to overcome the existing problems, to create economic opportunities, to empower the affected communities and proper use of the available resources. Understanding these realities is very important and merging them into policies and practices will go a long way in making the reconstruction a reality.

2.12 Early Framework Developed Based on Literature Reviewed

Framework can be defined as set of procedures formulated to provide comprehensive guide towards achieving some certain goals or specific objectives, which can be published or documented in form of booklet or other form that can be generally accessible (APA, 2019). Based on the literature reviewed related to this area of research in chapter two this section presents the early framework for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri. Developing the framework will be a rigorous process and it is expected that the framework will enhance the way housing construction professionals approach reconstruction of housing for internally displaced people and will improve the general practice. The framework will serve as a guide towards achieving the aim and objectives of this research.

The framework is necessary considering the number of the internally displaced people houses destroyed by the Boko Haram terrorist across the country particularly in Maiduguri, and how the government will approach the reconstruction in order to deliver houses to the IDPs is still not clear. It is expected that the outcome that will emerged from this research will guide the government and housing construction professionals towards adopting appropriate approach for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. It is also expected that the framework will identify challenges that can delay or hinder the reconstruction and how to overcome the challenges.

Therefore, different factors that will contribute or lead to successful housing reconstruction were examined. The literature reviewed revealed that such factors comprise understanding of different approaches used for the reconstruction of housing for IDPs and their advantages and disadvantages, adoption of appropriate approach, identifying the challenges that can delay or hinder the reconstruction of housing for the IDPs in Maiduguri, and how to overcome the challenges. These are all important factors that will lead to successful housing reconstruction for the IDPs in Maiduguri. Based on the literature reviewed, the research identifies the important elements that will contribute to the development of a framework for the reconstruction of housing for the IDPs due to conflict.

2.13 Key Elements of the Framework

2.13.1 Approaches Used for the Reconstruction of Housing for the IDPs due Natural or Manmade Disasters

Reconstruction of housing for internally displaced people is the major activity during post-conflict reconstruction, and in the process of reconstructing the houses there are different approaches or strategies that can be adopted which includes government driven approach, owner driven approach, donor driven approach, participatory housing approach, subsidiary housing approach, contractor driven in situ and contractor driven ex nihilo. Though both contractors driven in situ and ex nihilo are mostly used for the reconstruction of housing destroyed due to natural disaster (Berstein et al, 2006). Disaster provides the opportunity for researchers and housing construction professionals to study and understanding different approaches or strategies that are used for the reconstruction of housing for internally displaced people and their suitability, advantages and disadvantages in order to adopt the appropriate approach.

Kurunasena and Rameezdeen, (2010) believe that it is important to consider the different needs and preferences of displaced people when adopting an approach for the reconstruction of housing for IDPs, because in most cases, approach is being adopted without considering what the beneficiaries want. In this research, the three major approaches for the reconstruction of housing for IDPs that include government, owner and donor driven approach were discussed. The framework explained the theoretical background of the

important elements that are relevant in the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri.

1. **Government driven approach**; is an approach or strategy used for the reconstruction of houses destroyed due to natural or manmade disaster to rehouse the internally displaced people. Under this approach, government of the affected communities will provide all that is require for the reconstruction to be carried out such as resources, technical support, land etc. The government will handle the reconstruction from the beginning to the end and will not involve the communities affected or the beneficiaries in the reconstruction process. However, understanding the advantages and disadvantages of each approach is essential in adopting the appropriate approach for the reconstruction of housing for the IDPs in Maiduguri, therefore, the advantages of government driven approach include the following:

- Quality control;

- Provision of adequate resources;

- Reduce waste of building materials;

- Minimise waste of resources;

- Fast in completion;

The disadvantages of government driven approach

- Lack of commitments from government, engineers or contractors

- Government bureaucracy or procedure;

- Political differences among the leaders and the displaced people;

- Corruption;

2. **Owner driven approach**; is one of the approaches or strategies that are commonly used for the reconstruction of the displaced people houses destroyed due to conflict, war, flood to rehouse them (Ratnayake and Rameezdeen, 2008). In this approach, government, donor agencies and other stake holders will only provide resources and technical support to the IDPs for them to reconstruct their houses. This means that the

government will give money directly to the IDPs and hire engineers that will provide professional advice to the IDPs. Under this approach, the IDPs will handle the reconstruction from the beginning to the end so that the houses will reflect their needs. The advantages of owner driven approach include the following:

- Encourage local market and business

- Cost effective;

- Quick delivery;

- Empowering the community;

- The IDPs will learn different building skills;

The disadvantages of owner driven approach

- IDPs lack of building skills;

- Diversion of reconstruction resources for different purpose;

- Shortage of funds;

- Insecurity.

3. **Donor driven approach**; under this type of approach or strategy the donor agencies or non-governmental organisations, individuals whoever is financing or funding the reconstruction will handle the housing reconstruction together with the engineers or contractors hired to carried out the project (Berstein et al, 2006). The major issue with this type of approach is that houses rebuild through this process may not meet the needs of the beneficiaries (IDPs). The advantages and disadvantages of donor driven approach include the following

- Provision of adequate resources;

- Adhering to building codes and procedures;

- Quick delivery;

The disadvantages of donor driven approach

- The IDPs might reject the houses;

- Absence of accountability;

- The approach is very expensive.

2.13.2 Challenges Associated with Reconstruction of Housing for IDPs due to Natural or Manmade Disasters

The second aspect in the framework is the challenges associated or that can delay or hinder reconstruction of housing for internally displaced people. Reconstruction of housing for IDPs is dynamic and complex when compared to normal housing construction for commercial and other purposes. The challenges associated with reconstruction of housing for IDPs are barriers or problems associated with housing reconstruction which can delay or hinder the reconstruction completely if not address. There are many challenges that are associated with reconstruction of housing for IDPs and the challenges include the following:

1. **Scarcity of resources**:

Resources are very important element that determines the success of every housing reconstruction project. The use of resources has increased significantly in the recent times which was due to population growth and socio-economic development in countries with strong economy. Many countries like Qatar, Saudi Arabia, Nigeria, Iran that generate most of their revenue from crude oil are experiencing shortage of resources because of the fall in the crude oil price (Abed et al, 2013). There are other internal challenges apart from the fall in the crude oil price that are responsible for scarcity of resources in most of these countries. For example, the pipeline vandalism, crude oil theft by the Niger Delta Militant Group (MDMG) has reduced the volume of crude oil produce daily in Nigeria. This is one of the reasons why the government will find it very difficult to provide enough resources for the reconstruction of housing for the IDPs in Maiduguri due to Boko Haram conflict and overlook other challenges like lack of roads, health care, insecurity, unemployment etc.

2. **Lack of involvement of IDPs in the reconstruction:**

Many post-conflict housing reconstruction projects that were carried out before most especially post disaster housing reconstruction showed that housing reconstruction project

that refuse to involve the beneficiaries in the reconstruction process the project stand a chance of becoming unsuccessful which can further increase hardship on the displaced people. For example, after the 2004 tsunami in Aceh-Indonesia, most of the donor agencies funding the project instead of adopting owner driven approach for the reconstruction opted for contractor driven approach. The companies refuse to engage the displaced people in reconstruction process and did not consider the needs of the beneficiaries which as a result the houses built by the companies were later discovered to be structurally wrong, culturally inappropriate and fail to justify the resources spent (Ophiyandri, 2010), thus increasing more tension and dismay among the end users.

3. Relocation:

Planners and housing construction professionals with the responsibility of reconstructing the internally displaced people houses destroyed due to natural or manmade disasters always have a plan to relocate and rehouse the displaced people without considering the implications. Dikmen and Nese (2005) conducted a research on post-disaster housing reconstruction after the earthquake in Cankiri, Turkey and discovered that relocating IDPs from their original homes to a different place can be challenging because they don't easily accept relocation without understanding the reason behind it. The study further showed that the houses reconstructed in situ were occupied quickly by the beneficiaries, but the new houses built at the new location that did not meet the IDPs requirements were abandoned.

4. Ignoring the needs and culture of the beneficiaries:

The internally displaced people have clear knowledge of their own needs and preferences or what their needs are more than the housing construction professionals or contractors, but most of the time the reconstruction is being carried out to reflect the requirements of the professionals or the contractors than meeting the needs of the beneficiaries (Shaw and Ahmed, 2010). That is the reason why these projects repeatedly fail when the IDPs needs and preferences are ignored by the professionals in the expense of their own interest (Lloyds-Jones, 2010). For example, the housing reconstruction carried out in Chennai India exposed some mistakes or flaws made by the contractors by overlooking the culture of the displaced people. Most of the newly apartments constructed the toilets were built near the kitchen which the beneficiaries considered as unhealthy (Shaw and Ahmed, 2010). Another problem was the positioning of the internal doors, in most of the apartments there were three doors

aligned facing each other and based on their cultural belief such arrangement will bring bad luck. As a result, many of the beneficiaries reposition one or two doors. This mistake could have been overcome or resolve if the beneficiaries were involved in the reconstruction particularly in the planning and designing.

5. **Corruption and waste of resources:**

Unlike normal construction, reconstruction of housing for internally displaced is dynamic, complex and problematic in nature, therefore, signifies different challenges. The task of reconstruction of housing for IDPs required a good approach and strategic managerial direction (Le Masurier et al, 2006). Apart from the challenges associated with housing reconstruction project such as urgency from the IDPs, quality control, IDPs participation, high donor expectation or demand, reconstruction of housing for IDPs can be a victim of corruption which as a result funds meant for the reconstruction will be diverted for personal use or unnecessary spending of the project funds. For example, after the tsunami in Sri-Lanka in 2004, the donor agencies and other NGOs had to use large part of their resources to bribe some government officials in order to rebuild their relationship with the government when they are not happy with the housing reconstruction project. However, in Sri Lanka after 2004 tsunami, thousands of tents were order in order to provide temporary housing for the IDPs and when the tents arrived from different places it was discovered that the tents are not the right design (Boano and Camillo, 2011), and not appropriate for coastal climate use therefore, the IDPs decided not to use them.

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┌─────────────────────┐
│ Housing reconstruction for the │
│ IDPs due to natural or manmade │
│ disasters           │
└─────────────────────┘
           │
           ▼
┌─────────────────────┐      ┌──────────┐      ┌──────────┐      ┌──────────┐
│ Approaches used for the │───▶│   GDA    │─────▶│   ODA    │─────▶│   DDA    │
│ reconstruction of housing │    └──────────┘      └──────────┘      └──────────┘
│ for the IDPs        │           │                 │                 │
└─────────────────────┘           ▼                 ▼                 ▼
           │              ┌──────────┐      ┌──────────┐      ┌──────────┐
           │              │ Funds, land, │    │  Funds,   │    │ Funds, NGOs, │
           │              │ engineers,  │    │ engineers, IDPs, │ │ engineers, stake │
           ▼              └──────────┘      └──────────┘      └──────────┘
┌─────────────────────┐      ┌──────────────────────┐
│ Challenges associated with │──▶│ insecurity, resources, roads, │
│ reconstruction of housing │    │ skilled labour, relocation,  │
│ for IDPs            │    │ corruption, land, Building Mat │
└─────────────────────┘      └──────────────────────┘
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Figure 2.5: Initial framework developed for the reconstruction of housing for IDPs due to natural or man-made disasters

2.14 Summary of chapter two

This chapter presents the literature related to the area under study which include definition of disaster, types of disaster, disaster management theory, disaster management principles, disaster management cycle, concept of post-conflict reconstruction, background of Nigeria, history of Nigeria conflict, nature of the Boko Haram conflict, impact of the conflict on housing and the definition of internally displaced people. The chapter also discussed the need for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, the concept of housing, affordable housing theory, theoretical framework for understanding the factors for the need to reconstruct housing for IDPs due to conflict, approaches used for the reconstruction of housing for IDPs, challenges associated with reconstruction of housing for IDPs due to natural or man-made disasters. The chapter further discussed different approaches adopted for the reconstruction of housing for internally displaced people due to natural and manmade disasters in Sri Lanka, Lebanon, Japan in order to understand their advantages and disadvantage as well as the success and failure of each approach adopted.

The next chapter provides detailed discussion of the methodology adopted for this research. The philosophical stance used to achieve the aim and objectives of this research. The chapter also presents the process through which the research is carried out that leads to achievement of the aim and objectives.

Chapter 3:   Research Methodology

3.1 Introduction

The previous chapters have discussed the background of this research, research justification, aim and the objectives of the research. The research questions used in this research was also discussed, brief methodology adopted in this research was provided and the way the thesis was structured was also highlighted. However, the chapters examined different literature related to this area of research which include the concept of disaster, natural and manmade disasters, disaster management theory, disaster management principles, disaster management cycle, post-conflict housing reconstruction, background of Nigeria, history of Nigerian conflict, nature of the Boko Haram conflict and the impact of the conflict on housing. The chapters further examined the concept of internally displaced people, the need for the reconstruction of housing for the IDPs, meaning of housing, affordable housing, theoretical framework for understanding the need for the reconstruction of housing for internally displaced people due to conflict.

However, the chapters also examined the approaches used for the reconstruction of housing for IDPs due to natural or manmade disasters, challenges associated with reconstruction of housing for IDPs due to natural or manmade disasters, approaches adopted for the reconstruction of housing for the IDPs due to natural or manmade disasters in other countries, early framework developed based on the literature reviewed and key elements of the framework in order to provide background insights to assist for systematic inquiry. This chapter focuses on the research methodological procedures followed in this study to achieve the aim and objectives of this research. The aim is to show how the research was designed and empirical data is collected to address the fundamental issues underlying the research and most importantly the aim and objectives. By so doing, the chapter is organised in sixteen sections.

Therefore, to build on the previous chapters, this chapter explain the foundation through which the research questions are designed that are used to collect data. The chapter explains the philosophical stand, research approach, research strategy and the methods used in this research. However, the chapter also elaborate on the data collection and analysis techniques

used in collecting data, ethical considerations and the processes through which reliability, validity and triangulation are achieved in this research. The word professionals and experts will be interchangeably used within this research, but they all refer to the same thing. The next section discusses the research methodological framework then followed by research philosophy.

3.2 Research Methodological Framework

In the process of conducting research there is a need for the researcher to come up with an organised research approach and methods (Fellow and Liu, 2003), because it will show the actual direction of the research and the processes through which the research will be subjected to (Remenyi and Williams, Money and Swartz, 2005). Different terms have been developed in the past by different authors to explain research processes (Crotty, 2003; Wainwright, 1997). The word "worldview" was used by Sarantakos, (2013) and Cresswell, (2009), while Baikie, (2010) used the most familiar term of research methodologies whilst Guba and Lincoln (1990) used the term paradigms.

The term paradigm can be defined as a process of examining social phenomena with the aim of understanding it and explaining it (Saunders et al, 2012). The word paradigm can also be a set of beliefs, perceptions of individual about a phenomenon. It can also be defined as an organized framework through which a research is carried out (Remenyi and Williams, 1998). It explains the best approach to a problem that can be put into practice during the process of conducting a research, which includes the philosophy, approach, strategy, the data collection methods, techniques and procedures. Taking into consideration the different views above, it can be argued that research paradigms are the integral part of research and guide researchers to achieve the aim and objectives of a research in a structured manner (Saunders et al, 2012). The methodological framework mostly used by social sciences is the 'Research Onion'.
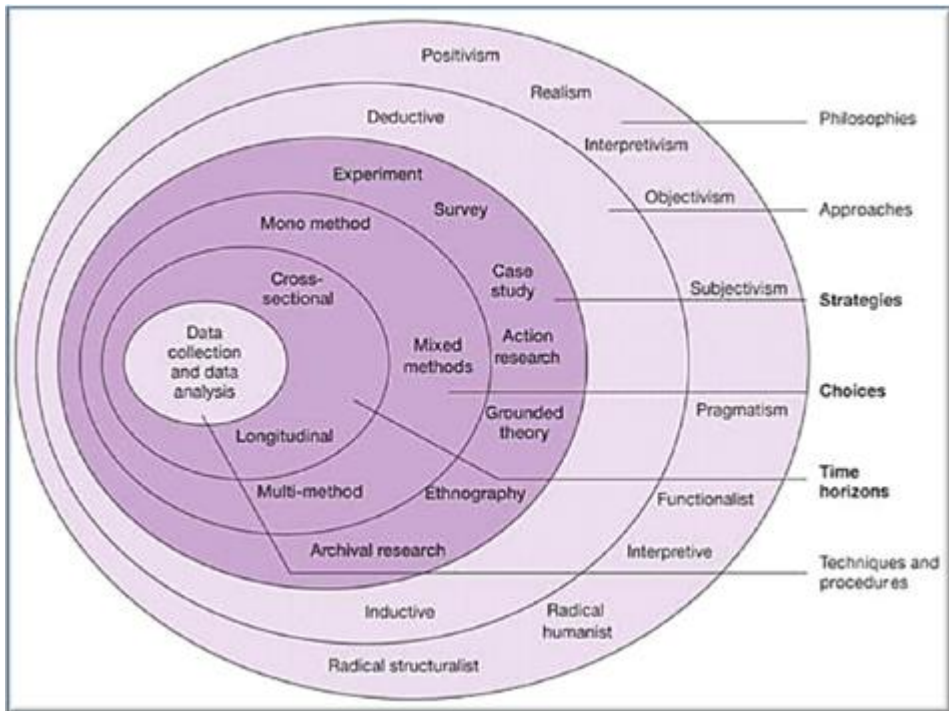
Figure 3.1: Research Onion (Sources: Saunders et al, 2012).

The research onion consists of six different layers which include the research philosophy, approach, strategy, time horizon, methods and research choice (Saunders et al., 2009). The research onion serves as a guide to researchers in selecting the appropriate methodology while conducting a research.

Table 3.1: Breakdown of the research onion layers

Layer	Approaches
Research Philosophy	Positivism, Interpretivism, Realism, objectivism, subjectivism, Pragmatism, functionalist,
Research Approach	Deductive, Inductive and Abductive
Research Strategy	Experiment, Survey, Case Study, Grounded Theory, Ethnography and Action Research
Time Horizon	Cross Sectional, Longitudinal
Data Collection Methods	Sampling, Secondary Data, Observation, Interviews, Questionnaires
Choices	Mono-Method, Multi Method, Mixed Method

3.2.1 Research Methodological Framework Adopted

It is understood that there is no single research strategy or process that is considered as the best when conducting a research, but it all depends on the process that fits with the type of research one is undertaking. It is also acknowledged that the selection of a research methodological process is based on its appropriateness, resources, time, research questions, the problem at hand and the skills possess by the researcher (Eaterby-Smith et al, 2012; Demscombe, 2010; Remenyi et al, 2005). The aim of this research is to "develop a framework for the reconstruction of housing for internally displaced people due to conflict. Therefore, based on critical review carried out on methodological processes and approach outlined by different authors such as Saunders et al (2012), Crotty, (2003) and Kagioglou et al, (2000), the "research onion" introduced by Saunders et al, (2012) is adopted to serve as a guide towards achieving the aim and objectives of this research.

3.3 Research Philosophy

Research philosophy means development of knowledge and the nature of that knowledge (Blaikie, 2010). It also tries to explain the way we see the real world, as well as what we understand about the knowledge of the world and how we develop the knowledge (Saunders et al., 2009). Research philosophy is a philosophical belief or assumptions that underpin the research strategy and the selection of appropriate methods in order to achieve the aim and objectives of a research. In other words, research philosophy is a set of beliefs, assumptions of a researcher or perception about the important aspect of the nature of knowledge (Waite and Hawker, 2009), the reality and its existence. The way people think or perceive reality and the nature of knowledge has changed in the recent times for instance people believed that the world is completely flat and argued that the sun rotate around the earth. Philosophy is believed to dictate the link between knowledge and the way knowledge is developed, and this is not a new practice, it is an activity that is overtly or covertly carried out daily in practice or within academia when we want to understand our beliefs, assumptions and knowledge (Saunders et al, 2012; Creswell, 2009; Guba and Lincoln, 1994). Easterby-Smith et al, (2012) pointed out that it is important to consider philosophical issues and failure in doing so may have a negative impact on the quality of the research design.

Good understanding of the basic elements that constitute research philosophy can help in linking research method with the research area to achieve the aim and objectives of a research. Though, scientist used systematic approaches or techniques such as observation and experiment, and sometimes they use inductive technique to discover descriptive theories that could be useful for prediction. The scientist idea about the real world and the knowledge of the world are based on positivism, which its roots can be traced from the philosophical term called realism. Positivisms were introduced by scholars such as Comte (1798-1857), Mill (1806-1873) and Durkheim (1859-1917).

3.3.1 Positivism

Positivist gives an idea on how research is carried out in the natural sciences and presently scientific methods are being used in conducting social science research. Positivists are of the belief that, the real world is independent of us and the objective is towards the discovery of ideas or theories, based on observation and empirical study. Knowledge is derived from reliable information since the information can be scientifically verified. In addition, it is possible to present logical evidence of every sensibly and justifiable proclamation. Nowadays researchers conducting research in business world using positivisms philosophy concentrates on explaining the theories or making prediction about social phenomena. Even though, researchers apply some sort of rational thinking into their prediction (Barrett, 2011), but objectivity and rigour guide their approach, instead of bias and instinctive information. Creswell (2014) further explained that positivists believe that social reality is independent of us and conducting research on social world will not have any effect on that social reality. Collis and Hussey (2013) add that positivists believe that theories form the basis of explanation, allow the expectation of social phenomena, predict when they occur and provide the basis to which they can be controlled. Explanation comprises creating a worthy relationship between the variables which will result to formation of important laws and connecting the laws with deductive or integrative theory.

However, is it possible to consider natural and social worlds both to be governed by some certain laws in a sequential cause and effect? But a variable is an aspect of phenomenon that can be transform into different values; variable can also be observed or measured while theory is a set of interconnected variables, proposition or definitions which explain the association between the variables. Since, majority of researchers thinks that social

phenomena can be measured; therefore, positivism is related with the quantitative methods of data analysis considering the statistical analysis associated with quantitative research.

3.3.2 Interpretivism

Interpretivist came into being due to insufficient of positivism in providing the necessary guideline to social scientist. Therefore, it is very important for researchers to understand the underlying arguments of positivism:

- It is not realistic to disengage people from the social world in which they leave in.

- It is not easy to understand people without studying and examining the way they think about their own life or activities.

- A well-organized research design can forget some useful findings and cause some problems in the final findings or recommendations.

- Researchers are not being objective about what they are studying; instead, they include their interest and values into the research.

- To understand complex phenomena while measuring it for the first time is not achievable for example, it is not realistic to understand individual behaviour by using many values.

Interpretivist believe that social world cannot be viewed objectively but should be viewed and analysed subjectively, since it is developed and moulded by the way researchers perceived or understood it. Creswell (2014) believed researcher relates with what is under investigation because it is not realistic to separate the things that exist in the real world from those things the researcher is thinking of or have in his mind. Therefore, the habit of conducting research on social reality also affects it. Whereby positivist concentrate more on measuring social phenomena, interpretivist concentrate on investigating the difficult part of social phenomena with the intention of understanding and explaining it. Blaikie (2009) further explained that positivist believe social world exist because of its own inhabitants and it is a world that is defined based on the meanings scholars and researchers form and produce and reproduce as an important part of their research activities. Blaikie (2007) add that instead of using quantitative methods as adopted by positivists, there are other methods which is used

by interpretivists that explain, interpret the meaning, but not the same as many natural phenomena within the real world. As such, interpretivist research is a type of research which does not derived its conclusion from the statistical analysis of quantitative data (Corbin and Strauss, 2008), instead, the conclusion is derived from the qualitative methods of analysis which is a product of qualitative research.

This ontology needs to use different methods of investigation that can be used in natural sciences. The initiators of interpretivist copy the idea of the classical Hermeneutics that wanted to create or introduce an objective science of the subjective, with the intention of constructing a certifiable knowledge that explain the actual meaning of social world. The concentration is on the useful meaning of social action and its contribution towards understanding the structures within social life, and how the meaning can be measured rather than making efforts to certify the real meaning social scientist gave to specific social actions. Interpretivists argued that it is important to work hard at different stage in general. There are number of approaches within these two major paradigms and many researchers presently used the idea of the two major paradigms. The new paradigms are differentiated based on their philosophical point of view in which they believe on. There are number of new research approaches that emerged under these two major paradigms. The approaches under positivism include the following:

- Quantitative

- Objective

- Scientific

- Traditionalist

The approaches under interpretivist are:

- Qualitative

- Subjective

- Humanist

- Phenomenological

Philosophies can be differentiated based on their ontological perception, epistemological beliefs, axiological purpose and the choice of methodology (Blaikie, 2010). Ontology is about what we consider as reality and nature of that reality. The epistemology explains the way we see the reality and we understand the reality, while axiological purpose focus on the bias we include in the process of understanding the nature of reality, in relation to our acknowledgement that research is value free there is no bias attach to it or research is value-laden there is bias attach (Hussey and Hussey, 2013; Saunders et al, 2012; Sarantakos, 2013; Easterby-Smith, 2012). Research that is value-free, the knowledge develop will be based on the way and manner the research will be carried out is determined by the objective point of view, whilst research that is value-laden, the knowledge develop under this type of research will be based on people views and experience.

Table 3.2: Assumptions of the positivism and interpretivist (sources; Hussey and Hussey, 2013)

Philosophical assumption	Positivism	Interpretivism
Ontological (the nature of reality)	Reality is objective, one and separate from the research	Reality is subjective, and it is many as view by the researchers
Epistemological assumption (what constitute valid knowledge)	The researcher is independent from what is being research	The researcher interact with what is under study
Axiological assumption (**the role of values**)	Research is value free and unbiased	Researchers acknowledges that research is value-laden and there is bias attach

3.3.3 Critical Realism

Between the two different views about research and on how research should be conducted, there are some intermediate viewpoints about research. Critical realism is one of the viewpoints. The realism is a mixture of belief which centred on external reality (an objective truth) and disagree with the claim that the external reality can be objectively measured; observations (specifically the observations on phenomena which we cannot observe and measure directly. For example, motivation, satisfaction, culture) which are always subject to

interpretation. The realist is concern about the ability of the researchers to understand the reality with confidence. Unlike the positivist that believe the objective of a research is to discover the actual truth, but the realist believes that the aim of research is to advance towards achieving the aim, even if it is impossible to achieve it. Based on the realist viewpoint to measure some phenomena like emotions, feelings, attitudes that are mostly subjective in nature and the process of gathering data is mostly considered unsuitable and wrong. The realist also believe that researchers are often biased, as such it is important for the researchers to triangulate across various methods, observations in order to understand or get a clear picture about what is going on around us.

3.3.4 Pragmatism

Pragmatists unlike the other philosophies did not take any stance on what constitute a good research. They believe that research carried out on objective, observable phenomena and based on subjective views or meanings can produce valuable knowledge, even though it depends on the research question. Pragmatism concentrates on practical and applied science research where different views about the study and the area of the research contributes towards solving a social problem. Pragmatism sees research as a process through which concepts, ideas or perceptions and meanings (theory) are overviews, conclusions of our past actions, experiences as well as the interactions that occurred between us and our natural environment. Pragmatists believe in the social way through which research is built, as different researchers might have separate thoughts, views about different explanations and what is going on around us. Therefore, for the pragmatist these different thoughts, views, ideas, perspectives and theories assist us in increasing our knowledge and understanding of the world. pragmatist also support extensiveness (eclecticism) and diversity (Pluralism).

In addition, pragmatism sees the recent outcome or results from the research as uncertain and can change within some time. In other words, it is expected that the research findings will be regarded as provisional. Pragmatism continued to stress the importance of the connection between the theory and practice. For example, to a pragmatist, theory is a product of practice which is then applied back into practice to increase the quality of practice. Going through these lanes, pragmatist consider theories and ideas or concepts as the most significant ingredients capable of assisting researchers to make a breakthrough within the real world.

However, pragmatist believe that the value of research depends solely on its practical contribution or relevance; and the essence of theory is to improve practice.

1. Ontological Assumption

Ontological assumption centred on the nature of reality.

This approach focused on the nature of reality which is one of the areas of argument among the researchers (Blaikie, 2010). The perception here is about what constitutes the nature of reality or how things are and how they work. Under this perspective, the research will have to know and establishes the actual reality of the phenomena under study, as to whether the reality is objective (single) and external or independent from the researcher or it is subjective (multiple) and socially created by the people (Walter, 2013; Crossman, 2003), and can only be understood by going into the world of the social actors or understanding their perceptions or views. Ontology try to understand the assertions and assumptions about what constitutes reality in terms of the way it is (Sarantakos, 2013), the components or units that it is made up and how the components relate to each other.

There are different terms used by different scholars to explain the views of two opposing groups of thought. Eaterby-Smith et al (2012) identifies the two school of thoughts as realism and nominalism, while Saunders et al, (2012) called them objectivism and subjectivism. The disparity between the two opposing groups regarding their epistemological and axiological assumptions on the phenomena the researcher is observing or studying (Sexton and Lu, 1990), which the researcher needs to make it clear and understandable. In this research the ontological assumption introduced by Saunders et al (2012) using the terms objectivism and subjectivism is going to be used in differentiating the two opposing views to maintain consistency within the research.

Objectivism believed that, social world is objective and different or external to the researcher, and there are a single reality and people have that sense of reality. Subjectivism on the other hand believed that social world is subjective because it is socially constructed, therefore, every individual has their own sense of reality and there are different realities. Usoh et al. (2000) further elaborate on the concept of reality as a way of predicting individual perception regarding social world that life is not only about how we live; it is also about how we think we are living. They further argue that any kind of knowledge and any meaningful reality

there is elements of human practices that is constructed in it, from the interaction between people and their social world (Crotty, 2003), which is developed and transferred into the social setting.

Subjectivism continue that social phenomena are developed out of views, opinions, actions of the experts or people with the knowledge (social actors) of the social phenomena, and the interactions about social world between experts is ongoing process, since social phenomena are constructed by individuals who are in constant interactions. This assumption is for the fact that, individuals (social actors) interact with their world, they translate and provide essential meaning to the phenomena they are investigating.

2. Epistemological Assumption

The epistemological assumption is based on what we regard as valid knowledge or what makes a valid knowledge acceptable in the field of research (Creswell, 2009). For example, investigating the relationship between the researcher and the phenomena the researcher is conducting the research on. Collis and Hussey, (2009) state that epistemology focus on the perception of the researcher regarding the knowledge of the real world. Scotland (2012) point out that each philosophy can be identified by its ontological and epistemological assumptions, which in nature are hypothetical. In that case, the philosophical assumptions that are connected to each philosophy cannot be verified as to whether it is appropriate or not, because each philosophy has its own ontological and epistemological opinion.

Scotland, (2012) further point out that every philosophy holds different assumptions about the reality and the knowledge that is connected to a specific approach, which mostly reflects in the research methodology adopted in the research. Saunders et al, (2012) add that each philosophy is designed towards achieving different objectives that is linked with the research questions, which cannot be achievable under single philosophy. Therefore, there is no philosophy that is superior to the other or better than the other, but it all depends on the nature of the research question and the type of research inquiry. There are two opposing views regarding epistemology which different authors try to explain in different terms.

Crotty (2003) used the term objectivism and constructionism to describe the opposing views, while Easterby-Smith uses positivism and phenomenology and Saunders et al (2012) refer to the opposing views as positivism and interpretivism. The two-different term are considered as

opposing views mostly used to describe epistemology Crotty, (2003) and Wainwright, 1997), which refer to the same thing. Therefore, in this research, the epistemological opposing views explained by Saunders et al (2012) will be used throughout this research using the word positivist and interpretivist regarding the opposing views to maintained consistency and avoid uncertainties while using different terms.

3.3.5 The opposing views of positivism and interpretivism

Positivists considered any phenomena that can be observed or measured as valid and acceptable knowledge. Positivists continue to maintain their idea of being objective that the researcher is independent, neutral from what is under study, and the reality exists before the researcher develop interest to studying it (Collis and Hussey, 2009). However, the positivist approach towards ontological assumptions is that the knowledge or experience we have about those things we come across are the things that exist (Wainwright, 1997). Therefore, part of positivist epistemology the knowledge or experience the needs to be tested through deductive reasoning. According to Wainwright (1997) positivism is a way of adopting the natural sciences method in the study of social reality and an objective approach capable of testing theories to establish scientific laws, with the aim of understanding the causes and the effects. As positivism believes that reality is secure, measurable and understandable, and assumes that there is single truth and single reality, another philosophical assumption appears with different view about reality and believes that reality should not be seen objectively and external to the researcher (Easterby-Smith et al, 2012; Creswell, 2009; Guba and Lincoln, 1994), rather it should be seen subjectively, by the meaning and perception or interpretation provided by individuals.

Interpretivism believes that reality is far from being fixed and continue to reduce the gap between the researcher and what the researcher is studying, because it is a creation of people and the people that study the reality cannot be detached from their real world (Webber, 2004). It was argued that knowledge that is produced with different people views will provide broader understanding and meaning. As such, the objective fact and meaning did not just emerged, but created by the people (Saunders et al, 2012; Crotty, 2003). This stance points out that the complex relation between people behaviour, external structures, socio-cultural factors. Interpretivism further believes that reality does not exist separately from the researcher because it is created based on different significant factors such as culture, gender

and belief (Weber, 2004). The idea of objective reality holds by positivism is believe to the picture of the opposite side of reality.

The positivist supports the use of quantitative method towards investigating phenomena, while interpretivist encourages exploring phenomena using qualitative method, and in some situations both qualitative and quantitative method can be mixed together (Saunders et al, 2012; Easterby-Smith et al, 2012; Creswell, 2009; Crotty, 2003). Though, the methods most of the times are consider as two opposing different point of views but are frequently used substitutable in a research. The disparity between the approaches is noticed by Smith (1983) who argues that in positivist's research the facts bring some problems into our beliefs while in interpretivists research beliefs form the basis of what should be consider as facts.

1. Axiological Assumption

Axiological assumption is based on the importance of values.

This is a different research philosophy that focused on judgements about values to provide clear theoretical explanation about the nature of values, standards, farsightedness (Saunders et al, 2012). This philosophical assumption focused on the value a researcher attaches to the knowledge developed during social research, as to whether the social reality is value-free, or it is value laden (Saunders et al, 2012). In value-free research, what the researcher wants to investigate and how to carry out the investigation will be guided by objective procedure, and the research activities are value-free. Therefore, the researcher is not attached but independent of what he is conducting the research on and considers the phenomena under investigation as an object. In value-laden research the selection of what the researcher wants to investigate and how to investigate it is guided by the people beliefs, knowledge or their experience, and the researcher interact with what is under study (Collis and Hussey, 2013). However, research activities that are value-free are mostly used in natural science research, but not in social science research because the concentration is on research activities.

2. Rhetorical Assumption

Rhetorical assumption focuses on the language used in the process of conducting research.

This is another assumption that centred on language that should be use by the researcher to write a research. Positivists believe it is normal for a researcher to write his research in a

formal way using a passive voice for example, instead of writing, 'As part of my research, I investigated the behaviour of some team of workers...', but as a researcher you will say, as part of my research, investigation were carried out on the behaviour of a team of workers (Collis and Hussey, 2013). Why because the researcher will have to make an impression that the research is objective and have passed through rigorous procedures or guidelines. Therefore, whatever personal views or values the researcher might have will not allow that to change the conclusions or results of the research. The researcher will have to use future tense throughout his research. While in interpretivists research the use of language is clearer. In some subjects, the suitability of language style normally reflects the nature of the research and the researcher's participation. Therefore, if it is the same or acceptable within the researcher's subject area then the researcher will write in the first person.

3. Methodological Assumption

Methodological assumption focusses on the way and manner a research is conducted. For example, if a researcher is conducting positivist research might want to make sure that the terms or concepts, they are using is measurable and can be operationalised. For instance, if a researcher is trying to investigate the behaviour of a group of people as such, the researcher will have to measure or observe some certain things about behaviour (Creswell, 2009). and might use a big sample and minimize the size of phenomena the researcher wants to investigate or observe into a clear part. Under this assumption, the researcher will concentrate on what is considered as objective facts to generate hypothesis. On the other hand, if a researcher is conducting interpretivist's research will be investigating a small sample size may be for some time and the researcher will adopt different research methods to gather different views from the social actors about the phenomena and during the data analysis the researcher will want to know what is happening and try to use other methods that can be used in related situations. The Social laws can be identified and explained, by forming some models that constitute the actual meanings used by the social scientist participation in the actual causes of action in real situations. Those models form the genuine hypotheses to be verified.

3.3.6 Research philosophy adopted and Justification

Research philosophy is the ontological, epistemological and axiological assumptions that show the best way to go about conducting a research. As many authors acknowledge the

importance of paying attention to philosophical issues and ignoring the issues can affect the research processes (Easterby-Smith et al, 2012). The ontological perceptions, epistemological importance and axiological assumptions about the nature of social reality play crucial role in the preparation of the research philosophy as well as the adoption of the suitable research approach or approaches in this research. Therefore to achieve the aim of this research, there is a need to understand the effect of Boko Haram conflict on housing, approaches use for reconstruction of housing for the IDPs, challenges associated with reconstruction of housing for the IDPs in Maiduguri and understanding the best practices within the construction industry require the perception of individuals within the industry. The knowledge and experience of the experts will play a significant role in interpreting the actual reality within this research setting.

In this research pragmatist philosophy is adopted because unlike other research philosophies pragmatists refuse to take any position on what make a valid or good research. Instead they believe any research carried out based on objective and subjective views of housing construction professionals can produce meaningful and valuable knowledge about reconstruction of housing for the internally displaced people due to conflict, even though it all depends on the research question. Pragmatism are also concerned with the practical and applied science research where different views of housing construction professionals about housing reconstruction or the area under study will play important role towards solving a social problem (housing problem). However, pragmatism sees research as a process through which concepts, ideas or perceptions and meanings (theory) are overviews, conclusions of our past actions, experiences and the interactions that occurred between us and our natural environment.

Pragmatists believe in the social way through which research is built, as different researcher might have different thoughts, views, different explanations about what is going on around us. Therefore, for the pragmatist these different thoughts, views, ideas, perspectives and theories assist us in increasing our knowledge and understanding of the world. pragmatist also support extensiveness (eclecticism) and diversity (Pluralism). Furthermore, pragmatism sees the recent outcome or results as uncertain and can change over time. In other words, it is expected that the research findings will be regarded as provisional. Pragmatism continue to point out the importance of the connection between the theory and practice. For example, to a

pragmatist, theory is a product of practice, which is then applied back into practice in order to enhance practice.

Going through these lanes, pragmatist consider theories and ideas or concepts as the most significant ingredients capable of assisting researchers to make a breakthrough within the real world. However, pragmatist believe that the value of research depends solely on its practical contribution or relevance; and the essence of theory is to improve practice. Thus, gathering the objective responses of the respondent and the participants subjective point of views and subjective conclusions will highlight the significant of conducting a constructed research within which the reality is subjective and multiple as view by the participants. As such there is a need for the researcher to take part in the research process or activities to add value to the knowledge.

Ontological assumption; based on this assumption, the researcher will view the reality as singular in order to understand multiple reality, because it describes the world or reality about housing construction practices based on the perceptions of the building construction engineers, individuals with the knowledge of building construction which will assist in developing a framework for the reconstruction of housing for the internally displaced people due to conflict.

Epistemological assumption: under this assumption both positivist and interpretivist assumptions will be considered. This is because pragmatism combined both the process of developing knowledge under positivism and interpretivism and based on pragmatist views that knowledge produce through objective, observable and subjective process can be regarded as acceptable or valid knowledge. The epistemological assumption is concerned about the knowledge of the world that should be acceptable regarding reconstruction of housing for the internally displaced people due to conflict. Therefore, this research seeks to identify the approaches use for the reconstruction of housing for the internally displaced people their advantages and disadvantages, challenges that can delay or hinder the reconstruction of housing for the IDPs in Maiduguri and how to overcome the challenges in order to develop a framework that will be use for the reconstruction of housing for the IDPs due to Boko Haram conflict.

Interpretivist believes that social world is not objective as perceive by the positivist, but subjective, and social reality is constructed and mould by the way we perceive or understand

it. Positivists believe that the researcher is independent and neutral from what is under study and the reality exist before the researcher developed interest to study it. They also believe that any phenomena that can be observe and measure can be regarded as valid and acceptable knowledge. Interpretivists believe that a researcher relates with the phenomenon under investigation because, it is not realistic to disconnect or separate what is in the researcher's mind from those things that exist within the social world (Creswell, 2014). The researcher view building construction industry as an environment that is constitutes by different people with different construction background, processes, building materials, information and technology, and construction engineers have their own philosophical point of views about these elements.

Therefore, knowledge develop through these processes will be socially constructed, confidently accepted and regarded as valid knowledge than the knowledge develops through only objective, observable process (Carson et al., 2001). Positivists focus on observing and measuring social phenomenon while interpretivist believes in investigating social phenomenon with the intention of understanding and explaining it. Pragmatists believe in the social way through which research is built, as different researchers might have separate thoughts, views, different explanations about what is going on around us. Therefore, for the pragmatist these different thoughts, views, ideas, perspectives and theories assist us in increasing our knowledge and understanding of the world. As such, the different thoughts, views or perceptions of the building construction experts will guide the researcher in understanding the building construction industry. pragmatist also support extensiveness (eclecticism) and diversity (Pluralism).

The researcher adopts the statistical analysis of quantitative data which is a product of quantitative research (Corbin and Strauss, 2008), and the qualitative methods of analysis which is mainly for qualitative research. Interpretivist tries to avoid using rigid structural frameworks unlike positivists that uses some sort of personal and flexible structures (Carson et al., 2001). Interpretivist's research allows the researcher to understand the actual meaning of human behaviour instead of generalising and predicting the actual causes and the effects (Neuman and Kreuger, 2003). This research focused on critically examining different types of approaches use for the reconstruction of housing for the internally displaced people and the challenges associated with reconstruction of housing for the internally displaced people due to conflict which will lead to the development of efficient framework that will be use for the

reconstruction of housing for the internally displaced people due to Boko Haram conflict. Therefore, it is important to understand the dynamics and procedures or processes that are required and incorporate them into this and placed them within the constraints and historical circumstances that is unique to that part of the country.

3.4 Research Approach

In the process of conducting research, there are different research approaches a researcher can choose from which includes Deductive, Inductive, Retroductive and Abductive, but Blaikie (2010) believed there are seven different types of approaches available for a researcher. Blaikie (2010) and Saunders et al (2012) argued that, out of the seven approaches only deductive, inductive and abductive are frequently used in social science research. Each one of the approaches has a philosophical and theoretical foundation attach to it. For example, the ontological views about the nature of reality and epistemological opinion about the way we can understand the reality.

If a researcher decides to choose deductive that does not mean the approach is better than inductive, but it all depends on the type of research or the area in which the researcher is conducting the research. According to Blaikie (2007) research approaches or strategies give an idea or clue to the researcher on how to answer some certain questions most especially what and why? However, as social science continues to grow and different ways of answering these questions have also emerged. Blaikie (2007) further opined that selecting one research approach is understandable but mixing two approaches is the second most intelligent decision a researcher will take. The reason is that knowledge can be improve in the field of social sciences when researchers begin to use two different methods or strategies such as deductive, inductive, retroductive and abductive. The four research approaches can provide a researcher with variety of ways to answer research questions, and they can also create an alternative starting point as well as concluding point with many stages in between the points.

3.4.1 Deductive Approach

Deductive approach cannot be use in answering 'what' questions rather it can be use in answering 'why' questions. Deductive approach starting points is quite different from inductive approach starting point; the major aim of deductive approach is to explain several

social regularities which is found by the researcher that is not clear or understood (Blaikie, 2009). The researcher needs to establish reliable explanation, a theoretical argument regarding the existing behaviour of the social phenomenon the researcher is investigating. The aim is also to test the same theory, by deducing few hypotheses from it in order to gather the appropriate data. In case the data correspond with the theory, some help will be provided in order to continue to use the data, most especially if another test shows the same results. However, if the data did not correspond with the theory, then the theory will have to be corrected or rejected and another test on other candidate theories can then be conducted.

3.4.2 Inductive Approach

Inductive approach is a research approach that begins with data collection before moving to draw or derive generalizations using different types of inductive technique. The major objective is to be able to explain the characteristics of social reality and the way these regularities are in the social life (Blaikie, 2009). Inductive approach helps researcher in answering 'what' questions but limited in its ability to answer 'why' questions. In deductive research, there is no hypothesis available for the researcher to begin with, and the researcher is not certain about the research findings or outcome until when the research is completed (Neuman and Kreuger, 2003). While in inductive research the researcher begins with comprehensive observation of the social world before proceeding to more of abstract generalization and ideas.

The major aim of this research is to develop a framework for the reconstruction of housing for the internally displaced people due to conflict. This research can only be successful through reviewing different relevant literature, analysis of data or information collected from primary and secondary sources. However, this research will be very difficult to achieve by using rigid methodology (Saunders et al., 2009), which does not allow or support different way of interpreting human social world or environment.

3.4.3 Retroductive Research Approach

This approach also begins with observing regularity but with a different kind of explanation. In this approach, explanation can be achieved through identifying the actual underlying structure or mechanism that is/are responsible for producing the regularity under investigation and understanding the context in which it occurs. Since, the structure or

mechanism might not be easy to observe, it is important to search for the evidence of the effect of their existence; if they exist, some events are expected to take place. Retroductive adopts innovative imagination and analogy to move back from data analysis back to an explanation.

3.4.4 Abductive Research Approach

Abductive research approach is different from the three approaches discussed in terms of its adoptability. Instead of the approach to begin with theory and then move to data as it is in deductive or data to theory as it is in inductive approach. The approach moves left and right, back and forth as it is a combination of deductive and inductive (Suddaby, 2006). The approach begins with the social world and what the social actors are investigating, the way they construct the reality, the way they understand and define their social world and the nature of their tacit knowledge. This can only be understood through the explanation provide by the social actors (Suddaby, 2006). However, their own reality, the way and manner they produce and explain their activities are all incorporated in their language, and researcher will have to go into their world to find out the intentions and meanings that follow their social activities. The objective is to understand and explain these intentions and meanings and the circumstances in which they occur, in the strategic language of social science world. Individual intentions and actions need to be incorporated into some typical intentions for typical actions in typical situations.

3.4.5 Theory building or development

Theory building is associated with the type of reasoning adopted by the researcher either deductive, inductive or abductive (Saunders, 2012). Theory building, or development is combination of observation made from the literature review, judgement and experience (Eisenhardt, 1989). The process of building theory in this research is based on abductive reasoning. Instead of the process to begin with building theory then move to data as in (deduction) or data to theory as in (inductive), abductive moves back and forth in effect combining the process of building theory in deductive and inductive (Suddaby, 2006). Abduction start by observing the surprising fact before building a plausible theory of how that happened. Van Maanen et al. (2007) further explained that some of the plausible theories can provide better explanation about what is being observed more than others and it is these

same theories that will assist in revealing more surprising facts. They later argue that the surprises can happen at any time during the research process, even in the process of writing the research project.

Deduction and induction complement abduction as ways for testing plausible theories. The process of building theory in this research is through abductive reasoning which involves critical review of the literature, questionnaire presented to the internally displaced people and housing construction professionals and semi-structured interviews conducted with housing construction professionals. The quantitative and qualitative data gathered using these two methods were analysed using appropriate techniques to develop the theory.

Table 3.3: Deduction, Induction and Abduction, from reasoning to research

	Deduction	Induction	Abduction
Logic	In deductive inference when the premises are true the conclusion will also be true	In an inductive inference, known premises are used to generate untested conclusions	In abductive inference, known premises are used to generate testable conclusions
Generalisability	Generalising from the general to specific	Generalising from specific to general	Generalising from the interaction between the specific to general
Use of data	Data collection is used to evaluate proportions or hypotheses related to an existing theory	Data collection is used to explore phenomenon, identify themes and patterns and create conceptual framework	Data collection is used to explore phenomenon, identify themes and pattern, locate these in a conceptual framework and test these through subsequent data collection and so forth
Theory	Theory falsification or verification	Theory generation and building	Theory generation or modification, incorporating existing theory where appropriate, to build new theory or modify existing theory

If a researcher begins the research with theory which is developed from the critical literature review and adopt a strategy to test the theory automatically the researcher is using deductive

approach, but if a researcher begins with gathering data to explore the phenomenon under study then generate or build theory to develop conceptual framework in that case a researcher is using inductive approach (Saunders, 2012). However, in situation where the researcher begins the research by collecting data to explore the phenomenon under study, identify themes and explain patterns to generate or modify the existing theory in that case the researcher is using abductive approach.

3.4.6 Research Approach Adopted and Justification

The selection of research approach for this research is influenced by the research philosophy that underpinned this research. The aim and objectives of the research also guide the adoption of abductive approach. The approach was adopted because it is quite different from the other three approaches in terms of its flexibility. The approach is suitable for a research topic that has abundant data that talk about one section of the research area and very few data on the other part of the research area. The findings from this approach is expected to allow changes in the existing theories (Saunders et al, 2012; Blaikie, 2010). Since, there is a lot of literature that talk about post conflict housing reconstruction the approach will provide the opportunity to use both deductive and inductive approach processes to explore in-detail housing reconstruction for the IDPs due to conflict, approaches use for the reconstruction of housing for the internally displaced people in order to understand the issues surrounding the current practice within the construction industry.

Abductive reasoning was adopted to understand the effect of the Boko Haram conflict on housing and acquire knowledge about approaches towards reconstruction of housing for the internally displaced people due to conflict and challenges associated with reconstruction of housing for the IDPs, and to be able to understand these concepts and their scope within the built environment. The researcher will gather data from the social actors about these concepts that will be use in developing a framework for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria The approach matches the philosophy the researcher adopts and instead of the approach to begin with theory and move to data as in deductive approach or begin with data and then move to theory as in inductive, the approach moves back and forth in effect mixing deductive and inductive processes (Suddaby, 2006). The approach can begin with theory and then move to social world, what the social actors are investigating, the way they construct the reality, the way they understand and define the

social world and the nature of their tacit knowledge (Saunders, 2012). This can only be understood through the explanation provide by the social actors.

3.5 Types of Research Study

There are three types of research study according to Saunders (2012) namely Exploratory, Descriptive and Explanatory studies.

3.5.1 Exploratory Studies

Exploratory study is a valuable way through which a researcher asks open ended questions in order to have a clear understanding of specific topic of interest. It is also essential if the researcher wants to know the level of his/her understanding about a problem (Saunders et al., 2009). For example, if the researcher is not confident about the nature of the problem, but believe the time is worth investing in exploratory study, because it might indicate to the researcher that there is no need to carry out the research. Saunders et al. (2009) further explained that exploratory research can be carried out through reviewing literature, interviewing "experts" in the subject area, in-depth one-on-one interviews or focus group interviews. Considering the nature of the exploratory studies, the interviews mention might comparatively be unstructured. Part of the advantages associated with exploratory study is that, it is flexible and adaptable in nature and if a researcher is carrying out an exploratory research must be ready to change direction due to emergence of a new data, new fact or information that present itself to the researcher.

3.5.2 Descriptive Studies

Descriptive study is concerned with correct picture of events, issues, problem, situations or persons, and it is a replica of exploratory study. In this type of study, it is important for the researcher to understand the phenomenon on which the researcher wishes to gather the data before collecting such data (Saunders, 2012). Among the earliest and most popular example of descriptive research is the Domesday Book which described the actual population of the British people in 1085, but most of the time research supervisors are being careful about research that is more of descriptive in nature. Research supervisors will want the researcher to move forward and draw conclusions from the data the researcher is describing. They will

also encourage the researcher to learn the skills of evaluating data and creating ideas, which are all huge skills more than those of accurate description.

3.5.3 Explanatory Studies

Explanatory is a type of study that identifies the relationship between variables and the objective here is to study the situation, event or the problem in order to explain the underlying relationship between the variables (Saunders, 2012). For example, the researcher may find out that a brief analysis of quantitative data on production of the quantity of toys indicate a relationship between the toys and the age of the machines use in producing the toys. The researcher can go ahead to subject the data to have a good understanding of the relationship. Another example, the researcher might use the qualitative data gathered to explain the reasons behind customers of a company hardly pay their bills based on prescribed payment terms.

3.5.4 Research Study Justification

After taken into consideration the aim and objectives of this research as well as the detailed explanation provided on the three types of research studies by (Saunders, 2012). It was discovered that the nature of this study is exploratory. Since, there is a need to have a good understanding of the areas of post conflict reconstruction, post conflict housing construction, approaches use for the reconstruction of housing for the IDPs due to conflict and challenges associated with reconstruction of housing for the IDPs through reviewing the literature. However, a thorough understanding of the research problem will be established through exploration of these areas and subsequently the researcher will come up with the solution using qualitative approach which comprises literature review and interviewing the social actors' "housing construction experts" within the building construction industry in Nigeria. The researcher believes that descriptive study did not match this type of study, because the study is towards providing a solution to an identified problem not just for the sake of studying the problem in order to describe the existing relationship between the variables. The strategies can provide answers to why, what, how and what, were, who, how much, how many questions respectively. It is based on this fact Yin (2009) believe that case study can be use in explanatory and exploratory studies while survey can be used in exploratory and descriptive studies.

3.6 Research Strategy

Research strategy is a process through which a researcher plan or seek to answer research questions to achieve some certain objectives in order to solve a problem. It also serves as a methodological connection between the research philosophy and the methods the researcher intends to use to gather and analyse data (Denzin and Lincoln, 2008). Though, many research traditions, advancement in computer science and technology are responsible for the emergence of some research strategies, because there is so many software available now that can be use in analysing all sort of complex data. Some of the strategies have direct link with quantitative, qualitative and multi methods research designs such as survey, experiment, archival research, case study, ethnography, grounded theory and narrative enquiry. Therefore, adopting one of these strategy or strategies does not mean the research strategy or strategies adopts by the researcher is the best or superior to the other strategies.

The most important thing is for the researcher to be able to achieve some degree of coherent during research design to answer a research question in order to achieve the research objectives (Saunders, 2012). The choice of research strategy by a researcher will be determine by the research question the researcher intend to answer and the coherent that connect these with the research philosophy of the researcher. Remenyi and Williams (2005) adds that there are some key factors that influence the selection of research strategy which include

- Availability of resources to the researcher

- Research questions the researcher intends to answer

- Time available to the researcher to finish the research

- The skills of the researcher

3.6.1 Experimental Strategy

This is a kind of research that is related to natural science, but its characteristics are clearer in psychology and social science research. The focus of experimental research is to investigate the possibility of a change in an independent variable that is responsible of causing a change in another dependent variable (Saunders et al, 2012; Hakim, 2000). It is also a research that

uses predictions which are referred to as hypothesis, instead of research questions to find out whether a variable can influence other variables. The main reason is that the researcher will be thinking if there will be any kind of connection that exists between the variables. There are two kinds of opposing hypothesis constructed in a genuine experiment such as null hypothesis and the alternative hypothesis which is referred as hypothesis. The null hypothesis predicts that there is every tendency not to find a big difference or connection between the variables. The alternative hypothesis predicts that there is every tendency to find a big difference or connection between the variables (Saunders et al, 2012; Hakim, 2000). For example, training of customer relation staff can improve the quality of service the end user received. In experiment research, it is the null hypothesis that is tested statistically.

3.6.2 Survey Research Strategy

Survey strategy is a well-known strategy used by researchers when conducting business and management research, and it is regularly use in answering what, who, were, how much and how many questions (Yin 2014; Creswell, 2009). The strategy is mostly connected with deductive approach but can be use in conducting exploratory and descriptive research. Survey studies that adopts questionnaires are well-known because the strategy allows the researcher to gather data from a considerable sample or population in a reasonable cost (Saunders et al, 2009), by given a chance for easy assessment. Though, the strategy is considered by some researchers as authoritative in nature, but relatively very easy to understand and explain. For example, survey has been used in the past to clearly describe how a community or group of people react to a disaster or behaves towards a situation.

Survey strategy also allow researcher to gather quantitative data and analyse it quantitatively by adopting descriptive and inferential statistics (Saunders and Lewis, 2014). Moreover, data gathered using survey strategy can be influential in determining the reason behind the possible connection or relationship between variables and to design models of these relationships or connections. Saunders and Lewis (2014) adds that adopting survey strategy will provide a researcher with a total control over the research process and if the researcher is using sampling, there is every possibility to generate results that represent the entire population at a less cost instead of gathering data for the entire population. Most of the researchers tend to complain that their progress is being slow because of reliance on other people for information. The data gathered by the researcher using survey strategy might not

be broad compared to other research strategies. For example, there is restriction to how many questions should be in a questionnaire if the researcher wants the respondent to fill in the questionnaire in time.

3.6.3 Case Study

Case study research tends to explore the research area or phenomenon in its own context or in a variety of its real context. (Yin, 2009) elaborate the significance of context, adding that, in a case study research, the boundaries separating the phenomenon under study and the context in which the phenomenon is being study are not obviously clear, this is one of the advantages of case study strategy. The strategy is entirely different from experimental strategy where related variables are managed as they are possible threat to the validity of the findings or results (Saunders, 2012). Case study strategy is also different from survey strategy where the research is carried out in a context, but the ability of the researcher to explore and understand the context is restricted by some certain variables through which data is gathered or collected.

Case study strategy can be useful if the researcher wants to know much about the context of the research as well as the processes to be follow (Yin, 2009). The strategy can gather answers to the 'why', 'what' and 'how' questions, that is the reason why case study is frequently use in explanatory and exploratory research. In case study research, quantitative or qualitative methods can be used, but sometimes majority of researchers conducting case study research mixes these two methods to gather and analyse their data to provide answers to 'why', 'what', and 'how' questions (Yin, 2009). These methods can comprise observation, interviews, questionnaires and documentary analysis. However, if a researcher is using case study strategy might have to triangulate multiple sources of data. Triangulation can be defined as a process of adopting different ways of collecting data in a single research to ensure that what the data is explaining to the researcher is what the researcher thinks the data is explaining. For example, qualitative data gathered through semi- structured interviews might be a suitable way of triangulating the quantitative data gathered through other ways such as questionnaire**.**

3.6.4 Ethnographic Strategy

Ethnography strategy is one of the earliest qualitative research strategies that are used in studying, investigating different group of people or societies and it's originated from the

colonial anthropology (Denzin and Lincoln, 2008). In this type of research strategy, the research mostly becomes a member of the group under investigation to observe the way they behave. A good example of the strategy is the 'Whyte's Street Corner Society' that was produced and published in 1943, which investigate the behaviour and lives of the street gangs in Boston. This is a different approach to ethnography where the researcher lives together with the people or society under study, so that the researcher can observe and talk to the people to gather comprehensive cultural accounts of their shared beliefs, language, behaviours, values, interaction and those events responsible of shaping their lives.

Ethnography is more of translative and naturalistic in nature because it uses the language speak by the group under study to write down their different cultural accounts. Under this type of strategy, the researcher is the author and can decide on how to explain the story or event, what sort of things to include which will raise many questions about how socialisation and values of an individual affect the cultural account written by the researcher.

3.6.5 Action Research Strategy

This type of strategy allows the researcher to take part fully in the research process to understand, identify, and evaluate the nature of the problem and come up with possible ways of solving the problem (Fellows and Liu, 2003). The strategy is mostly used to enhance organisational learning through participation in order to come up with useful and practical findings which can be achieve by identifying and understanding the problems and by taken the right action (Saunders et al, 2012). The strategy is specifically significant in some areas like knowledge management and managing change in an organisation. Compare to some research strategies, action research provides the opportunity for the research to gather useful information and at the time there is every possibility to encounter some challenges in the process of collecting data. Since, it is conducted live and in the setting within which the phenomenon is being investigated, and its success depends on the cooperation of the management and staff of the organisation.

3.6.6 Grounded Theory Strategy

This strategy allows the researcher to develop a comprehensive abstract of the theory process, action grounded based on the views of participants (Denscombe, 2010; Creswell, 2009). The strategy also focused on the establishment of theory through data analysis and comparing the

data regularly with developing groups as well as the sample of the data collected from different group of participants. This will indicate the differences and similarities in the data collected if there is a need to develop new theories or to examine fresh concept and come up with a new information. Grounded theory strategy is associated with the process of analysing, interpreting the meaning people (social actors) construct based on their assumption about an issue. The strategy was first introduced by Glasser and Strauss in 1967 due to positivism assumptions that reality exist separately and external to people intellectual activities (Saunders et al, 2012). It is a strategy used by researchers to provide theoretical clarifications about the social interactions in a variety of settings.

Table 3.4: Explain the type of research question, control of behavioural events and contemporary events related to different research strategies (source: Yin, 2014)

Method	Form of research question	Requires control of behavioural events.	Focuses on contemporary events
Experiment	How, why?	yes	yes
Survey	Who, what, where, how many, how much?	no	yes
Archival analysis	Who, what, where, how many, how much?	no	yes/no
History	How, why?	no	no
Case study	How, why?		yes

3.6.7 Adopted Research Strategy and Justification

Research strategy is a process through which a researcher plan or seek to answer research question with the aim of achieving some certain objectives or goals to solve a problem (Denzin and Lincoln, 2008). In this research, case study and survey strategy were adopted considering the set objectives of this research. Case study strategy can be used to answer questions such as why, what, how and these questions will be ask in this research (Yin, 2009). In case study strategy, the researcher will be able to explore and understand the areas of post conflict housing reconstruction, approaches use for the reconstruction of housing for

the IDPs due to conflict and challenges associated with reconstruction of housing for the IDPs. Under case study, the researcher will explore the phenomenon within its real context or in variety of context using interview technique of data collection even though the boundaries separating housing reconstruction for the IDPs as the 'phenomenon' and built environment as the 'context' in which the researcher is carrying out the research are not most of the time clear (Yin, 2009). This is one of the advantages of case study strategy, because it will provide the researcher with in-depth analysis and detailed information because of its ability to investigate social phenomenon.

Case study strategy is entirely different from experiment strategy where related variables are managed as they are considered as a threat to the reliability of the results (Saunders et al, 2012). The strategy is also different from survey strategy where the research is carried out within a context, but the ability of the researcher to explore and understand the phenomena under study (post conflict housing reconstruction) is restricted by some variables through which data is gathered. Therefore, this strategy cannot be adopted alone in this research considering the nature of post conflict housing reconstruction.

On the other hand, survey strategy is connected to deductive approach and it is a well-known and common approach mostly used in business and management research with the aim of answering who, what, where, how much and how many questions (Saunders et al, 2009). Therefore, the strategy will allow the researcher to collect large data from a large population. For example, the IDPs in Maiduguri, housing construction professionals in the building construction industry in Nigeria in a cheaper way; this is one of the advantages of using survey strategy. Though survey strategy is believed to be authoritative in nature, but it is easy to explain and understand. Saunders (2012) adds that case study strategy is entirely different from experiment strategy where related variables are managed as they are a threat to the reliability of the results.

3.6.7.1 Unit of Analysis

This can be defined as the data gathered and analysed about the phenomenon under study (Collis and Hussey, 2009). It is also concerned with the level of aggregation of the data gathered during data analysis stage. For example, if the research problem focuses on how to increase the level of player's commitments in general, then the focus is on individual players in a football club, and the researcher will have to find a way to increase their commitment.

The individual player here will be considered as unit of analysis (Sekaran and Bougie, 2013). The information gathered from each individual player and will treat each player response as individual source of data. However, if the researcher is interested in investigating the relationship between two people, then different two people groups will be the unit of analysis which is referred to as dyads. For example, husband and wife relationship in families, student and teacher relationship are the best example of dyads as unit of analysis. Based on the explanation provided above the unit of analysis of this research is 'Housing Reconstruction' and the boundary of the case is reconstruction of housing for the internally displaced people due to Boko Haram conflict.

3.7 Research Methods

There are two research methods available for the researcher to choose one from and the choice depends on the philosophy the researcher adopted. Quantitative and Qualitative methods are both connected to data gathering and analysis and the differences between the two methods is associated with gathering data in numbers and in words (Blaikie, 2009). In research that is usually associated with quantitative, the data will be gather in numbers and the data subsequently will be analyse and transformed into numbers. In qualitative research, after the main data is gather it will be translated after wards into the actual language speaks by the researcher or the main language of the people who are the respondents. Blaikie (2007) further explain that the two languages are mainly use in explaining people behaviour, social relationship, social situations and social processes, explaining the real meaning people give to their own activities, other people activities, objects and the social reality. Qualitative analysis that is related to data collection and explaining the findings from the analysis may include the use of the two languages. Quantitative technique focused on measuring and counting of social life while qualitative technique focused on producing a broad explanation of 'social actors' meanings and interpretations.

3.7.1 Mixed Methods Research Strategy

Mixed methods strategy provides opportunity for the researcher to use both quantitative and qualitative methods of gathering data and analysis in a single research (Creswell, 2009). In this type of research both quantitative and qualitative data can be merge or use one after the other or separate from each other. The main aim is for the researcher to triangulate the

sources of data to do away with the bias data and to have in-depth understanding of the research problem or the phenomena under study (Saunders et al, 2012). This is one of the main reasons why many researchers within built environment have adopted mixed methods strategy (Andrew and Halcomb, 2009). Mixed methods research is generally considered as a strategy that mixed many research traditions with diverse assumptions in one research.

Mixed methods research guides the researcher through the process of data collection, analysis as well as merging both the quantitative and qualitative data at a later stage in one study or different studies (Denscombe, 2010; Creswell, 2014). It is also an approach that combines different philosophical assumptions which is due to the combination of quantitative and qualitative types of research. It is believed that using two methods, two approaches or strategies is the most intelligent decision a researcher will take while conducting a research; because knowledge can be improved when researchers frequently use combination of methods or strategies (Blaikie, 2009). Creswell (2009) adds that another advantage of using mixed methods is that, it's helped the researcher to acquire in-depth knowledge about the phenomena under study and the ability to generalise the research result.

Table 3.5: Differences between quantitative and qualitative methods

In Quantitative Research	In Qualitative Research
The researcher is not close to the reality	The researcher is close to the reality, interact with the phenomena
The researcher is external from the reality, therefore, studies the reality outside or from far	The researcher is close to the reality, and studies the reality closely from inside
The data collection methods restrict the researcher (closed methods)	The data collection methods allow the researcher to explore (open methods)
The researcher uses inflexible research design	The researcher uses flexible research design
The researcher adopts statistical methods	The researcher adopts realistic methods
The researcher must gather data before	The researcher can analyse the data during

analysing it	the data collection process
The researcher selects the appropriate methods of the research	The researcher selects the appropriate methods before and during the research

Qualitative research is carried out based on the believe that human behaviour can only be understood by understanding the perception and interpretation provided by the people under study. Therefore, it can agree that mixed methods research is combination of both quantitative and qualitative research within a single study.

3.7.2 Types of Mixed Methods Research Design

Different scholars have classified mixed methods research design into different types. Mixed methods research is divided into six different types which include sequential explanatory, sequential exploratory, sequential transformative, concurrent triangulation, concurrent nested and concurrent transformative (Creswell and Plano Clark, 2008). This classification of mixed methods design was disapproved by Creswell (2014) and further ague that some of the mixed methods research designs like embedded mixed methods, transformative mixed methods and multiple mixed methods form part of sequential explanatory, sequential exploratory and convergent mixed methods designs. Therefore, they divide mixed methods research designs into three different types which include:

- Convergent parallel mixed methods

- Sequential explanatory mixed methods

- Sequential exploratory mixed methods

Adopting one of the above mention mixed methods research designs is purely based on the way the research design is carried out as well as the theoretical or research reasoning that guides the researcher (Creswell, 2014; Creswell and Plano Clark, 2008). Under these research designs the analysis and blending of quantitative and qualitative data gathered at the later stage can be carried out alongside. The three mixed methods research designs highlighted earlier by Creswell (2014) will be discuss next to explain the nature of their designs, methods of data collection, data analysis process, interpretation and validity.

3.7.3 Convergent Parallel Mixed Methods Design

Under this type of design, the quantitative and qualitative data gathered by the researcher will be analyse independently then after the findings can be compared to find out whether the findings are the same or different.
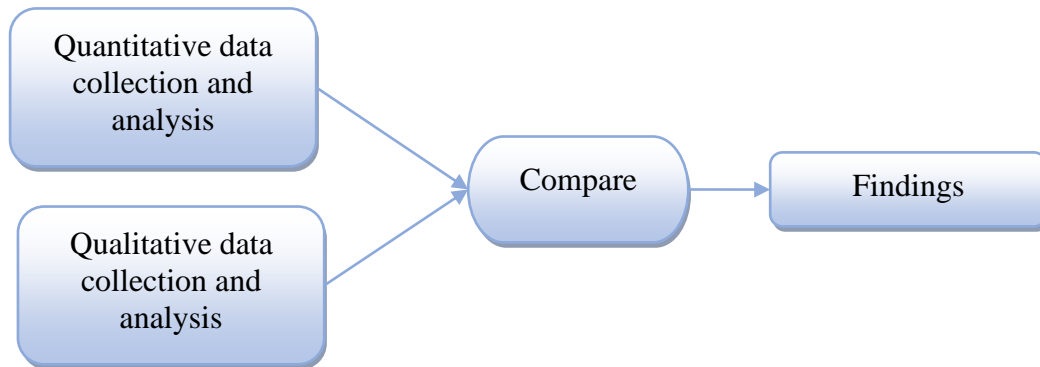
Figure 3.2: The convergent parallel mixed method adopted from Creswell, 2014

It is believed that both quantitative and qualitative data provides the researcher with different kinds of data; therefore, there is a need to review the data gathered to find out if both data produce the same result (Creswell, 2014). Convergent parallel mixed methods design was derived from the multi-traits idea and introduced by Campbell and Fiske (1995), with the believe that psychological traits can be best understood by collecting different kinds of data in a single research. However, under this type of research design qualitative data can be gathered through interviews, observations and recordings. The main aim of using convergent research design is to gather quantitative and qualitative data through the same process.

It is understood that the difficulty of adopting side-by-side or alongside data analysis and blending method related to convergent mixed method design is how to blend or mix the two data gathered bearing in mind that the findings are analysed differently and later merge together. In this type of research design, the analysis of the data gathered, and its interpretation considered as the discussion area of the research. The quantitative and qualitative data result comparison process and the overview or summary of the results to check if there is similarity or discrepancy between the two data also constitutes the discussion area of the research. In case if there is inconsistency emanating from the convergence of the

two results, then the researcher can go back and review the data analysis, explore the data again or the researcher can go back and collect another data in order to resolve the disparity. This will help the researcher in explaining the reasons behind the convergence or discrepancy of the two types of data to be able to make informed interpretation. Unlike other research designs, there are some challenges that can affect the validity of the results in this type of research design which include.

- **Use of different variables;** There is possibility using different variables in quantitative and qualitative measurements can produce results that will not be easy to blend and compare

- **Follow-up:** Reluctant to follow-up the results especially when the scores and themes are not straight forward which can lead to invalid conclusion.

- **Different sample size:** the number of the participants for the qualitative data collection can be less (small sample size) than the number of the respondents for the quantitative data collection which sometimes produce incomplete result. The issue of validity related to convergent mixed methods design can be solve by using construct validity protocol to validate the quantitative data and the use triangulation to validate the qualitative data (Creswell, 2014).

3.7.4 Explanatory Sequential Mixed Methods Research Design

The explanatory sequential type of mixed methods design is different from convergent mixed methods design, because in this type of research design the data collection and analysis are carried out in two different stages or sequentially (Creswell, 2014; Creswell and Plano Clark, 2008). The quantitative data will be gathered and analyse before the collection and analysis of the qualitative data.

- Stage 1; the results and findings from the quantitative data gathered through questionnaire will serve as a foundation to build the qualitative data gathered through interviews, and to guide the researcher on the kind of participants to be selected that will take part in the interview stage as well as the type of questions the researcher will ask the participants during the interviews.

- Stage 2; the data collected from the interviews will be used in explaining the findings gathered through questionnaire. The main aim of using this type of research design is to be able to use the findings gathered from the interviews to provide detail explanation and interpretation of the findings gathered from the questionnaire.
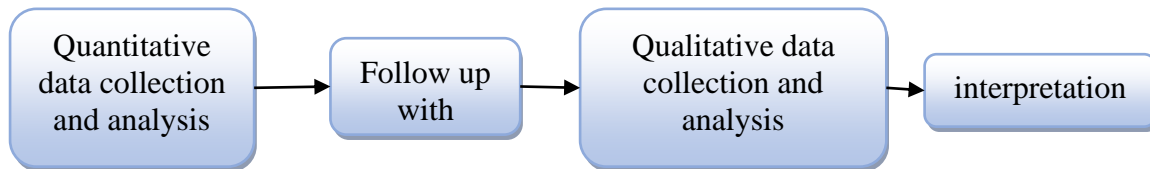
Figure 3.3: The sequential explanatory mixed methods adopted from Creswell, 2014

Though, there are some general problems connected to data collection in a mixed methods research design which Creswell (2014) pointed out. One of the problems is that, there is every tendency that the findings from the questionnaire which is the beginning of quantitative data collection process can be inconsequential result. Another problem associated with this type of research design is the time required to finish the collection of both quantitative and qualitative data most especially the qualitative data. It is expected that, after the overall presentation of the quantitative and qualitative findings, the researcher will provide explanation on role play by quantitative findings towards explaining the qualitative findings.

The advantage of using this type of research design is that it's very easy to understand and to use. The nature of the independency of the two stages within this type of research design makes it easier to interpret the findings from the two sets of data, and the blending of both quantitative and qualitative outcomes together which will be interpreted in the discussion area within the research. This is because quantitative build on qualitative data and the analysis of each data continues independently. The explanatory sequential type of mixed methods research fit this study and it help the researcher to achieve the aim and objectives of this research more than the convergent type of research design.

3.7.5 Exploratory Sequential Mixed Methods Design

The exploratory sequential mixed method design is the opposite of explanatory sequential mixed methods design, because it is a type of research design that begin with exploration and analysis of the qualitative data gathered before collection and analysis of the quantitative data

(Creswell, 2014) the main aim of this type of mixed methods design is to provide a clear measurements of a particular samples of population in order to find out if data gathered from some of the interview participants can be used to generalised a large number of questionnaire participants. This type of design is different from explanatory sequential mixed methods design, because it concentrates on qualitative research, but the outcome from the quantitative data analysis play crucial role in interpreting the qualitative results.
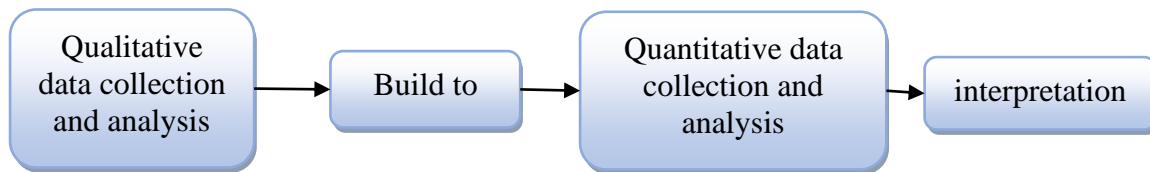
Figure 3.4: The exploratory sequential mixed methods process adopted from Creswell (2014)

The explanatory type of research design is mainly used in explaining and interpreting the causal relationships, while the exploratory mixed methods design is used in exploring a phenomenon. It is suggested that this type of research design is suitable when a researcher want to test some features of theory emerging from the qualitative data Morgan (1998) cited in Creswell (2014). However, some of the reasons of using exploratory research design include

- To dictate the distribution of the phenomenon within the sample population

- To design and test the instrument

- To generalise qualitative data results to different samples

There are number of problems connected to the data gathered under this type of research design. One of the problems is how the researcher will be able to make use of the data gathered through qualitative means that are converted into quotes, codes, themes into the quantitative data gathering process (Creswell, 2014; Creswell and Plano Clark, 2008). Another problem is the time frame requires completing the process of gathering and analysis of both qualitative and quantitative data.

3.7.6 Adopted Mixed Methods Design and Justification

The aim of this research is to develop a framework for the reconstruction of housing for the internally displaced people due to conflict. The building construction industry is made up of different people with different knowledge such as civil engineers, architects, builders, surveyors among others. These people have different culture, knowledge and building construction experience or background, but they continue to provide services to the people based on the construction industry practice. Therefore, since there are different people with different knowledge and experience that constitute construction industry the explanatory sequential mixed methods research is adopted to achieve the aim and objectives of this research.

Mixed methods research provide opportunity for the researcher to use both quantitative and qualitative methods of gathering data and analysis in a single study in order to have in-depth information on the approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict and the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict which is not possible to acquire using single method (Creswell, 2009; Andrew and Halcombe, 2009). Mixed methods research allows the use of quantitative and qualitative methods one after the other or separate from each other. In this research both quantitative and qualitative methods was adopted to enable the researcher to triangulate different sources of data in order to do away with the bias data (Saunders, 2012). However, due to the complex nature of post-conflict housing reconstruction using mixed methods will provide in-depth understanding of the effect of the conflict on housing, best approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict and challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria.

Adopting mixed methods in this research will lead to development of reliable and valid knowledge within the building construction industry. In a situation whereby the differences in cultural background, knowledge and experience among the building construction experts is wide to the extent understanding the meanings becomes very difficult. Therefore, in order to interpret the actions and traditions of the participants it is necessary to carefully study their cultures (Polgar and Thomas, 1995). The quantitative research methods are mainly used in quantifying the problem at hand by using the suitable instrument of measuring variables. On

the other hand, qualitative research methods are used to solve the actual meaning of the problem based on the views of the participants to discover the contradicting values that could hinder or assist the researcher in achieving the aim and objectives of the research.

Thus, both quantitative and qualitative methods are used in this research so that the researcher can have multiple and valuable discussion with the building construction experts. The most challenging aspect associated with understanding people behaviour is how to differentiate views, perceptions and behaviour of people within different groups (Nardi, 2006). It is generally believed that qualitative method is the major source of gathering broad information in words.

The method is frequently used to cover the weaknesses of the quantitative method or to gather in-depth information that cannot be acquire through the quantitative method (Creswell, 2009). Questionnaires and interviews are considered as the major method of gathering both quantitative and qualitative information and both have been used in the building construction research in order to understand the behaviour, views of individual (experts) with building construction knowledge and experience towards housing construction and the general practices. There are so many researches within this setting that require interpretation of individual meanings for efficient practices and this research is not an exception considering the number of people displaced and the quantity houses destroyed due to Boko Haram conflict in Nigeria. It is a huge task to develop a framework for the reconstruction of housing for the IDPs due to conflict. This is a big problem most especially in Africa that cannot be overlooked.

The quantitative data in numbers will explain the effect of the conflict on housing, challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri which will be analyse using statistical techniques and the qualitative data in words will explore the approaches use for the reconstruction of housing for the IDPs due to Boko Haram conflict, best approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria, and challenges that can delay or hinder the reconstruction of housing for the IDPs in Maiduguri, Nigeria. Blaikie (2007) believed that using two methods, adopting two approaches or strategies can be the wisest decision a researcher can take, because knowledge can only be improved when researchers were able to use combination of methods, approaches or strategies in a single research. Creswell (2009)

adds that using mixed methods can enhance the level of reliability and validity of the research as well as assist the researcher in generalising the research result.

3.8 Choosing Time Horizon

Time horizon is associated with the way the researcher wants to carry out the research or wants the research to be. Is it going to be a "snapshot" which will be taken within a period or is it going to be like a diary, or a variety of snapshots or activities taken place in specific time? This will depend on the research question. The 'snapshot' type of research is call cross-sectional while the diary type of research is call longitudinal.

3.8.1 Cross-sectional research

Cross-sectional research is a type of research that studies a phenomenon within a period. It is established that majority of the research studies carried out for academic purposes are time consuming. Though, the time horizons of most subjects provide enough time for longitudinal research provided the researcher starts early (Saunders, 2012). Cross-sectional studies most often adopt survey strategy, with the intention of explaining the problem associated with a phenomenon. Cross-sectional research seeks to explains the way things are done while conducting a research and try to highlight and understand the disparity between the members of the group under study (Remenyi et al, 2005). For example, to understand the relationship between the cost of training a marketing assistants and marketing representative. Though, a researcher can use qualitative or multiple strategies, and most of the studies conduct interviews within short time.

3.8.2 Longitudinal Studies

This type of research is carried out over a long period of time and longitudinal research is mainly use for studying change and development. This kind of research provides the researcher with some level of control over some variables under study. Among the fascinating example of this kind of study comes from outside the field of business (Saunders et al, 2009). It is UK longest television program 'seven ups' the program is not only attractive but has also provided social scientist with a reliable source of data to test and develop theories of human development. However, even with little time available to the researcher, it

is realistic to include some longitudinal elements in the research. The aim of this research is to develop a framework for the reconstruction of housing for the internally displaced people due to conflict. Therefore, this research is considered as a cross-sectional type of study; the research will be carried out as a snapshot within a period in the building construction industry in Nigeria to achieve the set objectives.

3.9   Data Collection Techniques

This section will provide an explanation on the techniques the researcher adopted in this study during the data collection and data analysis stages. The quantitative data were gathered from the IDPs and housing construction professionals using questionnaire while qualitative data was collected through semi-structured interviews conducted with housing construction professionals. This will enable the researcher to have a good measurement and clear understanding of the phenomenon or what is under study (Collis and Hussey, 2014). In other words, it will allow the researcher to have in-depth understanding of the phenomenon under investigation or the area of the research.

3.9.1   Data Collection Methods

The selection of data collection methods depends on the aim of the research, availability of resources and the skills of the researcher (Kumar, 2011). Therefore, before taken any action on how to gather the data needed to answer the research questions, it is necessary to know the kind of data to be gathered, where the data will come from, who will provide the data (Blaikie, 2010). According to Saunders et al. (2009) there are two ways of collecting data and two kinds of data that can be use in a research which are related to quantitative and qualitative methods. A researcher can also use a single method of gathering data and analysis or adopt multi-methods using more than a single method of data collection and analysis to be able to answer research question (Saunders, 2012; Bryman, 2006). This method is mostly encouraged in business and management study, because it can cover the weaknesses of using a single method (Saunders, 2012) and it can also provide the researcher with choice for reliable technique to gathering data, analysis and interpretation. However, there are two kinds of data normally use in a research, the primary data and secondary data.

The primary data is a data gather through interviews, questionnaires, audio, recordings video, observations, emails among others. The choice of any technique depends on the resources, the type of research question, and the nature of the socio-economic and demographic characteristics of the people under study (Collis and Hussey, 2014; Yin, 2014; Remenyi et al, 2005). On the other hand, the secondary data is a data that is already gathered and kept for other purposes which is related to the area the researcher is conducting the research (Hussey and Hussey, 1997). The sources of this data include articles, journals, newspapers, books, thesis, previous research among others. The primary and secondary data were used in this research to achieve the aim and objectives of the research. The mixed methods adopted in this research will allow the researcher to carried out a research that will not only meet with the needs of the IDPs, but also improve the practices and knowledge of the building construction experts about reconstruction of housing for the IDPs due to conflict.

3.9.2 Quantitative data collection methods

The major quantitative data collection or gathering techniques adopt by researchers in the social science comprises the self-administered questionnaire and the structured interview, and these two techniques keep the researcher far away from the major research processes. There is a misunderstanding specifically in the main literature concerning the way these two techniques are identified. The normal practice is not about differentiating the two techniques but rather to believe that they are similar or identical. Most of the time 'Survey Research' is being regard as questionnaires, but questionnaires are being used as part of structured interviews. De Vaus (2002) in his study adopts 'questionnaire' to serve as a general term and further differentiate between one-on-one interviews, telephone, internet and self-administered questionnaire as part of different ways of administration. Oppenheim (2000) elaborates the differences between 'standardized interview' and questionnaire. The two methods focused on data collection even though the process of collecting the data varies, because each instrument is designed differently, and each has its advantages and disadvantages.

3.9.3 Questionnaire

Questionnaire is an instrument designed specifically to acquire information from a group of people as respondents (Polgar and Thomas, 1995). It is an instrument that is used by researchers to collect different information from a large group of respondents in a form of

written or verbal responses to a set of questions and statements. Questionnaire is designed in such a way that the respondents can be able to answer the questions without any support or assistance from anybody apart from the written instructions that will guide the respondents to answer the questions to the best of their knowledge. There are two types of questionnaires, the open or closed question and the open-ended questions (Denscombe, 2010). The open-ended questions give the respondent the power to decide the wording of the answer, the length of the answer and the kind of issue to discussed in the answer. However, the questionnaire gives respondents the chance to answer the questions with their preferred words, and the data gathered through this process would represent the actual view hold by the respondents about a problem or issue under investigation.

This type of questionnaires tends to seek for full information or response from the respondents about a problem and the questions mostly are very brief or short, but the respondents have the chance to provide as much answers as they desire in their own words. The disadvantage of gathering data through this type of questionnaire is that the researcher needs a lot of time to analyse the data because of the process involve (McLeod; Denscombe, 2010). For example, the researcher must read and understand the answers and then code each answer which can be time consuming.

On the other hand, the closed ended questions are sort of questions that allow the respondents to provide answers within the categories that have been developed earlier. These types of questionnaires have advantages and disadvantages in variety of ways. Denscombe (2010) pointed out that the advantages and disadvantages of close-ended questionnaires are the same with the open-ended questionnaire. One of the major advantages of closed-ended type of questionnaire is the way the respondent's answers are organised, which provides uniform information or in a format that can be easily quantified and compared by the researcher. At the same time, the disadvantages of this type of questionnaire is it inability to gather detail information from the respondents, because there is limitation to the answers the respondents can provide as their honest views.

Questionnaires in general are the most common data collection technique used by researchers conducting business and management research, and the validity of the findings is always high. Many buildings construction research conducted in the past have used questionnaires to

gather data from the building construction experts on the realities, attitudes, experience, knowledge, views, beliefs, perceptions, behaviour among others.

3.9.4 Qualitative data collection methods

Qualitative method can take different form and participant observation can be considered as qualitative method. The researcher can be engaging with a problem or different problem that involve the life of the subjects the researcher is studying (Bradley et al., 2007, Jorgensen, 1989). This technique is usually considered by Burgess (1984) as 'field research' while Montgomery and Bailey (2007) considered it as ethnography. Ethnography can be defined as a process of producing and explaining a picture of the actual way of life of some certain group of people. Field research or ethnography can adopt different methods or mix methods whereby the participant observation will remain the major method. Participant observation can be practice in different ways, for example, total participation, observation and through different combinations within. Researchers don't frequently use these two methods (Gans, 1999) and some other combinations in a research. Participant observation should not be considered as a single technique or method (Bryman et al., 1988) because it can use different ways of observation. Multiple methods are divided in between multi method and mixed methods study.
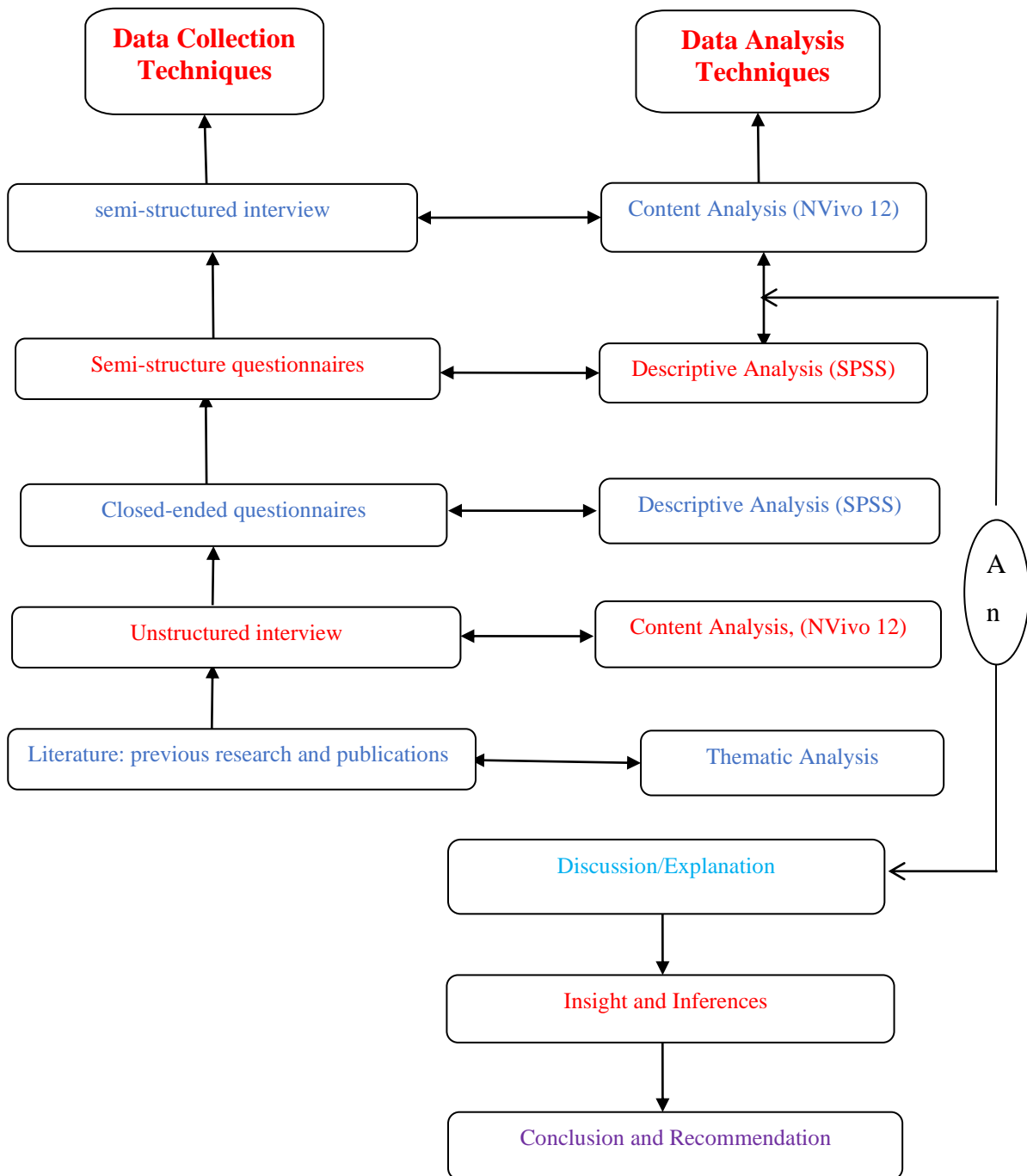
Figure 3.5: Data collection and analysis techniques

In this research questionnaires were used to collect quantitative data from the internally displaced people and housing construction professionals, and the questionnaires contains both open and closed ended questions. Semi-structured interviews were carried out to gather

qualitative data from the housing construction professionals. Therefore, the quantitative and qualitative methods were used in this research to achieve the aim and objectives.

3.9.5 Multi-method Research

In this type of study, a researcher can use more than a single data gathering method with related data analysis techniques, but this is allowed in quantitative or qualitative design (Tashakkori and Teddlie, 2010). Therefore, a researcher can decide to gather quantitative data using questionnaires and observation by analysing the same data using a statistical quantitative technique which is referred to as multimethod quantitative study. Otherwise, the researcher might opt for another option to gather qualitative data using in-depth interviews and diary records by analysing the same data using a qualitative technique which is referred to as multi-method qualitative research. However, if a researcher chooses multimethod study it will not be possible to mix quantitative or qualitative data.

3.9.6 Mixed-Methods Research

Under this method, quantitative and qualitative studies are mixed in a research design. This can take place in different forms ranging from convergent to complex forms and fully integrated forms. There are different situations through which quantitative and qualitative methods can be used together, under which circumstances and to what extent led to emergence of some characteristics of mixed methods (Creswell, 2014). However, questions were raised about when and how quantitative and qualitative methods are being used together or mixed in a research. The way and manner these two methods are used together varies, but they can be used to complement each other (Saunders et al, 2009). In mixed methods, every data gathered will be analysed independently so that the interpretation will be easy and the results or conclusions the researcher arrived at will be valid.

In this research, mixed methods were adopted by the researcher for the methods to complement each other. Under the survey strategy questionnaires were administered to the IDPs in Maiduguri, housing construction professionals and policy makers both in Maiduguri and Abuja as part of data collection techniques. While under the case study strategy semi-structured interview were carried out over the phone with the housing construction professionals in Maiduguri and one-on-one interviews with housing construction professionals in Abuja. The researcher used these techniques in order to triangulate the two

different data gathered and for the data to complement each other, since using mixed methods is more efficient in solving problem than a single method. This was confirmed by Blaikie (2007) that new knowledge can be develop only when researchers begin to use two approaches, two strategies and mixed methods when conducting a research. Triangulating the data will provide opportunity for the researcher to do away with the bias data which will increase the reliability and validity of the findings (Easterby-Smith et al., 2012), which will be use in developing a framework for the reconstruction of housing for the IDPs due to conflict.

The questionnaires were used in this research as it is a well-known technique used by researchers when conducting business and management research. It is an instrument design that allows the researcher to gather data from a large population in an economical way, by given chance for easy assessment (Saunders et al., 2009). Questionnaires also play a key role in determining the reason behind the relationship between variables. Semi-structured interviews were carried out as part of this research to explore different ideas, views, perceptions and the standard practices about reconstruction of housing for the IDPs due to conflict (Saunders and Lewis, 2009). The ideas, perception, views practice will be understood from the views of housing construction professionals through questionnaire survey and semi-structured interviews. The researcher used semi-structured interviews because is the right technique for research studies that are at the early stage (Bieber et al., 2002), and where the phenomena, context and the participants constitute the important part of the study. However, semi-structured interview is flexible in nature and it allow the researcher to acquire more response rate from the participants, dictate over the context, questions, when and where.

3.10 Sampling

The most important thing researcher need to take into cognisance when designing data collection instrument (questionnaire) is what kind of data will be collected and from who. Therefore, before considering the type of method to use for sampling, it is necessary to have a good understanding of the meaning of population and sample before selecting any sampling method (Blaikie, 2010). Population are group of people target or single out by researcher that will provide some certain information which will be used to solve a problem. In this research the target population are the internally displaced people and building construction

professionals in Nigeria and the sample population are the housing construction professionals and internally displaced people in Maiduguri, Nigeria in order to achieve the aim and objectives of the research. Sample is usually derived from larger group of people referred to as the target population. Sample selection is usually carried out to avoid any differences that may occur between the sample and the target population.

On other hand, sample can stance as a model to the target population and based on the statistical analysis carried out on the sample data, it is possible for the researcher to make generalisation of the entire population with some degree of confidence. However, it is very important that the sample represents the entire target population, because if it does not, the outcome might be biased, and it would not represent the target population (Remenyi and Williams, 1998). For the sample to be regarded as representative or not depends on the final analysis and independent evaluation from the people conducting the survey or those that will use the outcome of the survey.

There is also a problem of variability which sampling need to address. Even if a researcher is careful and try to avoid bias, the sample size will not be equal with the target population. If different sample is selected through the same process it will be different. This will compromise the accuracy of the sample, and the level of confidence the researcher will placed in the sample regarding the population. In the process of using sampling the researcher need to understand the meaning of the population under study, because they are part of the sampling frame. This comprises the population from which the sample is going to be selected. For example, the internally displaced people, building construction professionals and policy makers.

Population

Internally displaced people, building
construction professionals, policy makers in Nigeria

Sample

Internally displaced people and housing
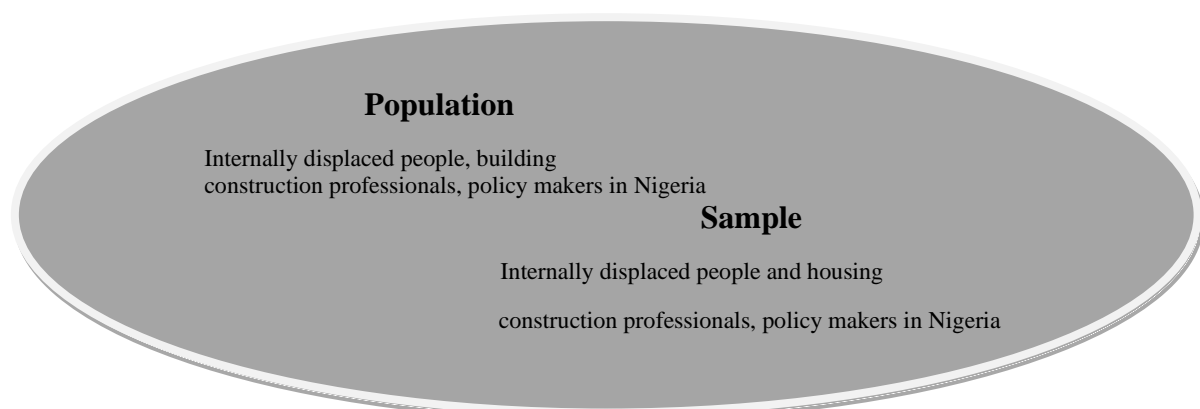
construction professionals, policy makers in Nigeria

Figure 3.6: Population and sample (adopted from Denscombe, 2010)

3.10.1 Types of Sampling

There are two types of sampling which include probability and non-probability samples. Probability samples: under this type of sampling the probability of each member of the target population to be selected is known and can as well represent all the members. In this situation, it is possible to answer the research questions and to achieve some set of objectives that did not require the researcher to use statistical techniques to estimate the characteristics of the population from the sample. In probability samples, each member of the target population can be selected. Some of the samples include simple random, stratified random, cluster etc. The simple random is the most common sampling associated with probability sample. In this type of sampling there is every opportunity or probability of each member of the population to be part of the sample size.

Stratified random sampling involves some process or criteria of segregation or stratification before randomly selecting people from each stratum (Sekaran and Bougie, 2013). Under this sample the target population are normally divided into groups that are connected, appropriate and justifiable within the setting of the research. In cluster sampling, the first thing to do is to divide the target population into clusters; afterwards the random sample of the clusters will be established, and each cluster selected will include all the population or the sample of the population will be part of the sample (Saunders et al., 2009). This type of sample is associated with questionnaire survey and experimental research strategies.

In non-probability samples, the probability of selecting each member of the target population is not known and cannot be able to answer research questions or to achieve objectives that require the researcher to use statistical techniques in analysing the characteristics of the sample population. However, the researcher can make generalisation using non-probability samples about the target population, but not using statistical techniques. Some of the non-probability samples include convenience samples and snowball samples, purposive samples, self-selection, judgement samples etc. Convenience sampling is a process through which data is gathered from the members of the population who are available to the researcher (Sekaran and Bougie, 2013), and conveniently willing to provide such information. This type of sample does not provide general information about the characteristics of a certain population and it will be very difficult to make generalisation about the findings (Bryman, 2012).

Instead, it can serve as a foundation for further study or allow links to be established with existing findings in an area of study.

In purposive sampling; instead of the researcher to collect or gather information from the participants who are available and in the best position to provide the required information, sometimes it become must for the researcher to collect data or information from a group or population (Sekaran and Bougie, 2013). This type of sample is concerned particularly with a group of people who can give the required information because they are the only group of people who can provide such information, or they are the only people that meet part of the criteria set up by the researcher. However, there are two main types of purposive or judgement sampling and quota sampling. Purposive or judgement sampling is concerned with the participants who are in the best position to provide the required information while quota sampling is concerned with making sure that some certain group of people are well represented in the research by attaching a quota to the group.

Usually, the quota attached to each subgroup represents the total numbers of each group in population. Bryman (2012) further add that the purpose of using quota sampling is to draw a sample that represents a population in relation to the number of people in different groups, such as gender, ethnicity, age groups, socio-economic groups and county of residence, and in mixture of these groups. However, compare to stratified sample, sampling of individual here is not randomly selected because the power to make final selection of individuals lies with the researcher.

3.10.2 Choice of Sampling and justification

The choice of the best sample for any research depends on the aim and objectives, the research techniques and the way the researcher design the research questions. The aim of this research is to develop a framework for the reconstruction of housing for internally displaced people due to conflict. The non-probability sampling is connected to quantitative data collection and the method help the researcher in understanding the phenomenon under study (Parahoo, 2014; Teddlie and Yu, 2007). Under this type of sampling, it is important for the target sample population (Participants) to have knowledge about the phenomenon "housing construction" the researcher is investigating in order to provide the required information (Creswell, 2013).

In this research, purposive sampling is used over other samples like quota sampling, convenient or random sampling to gather data from the housing construction experts with the knowledge of housing construction in Nigeria, and internally displaced people who might not have knowledge about housing construction but are the end users of the housing in order to understand their needs and preferences. The researcher adopts this sampling method because the individual selected are in the right position to provide the required information for the research. Maxwell (2009) adds that individual participants are selected purposely since they are the only people who can provide such useful information that cannot be obtain from other participants.

Under the non-probability sampling, the sample that is related to the semi-structured interviews is purposive sampling. The sample is suitable in this research in terms of its relevance and knowledge. Its relevance is associated with the problem, issue or theory investigated by the researcher while the knowledge focus on the experience or knowledge acquire by the researcher about the area of the research. This sampling method is used by the researcher during semi-structured interviews to select participants from the building construction industry. The participants were selected based on their knowledge, qualification, and experience in building construction and with many years of experience in housing reconstruction. Based on the above-mentioned criteria and the personal contacts available to the researcher, invitation letter was sent to the appropriate building construction professionals through email and others were contacted over the phone to officially invite them to participate in the research.

3.10.3 Semi-structured interviews

An interview is a useful discussion that takes place between two or many people with aim of understanding a problem, situation or issue (Kahn and Cannell, 1957). The use of interviews during a research can assist a researcher to collect reliable and valid data which are very important to the research questions and objectives. Interviews are techniques use by researchers in gathering data through asking the selected participants questions in order to understand their views, opinions about some certain issues, problems or situation (Hussey and Hussey, 1997). Interviews can be carried out in three different ways depending on the research objectives and strategy the researcher adopted. These interviews include structured using standardised questions for individual participants, semi-structured and unstructured.

Structured interviews; this type of interviews uses questionnaires which are design in such a standardised manner and the questionnaires are called the interviewer-administered questionnaires. However, structured interviews are carried out by researchers in order to gather quantifiable data and this type of interviews are also called quantitative research interviews. Semi-structured and in-depth unstructured interviews are not standardised in nature in comparison with structured interviews (King, 2004), and the interviews are frequently called qualitative research interviews.

Semi-structured interviews; in this type of interviews the researcher will have a predetermined list of questions to be ask during the interviews and as the interview progress the researcher might omit some of the questions. Though, more questions might be required to explore the research question and objectives considering the nature of the situation in an organisation.

Unstructured interviews; this type of interviews is considered as informal and the researcher will use the interviews to explore the general area of the research. There is no list of predetermined questions to be use in this situation, but the researcher needs to have an idea about the aspect or area of the research that will be explore. The interviews will provide opportunity for the participants to express their views about the events, behaviour and beliefs concerning the research area or topic. This form of discussion is as informant interview, because it is the views of the participants that guide the conduct of the interview.

In this research, structured interviews will not be use as the researcher is not using interviews to gather quantifiable data and unstructured interviews are not also considered appropriate in this research as it can cause problems and misinform the researcher. Therefore, the researcher decided to carry out semi-structured interviews to have an in-depth understanding of the housing reconstruction practice in Nigeria. This will assist the researcher in identifying the approaches use for the reconstruction of housing for the IDPs due to conflict and the best approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, and challenges that can delay or hinder the reconstruction of housing for the IDPs in Maiduguri, Nigeria. The semi-structured interviews allow the researcher to have a good understanding of the participant's perceptions, and beliefs towards reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri.

Prior to the interview's questions were developed and piloted as it is important for the researcher to test or examine the questions that will be ask during the interviews or questionnaires during the pilot study (Sekaran and Bougie, 2013, Yin, 2009). Pilot study provides the researcher with the opportunity to filter the questions to identify wording and design. The questions designed for the interviews were administered to three PhD students of school of built environment, University of Salford to review the simplicity, ambiguity, clarity and layout of the questions through completing the feedback form. Some of the feedback received indicated the need for the questions to be clearer.

3.10.3.1   Pilot Semi-structured Interviews

The aim of this research is to develop a framework for the reconstruction of housing for the internally displaced people due to conflict. The interview consists of three questions focusing on the profession of the participant, approaches use for the reconstruction of housing for the internally displaced people due to conflict and challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri. Therefore, it is important for the researcher to select participants with knowledge and experience in building construction specifically housing construction.

Section 1 focus on general information about participants such as their profession, experience in building construction industry, experience in housing construction and housing reconstruction for the IDPs. Section 2 aim at understanding the approaches use for the reconstruction of housing for the internally displaced people due to conflict and the approach to adopt for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria. Section 3 try to investigate the challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria.

Section 1: General Information

1. What is your profession

2. How many years of experience do you have in the building construction industry?

3. Do you have experience in housing construction?

4. How many years of experience do you have in housing construction?

5. Do you have experience in reconstruction of housing for the IDPs due to conflict?

Section 2: Approaches use for the reconstruction of housing for the internally displaced people due to conflict

1. What are the approaches use for reconstruction of housing for the internally displaced people?

2. which of the approach should government adopt towards reconstruction of housing for the internally displaced people in Maiduguri due to Boko Haram conflict in Nigeria?

Section 3: Challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria

1. What are the challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria?

2. To what extent the challenges you identify can delay or hinder the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria?

The researcher modified the questions based on the feedback received and one-on-one method of interview was carried out in Nigeria as part of semi-structured interviews. The participants were contacted and recruited through email and personal contact details available to the researcher. However, prior to interview some useful materials were sent to each individual participant that agreed to take part in the study which includes interview guidelines, brief information about the research area, the aim and objectives of the research, ethics guiding the interview, consent form etc. The interview guideline explains to the participants the important aspects or areas to be discuss such as approaches use for the reconstruction of housing for the IDPs, best approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict, challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria.

The researcher interviewed nine (9) participants, seven different professionals within the building construction industry and two policy makers to gather different views for triangulation which will enhance the reliability and validity of the data. The professionals interviewed are people with different background in the industry such as civil engineers, architectural designers, and quantity surveyors, building engineers, estate surveyors, project

managers and policy makers. The professionals are from the ministry of works and housing Abuja, ministry reconstruction rehabilitation and settlement in Maiduguri while the policy makers are from commission for refugee, migration and internally displaced persons and ministry of works and housing in Abuja. The details of the interview with the participants are as follows:

Table 3.6**:** List of the Interviewees and their Professional Background

Participants	Professional background	Organisation	Work experience
Participant 1	Building Engineer	Ministry of reconstruction, rehabilitation and resettlement Maiduguri, Borno State	10 years
Participant 2	Building Engineer	Federal Ministry of Works and Housing Abuja	5 years
Participant 3	Architectural Engineer	Ministry of reconstruction, rehabilitation and resettlement Maiduguri, Borno State	10 years
Participant 4	Building Engineer	Federal Ministry of Works and Housing Abuja	
Participant 5	Building Engineer	Federal Ministry of Works and Housing Abuja	12 years
Participant 6	Policy Maker	Federal Ministry of Works and Housing Abuja	8 years
Participant 7	Building Engineer	Federal Ministry of Works, Housing and Power Abuja	6 years
Participant 8	Building Engineer	Ministry of Rehabilitation, Reconstruction and	12 years

		Resettlement Maiduguri	
Participant 9	Policy Maker	Commission for Refugee, Migrants and Internally Displaced Persons Abuja Nigeria	13 years

3.10.4 Questionnaire Survey

In this research, questionnaire is used as the second method of data collection. A questionnaire is a written set of questions design for respondents to record their answers within instead closely defined alternatives. Questionnaire is a reliable data gathering instrument mainly use when conducting descriptive or exploratory research (Sekaran and Bougie, 2013). Questionnaires are considered by many as cheaper and time consuming when compare with interviews and observation, but also capable of producing many nonresponses as well as nonresponse error. Questionnaires are generally use in collecting large number of quantitative data but can also be use in collecting qualitative data and can be administered through email, in person, mailed or electronically to the participants. Saunders et al. (2009) point out that questionnaires are the best instrument use in understanding the true and general behaviours and characteristics of a large population. However, questionnaires allow the researcher to collect all the completed questionnaires within short period of time, the researcher will have the opportunity to discuss the research topic and encourage the respondents to give honest answers, administered large quantity of questionnaires to individuals within short period of time without spending much compare to interviews (Sekaran and Bougie, 2013). Therefore, it is important for the researcher to administer the questionnaires personally because of these advantages.

In this research, the main aim of using questionnaire survey is to quantify the approaches use for the reconstruction of housing for the IDPs, best approach to adopt for the reconstruction of houses destroyed due to Boko Haram conflict and challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria.

3.10.4.1 The Pilot Questionnaire for the IDPs

The questionnaire for the IDPs consists of three main sections which includes respondent's personal information, nature of the Boko Haram conflict and its effect on housing, opinion on the best approach to adopt for the reconstruction of the internally displaced people houses destroyed due to Boko Haram conflict, challenges and skills of the IDPs (see appendix 7). The first section of the questionnaire consists of four different simple closed-ended questions and the aim is to understand the gender, age, main business or occupation and local government of the respondents. This will give the researcher an idea about the number of women among the displaced people because the high the number of the women the high the possibility of children being affected. The second section consists of six different simple closed-ended questions focusing on the nature of the Boko Haram conflict, perception of the IDPs about Boko Haram terrorist group, housing ownership, type of house owned by the IDPs, if the house is destroyed, and the level of the destruction.

This will provide the researcher with insight about the effect of the conflict on housing. The third section of the questionnaire consists of four questions trying to understand if the IDPs has the financial capability to reconstruct their houses by themselves, their opinion on the best approach to adopt between government driven approach, or owner driven approach, and if they have any building skills. The aim is to understand the financial status of the displaced people and their opinion on the best approach to adopt that will meet their needs and preferences. The questions also seek to understand if the IDPs have any building skills that will enable them to handle or assist during the housing reconstruction.

3.10.4.2 The Pilot Questionnaire for the Building Construction Professionals

The questionnaire for the building construction professionals consists of 4 sections which comprise respondents' personal information, effect of the Boko Haram conflict on housing, approaches use for the reconstruction of housing for the IDPs and opinion on the best approach to adopt for the reconstruction of houses destroyed by the Boko Haram terrorist in Maiduguri and challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria as well as opinion on the challenges that can delay or hinder the reconstruction in relation to some findings from the literature (see appendix 8). The first section of the questionnaire consists of six questions which aim at understanding the

gender of the respondent, age, profession, years of experience in construction industry, years practicing building construction and years of experience in housing construction. This is important in order to make sure the respondents have enough experience in building construction particularly in housing construction to enable them to provide the required information.

The second section of the questionnaire consists of four questions the first two questions focus on understanding the effect of the Boko Haram conflict on human displacement and the third question concentrate on understanding the effect of the Boko Haram conflict on housing in Maiduguri. The fourth question was divided into five Likert Scale format questions where 1=Agree 2=Strongly Agree 3=Neither Agree/Disagree 4=Disagree 5=Strongly Disagree. The question further tries to find out the level of the respondent's agreement with the statement that millions of people have been displaced due to Boko Haram conflict in Nigeria and majority of the displaced people are from Maiduguri. The question also asks the respondents to indicate the level of their agreement with that the statement that most of the houses destroyed during the conflict are in Maiduguri and majority of them are three-bedroom houses. The last question wants the respondents to indicate the level of their agreement with the statement that housing demand has increase due to Boko Haram conflict in Maiduguri.

The third section of the questionnaire consists of five questions in Likert Scale format where 1=Agree 2=Strongly Agree 3=Neither Agree/Disagree 4=Disagree 5=Strongly Disagree. The first question tries to understand the level of respondent's agreement regarding the statement that there is a need for the government to reconstruct the internally displaced people houses destroyed by the Boko Haram terrorist in Maiduguri. The second question seek to know the level of the respondent's agreement in relation to the statement that reconstruction of the internally displaced people houses destroyed in Maiduguri will play crucial role towards their rehabilitation back into their community. The third question aim at understanding the level of the respondent's agreement in connection to the statement that there is need for the houses to reflect the needs and preferences (lifestyle) of the IDPs to avoid the houses being rejected or abandoned. The fourth question concentrates on understanding the level of the respondent's agreement with the statement that housing is important to every person therefore, the government should concentrate on reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. The fifth question tries to understand the opinion of the respondent's regarding the best approach to adopt for the reconstruction of the internally displaced people

houses destroyed due to Boko Haram conflict in Maiduguri, and why the respondents choose the approach.

The fourth section of the questionnaire consists of two questions and the first question tries to understand from the respondents based on their experience in housing construction, the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. The second question is in Likert Scale format where 1=Agree 2=Strongly Agree 3=Neither Agree/Disagree 4=Disagree 5=Strongly Disagree. The question seek to know the respondents level of agreement with the statement that challenges such as corruption, scarcity of resources, relocation, urgency, government bureaucracy, insecurity, lack of roads, lack of commitment and culture must be address in order to successfully reconstruct housing for the IDPs in Maiduguri.

There is so much importance attached to pilot study that's why after the questionnaires were designed, the questionnaires were piloted in June 2017 to make sure the questions are very easy to read and understand. The researcher administered the questionnaires to three PhD students in the School of Built Environment, University of Salford as explained earlier to review and evaluate the questionnaires. The students indicated the need to redesign the questionnaire for the IDPs to make the questions clear and check spelling errors. They also indicated the need to improve the questions in the questionnaire for the building construction professionals in order to gather data that will use in achieving the research objectives and overall aim of the research.

The questionnaire consists of three main sections. The first section focus on the respondent personal information, effect of the conflict on housing in Maiduguri and approaches use for the reconstruction of housing for the IDPs and best approach to adopt for the reconstruction of the houses destroyed by the Boko Haram terrorist in Maiduguri, Nigeria. The first section of the questionnaire consists of six questions which include gender of the respondent, age, profession, years of experience in construction industry, years of practicing building construction, years of experience in housing construction. The second section of the questionnaire contains four questions focusing on the number of people displaced due to Boko Haram conflict in Nigeria, people displaced in Maiduguri, number of houses destroyed in Maiduguri and the impact of the conflict on housing which was divided into five questions

in Likert Scale format Agree, Strongly Agree, Neither Agree/Disagree, Disagree, Strongly Disagree (see appendix 6, section 2).

The third section comprises of six questions, the first four questions are in Likert Scale format Agree, Strongly Agree, Neither Agree/Disagree, Disagree, Strongly Disagree focusing on the importance of providing housing for the IDPs due to Boko Haram conflict, the role of housing towards their rehabilitation, the need for housing to reflect their needs, and the need for government to reconstruct the houses destroyed. Question five focus on the approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri and question six which is open deals with advantages and disadvantages of the approach. The fourth section consists of two questions, the first question which is open focus on the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri and the second question is in Likert Scale format seeking for the opinion of the professional on the challenges that need to be address in order to successfully reconstruct houses destroyed by the Boko Haram terrorist in Maiduguri, Nigeria.

However, in the process of designing the questionnaire the confidentiality and ambiguity of all the participants throughout the research is considered, participation in the research is voluntary exercise there is no financial compensation attached and the participants can decide to withdraw at any stage of the research. The questionnaire was written in English as it is the official language in Nigeria. The questionnaire designed for the internally displaced people was administered to the IDPs domiciled in different camps within Maiduguri and the building construction professionals in July 2018. The questionnaires were completed and returned to the researcher in November 2018. The criteria used in selecting the sample and choosing the participants were explained earlier in the research. However, two hundred and fifty questionnaires were administered to the IDPs and 86 was returned representing 37.2% response rate. The response rate is considered by the researcher to be satisfactory considering the trauma these group of people have passed through and their current situation. However, one hundred and fifty (150) questionnaires were distributed to the building professionals and fifty-nine was returned representing 40.8% response.

This section explains the data collection methods used by the researcher to achieve the set objectives of this research.

Table 3.7: Process through which objectives of the research will be achieve.

S/N	Research Objective	Research Strategy	Data Collection Methods	Data Analysis Techniques
1	**Objective 1**: To examine the history of the Boko Haram conflict and the effect of the conflict on housing in Maiduguri, Nigeria	Literature review and Survey	Questionnaire	Descriptive analysis
2	**Objective 2**: To explore different types of approaches use for the reconstruction of housing for the IDPs in relation to other countries	Literature review, Case study and Survey	Semi-structured interview and Questionnaire	Content analysis, Descriptive and Inferential analysis
3	**Objective 3**: To critically examine the challenges associated with reconstruction of housing for the IDPs and in relation to the IDPs in Maiduguri, Nigeria	Literature review, Case study and Survey	Semi-structured interview and Questionnaire	Content analysis, Descriptive and Inferential analysis
4	**Objective 4**: To present and validate the **f**ramework for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria	Survey Strategy	Questionnaire Survey	Descriptive and Inferential analysis

This section provides the detail analysis of the qualitative data through semi-structured interview and quantitative data through questionnaire.

3.11 Data Analysis

Data analysis is a process through which the raw quantitative and qualitative data gather through interviews and questionnaires that have no meaning were processed and transferred into information using appropriate techniques to make meaning. There are different ways through which quantitative and qualitative data can be analyse (Cresswell, 2003). The researcher can collect and analyse quantitative data in numbers first and later proceed to collect and analyse qualitative data in text to help the researcher build on the findings from the quantitative data analysis carry out from the beginning and later the two datasets can be merged together at later stage in the research. Ivankova et al. (2006) pointed out three different ways through which quantitative and qualitative data can be mixed. Quantitative and Qualitative data can be mixed either through merging the two datasets to achieve reliable and valid results, or by linking the two datasets to allow one data to build on another or through imbedding one set of data into another to provide support.

In this research, the quantitative data will be analysed first before analysing the qualitative data, and at later stage in the research the two data sets will be linked together. The reason behind using this approach is that the quantitative data gathered through questionnaire and its subsequent analysis will provide in-depth understanding of the approaches use for the reconstruction of housing for the IDPs and the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria. The qualitative data gathered through semi-structured interview will be refine to explain the statistical findings or results through exploring the views and opinions of the housing construction experts on the approaches, challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri and the general practice within construction industry in Nigeria.

3.11.1 Content Analysis

Content analysis is a research method used in analysing or evaluating different types of data gathered through qualitative techniques (McGrane et al., 2005). For example, content analysis can be used in analysing the content of interviews, newspapers, and advert among

others. content analysis provide opportunity for the researcher to analyse large data gathered in words or in text by systematically identifying its content such as concepts, sentences, themes or presence of some words. To carry out content analysis on a text, the text needs to be coded using identifiable categories and then it can be analysed using either conceptual analysis or relational analysis. Conceptual analysis determined the existence and the number of concepts in a text such as themes, words or characters.

Conceptual analysis is mainly for analysing and explaining data gathered in text by coding the text into identifiable content categories while relational analysis is carried out to build on the conceptual analysis to analyse the relationships between the concepts in a text. Therefore, since content analysis is used in analysing the content of the data gathered in text, in this research, content analysis will be used to analyse and determine the existence and amount of words in the interview transcripts and it will also be used to draw a general conclusion from the views and opinions of the experts in the construction industry (Neuendorf, 2016). However, the conclusion will be use in developing a framework for the reconstruction of housing for the internally displaced people due to conflict.

In addition, the researcher decided to carry out content analysis in this research to take advantage of computer software available called NVivo. The NVivo software can be use by researchers to analyse qualitative data or mixed method research were both quantitative and qualitative data is being used. The software will make things easy for the researcher considering the volume of data gathered from the interviews which will consume much time if it will be analysed manually. The NVivo will be used in transcribing the raw data from the interviews transcripts using MS Word, inserting the data into the NVivo, establishing the existence of the themes, sentence, concepts and codes, developing the themes, analysing the coded transcripts to produce results.

3.11.2 Questionnaire Survey Analysis

Analysing data gathered through questionnaire involves different criteria, First and foremost the data will have to be coded, inserted or keyed in and edited. The data need to be categorised before it will be keyed in (Sekaran and Bougie, 2013). Data coding is a process of attaching a number to the responses of the participants for easy identification before entering them into the database. The data can be process using software then descriptive and

inferential statistical can be carry out on all the questions to provide good understanding. Descriptive statistics is carried out to measure the central tendency of mean, median, and mode, measuring of dispersion such as standard deviation, range, minimum, maximum, variance. However, depending on the scale of the research measures, the mode, median or mean and the standard deviation (Sekaran and Bougie, 2013), semi-interquartile or variance will provide a clear understanding of the way and manner the respondents response to the questions in the questionnaire.

Descriptive analysis is very essential when comparing findings of a study with another because it is easy to understand features of the sample that might dictate the results. Inferential statistics can be used to find out if there is any difference between the data and the hypothetical value. The statistics is used in this research because it provides overall observation of the big population (Owusu-Manu et al., 2017), and provide in-depth interpretation of the variables. Some of the statistics includes chi-square, T-test, variance. Quantitative data analysis begins in this research after quantitative data is gathered from the participants and the data will be keyed into appropriate statistical software for analysis and interpretation. There is different software available that can be used to analyse quantitative data which includes SPSS, SAS, MATLAB, STATA and R.

In this research, SPSS is used to analyse quantitative data gathered because the software is suitable, easy to use and accessible to the researcher. The data will be coded for easy identification before inserting it manually into the software. For instance, the 4 Likert scale in the questionnaire were label as follows 1 is Agree, 2 is strongly agree, 3 Neither Agree/Disagree 4 Disagree while 5 Strongly Disagree. If one of the participants chooses to agree the code to be inserted into the SPSS software will be 1. The researcher has discussed the process in the methodology beginning with the research philosophy, approach, strategy up to the data collection methods and analysis. Next is to briefly explain the research methodology adopted in this research.

3.11.3 Research Onion to Indicate the Methodology Adopted

It is understood that there is no single research strategy or process that is considered as the best when conducting a research, but it all depends on the process that fits with the type of research one is undertaking. It is also acknowledged that the selection of a research

methodology is based on its appropriateness, resources, time, research questions, the problem at hand and the skills of the researcher (Eaterby-Smith et al, 2012; Demscombe, 2010; Remenyi et al, 2005). The aim of this research is to develop a framework for the reconstruction of housing for the internally displaced people due to conflict. Therefore, based on the methodological processes and approach outlined by different authors such as Saunders et al (2012), Crotty, (2003) and Kagioglou et al, (2000), it was decided to use the "research onion" introduced by Saunders et al, (2012) to indicate the research philosophy, approach, strategy, research method, time horizon, data collection techniques and procedures as a guide towards achieving the aim and objectives of this research. In this research, the philosophical stance adopted in this research is pragmatist process of conducting research and abductive approach was used in this research. However, survey and case study strategies were adopted, and mixed methods were used to collected both quantitative and qualitative data. The philosophy, approach, methods and type of research adopted are indicated in a red circle within the research onion.
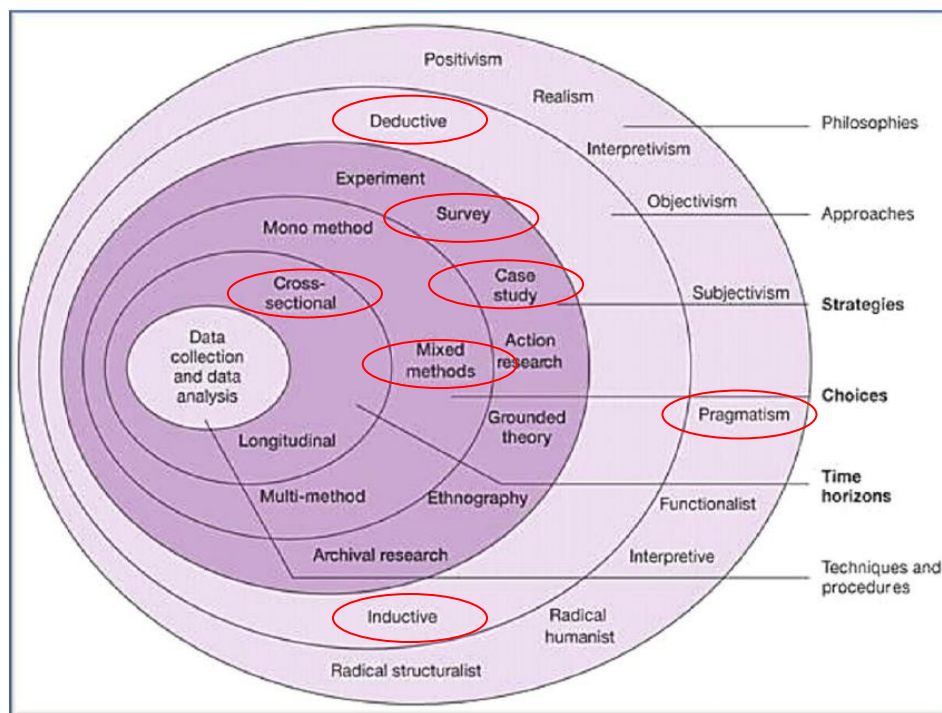

Figure 3.7: Research onion (Sources: Saunders et al, 2012)

3.12 Thesis Write-up

Writing of thesis is the final stage when conducting a PhD research. Though the process is a continuous one because it does not start after the researcher gathered or completed data analysis, rather the process begins from the early stage of the PhD research journey. The aim is to encourage the researcher to write the thesis in well organised and structured chapters.

3.13 Validity and Reliability

Validity and reliability are two common terminologies used by researchers in assessing the quality of a research. Researchers conducting qualitative research tend to use reliability and validity in the manner with quantitative researchers when using criteria in judging quality of a research (LeCompte and Goetz, 1982). Reliability is concerned with the level of accuracy of the findings and the accuracy in the presentation of the entire population under study (Joppe, 2000). However, if the findings of the research can be established through the same methodology, then the research instrument can be judged to be reliable. Kirk and Miller (1986) further identify three different types of reliability associated with quantitative research; the extent to which the measurement carry out repeatedly and provide the same result, the stability in the measurement carry out in a given time and the similarity of the measurements carry out within a period.

Golafshani (2003) believed that the consistency at which the items in the questionnaire are answered by the respondents or if the respondents scores remain the same can be attributed to the test-retest method carry out at different period. This type of attribute of the instrument is what is called stability. Therefore, a high level of stability in the measurement indicates a high level of reliability. Reliability is a process through which the measuring instrument is tested to know how consistent it measures whatever phenomena it is measuring. Validity is a process through which the designed instrument is tested to know how accurate it measures a phenomenon it planned to measure (Sekaran and Bougie, 2013). However, validity focused on whether the researcher measures the actual phenomena with reliability, stability and consistency in the measurement.

Validity associated with quantitative research is considered by Golafshani (2003) as "construct validity" because construct is the main concept, question, notion or hypothesis that

dictate the type of data to be collected or how it is going to be collected. In this research, the researcher adopts mixed methods of data collection where both quantitative and qualitative data are gathered. Internal validity is concerned with causal relationship between two or more variables and whether the finding from the causal relationship between the variables is valid. For instance, if the researcher thinks that unit A causes unit B, is the researcher certain that its unit A that is responsible for the variation in unit B, is not something else that is responsible of the causal relationship (Bryman, 2012). In this research, the researcher has adopted suitable methods that will guarantee internal validity and appropriate strategy was used for data collection.

External validity is concerned with how findings of a research can be generalised beyond the actual research setting. In this research the used of questionnaire and interviews will guarantee external validity. Golafshani (2003) further explained that researchers conducting quantitative research tend to cause or dictate the relationship between construct and data to validate their study, using test or different process. Therefore, conducting reliability and validity measure is a clear indication of rigorous process that a research has passed through. Therefore, to ensure reliability and validity of this research, the researcher has been consistent to make sure there are reliability, stability and consistency in the measurement; in case if another researcher go through the same processes the same findings could be achieved.

Reliability is concerned with the findings of a research, whether the results are repeatable or not. The main focused is to be certain that, if another researcher adopts the same process followed by the first researcher and carried out the same type of research will produce the results and conclusions (Yin, 2014). The concentration is on conducting the same type research over again, but not repeating the results of one research by conducting another research. The main concern of reliability is to reduce errors and avoid biases in a research. The reason for allowing another researcher to repeat the same research carried out earlier, is to show the importance of keeping record of the processes or procedure followed during the first research. Failure to keep such records, it would be very difficult for one to repeat his own research.

The term is associated with quantitative research, and quantitative researcher is interested in knowing whether the measure is constant or not. For example, if the researcher is conducting

an IQ tests to measures student intelligence and found that the scores fluctuate when administered on different occasions; the researcher will be concerned about the measure (Bryman, 2012). As such, the researcher will regard the measure as unreliable and will not have confidence in its stability. In this research, the researcher considered reliability very crucial to the research therefore, the researcher tried to reduce making unnecessary errors and avoid collecting bias data from the respondents, the researcher have store and kept records of all the processes or procedures followed during this research, maintained a cordial relationship with the respondents, continue to explain to the respondents the importance of the research, allowing the respondents to express their opinion and maintaining confidentiality. Considering the importance attach to reliability, the research has tried to make every stage operational as possible and carried out the research as if someone is looking over the shoulder of the researcher (Yin, 2014). This research is conducted in such a way that, if another researcher follows the same procedure followed by the researcher the same results will be produce.

3.14 Triangulation

Triangulation is related to use of multiple research methods in a single research which is the main reason behind many researchers using mixed methods while conducting research (Greene, Caracelli and Graham, 1989). Triangulation can be defined as the used of two or more research method or different source of data in a research with the intention of validating or verifying some certain findings (Bryman, 2012; Creswell, 2009; Yin, 2009). Triangulation can increase the level of confidence in both the data and the research findings as well as provide broad understanding of the phenomena under study (Creswell and Plano Clark, 2008). It was believed that new knowledge, ideas, practice can only be developed when researchers begin to use mixed methods, mixed strategy, mixed approach while conducting research (Yin, 2014). The use of single method during a research will make it impossible or difficult to answer research questions properly but the adoption of more than one method can help the researcher to discover some discrepancies or blind spots that are unseen within the approach due to use of one method or single source of facts (Creswell and Plano Clark, 2008).

Triangulation allow the exploration of the research area and defuse or cover the weakness of one method in order to improve the researchers understanding of the phenomena under study

and enhance the authenticity of the findings due to emergence of new knowledge (Creswell and Plano Clark, 2008). Triangulation of different source of data has many advantages which include the following:

- Give researchers more confidence in the research and the findings

- Can inspire the development or emergence of new ways or methods of understanding research problems

- Help researchers to gather different views capable of producing findings that will not reflect the existing theories which can be reason for modifying the current theories or development of new theories or models

- If using single method in a research can produce new and acceptable knowledge, therefore, use of multiple methods can lead to the development of new knowledge that is comprehensive and valid

The disadvantages or some of the issues associated with triangulation are time constraint, lack of resources and repeating the procedures or methods used which discourage some researchers from using quantitative and qualitative methods of gathering data (Creswell and Plano Cark, 2008). Nevertheless, triangulation enhance quality of research outcome which can lead to meaningful research. It allows the use of qualitative data to complement the quantitative data by covering its weakness.

The aim of this research is to develop a framework for the reconstruction of housing for the internally displaced people due to conflict. Therefore, in order to achieve the said aim and objectives of this research, triangulation of data was carried in this research. The theoretical literature related to the area under study is reviewed, questionnaire was distributed to the internally displaced people and building construction professionals and semi-structured interviews were also conducted with the housing construction professionals as part of the data triangulation. However, some of the literature reviewed are in the area of post disaster housing reconstruction, post conflict housing reconstruction, approaches used for reconstruction of housing for the IDPs due natural or man-made disasters such as earth quake, tsunami, war, conflict by other countries, challenges associated with reconstruction of housing for the internally displaced people due to conflict. Different literature on research methodology was reviewed, justification of the research philosophy, approach, strategy,

methods adopted was also provided. Taking into cognisance the dynamic and complex nature of reconstruction of housing for the IDPs the researcher deems it necessary to collect relevant data from different sources that would help in achieving the aim and objectives of this research

3.15 Ethical Issues Considered

This research will be guided by the United Kingdom Research Information (UKRIO) code of practice for research as the research is under the category of 'Science and Technology'. The researcher will provide the necessary information about the research and the extent of their involvement in the research. The data gathered from the participants will be kept and secured confidentially to maintained anonymity throughout the research. However, the researcher informed the participants that their participation in the research is purely voluntary, there will be no financial compensation for their participation, and they can decide to withdraw from the research at any given time without given any reason. Prior to data collection, the researcher seeks for ethical approval by filling the ethical approval form and meeting all the ethical requirements. The researcher got the approval before recruiting participants that took part in the interviews and questionnaire surveys. The copy of the letter can be found in appendix 1.

3.16 Summary of chapter three

Chapter four explained in detail the methodology used to achieve the aim and the objectives of this research. The chapter elaborated on the research philosophy, approaches, strategies and data collection techniques adopted in this research and the justifications of conducting pragmatist research, adopting abductive approach, using case study and survey strategy to gather data from the internally displaced people and housing construction professionals in the building construction industry in Nigeria. The chapter further explained the data collection methods, data analysis techniques and the statistical software used in analysing quantitative and qualitative data. It also discussed the thesis write up, validity and reliability, triangulation as well as ethical issues considered in this research. The next chapter present findings and discussion from the analysis of the quantitative data gathered from the questionnaire which is part of the sequential explanatory mixed methods adopted in this research.

Chapter 4:   Quantitative data analysis

4.1 Introduction

The aim of this research is to develop a framework for the reconstruction of housing for the internally displaced people due to conflict. The framework if developed is expected to enhance the knowledge of housing construction professionals on the approaches use for the reconstruction of housing for the IDPs, appropriate approach to adopt for the reconstruction of housing for the IDPs due to conflict and identified the challenges associated with the reconstruction of housing for the IDPs and the challenges that can delay or hinder the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, and how to overcome the challenges in order to deliver houses to IDPs in Maiduguri. However, academically the research is expected to contribute to the existing knowledge within the building construction industry specifically in the building construction industry in Nigeria. This chapter present the findings from the questionnaire survey carried out with IDPs in Maiduguri and the housing construction professionals in the building construction industry in Nigeria. The total of two hundred and fifty (250) questionnaires was distributed to the internally displaced people and eighty-six (86) was returned representing 37.2% response and one hundred (150) questionnaires was distributed to the building construction professionals and fifty-nine (59) was returned representing 59% response.

The sets of data collected from the questionnaires are analysed and discussed within this chapter and the subsequent chapter. Therefore, to have a good understanding and a clear profile and organisation of the respondents and their responses descriptive statistics was carried out using frequencies, percentages to present the data systematically and meaningfully. This is carried out to show the characteristics of the respondents and to also provide additional statistical backing to the findings.

4.2 Profile of the Respondents Gender

After receiving the completed questionnaires, analysis was carried out on the gender of the respondents and the result shows that all the respondents indicated their gender. Out of eighty-six respondents, forty-one respondents representing 47.7% male and forty-five

respondents are equating to 52.3% are female. This result shows that majority of the internally displaced people in Maiduguri, Nigeria are women which is a great concern because majority of these women have children.

4.3 Do you think government driven approach should be adopted for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria?

It is important to understand the preference of the respondents regarding the adoption of government driven approach for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria. The respondents were asked if government driven approach should be adopted for the reconstruction of housing destroyed by the Boko Haram terrorist in Maiduguri. Two options were presented to the respondents and out of eighty-six respondents twenty-eight representing 32.6% indicated that they support the adoption of government driven approach for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri and fifty-nine of the respondents equating to 68.6% indicated that they are against the adoption of government driven approach for the reconstruction of housing for the IDPs in Maiduguri, Nigeria.

Table 4.1: Responses of the respondents on the adoption of government driven approach in frequency

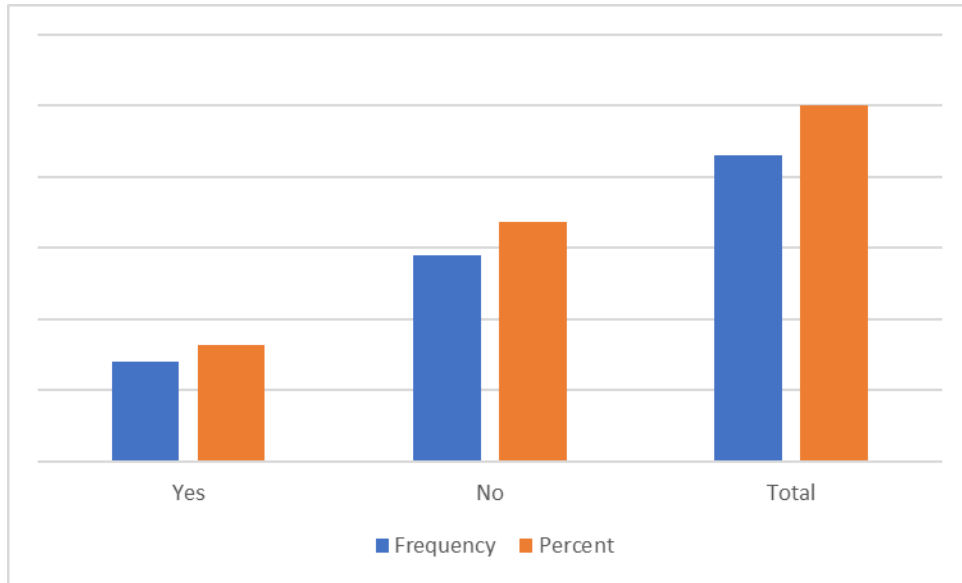|		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	28	32.6	32.6	32.6
	No	58	67.4	67.4	100.0
	Total	86	100.0	100.0	

Figure 4.1: Responses of the respondents on the adoption of government driven approach in chart

Government driven approach is an approach or strategy used for the reconstruction of housing for the internally displaced people due to natural or man-made disasters. Adopting government driven approach will allow the government to have total control of the reconstruction through the housing construction engineers hired by the government or selected from the ministry of works and housing to handle the reconstruction, so that the housing reconstruction will be carried out in accordance with practice. It is assumed that any post-conflict housing reconstruction that is carry out or handle by the government through housing construction experts the reconstruction will be successful but, in most cases, the displaced people are never satisfied with the outcome, because the experts will reconstruct the housing based on the assumption that the beneficiaries will like the outcome.

To validate the results from the table 4.1 and figure 4.1 crosstabulation was carried out on the responses of the respondents towards adopting government driven approach for the internally displaced people due to Boko Haram conflict in Maiduguri.

Table 4.2: Crosstabulation on the adoption of government driven approach

Do you think government driven approach should be adopted * Do you think owner driven approach should be adopted Crosstabulation?

| | | | Do you think owner driven approach should be adopted | | |
			Yes	No	Total
Do you think government driven approach should be adopted	Yes	Count	0	28	28
		Expected Count	18.9	9.1	28.0
	No	Count	58	0	58
		Expected Count	39.1	18.9	58.0
Total		Count	58	28	86
		Expected Count	58.0	28.0	86.0

The results from the table 4.2 show that twenty-eight (28) of the respondents says yes, they want government driven approach to be adopted for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, which is higher than the 18.9% of the respondent expected to say yes. While fifty-eight (58) of the respondents says no, they don't want government driven approach to be adopted for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria, which is higher than the 39.1% of the respondents expected to say no. However, fifty-eight (58) of the respondents that don't want government driven approach to be adopted for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri are higher than the respondents that want government driven approach to be adopted for the reconstruction of housing for the IDPs in Maiduguri, Nigeria.

Table 4.3: Chi-square test of significance on the adoption of government driven approach

Chi-Square Tests					
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	86.000[a]	1	.000		
Continuity Correction[b]	81.506	1	.000		
Likelihood Ratio	108.533	1	.000		

Fisher's Exact Test					.000	.000
Linear-by-Linear Association	85.000	1	.000			
N of Valid Cases	86					
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 9.12.						
b. Computed only for a 2x2 table						

The findings from table 4.3. show that the significant level of the responses of the respondent towards adopting government driven approach is .000, which means there is significant differences between the number of respondents that says yes, they want the adoption of government driven approach and the number of the respondents that says no they don't want the adoption of government driven approach for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri.

4.4 Do you think owner driven approach should be adopted for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria?

The researcher believe it is necessary to find out from the displaced people the approach to adopt for the reconstruction of the houses destroyed by the Boko Haram terrorist in Maiduguri. Two options were presented to the respondents and out of eighty-six respondents, fifty-eight respondents representing 67.4% of the total responses indicated that owner driven approach should be adopt for the reconstruction of the houses destroyed by the Boko Haram terrorist in Maiduguri. While twenty-eight of the respondents equating to 32.6% indicated that owner driven approach should not be adopt for the reconstruction of houses destroyed by the Boko Haram terrorist in Maiduguri, Nigeria.

Table 4.4: Response of the respondents on the adoption of owner driven approach in frequency and percent

Do you think owner driven approach should be adopted for the reconstruction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	58	67.4	67.4	67.4
	No	28	32.6	32.6	100.0

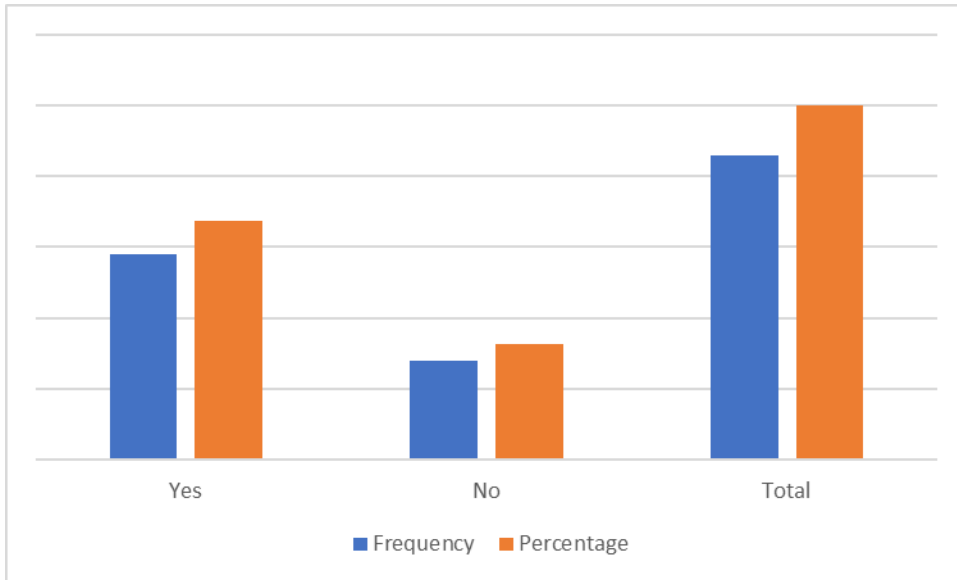|			
Total	86	100.0	100.0

Figure 4.2: Response of the respondents on the adoption of owner driven approach in chart

Owner driven approach is one of the approaches or strategies used for the reconstruction of houses destroyed due to natural or man-made disasters. Owner driven approach always put the internally displaced people at the fore front during the reconstruction and any post conflict housing reconstruction that involves the IDPs can be successful based on the scope of the reconstruction. It is believed that post conflict housing reconstruction should be carry out based on the needs and preferences of the displaced people because if the needs and preferences of the displaced people are ignored during the reconstruction there is possibility the displaced people will reject the housing after reconstruction (Karunasena and Rameezdeen, 2010). Owner driven approach have been used by many countries and donor agencies to reconstruct housing for the IDPs. For example, Sri-Lankan government and donor agencies adopted owner driven approach for the reconstruction of more than ten thousand houses destroyed by tsunami in 2005.

In order to validate the result from the table 4.3 and figure 4.3 crosstabulation was carried out on the responses of the respondents towards adopting owner driven approach for the

reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri.

Table 4.5: Crosstabulation on the adoption of owner driven approach

Do you think owner driven approach should be adopted * Do you think government driven approach should be adopted Crosstabulation

			Do you think government driven approach should be adopted		
			Yes	No	Total
Do you think owner driven approach should be adopted	Yes	Count	0	58	58
		Expected Count	18.9	39.1	58.0
	No	Count	28	0	28
		Expected Count	9.1	18.9	28.0
Total		Count	28	58	86
		Expected Count	28.0	58.0	86.0

The results from the table 4.5 show that fifty-eight (58) of the respondents says yes, they want owner driven approach to be adopted for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri which is higher than the 39.1% of the respondents expected to say yes. While twenty-eight respondents say they don't want owner driven approach to be used for the reconstruction of housing for the displaced people in Maiduguri, which is high than the 18.9% of the respondent expected to say no. However, twenty (28) of the respondents that area against the adoption of owner driven approach for the reconstruction of housing for the IDPs in Maiduguri are less than the fifty-eight respondents that want owner driven approach to be used for the reconstruction of housing for the IDPs in Maiduguri, Nigeria.

Table 4.6: Chi-square test of significance on the adoption of owner driven approach

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	86.000[a]	1	.000		
Continuity Correction[b]	81.506	1	.000		
Likelihood Ratio	108.533	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	85.000	1	.000		

181

N of Valid Cases		86

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 9.12.

b. Computed only for a 2x2 table

The findings from table 4.6 show that the significance level of responses of the respondents towards adopting owner driven approach is .000, which means there is significant differences between the respondent that says they want owner driven approach to be adopted for the reconstruction of housing for the displaced people in Maiduguri and the respondents that don't want the adoption of owner driven approach for the housing reconstruction in Maiduguri.

4.5 What are the challenges you may encounter during the reconstruction?

It is necessary to find out from the internally displaced people the challenges they may encounter if owner driven approach is adopted for the reconstruction of their houses destroyed by the Boko Haram terrorist in Maiduguri, Nigeria. Out of eighty-six IDPs that answered the question fifteen equating to 17.4% indicated that lack of good transportation system. While seventy-one of the IDPs representing 82.6% indicated that lack of transportation system is not part of the challenges they will encounter during the reconstruction.

Table 4.7: Responses of the internally displaced people on lack of transportation system in frequency

Transportation

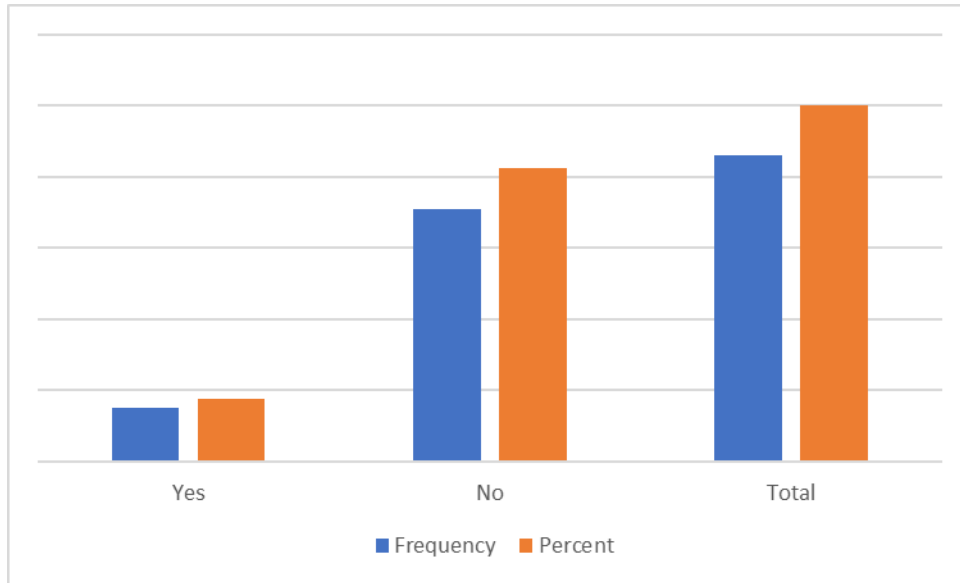|		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	15	17.4	17.4	17.4
	No	71	82.6	82.6	100.0
	Total	86	100.0	100.0	

Figure 4.3: Responses of the internally displaced people on lack of transportation system in chart

However, in connection to lack of labourers, out of eighty-six IDPs that responded to the question twenty representing 23.3% indicated that lack of skill labourers within the areas affected by the conflict is one of the challenges, they will encounter during the reconstruction. While sixty-six of the IDPs equating to 76.7% indicated that lack of skill labourers is not one of the challenges they will encounter during the reconstruction.

Responses of the IDPs on scarcity of labourers in frequency

Labourers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	20	23.3	23.3	23.3
	No	66	76.7	76.7	100.0
	Total	86	100.0	100.0	
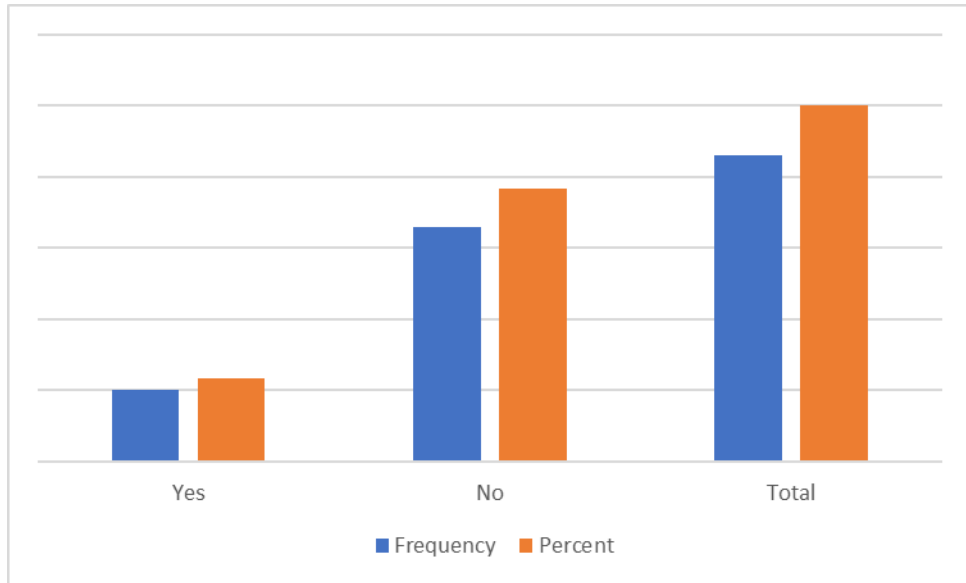
Figure 4.4: Responses of the IDPs on scarcity of labourers in chart

In connection with scarcity of water, eleven of the displaced people equating to 12.8% indicated that unavailability of water that will be use for the reconstruction purposes within the local areas where the houses will be reconstructed is part of the challenges they will face during the reconstruction, while seventy-five representing 87.2% indicated that lack of water is not among the challenges they will encounter during the reconstruction.

Table 4.9: Responses of the IDPs on scarcity of water in frequency

Water

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	11	12.8	12.8	12.8
	No	75	87.2	87.2	100.0
	Total	86	100.0	100.0	
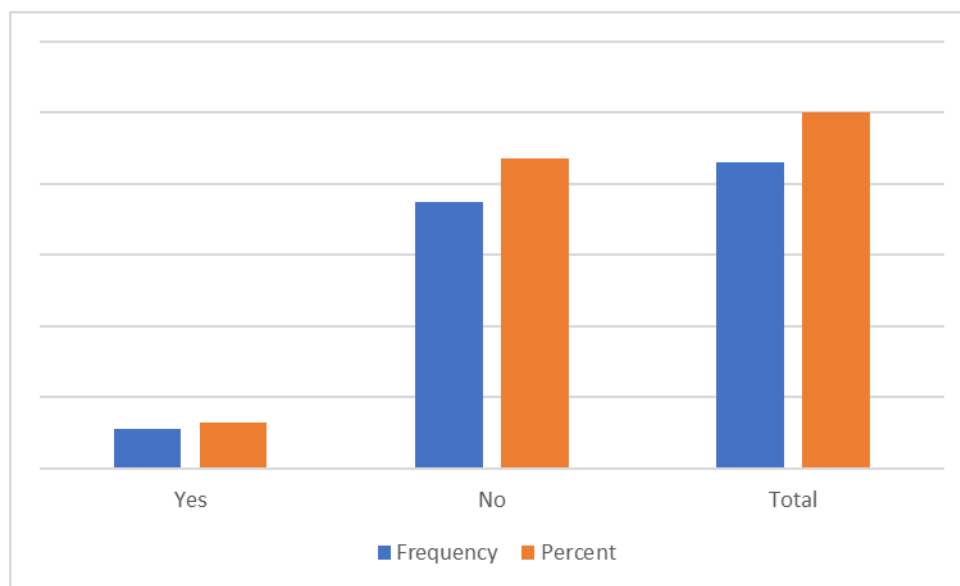
Figure 4.5: Responses of the IDPs on scarcity of water in chart

However, nine of the displaced people equating to 10.5% indicated that their lack of building skills is one of the challenges they will face if owner driven approach is adopted for the reconstruction of houses destroyed by the Boko Haram terrorist in Maiduguri. While seventy-seven representing 89.5% indicated that their lack of building skills is not among the challenges they will encounter during the reconstruction.

Table 4.10: Responses of the IDPs on lack of building skills in frequency

Skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	10.5	10.5	10.5
	No	77	89.5	89.5	100.0
	Total	86	100.0	100.0	

185
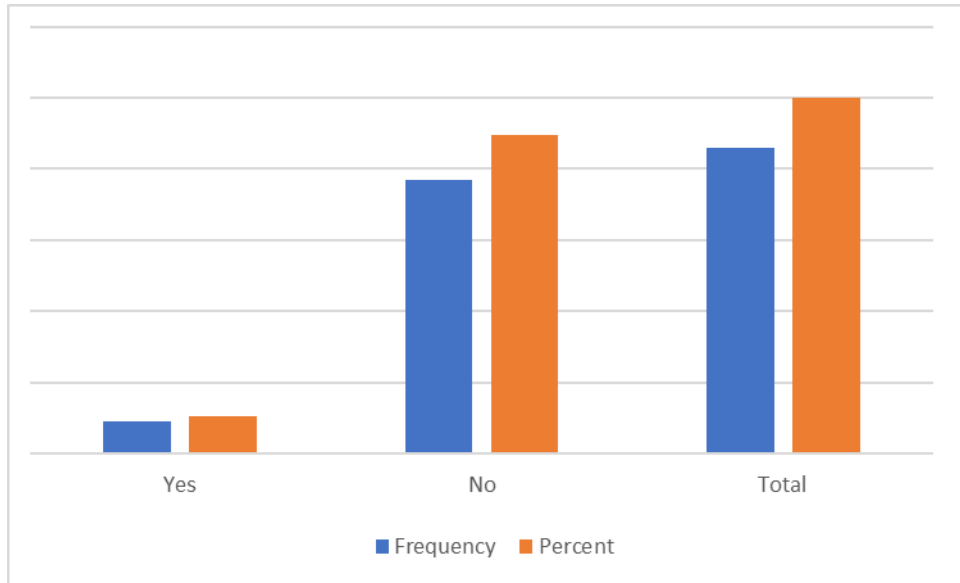
Figure 4.6: Responses of the IDPs on lack of building skills in chart

In connection to insecurity, thirty-one of the internally displaced people equivalent to 36.0% indicated that insecurity is one of the major challenges they will encounter if owner driven approach is adopted for the reconstruction of houses destroyed due to Boko Haram conflict in Maiduguri. But fifty-five equating to 64.0% indicated that insecurity is not the major problem they will face during the reconstruction.

Table 4.11: Responses of the IDPs on lack of security in frequency

Insecurity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	31	36.0	36.0	36.0
	No	55	64.0	64.0	100.0
	Total	86	100.0	100.0	
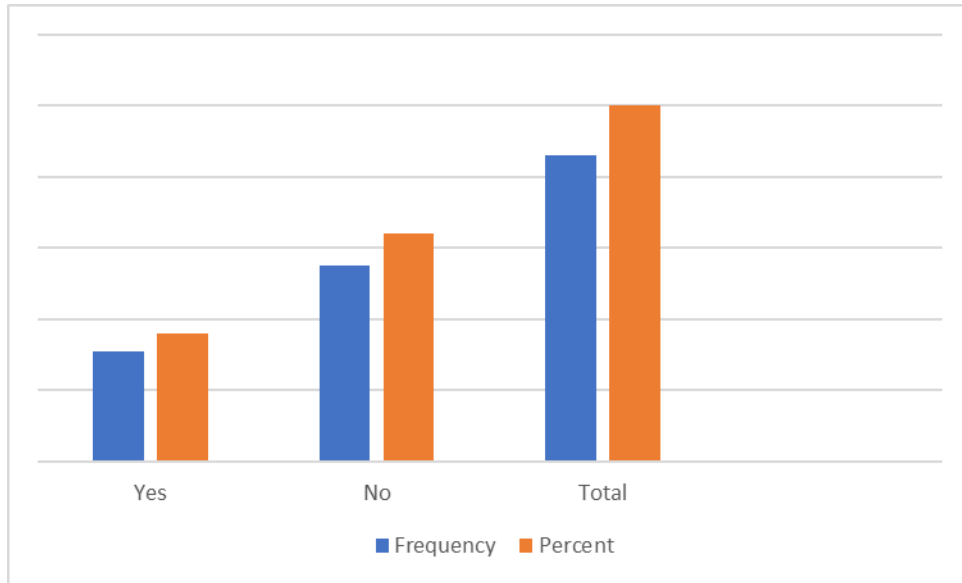
Figure 4.7: Responses of the IDPs on lack of security in chart

4.5.1 The level of Effect and Ranking of the challenges the internally displaced people will face if owner driven approach is adopted for the reconstruction of the houses destroyed due to Boko Haram conflict in Maiduguri, Nigeria.

After the internally displaced people have identified the challenges they will face if owner driven approach is adopted for the reconstruction of houses destroyed due to Boko Haram conflict in Maiduguri. Yes or No was used to identify the number of the IDPs that indicated Yes and those that indicated No. In order to justified and validate the scores in Table 4.5 Relative Importance Index (RII) scores was calculated for all the challenges in Table 4.12 and arranged in sequence and based on their importance. The challenge with highest Relative Importance Index score is consider as the most important challenge and the challenge with lowest score is consider less important. The criteria used for the ranking was based on the effect of the challenge on the housing reconstruction in terms of the extent at which the challenge can delay or hinder the reconstruction of houses destroyed by the Boko Haram terrorist in Maiduguri.

Table 4.12: RIIs and Rankings of challenges the IDPs will face if owner driven approach is adopted for the reconstruction of the houses destroyed by the Boko Haram terrorist in Maiduguri

Challenges	Scores	RII	Rank
Insecurity	31	0.994	1
Inadequate Skill Labour	20	0.991	2
Lack of Good Transportation System	15	0.988	3
Scarcity of Water	11	0.984	4
Lack of Building Skills from the IDPs	9	0.980	5
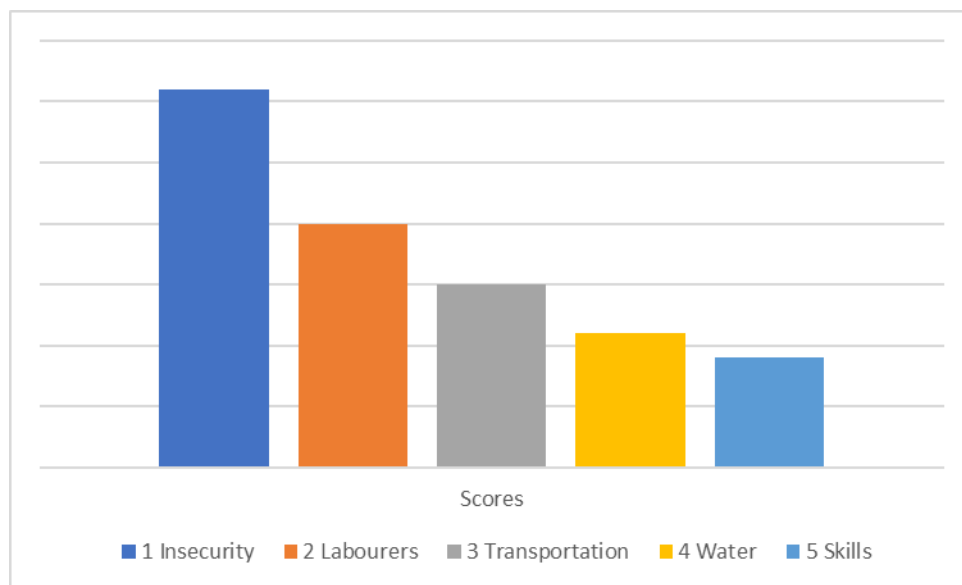
Figure 4.8: Ranking of the challenges the IDPs will face if owner driven approach is adopted in chart

The results from the table 4.12 show that insecurity will have high effect on the housing reconstruction among the five challenges with RII of 0.994 and ranking of 1. Inadequate skill labourers within the areas affected is ranked as the second challenge with high effect among the challenges with RII of 0.991. However, lack of good transportation system was ranked third challenge with RII of 0.988. It could be agreed that these challenges can affect the

success of the housing reconstruction for the IDPs if not taken into consideration or address properly. Scarcity of water that will be used during the housing reconstruction was ranked fourth among the five challenges with RII of 0.984. Lack of building skills from the IDPs was ranked fifth with RII 0.980 and is the challenge that will have less effect on the housing reconstruction among the five challenges.

These challenges can affect the success of the housing reconstruction in Maiduguri if not address. For example, without some level of peace and security in the local government areas affected by the conflict or where the reconstruction will take place, it will be very difficult for the engineers, contractors to go to such areas and to find the required skilled and unskilled labourers. Lack of security can hinder the socio-economic activities of a nation not only housing reconstruction activities, that is the reason why there was so much importance given to the insecurity by the internally displaced people compare to other challenges.

"*Past studies on post conflict housing reconstruction revealed that ignoring the challenges associate with reconstruction of housing for the displaced people completely or refusing to give them the required attention can affect the housing reconstruction (Sadiqi et al, 2012).*"

 Reconstruction of housing for the internally displaced people provide job opportunities for the skilled and unskilled labourers and because of Boko Haram conflict in Maiduguri, many of the skilled and unskilled labourers must have fled to other neighbouring states for safety. This will make it very difficult for the engineers and contractors to find the number of skilled and unskilled labourers they need to carry out the housing reconstruction project, even though people with such experience can be hired from other places, and the displaced people can be employed as unskilled labourers. The findings show that the challenges are among the challenges that can affect the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri. it can be said that the results reproduce the views of the internally displaced people.

4.6 Questionnaire survey analysis for the housing construction professionals

4.6.1 Introduction

This section presents the findings from questionnaire survey that was presented to the housing construction professionals with the knowledge and experience in housing construction in Nigeria as part of the explanatory sequential research methodological strategy adopted in this research (see Figure 3.10). The questionnaire survey was carried out in order to gathered views or information in connection with approaches used for the reconstruction of housing for the internally displaced people, the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri and opinion of the professionals on the challenges that can delay or hinder the housing reconstruction. The findings from the questionnaire survey were analysed and presented under. The results from the analysis will be elaborated and validate at the second stage of the research as part of the methodological process that will assist in explaining the findings from the questionnaire.

4.7 Data analysis and presentation of findings

4.7.1 Questionnaire structure

The questionnaire was designed and structured in such a way that it covers different topics or areas highlighted from the literature. The areas cover includes the effect of the Boko Haram conflict on housing in Maiduguri, appropriate approach to adopt for the reconstruction of housing for the internally displaced people in Maiduguri, challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria. To make data analysis easy and for the participants understand the questions, the questionnaire was divided into four different sections.

1. Section 1-   Participants personal information

2. Section 2-   Effect of the Boko Haram conflict on housing in Maiduguri

3. Section 3-   Approach to adopt for the reconstruction of housing for the IDP in Maiduguri

4. Section 4- Challenges associated with reconstruction of housing for the IDP in Maiduguri, Nigeria

4.7.2 Section 1- Participant personal information

The first section of the questionnaire tries to find out the respondent's personal information about their profession. The aim was to provide insight about the background of the population from which the researcher gathered information. There are six questions in section 1 (Q1 to Q6). Descriptive data analysis was used to analyse the findings, and the result was presented using both table and chart for easy understanding and interpretation. Kumar (2011) pointed out that the benefit of using graphs to present data is that it makes easy to understand and interpret, and very exciting to look at.

4.7.3 Section 2 - Profession of the respondents

This section seeks to find out the profession of the respondent and one hundred and fifty questionnaires were distributed but only fifty-nine (59) completed questionnaires were returned which are analysed. Out of fifty-nine respondents that answered the questionnaire, eleven of the respondents representing 18.6% indicated that they are builders and forty-eight of the respondents equating to 81.4% indicated that they are not builders.

Table 4.13: Responses of the respondents regarding their profession in frequency and percentage

Builders

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	11	18.6	18.6	18.6
	No	48	81.4	81.4	100.0
	Total	59	100.0	100.0	

Figure 4.9: Responses of the respondents regarding their profession in chart

One respondent with 1.7% of the total respondents indicated that he/she is electrical engineer and fifty-one respondents with 98.3% indicated that they are not electrical engineers by profession.

Table 4.14: Response of the respondent regarding his/her profession in frequency and percent

Electrical Engineer

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	1	1.7	1.7	1.7
	No	58	98.3	98.3	100.0
	Total	59	100.0	100.0	
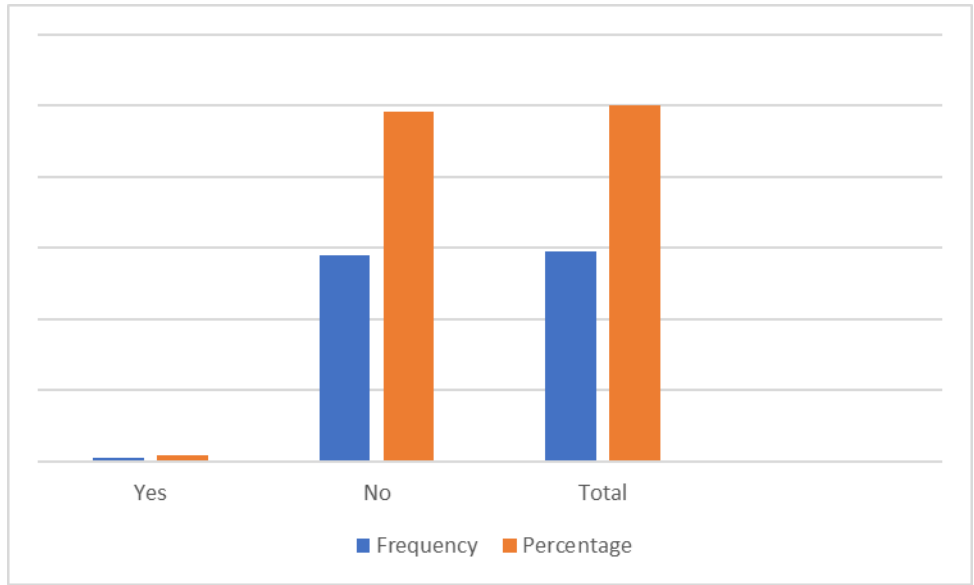
Figure 4.10: Response of the respondent regarding his profession in chart

One respondent representing 1.7% out of the fifty-nine respondents indicated that he/she is mechanical engineer by profession and fifty-one of the respondents equating to 98.3% indicated that they are not mechanical engineers by profession.

Table 4.15: Response of the respondent regarding his/her profession in frequency and percentage

Mechanical Engineer

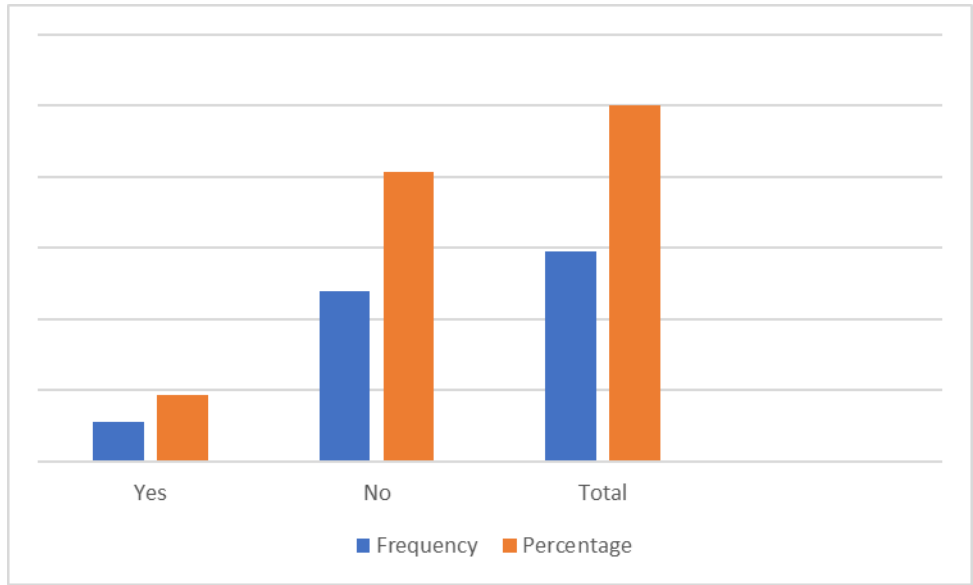|		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	1	1.7	1.7	1.7
	No	58	98.3	98.3	100.0
	Total	59	100.0	100.0	

Figure 4.11: Response of the respondent regarding his/her profession in chart

Four respondents representing 6.8% out of fifty-nine respondents indicated that they are architectural engineers by profession and fifty-five of the respondent's equivalent to 93.2% indicated that they are not architectural engineers by profession.

Table 4.16: Responses of the respondents regarding their profession in frequency and percent

Architects

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	6.8	6.8	6.8
	No	55	93.2	93.2	100.0
	Total	59	100.0	100.0	

Figure 4.12: Responses of the respondents regarding their profession in chart

One respondent representing 1.7% out of fifty-nine respondents indicated that he/she is urban and regional planner by profession and fifty-eight respondents equating to 98.3% indicated that they are not urban and regional planners by profession.

Table 4.17: Response of the respondent regarding his/her profession in frequency and percent

Urban and Regional Planner

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	1	1.7	1.7	1.7
	No	58	98.3	98.3	100.0
	Total	59	100.0	100.0	
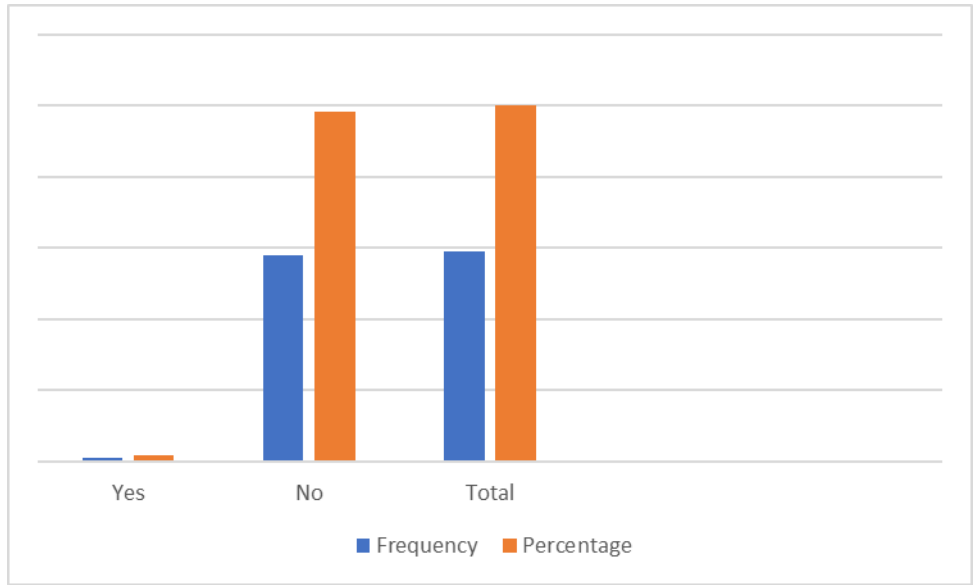
Figure 4.13: Response of the respondent regarding his/her profession in chart

However, four respondents equating to 6.8% indicated they are town planners by profession and fifty-five of the respondents with 93.2% indicated that they are not town planners.

Table 4.18: Responses of the respondents regarding their profession in frequency and percent

Town Planners

|		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	6.8	6.8	6.8
	No	55	93.2	93.2	100.0
	Total	59	100.0	100.0	
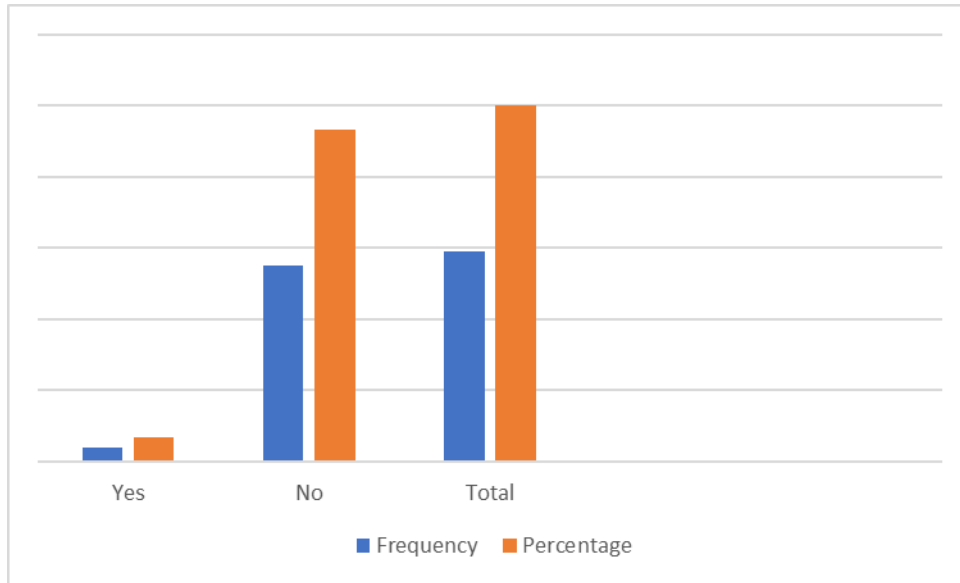
Figure 4.14: Responses of the respondents regarding their profession in chart

Five respondents representing 8.5% out of fifty-nine respondents indicated that they are engineers by profession. While fifty-four respondents equivalent 91.1% indicated that they are not engineers.

Table 4.19: Responses of the respondents regarding their profession in frequency and percent

Engineers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	5	8.5	8.5	8.5
	No	54	91.5	91.5	100.0
	Total	59	100.0	100.0	
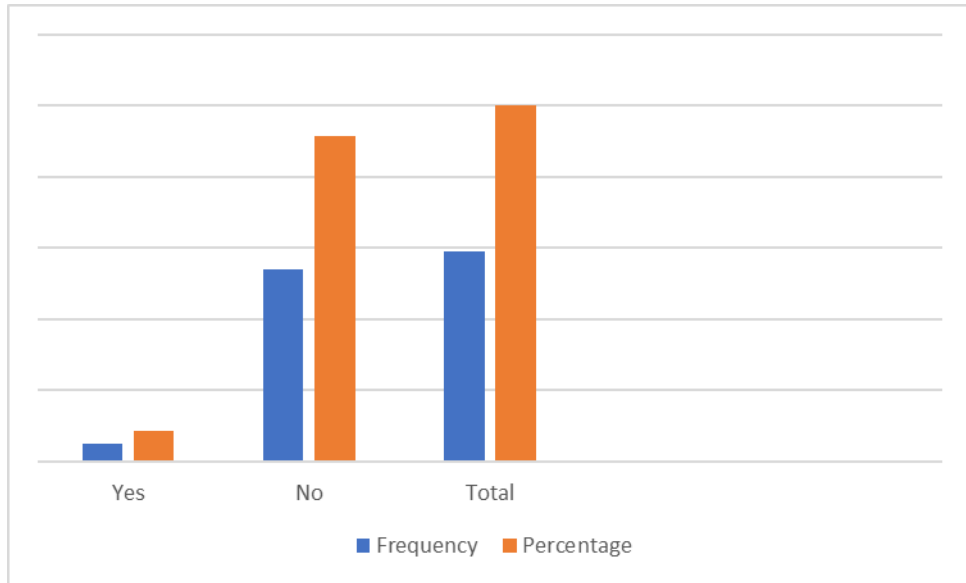
Figure 4.15: Responses of the respondents regarding their profession in chart

Eight of the respondents equating to 13.6% indicated that they are civil engineers by profession and fifty-one respondents with 86.4% indicated that they are not civil engineers.

Table 4.20: Responses of the respondents regarding their profession in frequency and percentage

Civil Engineers

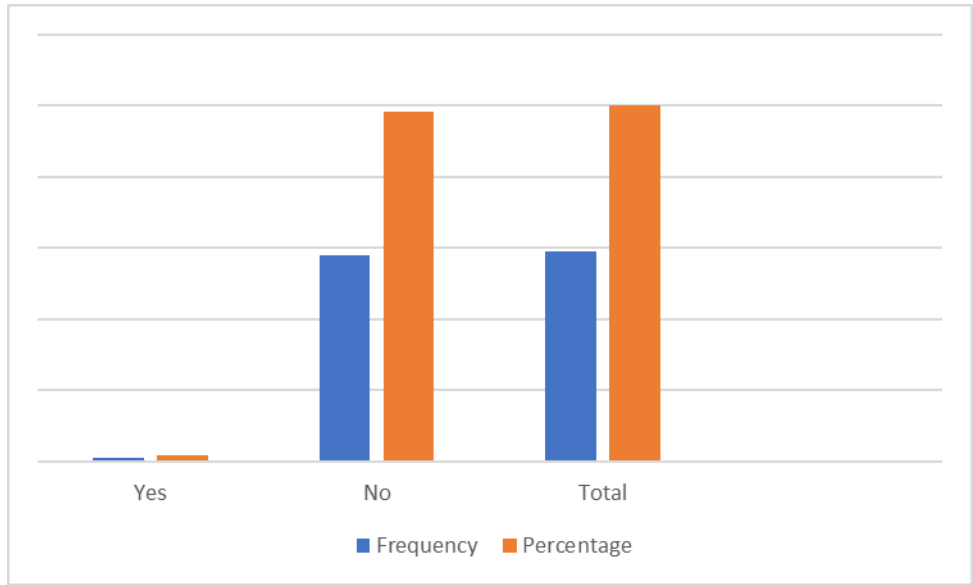|		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	13.6	13.6	13.6
	No	51	86.4	86.4	100.0
	Total	59	100.0	100.0	
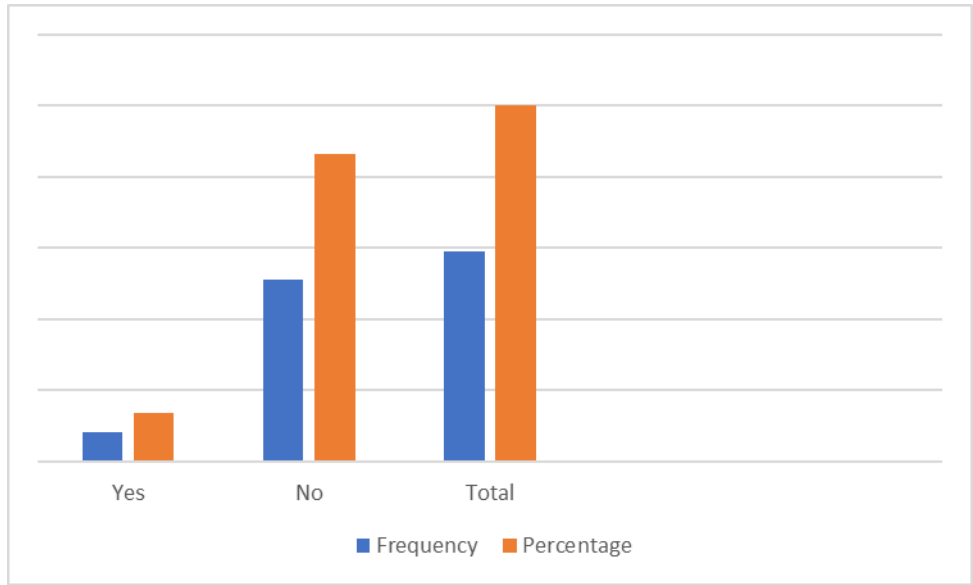
Figure 4.16: Responses of the respondents regarding their profession in chart

Four of the respondents representing 6.8% of the respondents indicated that they are quantity surveyors and fifty-five of the respondents equating to 93.2% indicated that they are not quantity surveyors.

Table 4.21: Responses of the respondents regarding their profession in frequency and percent

Quantity Surveyors

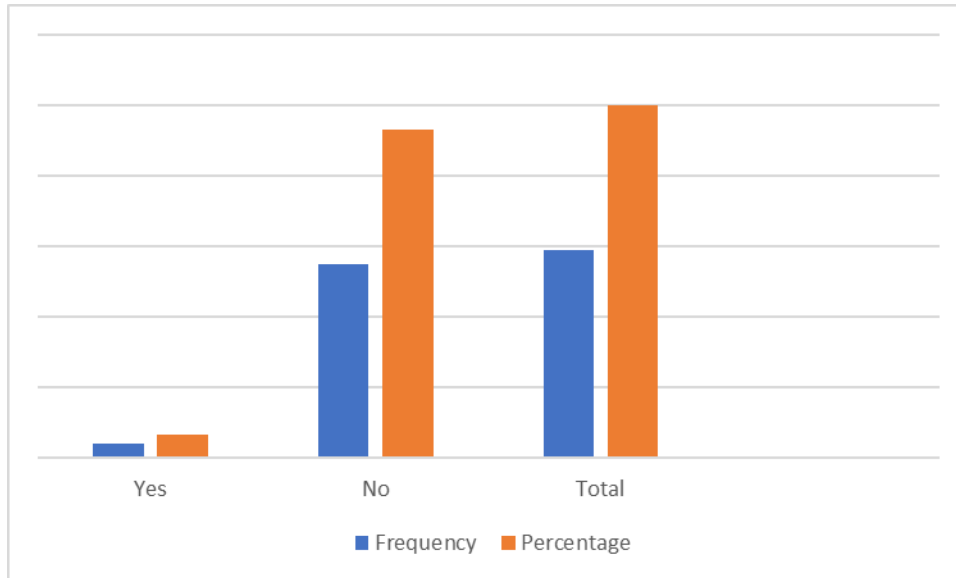|		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	6.8	6.8	6.8
	No	55	93.2	93.2	100.0
	Total	59	100.0	100.0	
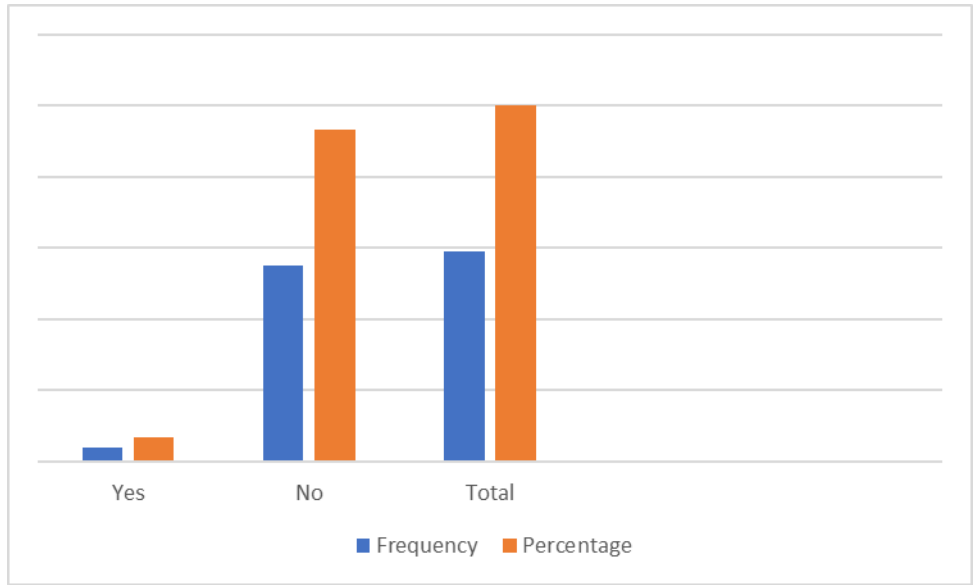
Figure 4.17: Responses of the respondents regarding their profession in chart

Twenty respondents equivalent to 33.9% out of fifty-nine respondents indicated that they are policy makers and thirty-nine representing 66.1% of the responses indicated that they are not policy makers by profession.

Table 4.22: Responses of the respondents regarding their profession in frequency and percent

Policy makers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	20	33.9	33.9	33.9
	No	39	66.1	66.1	100.0
	Total	59	100.0	100.0	
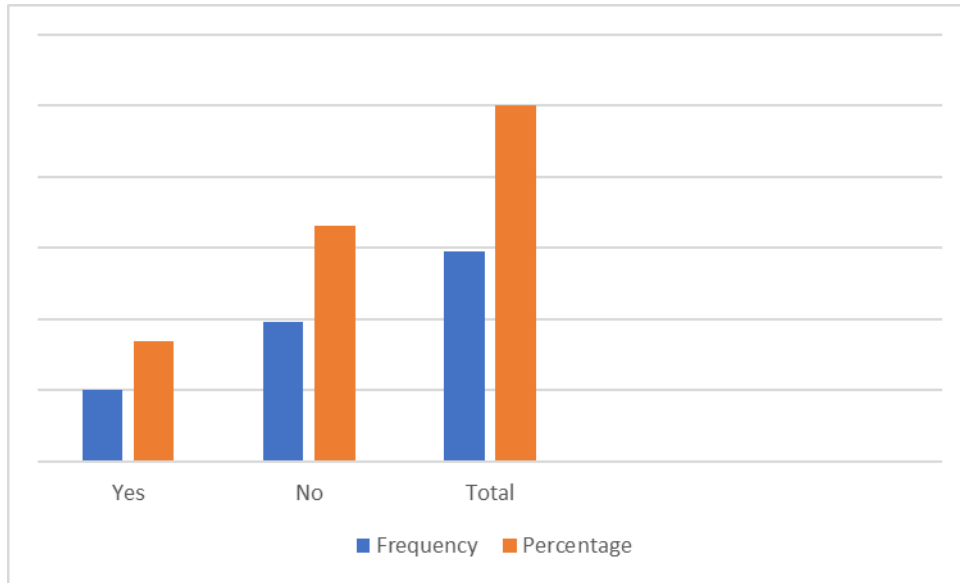
Figure 4.18: Responses of the respondents regarding their profession in chart

Table 4.23: RII and Ranking of the profession of the housing construction professionals

Profession of the respondents	Scores	RII	Ranking	
Policy Makers	20	0.961	1	
Builders	11	0.924	2	
Civil Engineers	8	0.896	3	
Engineers	5	0.833	4	
Quantity Surveyors	4	0.792	5	
Town Planners	4	0.792	5	
Architects	4	0.792	5	
Urban and Regional Planners	1	0.169	6	
Mechanical Engineers	1	0.169	6	
Electrical Engineers	1	0.169	6	

4.7.4 The Scores and Ranking of the profession of housing construction professionals that responded to the questionnaire survey

The findings presented in table 4.23 shows that policy makers are the majority among the respondents with ranking of 1 and RII of 0.961 and builders were ranked second with RII of 0.924. Civil engineers came third with RII of 0.896 while engineers are ranked fourth with

RII of 0.833. There was a tie between quantity surveyors, town planners, and architects with joint ranking of five and RII of 0.792 each. Likewise, between urban and regional planners, mechanical engineers and electrical engineers with joint ranking of six and RII of 0.169 each.
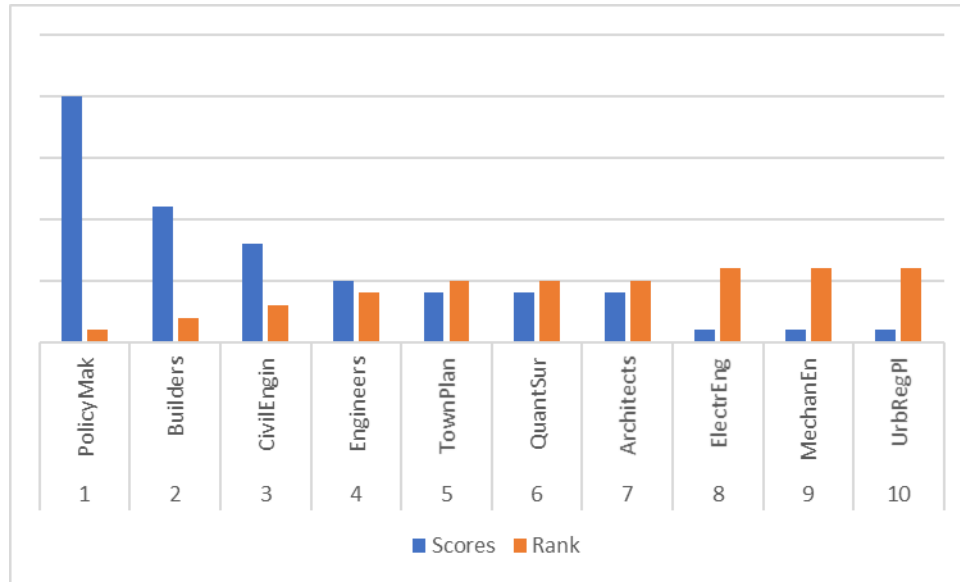
Figure 4.19: Housing construction professionals' profession in chart

The professions of the sample population or the housing construction professionals represents the general population of the building construction professionals with the knowledge of housing construction. The professionals are considered the major actors in this research because of their knowledge in housing construction and their contributions will play significant role in this research. The aim of this research is to develop a framework for the reconstruction of housing for the internally displaced people due to conflict investigate the challenges of reconstruction of housing for the internally displaced people due to conflict. The focus of this research is to examine different types of approaches used for the reconstruction of housing for the IDPs, identify the challenges that can delay or hinder the reconstruction of housing for the internally displaced people in order to identify the appropriate approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria. Housing construction is the main service among the services provide to the public by the fifty-nine respondents that responded to the questionnaire. It is believed that building houses is the occupation of the building engineers therefore, it can be said that all the respondents have the knowledge and experience that could add rigour and reliability of this research.

4.8 Respondents years of experience in housing construction

Table 4.24 presents information about the respondent's years of experience in housing construction. This section of the questionnaire sought to find out from the respondents' their years of experience in housing construction, because their contribution to the research is towards housing reconstruction. Four options were presented to the respondents to choose one from. Eleven of the respondents representing 18.6% indicated that they have 3 to 5 years of experience in housing construction and eleven respondents also equating to 18.6% indicated that they have 5 to 10 years of experience in housing construction. While twelve respondents representing 20.3% indicated that they have 10 to 15 years of experience in housing construction and twenty-five respondents who are clearly the majority equating to 42.4% indicated that they have more than 15 years of experience in housing construction. This result shows that all the respondents have many years of experience and enough knowledge on housing construction, therefore, their contribution will be significant in this research.

Table 4.24: Respondents years of experience in housing construction in frequency and percent

How many years of experience do you have in housing construction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3-5 years	11	18.6	18.6	18.6
	5-10 years	11	18.6	18.6	37.3
	10-15 years	12	20.3	20.3	57.6
	15 years and above	25	42.4	42.4	100.0
	Total	59	100.0	100.0	
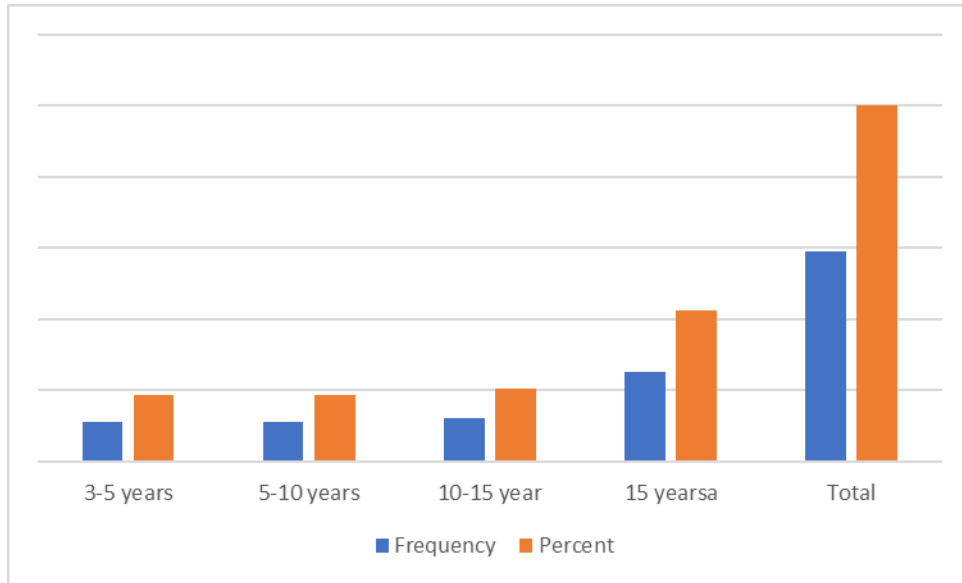
Figure 4.20: Respondents years of experience in housing construction in chart

The mean value of the respondent's years of experience in the housing construction is 11.8, and the average respondents' years of experience in housing construction is more than 14 years while the standard deviation is 6.8. It is very important that the research focus on the respondents from the building construction industry with enough experience in housing construction in order to achieve the aim and objectives of the research. This will add value to the research process and show the rigour and validity of the research. It can be said that the more the respondents experience in the housing construction the more rigour and validity the research will be.

4.8.1 Summary of Section One & Two

This section of the research has presented the summary of the respondent's profession and their years of experience around housing construction. The next section presents the findings from the questionnaire survey in connection with approach to adopt for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria.

4.9 Section 3 - The approach to adopt for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria?

The third section of the questionnaire wanted to find out from the respondents based on their experience in housing construction the appropriate approach to adopt for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, in order to achieve objective 2 of this research. Three options were presented to the respondents to choose one from, and out of fifty-nine respondents, twenty-three representing 39.0% indicated that government driven approach should be adopted. While twenty respondents equating to 33.9% indicated owner driven approach is the best approach to adopt and sixteen respondents with 27.1% indicated donor driven approach as the most suitable approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria. There are different approaches that can be adopted for the reconstruction of housing for the IDPs such as government driven approach, owner driven approach, donor driven approach, preassemble approach, hybrid system approach, panelised system approach, modular building approach. All these approaches can be adopted for the reconstruction of housing for the IDPs, but government driven approach, owner driven approach and donor driven approach are the most common approaches use for the reconstruction of houses destroyed due to natural or manmade disasters.

"In the process of reconstructing the internally displaced people houses destroyed due to conflict, there are many approaches or strategies that can be used which include owner driven approach, government driven approach, participatory housing approach, contractor-driven in situ and contractor driven approach ex nihilo". (Bernstein et al, 2006).

Based on this result, it can be concluded that majority of the professionals believe that government driven approach is the most appropriate approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. Even though, the difference in responses between the government and owner driven approach is not much.

Table 4.25: Responses of housing construction experts on the approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in frequency

Which of the approach should be adopted for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Government Driven Approach	23	39.0	39.0	39.0
	IDPs Driven Approach	20	33.9	33.9	72.9
	Donor Driven Approach	16	27.1	27.1	100.0
	Total	59	100.0	100.0	
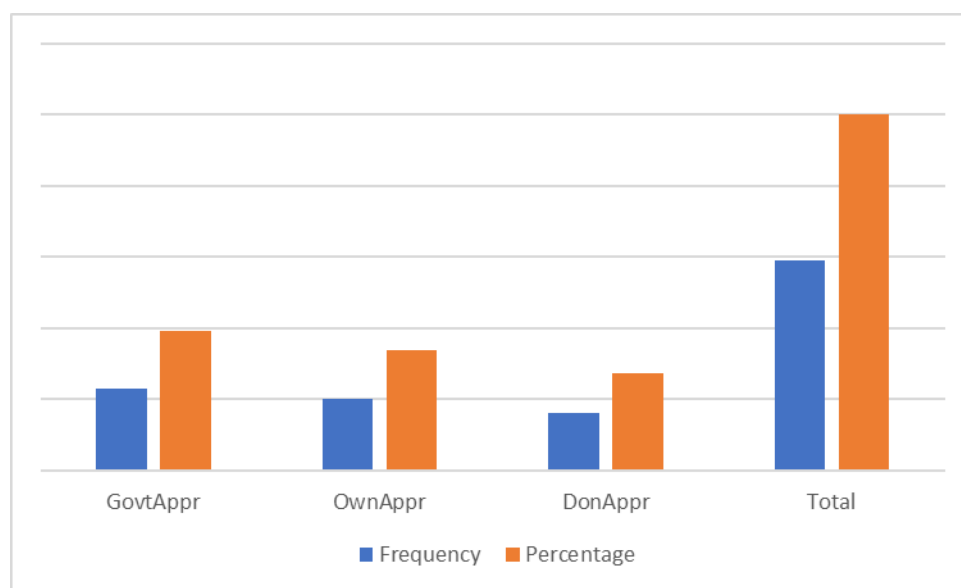
Figure 4.21: Responses of housing construction professionals on the approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in chart

4.9.1 The level of Prefer redness and Ranking of the preferred approach to adopt for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri.

Out of fifty-nine responses analysed in connection to the approach to adopt for the reconstruction of housing for the internally displaced people due Boko Haram conflict in Maiduguri. Government driven approach was the preferred approach by the professionals and ranked first with RII 0.995 (see table 4.26). Government driven approach is one of the major approaches used for the reconstruction of houses destroyed due to natural or manmade

disasters. Under government driven approach, the government will provide everything that is required for the reconstruction to be carried out ranging from the funds, engineers, security, land among others. Owner driven approach was ranked second most preferred approach with RII 0.994 against the donor driven approach in third with RII 0.993.

Table 4.26: RII and Ranking of the preferred approach to adopt for the housing reconstruction in Maiduguri, Nigeria

Approaches	Scores	RII	Rank
Government Driven Approach	23	0.995	1
Owner Driven Approach	20	0.994	2
Donor Driven Approach	16	0.993	3

The above findings produce the same views of the housing construction engineers that government should handle the reconstruction of housing for the IDPs in Maiduguri to ensure that the reconstruction is carried out based on the standard practice. Since the approaches for the reconstruction of housing for the IDPs are identified as well as the level of their relative importance and the appropriate approach/s to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri were highlighted. It is equally important to understand the advantages and disadvantages of adopting government driven approach for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri.

4.9.2 Advantages of adopting government driven approach for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria

The housing construction professionals identified some of the advantages of adopting government driven approach for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. The professional explained that housing reconstructed under this approach will meet the standard practice because the engineers will make sure building procedures are followed. The government will be confident enough to provide all the required resources for the reconstruction believing that the engineers will ensure the housing

reconstruction is successful even though the success of the housing reconstruction depends on the acceptance of the outcome by the beneficiaries.

Adopting government driven approach will reduce waste of resources and building materials because the engineers hired to handle the reconstruction will try and avoid buying building materials that are not required or spending the money for the reconstruction unnecessarily which can lead to shortage of resources. Houses reconstructed under this type of approach will be improve or upgraded because the engineers will improve the condition of the houses better than they are before the destruction in terms of quality of the building and the standard of the houses. However, under this approach, the houses will be delivered fast because of the knowledge and experience of the engineers handling the reconstruction. The professionals also highlighted the disadvantages of adopting government driven approach for the reconstruction of housing for the IDPs due in Maiduguri, Nigeria

The disadvantages highlighted include lack of commitments, government bureaucracy, absence of accountability, mismanagement of resources or corruption and political differences among others. The professionals believed that the disadvantages can affect the success of the reconstruction if not given the required attention before the reconstruction commence. The bureaucracy within the government set up or the administrative way of doing things most of the time affect many developmental projects in Nigeria because many people are involved in the decision-making process. The involvement of many people in the decision-making and the procedure that must be followed before taking any decision delay and affected the commencement and the completion of many housing construction projects in Nigeria for example, delay in providing the funds required for the projects. Therefore, the bureaucracy within the government in Nigeria can delay or hinder the housing reconstruction in Maiduguri particularly when there is delay in providing funds for the reconstruction.

Corruption or mismanagement of resources is one of the major problems connected to housing projects that are being handle by the government in Nigeria, because of the way people embrace corruption. Mismanagement of government resources has become part of people in Nigeria to the extent it has become a culture particularly among those occupying high positions in the government. This is because they see government resources as their own personal money since the money is under their control therefore, they can mismanage the resources as they like. This is because they will not be hold accountable for every naira or penny under their control due to lack of strong law or punishment for those that misappropriate government resources in Nigeria. Corruption has become part of Nigeria

culture every person is trying to make money from government and the engineers and contractors hired to handle the reconstruction may decide to mismanage the funds for the reconstruction knowing that nobody is monitoring the way they spent the money and they will not be ask to account for each naira given to them after the reconstruction project.

Political differences among the government officials directly connected with the reconstruction can delay or hinder the reconstruction, because political party affiliation with the ruling party determined how quick government respond to the problem affecting one community or another in Nigeria. For instance, if the communities affected by the Boko Haram conflict in Maiduguri or the IDPs are not in the same political party with the president, governor, senators or members of the national assembly it will be very difficult for the federal and state government to turn their attention towards the reconstruction of the houses destroyed by the Boko Haram terrorist or to rebuild the communities affected by the Boko Haram conflict in Maiduguri.

Lack of commitment from the government officials, engineers and contractors has affected the outcome of many housing reconstruction projects in Nigeria, and reconstruction of houses destroyed by the Boko Haram terrorist in Maiduguri will not be different if they show very little or no commitments towards the reconstruction. The way government officials and engineers show very little commitments towards government funded housing projects when they are not going to make any financial gain from it is disturbing. As such, the government officials and engineers might decide to commit very little of their time and effort in the reconstruction of housing for the IDPs in Maiduguri, if they realised that they are not going to benefit financially from the project. But if there is any opportunity for them to divert some of the funds for their personal use they will be fully committed to the reconstruction.

This is one of the reasons why many housing construction projects financed by the government last for many years while some are abandoned across the country.

4.10 Section 4 - The challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria

This section seeks to find out from the housing construction professionals based on their experience in housing construction the challenges associated with reconstruction of housing

for the internally displaced people due to Boko Haram conflict in Maiduguri. The aim is to use the findings to achieve objective three of the research. Thirteen of the respondents representing 22.0% indicated insecurity as one of the major challenges. One respondent equating to 1.7% indicated transportation as part of the challenges. While nineteen respondents representing 32.2% indicated that lack of good roads linking the areas affected as one of the challenges and one respondent with 1.7% indicated that insufficient resources or funds as part of the challenges associated with reconstruction of housing for the displaced people in Maiduguri. However, twenty-five respondents equating to 42.4% who are the majority indicated other challenges such as lack of water, inadequate building materials, scarcity of skill labour.

Table 4.27: Responses of the respondents on the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in frequency and chart

Based on your experience what are the challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Insecurity	13	22.0	22.0	22.0
	Transportation	1	1.7	1.7	23.7
	Roads	19	32.2	32.2	55.9
	Lack of Resources	1	1.7	1.7	57.6
	Others	25	42.4	42.4	100.0
	Total	59	100.0	100.0	
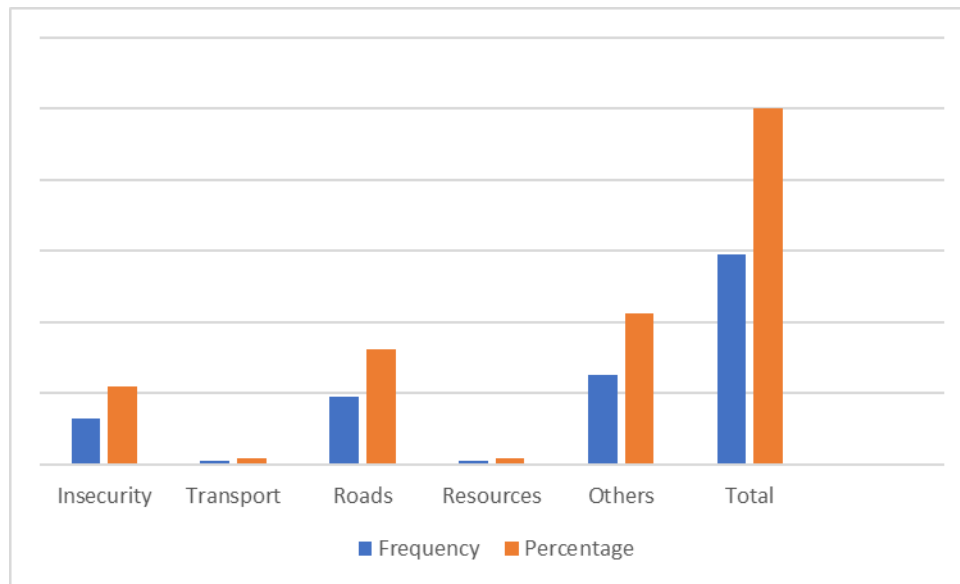
Figure 4.22: Responses of the respondents on the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in chart

4.10.1 The level of Effect and Ranking of the challenges identified by the housing construction professionals that are associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria.

Fifty-nine responses were analysed, others were ranked first as the challenge that will have high effect on the housing reconstruction with RII of 0.990. lack of good roads was ranked second with RII 0.987, and insecurity was ranked third with RII 0.981. There was a tie between insufficient resources and lack of transportation system with the same effect on housing reconstruction with a joint ranking of four and RII of 0.762.

Table 4.28: RII and Ranking of the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri

Challenges	Scores	RII	Ranking
Others	25	0.990	1
Lack of Roads	19	0.987	2
Insecurity	13	0.981	3
Insufficient Resources	1	0.762	4

	Lack of Transportation System	1	0.762	4	

The findings reflect the views of the housing construction professionals on the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri such as lack of roads, insecurity, insufficient resources and lack of transportation system.

4.11 Based on your experience, do you agree that the challenges below can hinder the reconstruction of housing for the internally displaced people in Maiduguri, Nigeria

The respondents were further asked to indicate based on their experience in housing construction if the challenges identified can hinder the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri. Five options were presented to the respondents in Likert scale to indicate the level of their agreement with the statement. The total of fifty-nine respondents responded in connection to corruption and seventeen of the respondents representing 28.8% indicated that they agree that corruption can hinder the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. While thirty-one of the respondents equating to 52.5% indicated that they strongly agree that corruption can hinder the reconstruction and three of the respondents with 5.1% indicated that they neither agree nor disagree that corruption can hinder the reconstruction. Eight respondents representing 13.6% indicated that they disagree that corruption can hinder the reconstruction of housing for the IDPs in Maiduguri.

Table 4.29: Responses of the respondents on corruption in frequency and percent

Corruption

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	17	28.8	28.8	28.8
	Strongly Agree	31	52.5	52.5	81.4

		Frequency	Percent	Valid Percent	Cumulative Percent
	Neither Agree/Disagree	3	5.1	5.1	86.4
	Disagree	8	13.6	13.6	100.0
	Total	59	100.0	100.0	
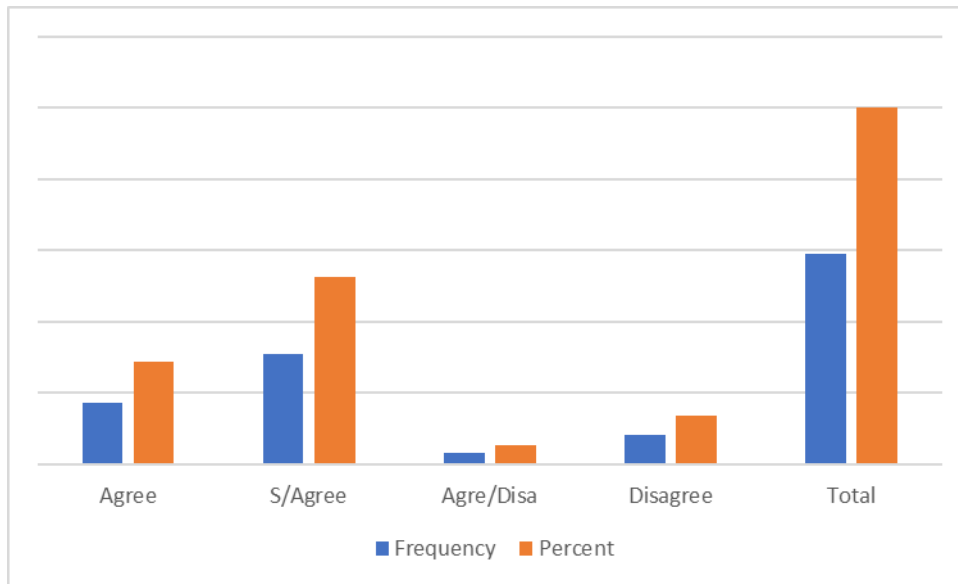
Figure 4.23: Responses of the respondents on corruption in chart

The next challenge is lack of resources and twenty respondents representing 33.9% indicated that they agree lack of resources can hinder the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri. While twenty-nine of the respondents equating to 49.2% indicated that they strongly agree that lack of resources can hinder the housing reconstruction and seven respondents equivalent to 11.9% indicated that they neither agree nor disagree that lack of resources can hinder the housing reconstruction. But two respondents representing 3.4% indicated that they disagree that lack of resources can hinder the reconstruction and one respondent equating to 1.7% strongly disagree that lack of resources can hinder the reconstruction of housing for the displaced people in Maiduguri.

Table 4.30: Responses of the respondents on lack of resources in frequency and percent

Lack of Resources

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	20	33.9	33.9	33.9

Strongly Agree	29	49.2	49.2	83.1
Neither Agree/Disagree	7	11.9	11.9	94.9
Disagree	2	3.4	3.4	98.3
Strongly Disagree	1	1.7	1.7	100.0
Total	59	100.0	100.0	
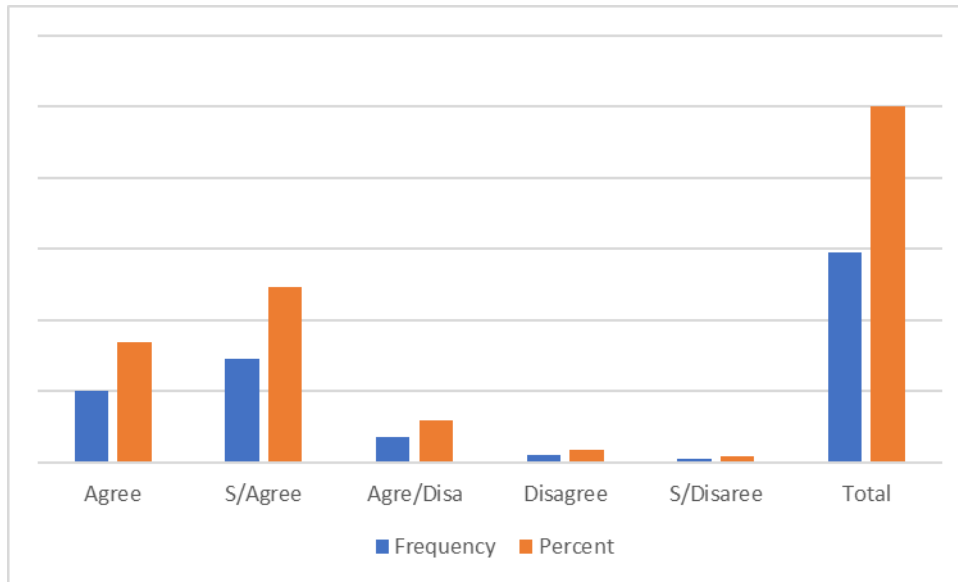
Figure 4.24: Responses of the respondents on lack of resources in chart

In connection to relocation, seventeen respondents representing 28.8% indicated that they agree that relocation can hinder the success of housing reconstruction for the IDPs due to Boko Haram conflict in Maiduguri. Eighteen of the respondent's equivalent to 30.5% indicated that they strongly agree that relocating the IDPs to another place is not easy and can affect the outcome of the project because they might reject the houses. while seventeen respondents equating to 28.8% indicated that they neither agree nor disagree that relocation can hinder the reconstruction in Maiduguri, but three respondents with 5.1% indicated that they disagree that relocation can hinder the reconstruction in Maiduguri and four respondents representing 6.8% indicated that they strongly disagree that relocation can hinder the reconstruction of housing for the IDPs in Maiduguri, Nigeria.

Table 4.31: Responses of the respondents on relocation in frequency and percent

Relocation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	17	28.8	28.8	28.8
	Strongly Agree	18	30.5	30.5	59.3
	Neither Agree/Disagree	17	28.8	28.8	88.1
	Disagree	3	5.1	5.1	93.2
	Strongly Disagree	4	6.8	6.8	100.0
	Total	59	100.0	100.0	
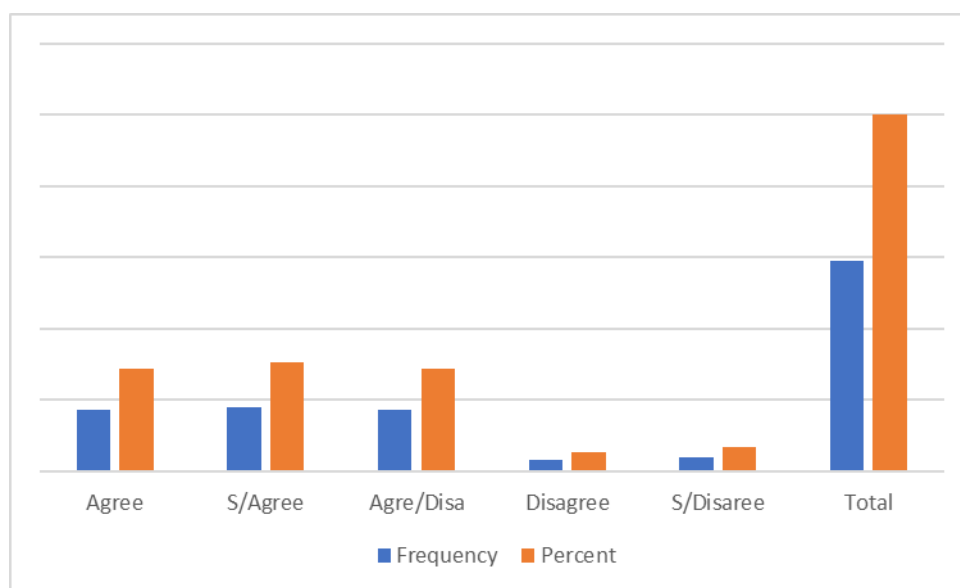
Figure 4.25: Responses of the respondents on relocation in chart

However, in relation to urgency from the IDPs to return home thirteen of the respondents equating to 22.0% indicated that urgency from the displaced people to return to their home can hinder the housing reconstruction in Maiduguri. Twenty-six respondents with 44.1% indicated that they strongly agree that urgency can hinder the reconstruction and eleven respondents equating to 18.6% indicated that they neither nor disagree that urgency can hinder the housing reconstruction. Six respondents equivalent to 10.2% indicated that they disagree that urgency can hinder the housing reconstruction and three respondents representing 5.1% indicated that they strongly disagree that urgency can hinder the reconstruction of housing for the displaced people due to Boko Haram conflict in Maiduguri.

Table 4.32: Responses of the respondents on the urgency from the IDPs to return home in frequency and percent

Urgency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	13	22.0	22.0	22.0
	Strongly Agree	26	44.1	44.1	66.1
	Neither Agree/Disagree	11	18.6	18.6	84.7
	Disagree	6	10.2	10.2	94.9
	Strongly Disagree	3	5.1	5.1	100.0
	Total	59	100.0	100.0	
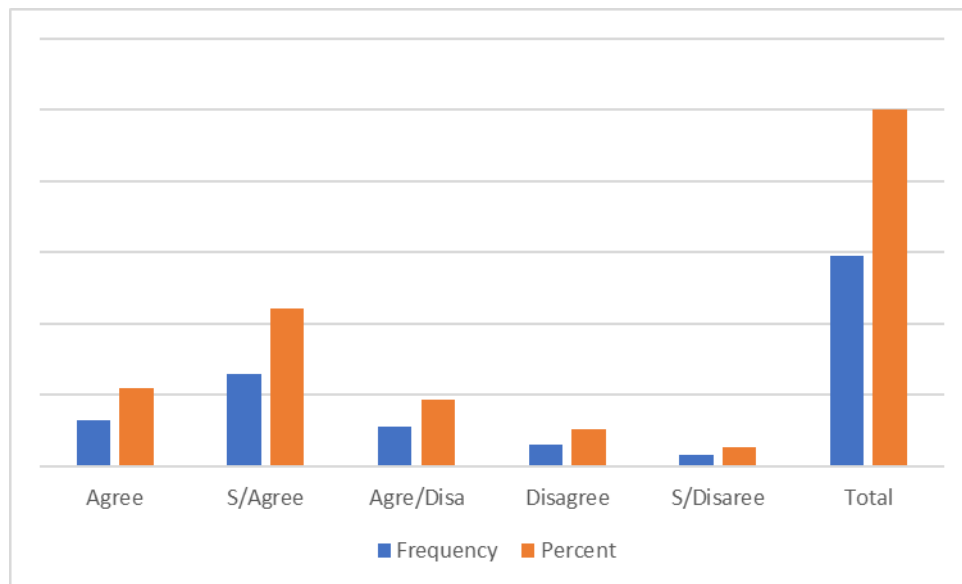
Figure 4.26: Responses of the respondents on the urgency from the IDPs to return home in chart

In connection to government bureaucracy twenty respondents representing 33.9% indicated that they agree government bureaucracy can hinder the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri. While twenty-three of the respondents equating 39.0% indicated that they strongly agree that government bureaucracy can hinder the reconstruction and four respondents equating to 6.8% indicated that they neither agree nor disagree that government bureaucracy can hinder the housing reconstruction. However, ten respondents representing 16.9% indicated that they disagree that government bureaucracy can hinder the reconstruction of housing for the IDPs in

Maiduguri and two of the respondents with 3.4% indicated that they strongly disagree that government bureaucracy can hinder the housing reconstruction.

Table 4.33: Responses of the respondents on government bureaucracy in frequency and percent

Government Bureaucracy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	20	33.9	33.9	33.9
	Strongly Agree	23	39.0	39.0	72.9
	Neither Agree/Disagree	4	6.8	6.8	79.7
	Disagree	10	16.9	16.9	96.6
	Strongly Disagree	2	3.4	3.4	100.0
	Total	59	100.0	100.0	
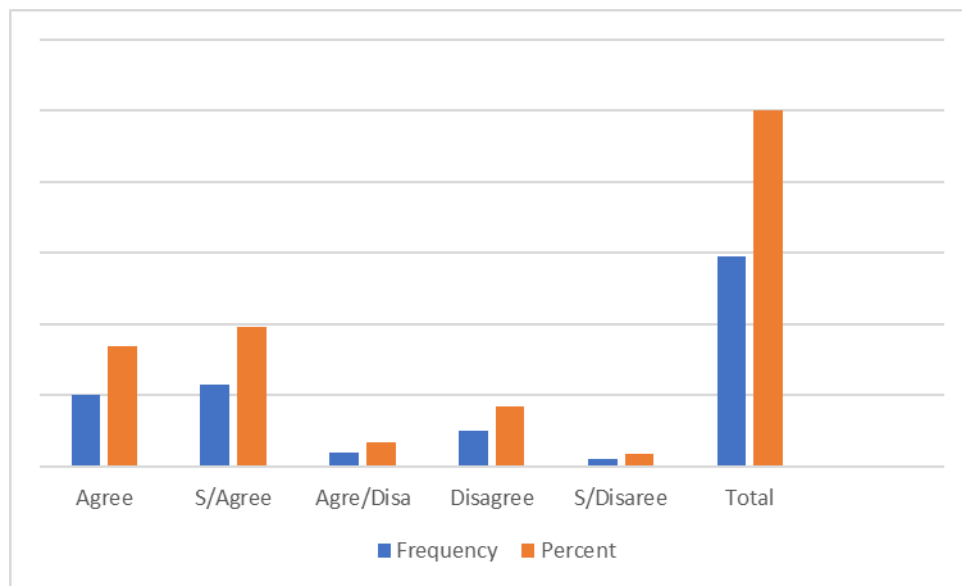
Figure 4.27: Responses of the respondents on government bureaucracy in chart

The next challenge is insecurity and twelve respondents representing 20.3% indicated that they agree that insecurity can hinder the reconstruction of housing for the internally displaced people in Maiduguri. Thirty respondents equating to 50.8% indicated that they strongly agree that insecurity can hinder the housing reconstruction and four respondents representing 6.8%

indicated that they neither agree nor disagree that insecurity can hinder the reconstruction. Ten respondents with 16.9% indicated that they disagree insecurity can hinder the reconstruction of housing for the displaced people in Maiduguri and three respondents equating to 5.1% indicated that they strongly disagree that insecurity can hinder the housing reconstruction.

Table 4.34: Responses of the respondents on insecurity in frequency and percent

Insecurity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	12	20.3	20.3	20.3
	Strongly Agree	30	50.8	50.8	71.2
	Neither Agree/Disagree	4	6.8	6.8	78.0
	Disagree	10	16.9	16.9	94.9
	Strongly Disagree	3	5.1	5.1	100.0
	Total	59	100.0	100.0	
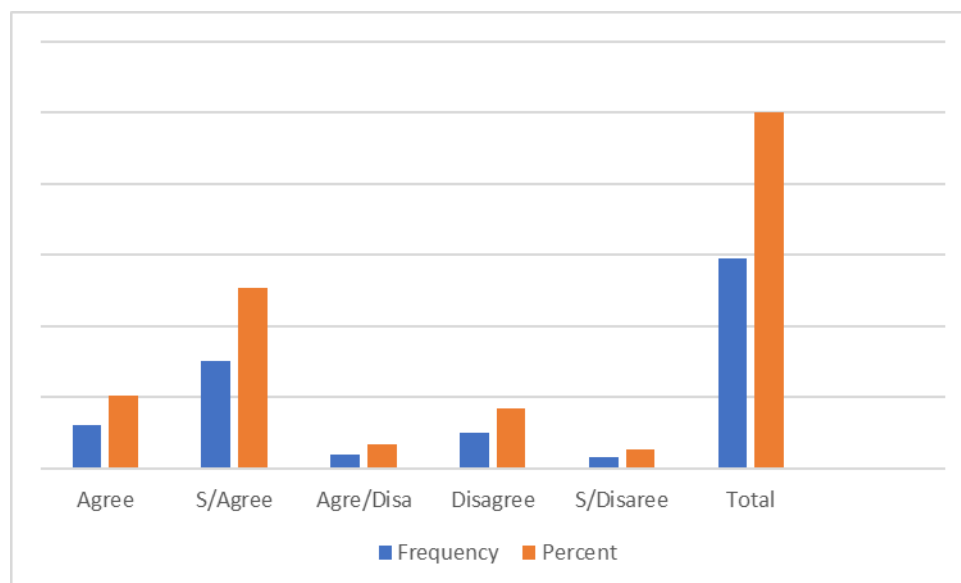
Figure 4.28: Responses of the respondents on insecurity in chart

In relation to roads, fifteen respondents representing 25.4% indicated that they agree lack of roads can hinder the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri. While twenty-eight respondents equating to 47.5% indicated that they strongly agree that lack of roads can hinder the housing reconstruction and four

respondents equivalent to 6.8% indicated that they neither agree nor disagree that lack of roads can hinder the housing reconstruction. However, ten respondents representing 16.9% indicated that they disagree that lack of roads can hinder the reconstruction of housing for the IDPs in Maiduguri and two respondents representing 3.4% indicated that they strongly disagree that lack of roads can hinder the housing reconstruction.

Table 4.35: Responses of the respondents on lack of good roads in frequency and percent

Lack of good Roads

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	15	25.4	25.4	25.4
	Strongly Agree	28	47.5	47.5	72.9
	Neither Agree/Disagree	4	6.8	6.8	79.7
	Disagree	10	16.9	16.9	96.6
	Strongly Disagree	2	3.4	3.4	100.0
	Total	59	100.0	100.0	
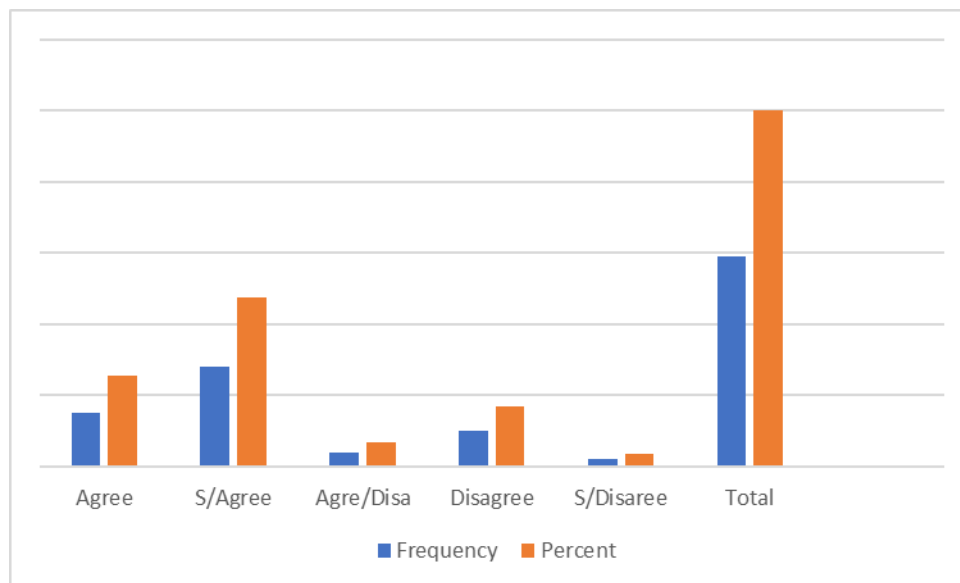
Figure 4.29: Responses of the respondents on lack of good roads in chart

The next challenge is lack of commitment from the government officials, engineers and contractors. Fourteen respondents equating to 23.7% indicated that they agree that lack of

commitments from the government officials, engineers and contractors can hinder the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri. Thirty-four respondents representing 57.6% indicated that they strongly agree that lack of commitment from both the government officials, engineers and contractors can hinder the reconstruction and three respondents equivalent to 5.1% indicated that they neither agree nor disagree that lack of commitment can hinder the housing reconstruction. Six respondents representing 10.2% indicated that they disagree that lack of commitment can hinder the reconstruction of housing for the displaced people in Maiduguri and two respondents with 3.4% indicated that they strongly disagree that lack of commitment from the government officials, engineers and contractors can hinder the housing reconstruction.

Table 4.36: Responses of the respondents on lack of commitments from government officials, engineers and contractors in frequency and percent

Lack of Commitment

|		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	14	23.7	23.7	23.7
	Strongly Agree	34	57.6	57.6	81.4
	Neither Agree/Disagree	3	5.1	5.1	86.4
	Disagree	6	10.2	10.2	96.6
	Strongly Disagree	2	3.4	3.4	100.0
	Total	59	100.0	100.0	
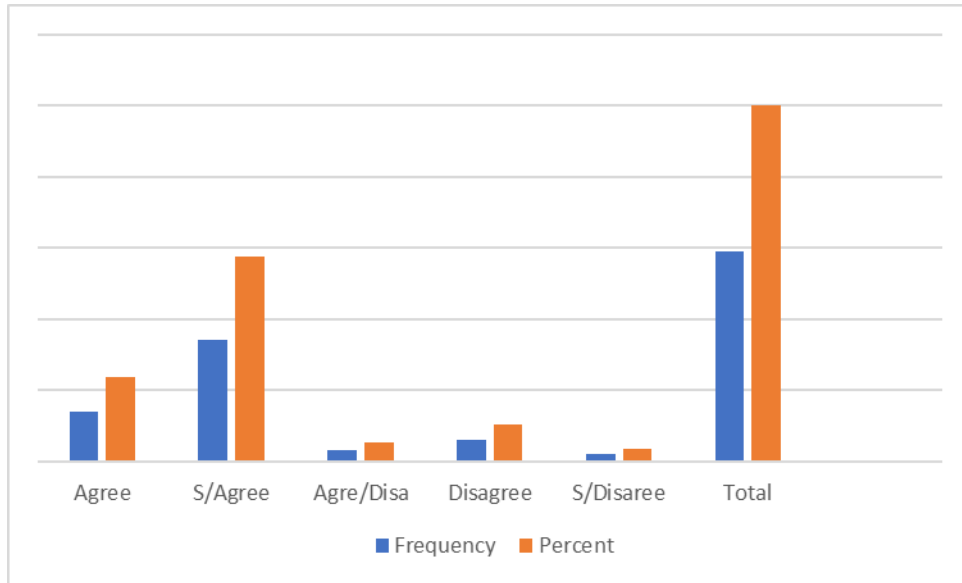
Figure 4.30: Responses of the respondents on lack of commitments from the government officials, engineers and contractors in chart

However, the next challenge ignoring the culture of the displaced people, fifteen respondents representing 25.4% indicated that they agree that ignoring the culture of the beneficiaries can hinder the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. Eight respondents equivalent to 13.6% indicated that they strongly agree that refusing to take into consideration the culture of the displaced people during the housing reconstruction can affect the outcome and ten respondents equating to 16.9% indicated that they neither agree nor disagree that overlooking the culture of the displaced people can hinder the housing reconstruction. However, nine respondents with 15.3% indicated that they disagree that overlooking the culture of the IDPs during the reconstruction can hinder the reconstruction of housing for the displaced people in Maiduguri and seventeen respondents representing 28.8% indicated that they strongly disagree that ignoring the culture of the displaced people can hinder the housing reconstruction.

Table 4.37: Responses of the respondents on ignoring the culture of the IDPs in frequency and percent

Culture

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	15	25.4	25.4	25.4
	Strongly Agree	8	13.6	13.6	39.0
	Neither Agree/Disagree	10	16.9	16.9	55.9
	Disagree	9	15.3	15.3	71.2
	Strongly Disagree	17	28.8	28.8	100.0
	Total	59	100.0	100.0	
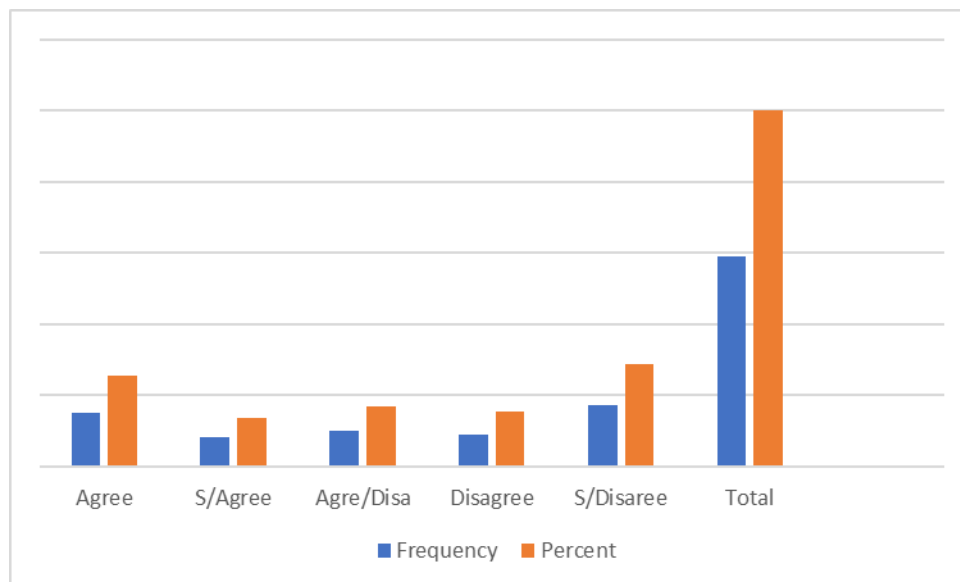
Figure 4.31: Responses of the respondents on ignoring the culture of the IDPs in chart
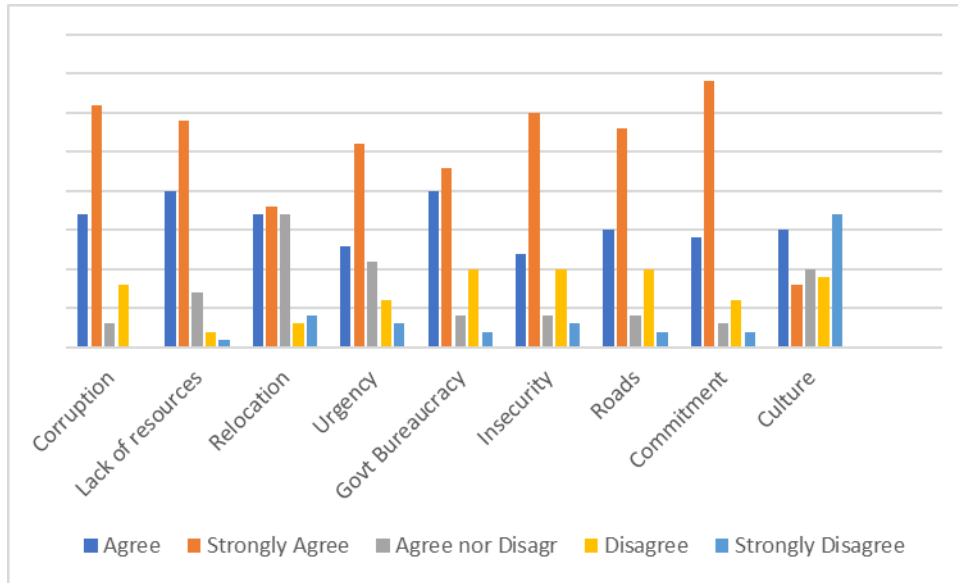
Figure 4.32: Responses of the respondents on the challenges that can hinder the reconstruction of housing for the IDPs due to Boko Haram conflict in chart

4.12 The Level of Effect and Ranking of the Challenges that can Hinder the Reconstruction of Housing for the Internally Displaced People due to Boko Haram Conflict in Maiduguri.

The findings from the table 4.38 revealed that lack of commitments from the government officials, engineers and contractors towards the housing reconstruction was ranked first with RII of 0.992. There was a tie between corruption, insecurity, lack of resources and lack of roads with a joint RII of 0.991 and a joint ranking of 2. Urgency from the internally displace people to return to their home was ranked third with RII of 0.990 and there was another tie between the government bureaucracy and relocation of the displaced people to another area with a joint RII of 0.988 and joint ranking of four. However, ignoring the culture of the displaced people was ranked fifth with RII of 0.985.

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Table 4.38: RII and the Rankings of the challenges that can hinder the reconstruction of housing for IDPs due to Boko Haram conflict in Maiduguri.

Challenges	High Effect	Reasonable Effect	Fair Effect	Less Effect	No Effect	RII	Rank
Lack of Commitment	34	14	3	6	2	0.992	1
Corruption	31	17	3	8	0	0.991	2
Insecurity	30	12	4	10	3	0.991	2
Lack of Resources	29	20	7	2	1	0.991	2
Roads	28	15	4	10	2	0.991	2
Urgency	26	13	11	6	3	0.990	3
Government Bureaucracy	23	20	4	10	2	0.988	4
Relocation	18	17	17	3	4	0.988	4
Culture	8	15	10	9	17	0.985	5

These findings reflect the views of the building construction engineers in Nigeria that there are many challenges that can hinder the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri and the challenges must be address in order to successfully reconstruct the houses destroyed by Boko Haram terrorist in Maiduguri, Nigeria.

4.13: Summary of chapter four

This chapter presented the analysis of the quantitative data gathered from the questionnaire survey presented to the internally displaced people and the building construction engineers.

In section one, the chapter discussed the profile of the respondents, opinion on government driven approach, owner driven approach, challenges the IPDs may encounter if owner driven approach is adopted and the effect and ranking of the challenges. The chapter further provided the analysis and presentation of the findings from the data gathered from the housing construction profession, how the questionnaire was structured, profession of the respondents, scores and ranking of the profession of the housing construction professionals, respondents' years of experience in housing construction and summary of section one. In section three, the chapter also discussed the approach to adopt for the reconstruction of the houses destroyed by the Boko Haram terrorist in Maiduguri, ranking of the approach to adopt and advantages of adopting government driven approach. In section four, the chapter discussed the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict, effect and ranking of the challenges identified by the housing construction professionals, in relation to housing reconstruction for the IDPs in Maiduguri, opinion of the respondents on the challenges that can hinder the housing reconstruction in Maiduguri, effect and ranking of the challenges that can hinder the reconstruction and summary of chapter four.

Chapter 5:   Qualitative Data Analysis

5.1 Introduction

This chapter presents analysis of the one-on-one interviews carried out with building construction professionals in Nigeria as the second part of explanatory sequential mixed method adopted in this research (see section 3.7.6. in chapter 3). The details of the interviews with nine (9) housing construction experts that take part in this research were presented in table 3.6. The one-on-one interviews were carried to have the expert's views or perceptions on different factors that could assist and affect the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, which was identified by the questionnaire survey data. This chapter presents the way results from the questionnaire survey assist in explaining the results from one-on-one interviews to achieve the overall aim and objective of this research.

5.2 Analysis of the interview data

To make it easy in understanding the difference between the one-on-one interview questions and the questions in the questionnaire, there is an interview guide designed (see Appendix G) to guide on the structure and arrangement of the questionnaire which was divided into three sections (See section 4.10.4). The data gathered from the interview was analysed using the NVivo 12 computer-assisted qualitative data analysis software (CAQDAS) (See section 4.11.1). The content of each interview was transformed into transcript before exporting each into the NVivo 12, to keep the genuinely of the shared knowledge and views expressed by the experts (interviewees). The next stage of the interview data analysis includes the coding of the raw data and analysis of the themes (semantic) through which sub-themes (latent themes) are derive using the thematic analysis techniques.

5.2.1 Approaches use for the reconstruction of housing for the internally displaced people due to natural or man-made disasters

Approaches for the reconstruction of housing for internally displaced people are strategies used for the reconstruction of houses destroyed due to conflict, war, terrorism, earthquake,

tsunami among others. In other words, approaches are different ways through which the IDPs houses destroyed due to natural or manmade disasters are reconstructed or rebuild in order to rehouse them. The major approaches include government driven approach, owner driven approach and donor driven approach but there are other approaches like participatory housing approach, contractor-driven in situ and contractor-driven approach ex nihilo and subsidiary housing approach (Bernstein et al, 2006). The success of any post conflict housing reconstruction depends on the type of approach adopted, therefore, adopting the appropriate approach is very crucial towards successful reconstruction of housing for the internally displaced people in Maiduguri, Nigeria.

5.2.2 Government driven approach

Under government driven approach, the reconstruction of housing for the internally displaced people will be handle by the government from beginning to the end. Under this approach the government will provide the resources required for the reconstruction, expertise or engineers that will supervise or monitor the reconstruction and the land that will be use for the construction in a situation where there is a need to relocate the IDPs to another location. However, the government can decide to give contract to local building construction companies or contractors to reconstruct the houses. Though, this type of approach or arrangement in most cases doesn't yield the required result because the companies or contractors might use sub-standard building materials, ignore the needs of the IDPs or reduce the quantity of building materials required that will make the building strong like cement, grabbles in order to make more profit.

The companies or contractors might also sub-contract the contract to another company to carry out the project less than the actual cost of the actual contract. In some cases, the companies or contractors that are given the contract to reconstruct the houses might decide after receiving the funds for the project to reconstruct ten percent 50% of the total housing units and abandoned the rest because of their closeness to the government officials, political affiliation with the government or because the companies or contractors contributed to the emergence of the government in place. This is the reason why some projects last longer than expected and sometimes the projects are being abandoned in Nigeria.

5.2.3 Owner driven approach

Owner driven approach is one of the approaches used for the reconstruction of housing for the internally displaced people due to natural or manmade disasters. Under this approach, the IDPs will lead or handle the housing reconstruction by themselves from the beginning to the end, the government will only provide financial (funds) and technical support (engineers) to assist and guide the displaced people to reconstruct their houses. Owner driven approach is a new strategy but is gaining wide acceptance even across donor agencies that have been assisting in post conflict housing reconstruction. Owner driven approach has been used in different post disaster housing reconstruction in different countries like Afghanistan, Liberia, Indonesia, Iraq (Ratnayake and Rameezdeen, 2008). The approach was also adopted by International Federation of Red Cross (IFRC) and Red Crescent Societies (RCS) to reconstruct more than fifteen thousand houses in Sri-Lanka. Even though, the approach gives the IDPs the opportunity to handle the reconstruction by themselves they still need the guidance of the experts to be able to do the right thing because majority of them does not have the required building skills to undertake such an important project. But the displaced people can carry out some of the building activities like mixing of cement and sand, laying of blocks, supplying water which will reduce the cost of labour and they will learn new skills in the process.

5.2.4 Donor driven approach

Donor driven approach is one of the popular strategies that are used for the reconstruction of the internally displaced people houses destroyed due to conflict, war, earthquake etc. Under donor driven approach, the donor agencies or NGOs will handle the reconstruction from the beginning to the end in collaboration with the engineers and contractors they hire to carry out the project. However, the donor agencies will provide all the funds required for the reconstruction, but they will evaluate the progress of the project period after period to make sure the funds they provided are used for the purposed and judiciously. The donor agencies in some situation provide resources to the government of the affected communities or contractors through the consultants hired by the donor agencies to reconstruct the houses but the major issue with the housing reconstructed under this type of approach is that the housing will not meet the needs and preferences of the displaced people. This is because during the reconstruction the consultants and contractors will not consider or take into consideration the

needs and preferences of the beneficiaries instead, they will reconstruct the housing in accordance with the standard and based on what they think is the best for the displaced people. Donor driven approach have yielded positive results in some countries while in others the approach has failed because the housing has been abandoned by the end users. Interviewee 3 stated that;

"There are many approaches that can be used for the reconstruction of housing for the internally displaced people due to natural or man-made disasters and the approaches are government driven approach, owner driven approach and donor driven approach."

There is also individual approach where a wealthy individual among the communities affected or who are in interested in assisting the displaced people can decide to support the internally displaced people by reconstructing some of the houses destroyed. Under this type of approach, the person or individual in most cases will prefer to provide the resources to the government or the government agency with the responsibility of rehabilitation and resettlement of the IDPs or directly to the IDP for them to rebuild their houses. This type of approach has yielded positive results because many displaced people have been resettled back to their homes through this approach or strategy, but there are some issues associated with this type of approach like diversion of some project funds for different purposes. The engineers will not be fully committed to assisting the displaced under this type of approach since they don't have control of the project.

5.3 The appropriate approach to adopt for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria

There are many approaches identified by the housing construction professionals interviewed that can be adopted for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri. The approaches include government/owner driven approach, government driven approach and owner driven approach. The experts believed each approach has its advantages and disadvantages and adopting any of these approaches can produce the required result that will be acceptable by the IDPs. But they pointed that the

displaced people need to be involve in the housing reconstruction when adopting government driven approach.

5.3.1 The government/owner driven approach

Under government/Owner driven approach the government, or the building engineers selected by the government to handle and supervise the reconstruction and the internally displaced people will work together to reconstruct the houses destroyed by the Boko Haram terrorist in Maiduguri. The collaboration is essential since it is the government that will provide the resources and the expertise required to make sure the building procedures are followed, and the quality of the building is ensured. While the IDPs will ensure that their needs and preferences such as their religion, culture and preferences are considered during the reconstruction most especially during the planning and redesigning of the houses. It is was argued that any post conflict housing reconstruction that ignore or refuse to take into consideration the needs and preferences of the displaced people the project will not be successful (Barrakarth, 2003; Barakarth, 2004). This is because the IDPs know exactly what they want in terms of how their houses were designed and build before the destruction, number of rooms, size of the rooms, location of the toilet and kitchen etc. therefore, their involvement in the reconstruction processes is crucial. The government/owner driven approach will provide opportunity for the displaced people to take part in some key building activities like mixing of cement and sand, taking blocks to the builders, supplying water which will reduce the cost of hiring labourers with such basic building skills.

Under government/owner driven approach, the IDPs will learn some basic building skills that are in high demand within their community and acquire some professional skills from the engineers which they can use as manual job to earn a living in the future. However, out of nine building construction experts interviewed six of the experts representing 60% believed that government/owner driven approach should be adopted for the reconstruction of houses destroyed for the Boko Haram terrorist in Maiduguri, Nigeria. The professionals further explained that adopting government/owner driven approach will allow the engineers that will handle the reconstruction to work closely with the displaced people to enable them to understand the needs and preferences of the beneficiaries and to also avoid making mistakes during the redesigning of the houses which can lead to rejection or abandonment of the houses after the reconstruction. The approach will also provide opportunity for the IDPs to

monitor the activities of the engineers and the progress of the project. Interviewee 5 explained that;

"As a building construction engineer with many years of experience in housing construction the government driven approach alone will not be ideal. In this case, the government/owner (IDPs) driven approach should be adopted considering the needs and preferences of the IDP."

Despite all the benefits highlighted of adopting government/owner driven approach the experts believed disagreement or misunderstanding between the engineers and the displaced people might arise most especially during the redesigning of the houses.

5.3.1.1 Advantages of adopting government/owner driven approach

The housing construction professionals interviewed highlighted many advantages of adopting government/owner driven approach for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri. The experts explained that adopting government/owner driven approach will reduce cost of reconstruction because the IDPs can be used as unskilled labourers, encourage check and balances, create job opportunities, reduce waste of building materials and serve as a capacity building or way of empowering the internally displaced people, quality of the houses will be guaranteed, the houses will reflect the needs and aspiration of the IDPs, share responsibility, fast in completion and the IDPs will accept the outcome etc.

- Minimise waste of resources; under government/owner driven approach, the engineers will be cautious about their spending in terms of the quantity of building materials they need to avoid buying more than what they required in order not to waste resources. Likewise, the engineers will be judicious and careful when hiring labourers and other logistics because the IDPs will be monitoring how the resources for the reconstruction are being spent.

- Create job opportunities; adopting government/owner driven approach for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri will create job opportunities for the communities affected and the neighbouring communities as well as improve local markets and businesses.

- Reduced cost of reconstruction; under government/owner driven approach the cost of production or reconstruction will be reduced because the IDPs can be employ to work as mixers, block layers, builders, plumbers, water suppliers and plastering work without expecting any financial compensation or being paid since they are the beneficiaries and the government is expecting anything from them in return.

- Quality of the house will be assured; the houses reconstructed under government/owner driven approach will be up to the standard because the engineers will make sure all the building procedures or practice are considered without compromised. However, the engineers or contractors will make sure that the building materials they will use are good enough to ensure quality.

- The needs and preferences will be considered; adopting government/owner driven approach will provide the opportunity for the engineers or contractors to understand the needs and preferences of the IDPs so that the houses will reflect what the displaced people want or desire. According to interviewee 2;

"Adopting government/owner driven approach will lead to successful housing reconstruction for the internally displaced people due to Boko Haram conflict in Maiduguri, the houses will reflect the needs of the displaced people, the IDPs will be involve in the designing and planning process, the IDPs will learn different building skills, encourage check and balances, the IDPs will accept the outcome, reduces unnecessary waste of building materials and the approaches is cheaper to adopt."

Under government/owner driven approach, both the government and the IDPs will contribute immensely towards the success of the reconstruction. Disadvantages of government/owner driven approach discuss next.

Despite the advantages of adopting government/owner driven approach for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, the housing construction professionals also identified some disadvantages of government/owner driven approach which include government bureaucracy, lack of commitment, misunderstanding or disagreement, absence of accountability and misused of resources among others. The disadvantages need to be considered to successfully reconstruct housing for the IDPs in Maiduguri, Nigeria.

- Lack of commitment; under the government/owner driven approach lack of commitment from the engineers or contractors handling or supervising the housing reconstruction can affect the project. For example, the engineers can decide to go to the reconstruction site late or refuse to go may be because there is no chance or opportunity for them to make money from the project or because they are not from the same tribe, religion, ethnic group with the beneficiaries or even because of political differences. However, lack of commitment from the contractors can also affect the progress of the reconstruction because the contractor/s that is given the contract to supply building materials like cement, nails, roofing sheet may decide to take his time and compare the prices of the materials in the market in order to get cheap building materials and make more profit which can slow down the progress of the reconstruction. But the engineers can avoid the delay by making sure that all the building materials required for the reconstruction are provided before the commencement of the project.

- Misunderstanding or disagreement; misunderstanding between the engineers and the internally displaced people can occurred during the reconstruction specifically during planning and redesigning of the houses. The engineers might try to make some changes to the existing designed of the houses which the IDPs could reject or feel is not necessary which can cause disagreement between the two parties. Though, the possibility of having misunderstanding is very slim since the engineers will discuss with the IDPs before the project commence in order to understand their needs and preferences or what they want.

- Lack of building skills; the internally displaced people lack building skills and lack of building skills will limit their contribution towards the success of the reconstruction, but they can still be used as unskilled labourers to carry out some building works like fetching water, giving blocks to the builder, mixing sand and cement etc. Interviewee 4 pointed out that there will be;

"Disagreement between the engineers and the IDPs during planning and redesigning of the houses. For example, the engineers might want to change the position of the toilet or kitchen without considering the culture of the IDPs which can cause disagreement"

However, the displaced people can make significant contribution during building of the houses and working closely with engineers will give them the opportunity to learn some professional building skills they can use in the future as a source of income.

5.3.2 Government driven approach;

Government driven approach is an approach or strategy used for the reconstruction of housing for the internally displaced people due to natural or man-made disaster. Out of nine housing construction experts interviewed in this research two of the experts equating to 20% believed government driven approach is the most appropriate approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria. Under government driven approach, the government will provide all the resources required and the experts that will handle the reconstruction from the beginning to the end. Though, under government and owner driven approaches the government is the major sponsor unless in some situation where the donor agencies support the government or take full responsibility. Interviewee 1 explained that;

"In this case, the government driven approach is the most appropriate approach, but there is a need to involve the IDPs in the reconstruction process. For example, in the planning and designing or redesigning of the houses. This will provide opportunity for the housing construction engineers and the IDPs to work together to achieve the desire result".

Government driven approach allow the engineers or contractors to handle the reconstruction activities from planning to designing or redesigning of the houses. The problem with government driven approach is the hierarchical way of doing things within the government set up because there is a procedure that needs to be follow before decisions are made on any issue or project. For example, because of the bureaucratic nature of government approving funds for the reconstruction which most of the times slowdown many projects.

5.3.2.1 Advantages of adopting government driven approach

The experts interviewed identified some advantages of adopting government driven approach for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri. The advantages include quality control, adhering to the building procedures, fast in completion and minimised waste of building materials etc.

- Quality control; under government driven approach the engineers will assess the building materials they will use to avoid using sub-standard building materials. Quality control is essential in housing construction project because building materials are the foundation through which quality houses are produced. Therefore, the engineers will try as much as they can to used quality building materials. The engineers will also ensure that the building materials supply by contractors are assessed properly because some contractors try as much as they can to mixed sub-standard building materials with quality building materials in order to make more profit.

- Minimised waste of building materials; adopting government driven approach will reduce waste of building materials because the engineers will inspect the houses destroyed before the commencement of the reconstruction to find out the extent of the damaged to know exactly how much it will cost the government to reconstruct each house. This will give them an idea about the quantity of blocks, cement, woods, sand and other building materials they need, to avoid buying more than what is required for the reconstruction. However, the engineers will also reduce waste of building materials by constructing storage facility at the site of the reconstruction where all the materials will be kept and also hire a storekeeper that will keep record of the building materials. All these measures can minimise waste of building materials to some extent but will not stop some building materials from being missing, stolen or being damaged.

- Fast in completion; under government driven approach the reconstruction will be faster since the government will provide all the funds required for the reconstruction and the engineers have enough knowledge and experience in mass housing construction. Consequently, with enough funds, skill labourers, building materials, access to water, roads within Maiduguri town the engineers will reconstruct the houses within short period of time. Though, with all these things available to the engineer's insecurity can delay or hinder the reconstruction. interviewee 8 pointed out that;

Under government driven approach, the reconstruction will be faster, the houses will meet the standard in terms of quality, building activities will be carried based on standard practice or procedures, minimise waste of building materials etc".

However, under government driven approach the government will make sure the reconstruction is carried out in accordance with the standard practice and in accordance with building procedures or laws.

Disadvantages of adopting government driven approach

The housing construction professionals interviewed also identified some disadvantages of adopting government driven approach for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. The disadvantages highlighted include government bureaucracy, mismanagement of resources or corruption, absence of accountability, political differences and lack of commitment. The professionals believed that the disadvantages can affect the reconstruction if not considered during the reconstruction.

- Government bureaucracy; the way government activities are carried out in a hierarchical way before taking any decision on every issue have affected the progress of many important developmental projects in Nigeria. The involvement of many people in the decision-making process within government set up does not allow quick decisions to be taken. For example, the north east development commission (NEDC) the government established in 2017 for the reconstruction of north eastern states that was affected by the Boko Haram conflict. The law for the establishment of the commission was sent to the national assembly for debate and passage into law since 2017, but due to political differences among the senators and the national assembly members there was a delay to pass the bill into law. This type of decision-making process can affect the reconstruction of housing for the IDPs in Maiduguri most especially when it comes to approving the funds for the reconstruction. Though, government bureaucracy encourages check and balances or accountability within government set up and it is also a way of sharing responsibility.

- Mismanagement of resources; this is one of the major disadvantages associated with projects that are funded and supervise by government because of the level of corruption in the society. Mismanagement of government resources has become a culture or norm among those that are occupying key positions in the government

because they believe government resources are their own personal money since they are occupying high office so, they can misuse it as they like. This is because they will not be asked to account for every kobo or penny put under their care due to absence of strong law or punishment for those that mismanage government resources. Mismanagement of government resources has become a culture in Nigeria therefore, the engineers or contractors handling the reconstruction to misused the funds knowing they will not be hold accountable.

- Political differences; political differences among the high government officials can delay or hinder the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri. The reason is that political party affiliation determine how fast government responds to problems or challenges affecting one community or the other in Nigeria. For example, if the IDPs are not in the same political party with the president, governor, senators and house of assembly members the president will be reluctant to provide the funds required for the reconstruction in time even though, it is the responsibility of the government to assist the displaced people. The house members and senators from their state will also be reluctant to present their problems on the floor of both chambers for discussion.

  However, even if the IDPs voted for the president, governor, senators and house of assembly members or belongs to the same political party with the IDPs, if the government officials with the responsibility of rehousing the IDPs are not going to benefit financially from the reconstruction, they will delay the process of providing funds for such an important project. The engineers can also sabotage the reconstruction if they are in different political party with the beneficiaries.

- Lack of commitments; lack of commitments from the government officials, engineers and contractors have affected the outcome of many housing construction projects in in the past. The lack of commitments shown by many government officials and engineers when they are not benefitting financially from government funded projects is worrying because the behaviour affects the entire process. As such, the government officials will show very little interest or commitment towards the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, if they will not

benefit financially from it, but if there is slight chance to divert some money they will be fully committed.

"Some of the disadvantages of government driven approach include; government bureaucracy, corruption, lack of total commitment from the people connected with rehousing the IDPs and handling the project".

Lack of commitments from both the government officials and engineers is the reason why many affordable housing construction projects are uncompleted or abandoned in the country. Likewise, the contractors because most of the time the contractors work closely with the government officials and engineers to divert funds for such projects.

5.3.3 Owner driven approach

Out of nine housing construction experts interviewed, one of the experts representing 10% believe adopting owner driven approach for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri will produce the required result. The expert explained that under owner driven approach, the IDPs will handle the reconstruction by themselves and the government will only provide financial and technical assistance for them to reconstruct their houses. However, the government can also decide to provide financial assistance or compensation to the IDPs to rebuild their houses. In some countries with limited sources the government provide financial assistance to the displaced people in form of soft loans with a flexible repayment terms that will not add more pressure on them after what they have passed through. Interviewee 9 stated that;

"Owner driven approach will be the best approach to adopt in this kind of situation, because our commission consider the internally displaced people preferences as the major driven force in adopting any approach. For example, the commission adopted owner driven approach for the reconstruction of housing for the internally displaced people in Kebbi and Obi in Nasarawa and all are successful".

Owner driven approach will serve as an avenue through which the displaced people will interact with each other and assist one another to reconstruct their houses. Owner driven approach is cheaper to adopt compare to government driven approach or donor driven

approach because there is no need under owner driven approach for the government to hire unskilled labourers the IDPs can be employed as labourers.

5.3.3.1 Advantages of adopting owner driven approach for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria

The expert identified some advantages of adopting owner driven approach for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria. The advantages include cost effective, faster, houses will reflect the needs and preferences of the beneficiaries and empowerment of the displaced people.

- The houses will meet the needs of the IDPs; under owner driven approach, the housing will meet the needs and preferences of the internally displaced people. This is one of the differences between owner driven approach and government driven approach or donor driven approach. That is the reason why the IDPs always prefer to reconstruct their houses by themselves than for government or donor agencies to reconstruct the houses for them. Under Owner driven approach, the reconstruction will be a collaborative effort between the engineers, IDPs and members of the communities affected.

- Reduced cost of reconstruction, adopting owner driven approach will reduce the cost of hiring unskilled labourers and logistics because the displaced people can work as block layers, mixers, carpenters etc. They can also provide some logistics services like supplying of water, woods, cement, sand using local means of transportation without asking for money.

- Faster; under owner driven approach, the internally displaced people will reconstruct their housing better and faster than under government driven approach or donor driven approach because of the urgent need for them to return to their homes considering what they are passing through in the temporary camps. The camps where the IDPs are domiciled across the country are in bad condition without electricity, clean water, food, medicine, cloths and school among others. This has a exposed them to all sort of dangers ranging from rape, prostitution, child labour, child abuse, diseases among others.

- Empower the displaced people; under owner driven approach the IDPs will learn different building skills that are need within their communities which they can used as an additional source of income in the future. This will encourage the displaced people to become independent without relying on government or any other person to help them in the future. Interviewee 9 pointed out that;

  "Under owner driven the internally displaced will be happy with the houses after the reconstruction even if the houses are reconstructed with mode sand because the houses will reflect their needs and preferences, the approach is cost effective, easy to adopt and provide opportunity for the IDPs to learn different construction skills".

The displaced people can also train their children on some building skills they will learn during the reconstruction to also empower their children.

The expert further identified some disadvantages of adopting owner driven approach for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. The disadvantages include lack of building skills, diversion of resources, lack of commitment and shortage of resources.

- Lack of building skills; the internally displaced people do not have the building skills to carry out the reconstruction alone without assistance from the housing construction experts, but they can still handle the reconstruction successfully. Even though, lack of building skills will limit their contribution but with financial support from government and assistance from experts they will be able to reconstruct their houses successfully.

- Diversion of resources; under owner driven approach, the government might decide to give money directly to each displaced person to reconstruct their houses and they can decide to use part of the money to reconstruct their houses and used the remaining money for other purposes like farming, businesses, food etc. The reason might be because they have lost all their livelihoods and businesses during the conflict and they will want to have source of income after the reconstruction.

- Shortage of funds; the IDPs might experience shortage of funds because the money given to them by the government is not enough or due to lack of proper planning or as a result of unnecessary spending. The shortage of funds might be as a result of wrong

estimate or cost of rebuilding each house presented to the government by the engineers or contractors. It might be because of the increase in price of building materials or due to unforeseen problems that might occur during the reconstruction like stealing of cement or breaking of blocks among others.

- Lack of commitment; the engineers providing technical support to the IDPs to reconstruct their houses might not be fully committed to the reconstruction or show little commitment for political reasons, personal, ethnic differences, or religious differences. However, the engineers might show little interest in the housing reconstruction if they realised that they are not going to make money from the project. This can affect the progress of the reconstruction and its outcome because total commitment from the engineers will play significant role towards the success of the outcome. Interviewee 5 stated that;

"Some of the advantages of owner driven approach include lack of building skills by the IDPs, lack of commitment from the engineers etc".

Under owner driven approach, the internally displaced people might decide to use part of the funds for the reconstruction to solve some of their personal problems like food, health or business.

5.4 Challenges associated with reconstruction of housing for the internally displace people due to Boko Haram conflict in Maiduguri, Nigeria

The housing construction experts interviewed identified different challenges that can hinder the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria. The challenges include insecurity, corruption, relocation, urgency, government bureaucracy, lack of adequate resources, lack of roads, lack of water, scarcity of skill labour, inadequate building materials and scarcity of land among others. The experts explained that the above-mentioned challenges can delay or hinder the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, unless the challenges are address properly before the reconstruction.

- **Insecurity**; lack of peace and security will not only affect or delay the reconstruction of housing for the internally displaced people due to Boko Haram in Maiduguri but can hinder the reconstruction completely. This is because without peace in Maiduguri it will be impossible for the engineers to move or go to the site and risk their lives, likewise the contractors will reject any contract if there is no peace and security across the local government areas affected by the conflict. As we speak the Boko Haram terrorist are still attacking some towns and villages near Maiduguri. Nonetheless, the housing reconstruction can still go on while the conflict is ongoing, but the engineers and contractors will not be comfortable working in such condition and the IDPs might abandoned the houses for fear of attack from Boko Haram terrorist.

- **Lack of funds**; scarcity of resources can have serious effect on the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri. Nigeria generate most of its revenue from the sales of crude oil and the government generated so much revenue between 2007 to 2015 when the barrel of crude oil was sold at $104. The government was not able to save from the revenue generated within that period instead the resources were misappropriated and diverted for personal use by the senior government officials. Presently the price of crude oil has fallen between $40 to $50 per barrel and the government is facing different kind of challenges ranging from insecurity, poor health care services, bad roads, lack of quality education and unemployment among others. Therefore, the government does not have enough resources to reconstruct almost one million houses destroyed by Boko Haran terrorist across twenty-seven local government areas in Borno State and solve problem like kidnapping, unemployment, poor health care service, education, lack of good roads etc.

- **Lack of roads**; access to the areas where the housing reconstruction will take place is going to be a big issue because the roads linking the areas are in bad condition and some are not motorable. This will be a big challenge because if engineers or contractors cannot go to the site in good time or unable to transport building materials to the location in good time then the project will last for long time. Though, the engineers or contractors can get all the building materials they need in Maiduguri and without going far places to buy the materials.

- **Relocation**; resettling the internally displaced people to a different location is a big task that most of the time affect the outcome of the reconstruction. This is because the displaced people always want to return to their original homes may be because of their farms, businesses, families etc. That is the reason why it is very difficult for the IDPs to relocate to a different place if they are going to be far away from their families, relatives, friends, businesses, farm etc. The displaced people always reject the idea of relocation because they don't want to abandon their farm and businesses they have established for many years and start all over again.

- **Government bureaucracy**; government policies can delay and affect the success of any housing project as such government bureaucracy can hinder the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri. The procedures or processes that need to be followed when it comes to taking decisions within government set up most of the time slow down the progress of many projects. For example, many people will be involved in the process of approving the funds for the reconstruction and after the approval many people must be aware before the funds will be made available to the engineers, contractors or the IDPs. These processes are the reason why many housing construction projects are delayed and sometimes being abandoned.

- **Lack of skill labour**; short of skill labour within the areas affected by the Boko Haram conflict can delay the commencement of the housing reconstruction project in Maiduguri. It can also increase the cost of labour if the skill labourers will be hire from outside the areas affected. The success of any housing construction or reconstruction project depends not only on experts, but also on skilled and unskilled labourers because they play crucial role towards the success of any housing construction or reconstruction project. As a result of frequent attack carried out by Boko Haram terrorist many people have fled from Maiduguri to other towns and cities that are not affected by the conflict for safety and some people have left the state completely for fear of attack. It is possible that some of the skilled and unskilled labourers are among the people that moved to safe towns and cities and those with building skills that stay behind will not cope with scope of the project, considering the number of houses destroyed. Therefore, the engineers or contractors will have to hire skill labourers from outside the areas which will increase the cost of reconstruction.

- **Scarcity of land**; unavailability of land for developmental projects when the need arise is a big issue in most cities across the country not only in Maiduguri. That is the reason why it will be difficult for the government to relocate the internally displaced people because there is no vacant land that can be used for such project. Most of the land available are far away from the city which makes them unsuitable considering the insecurity situation in Borno State. Scarcity of land is one of the major problems associated with relocating IDPs because if the houses built are far away from their original homes it will be very difficult to convince them to move to such locations.

- **Inadequate building materials**; access to adequate building materials within the areas affected by the Boko Haram conflict in Maiduguri will be very difficult because a lot of businesses have been destroyed and many people who are into building materials business have lost their lives and some have lost their capital. Therefore, it will be very difficult for the engineers or contractors to buy all the building materials they need in Maiduguri. Even if the building materials are available the materials might be expensive because the supply chain has been affected by the conflict. Interviewee 7 stated that;

"Based on my experience in housing construction, there are many challenges that can delay the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri which includes; insecurity, lack of good transportation system, good roads, lack of building materials, culture, relocation, scarcity of materials, religion and corruption among others".

However, there are other challenges associated with reconstruction of housing for the internally displaced people due to boko haram conflict in Maiduguri such as culture, religion, ignoring the needs and preferences of the IDPs and political differences among others. These challenges will not only delay the reconstruction but can hinder the reconstruction completely if they are not address properly.

5.5 How to overcome the challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria

The housing construction experts interviewed provide some solutions or ways through which the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri can be overcome or address in order to successfully deliver housing to IDPs in Maiduguri. The challenges include insecurity, lack of resources, scarcity of skill labour, corruption, government bureaucracy, lack of land, relocation and lack of building materials etc.

- **Insecurity**; lack of peace and security can delay and hinder the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri. Therefore, what government needs to do in this situation is to provide all the resources the military need to buy military hard and soft wares they need such as arms, ammunitions, fighter jets, bullet proof jackets to confront the terrorist. However, the welfare of the military should be reviewed in terms of their salaries and allowances to encourage them to be committed to the war. Security can be guaranteed by establishment of temporary and permanent military barracks within the local government areas affected by the conflict and near the boarders separating Borno states and other African countries. This will allow the military personnel to monitor the movement of people coming in and out of Borno state and business activities going on near the boarders. This will play significant role towards providing peace and security in Maiduguri, because without peace and security the housing reconstruction will not be possible.

- **Lack of resources**; lack of funds can have serious effect on any kind of construction project not only reconstruction of housing for the internally displaced people due to Boko Haram conflict. Presently the government does not have enough resources to reconstruct almost one million houses destroyed by the Boko Haram terrorist across the twenty-seven local government areas affected by the conflict, and at the same time address other challenges like kidnapping, unemployment, poor education, bad roads. Presently the government does not have enough resources to address the challenges

affecting the country due to fall in crude oil price which is the government major source of revenue. Nevertheless, the government can source funds for the reconstruction from other sources of revenue like customs duty, federal inland revenue, Nigeria port authority etc. The government can also source the funds for the reconstruction from the United Nation intervention funds that are mainly used for humanitarian work and other non-governmental organisations.

- **Government bureaucracy**; government policies or procedures affect many developmental projects that are directly funded by the government. This is because the administrative way of doing things within government set up and the number of people involved in the decision-making process does not allow quick decision to be taken on very important issues that required urgent attention. But the delay can be avoided by making sure the people involved in the decision-making understands the importance of the project in order to make quick decisions.

- **Relocation**; relocating the internally displaced people to a different location is always a difficult task. The people responsible for rehousing the displaced people always put the idea forward to the IDPs but they reject it all the time. The best way to avoid such problem is by explaining to the displaced people the reason why they will be relocated to a different place which could be for security reason. Another way of addressing the problems of relocation is by involving the IDPs in the process so that they will understand why the relocation is necessary. This will provide opportunity for the displaced people to make sure their needs and preferences are taking into consideration during the construction so that the houses will meet their needs.

- **Lack of skill labour**; lack of skilled and unskilled labourers in the local government areas affected by the Boko Haram conflict can delay the progress of the reconstruction project because of their experiences and knowledge in housing construction. Though, the displaced people can be employed to work as unskilled labourers to carry out some certain building activities brick laying, mixing of sand and cement, providing water etc. The engineers or contractors can hire few skilled labourers from neighbouring towns or cities to work together with the displaced people so that the displaced people will learn some building skills which can use as a source of income in the future.

- **Corruption;** mismanagement of resources is a big problem that can have a great effect on the progress of a country not only on housing project. Therefore, to minimised waste of resources during the reconstruction the engineers and contractors that will handle the reconstruction should come from the same communities with the displaced people. This is because if the engineers or contractors are from the same place with IDPs it is possible they have a family member/s or relative/s are among the beneficiaries therefore, the engineers and contractors will be committed to the project and they will use the resources judiciously. In addition, the government can also set up a committee of elders from the affected communities to monitor and evaluate the progress of the reconstruction.

- **Needs and preferences of the IDPs;** ignoring the needs and preferences of the internally displaced people during the reconstruction will be a serious problem that can lead to rejection or abandonment of the houses by the beneficiaries. This problem can be avoided either by involving the displaced people in the reconstruction most especially during planning and redesigning of the houses so that they can explain to the engineers or contractors what they want. The engineers or contractors can also discuss with the displaced people to understand their needs and preferences so that the houses will meet the needs of the beneficiaries. Interviewee 6 explained that;

"The issue of insecurity can affect the success of every aspect of the reconstruction most especially the logistics, because without security or peace in the areas affected by the conflict, supply of materials to the site or movement of people building materials will not be guaranteed which means reconstruction will not be possible. Another major challenge that can affect or hinder the reconstruction is limited funds. Presently the government does not have enough resources at its disposal therefore, the government will not want to spend much on the reconstruction of the displaced people houses and ignore other challenges like kidnapping, lack of quality health care, poor education system, lack of good roads etc".

There are other challenges the government is trying to address that are very crucial to the development of the country like drug abuse, kidnapping and unstable electricity.

5.6 Summary of chapter five

This chapter presented the analysis of the qualitative data gathered through one-on-one interviews carried out with housing construction professionals as part of the sequential explanatory mixed methods. The chapter analysed different approaches used for the reconstruction of housing for the internally displaced people due to natural or manmade disasters and appropriate approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. The chapter further analysed the advantages and disadvantages of each approach identified by the housing construction professionals for the reconstruction of housing for the IDPs in Maiduguri. The chapter also analysed the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri and the opinion of the housing construction professionals on the challenges that can delay or hinder the reconstruction of housing for the IDPs due to Boko Haram conflict.

Chapter 6: Discussion of the Findings

This chapter presents further analysis and discussion in combination with the findings from the literature reviewed, questionnaire surveys and one-on-one interviews (chapters 2, 4 and 5) respectively. In this chapter, the discussion of the findings and presentation of data is structured the same way as the research questionnaire and the interview guide presented. This chapter therefore comprised:

➢ The history of Boko Haram conflict and the effect of the conflict on housing demand in Maiduguri, Nigeria

➢ Approaches use for the reconstruction of housing for the internally displaced people due to natural or man-made disasters

➢ The approach to adopt for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria

➢ Challenges associated with reconstruction of housing for internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria

Sub-objective

➢ Opinion on the challenges that can delay or hinder the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri

The discussion in each section will be link to relevant research question to explain how the research objective was achieved. Table 6.1 presents the connection between each section, research question, research objective and where the research objective was achieved within the thesis. Most of the important information or points that emerges from the analysis are connected to the findings from the literature reviewed presented within chapter 2, have been discussed in the analysis of findings presented in chapter 4 and 5 of this research. Creswell (2014) pointed out that discussion of findings from the data analysis together with results can be carried out therefore, the discussion in this chapter comprises references to related sections, tables and figures in different chapters of this thesis. The discussion was based on the literature review, abductive, sequential mixed research approach adopted (see 2.6.2, 2.7.1, 4.4.4 and 4.4.6). This method combines quantitative and qualitative methods in a sequential

way for in-depth exploration and explanation in details of the phenomena under study (see section 4.10.6).

Table 6.1: The link between the section, research question, research objectives and how the research objectives is achieved.

Section	Research Questions	Research Objective	Where the Objective was Achieved
1. The effect of Boko Haram conflict on housing demand in Maiduguri, Nigeria		To examine the history of the conflict and the effect of the conflict on housing demand in Maiduguri, Nigeria	Section 2.6.2
2. Approaches for the reconstruction of housing for internally displaced people due to conflict	What are the approaches used for the reconstruction of housing for the internally displaced people due to conflict	To explore different types of approaches towards reconstruction of housing for the internally displaced people due to conflict	Section 5.2
3. Approach to adopt for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria	Which of the approach should be adopted for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria	To identify the appropriate approach for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria	Section 6.3
4. Challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria	What are the challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria	To critically examine the challenges associated with reconstruction of housing for the internally displaced people due to conflict and in relation to Boko Haram conflict in Maiduguri, Nigeria	Section 6.5, 6.6
5. Validation of the framework for the reconstruction of housing for the internally displaced people due to conflict	What are the benefits of having a well-developed framework for the reconstruction of housing for the internally displaced people due to conflict	To develop and validate the framework for the reconstruction of housing for the internally displaced people due to conflict	Section 7.3

However, the results gathered from the literature reviewed, questionnaire, interviews were used to further improve the framework for the reconstruction of housing for the internally displaced people due to conflict.

6.1 Section 1: Discussion of the findings on history of the Boko Haram conflict and the effect of the conflict on housing demand in Maiduguri, Nigeria (Objective One)

This section presents the findings from the literature on the history of Boko Haram conflict and the effect of the conflict on housing demand in Maiduguri, Nigeria. The findings from the literature revealed that conflict is a global issue and can occur as a result of clash of political, social, economic interest or religious differences. Conflict can occur between communities, countries or organisations that wants to protect their interest at all cost without considering the consequences of their actions (Pfetch, 2012). If conflict occurs can remain for long time because it is very difficult for the parties involved to embrace peace. It was understood that Nigeria have had its own share of conflict in the past, but Boko Haram conflict is considered the most difficult conflict the country has ever witnessed since independence in 1960.

The group was formed by Mohammed Yusuf in 2002 with the aim to force government to introduce Islamic Legal System (sharia) in Borno State where everything will be carried out according to Islamic laws. The group were called Jama 'Atul Ahlas Sunnah Lida'awati Wal jihad (JASD) which means the Muslims that follow the deeds and actions or the complete way of life of the Prophet Muhammad (SAW) before they change their name to Boko Haram. The word Boko Haram is a mixture of words derived from Hausa word Boko which means Book or western education and Haram is an Arabic word meaning impermissible or forbidden. In combination the word Boko Haram in the real sense means western education is forbidden in Islam. This is because most of the people in the north believe western education has connection with Christianity because it was introduced and teach by the missionaries in the early 60s (Onuoha, 2012). The group later change their motto to seeking for western knowledge is not allow (forbidden) and adopted the motto of learning western culture is forbidden in Islam.

The difference between the two mottos is that, the actual impression of the first motto is that Boko Haram terrorist are against seeking for western education or knowledge while the second motto show the group believe in the supremacy of the Islamic values over the western education. Mohammed Yusuf was born in a village called Girgir in Yobe State in 1970 and remained the head and commander of the group. The first violence confrontation between the group and police occurred in Yobe State while the police try to enforce a road safety law (Danjibo, 2009). The law requires all commercial motorcyclist riders to wear crash helmet for safety but the members of the group who are mostly the commercial motorcyclist refused to wear the crash helmet while riding their motorcycle. The police while trying to enforce the law decided to arrest any commercial motorcyclist that is not wearing crash helmet and most of the people arrested were members of the group.

It was discovered from the literature that the arrest of the members of the group led to the first violent confrontation between the group and the Nigerian police force which as a result seven-teen members of the group were killed during crossfire. Following the violence, the group mosque, Arabic school and other structures they used for their activities was searched by a joint team of military and police where guns, ammunitions and other local materials they used in making explosives were found and seized by security personnel. This operation provoked the group and triggers the conflict, so the group mobilised their members and stage a violent attack on Nigerian security agencies which caused the death of many police personnel and civilians. The attack was contained when the military attack the headquarters of the group and captured their leader and many members of the group.

After the operation, the Nigeria military handed over Mohammed Yusuf together with over eight hundred members of his group to the Nigerian police force for further investigation and necessary actions. The Nigerian police immediately decided to kill Mohammed Yusuf together with eight hundred members of his group without taking them to court so that the law will determine their punishment (Umar, 2011). The decision taken by the police and the brutal way the leader and other members of the group were killed by the police was the reason why the group came out since 2009 attacking security agencies, civilians, religious institutions, individuals, schools in order to show their anger.

It was also discovered that since the death of Mohammed Yusuf, Boko Haram terrorist has carried out several attacks in all part of Northern Nigeria that killed thousands of people and displaced many across ethnic groups. Among the attacks carried out by the group include the

attack of Baga town where one hundred and eighty-six thousand people were killed, and two thousand one hundred and twenty-eight thousand houses were completely burnt including cars and other structures (Danjibo, 2009). On 4th November the group carried out multiple attacks using Impoverish Explosive Device (IEDs) and Vehicle-Borne IEDs in Yobe, Damaturu and Maiduguri towns where over one hundred people were killed, some are displaced, and many houses were destroyed (CNN Library, 2019). The group also attack mosques, churches, schools, motor parks, markets and police stations in Kano killing more than two hundred people. As a result of frequent attacks carried out by the group and the number of people dying every-day from 2009 to 2012, Human Right Organisation (HRO) revealed that over three thousand five hundred people were killed between 2009 to 2012 in Nigeria.

However, as a result of the attacks carried out by the group many businesses have closed in Maiduguri forcing people to leave their houses and relocate to neighbouring states. In the early 2012 to 2013, the group carried out many attacks within the suburbs of Maiduguri over powering the communities and establishing their rules in those areas, but the trends was changed in 2015 when the military overpowered and flushed the terrorist out of those areas or territories they have been controlling for months (Usman, 2018). The terrorist further moved to far flung towns and villages destroying houses schools, markets, mosques, churches etc. the presence of the terrorist in those towns and villages caused a mass movement of people who fled for fear of attack and to escape maltreatment from the hands of the terrorist.

Because of frequent attacks carried out by Boko Haram terrorist, the International Displacement Monitoring Centre (IDMC) estimated that over one million nine hundred and fifty thousand people have fled their homes to urban areas within the crisis states or zones. Out of this number only ten percent where leaving in the official humanitarian camps or shelter in the thirteen states with majority in Maiduguri- the battle ground of the Boko Haram terrorist. The people leaving the trouble areas to the city came with money to buy new houses in the safe areas and the prices of houses in such areas keep on increasing every day due to high demand (Iyorah, 2016). The effect of the conflict on housing was enormous and over stretched houses particularly in Maiduguri because of the journalist going in and out of Maiduguri to cover the events, expatriates, NGOs, humanitarian agencies and government officials all are squeezed into a very small city competing for a place to sleep.

The findings also revealed that Maiduguri was originally designed to accommodate not more than two million people but because of Boko Haram conflict the city presently accommodates up to five million people which has over stretched houses in the heart of Maiduguri (Audu, 2018). For example, A house that is built for families of two or three people now accommodates about nine to ten people because the demand is high, which makes it is very difficult to find an empty house or land within the major city. This is one of the reasons why in 2015, Borno State government established ministry of reconstruction rehabilitation and resettlement in order to rebuild the communities affected, rehouse the displaced people and to reduce the pressure on housing in Maiduguri. But it appears that the Nigerian government and Borno state government did not see displacement of people as a serious national security challenge or as an issue of national importance instead the government is more interested in fighting the terrorist group through huge investment in military hardware and software than giving a little bit of attention towards rehousing the internally displaced people.

However, there is also a problem of lack of proper documentation and record of the number of people displaced which makes it difficult to provide the required interventions. Over the years, the number of people in need of housing continue to increase with new report emerged from the International Displacement Management Commission (IDMC) that apart from the two hundred and seventy-nine thousand people displaced in 2017, another four hundred and seventeen thousand people were displaced from January to June 2018.

6.2 Section 2: Discussion of findings on the approach to adopt for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria (Objective Two)

This section presents the analysed findings and discussion from the literature review, questionnaire and interviews in order to identify the approaches for the reconstruction of housing for the internally displaced people due to conflict and the appropriate approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria. The findings will provide insight and understanding of the approaches used for the reconstruction of housing for the IDPs and the appropriate approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, in order

to answer objective two and to achieve the main aim of this research. Therefore, the discussion is on the results of the approaches used for the reconstruction of housing for the IDPs and the best practice approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria.

6.2.1 The approach to adopt for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria

Prior to undertaking post conflict housing reconstruction there is a need to take some decision regarding the type of housing reconstruction to be carried out. Whether to reconstruct the houses destroyed or to construct new houses for the internally displaced people, and the type of approach or strategy to adopt for the reconstruction need to be clear. This is because there are different types of approaches used for the reconstruction of housing for the IDPs due to natural or manmade disasters. The approaches include government driven approach, owner driven approach or cash back approach, donor driven approach, contractor driven approach among others (Jba et al, 2010). One of the common or major problems associated with reconstruction of housing for the IDPs due to natural or manmade disasters is the rejection and abandonment of the houses by the beneficiaries due to dissatisfaction. Post conflict housing reconstruction often begin without understanding the needs or what the displaced people want which in most cases compound their situation or worsen their condition (Lizarralde and Bouroui, 2010). That is why in many situations, housing reconstruction that adopt top-down approaches fail to produce the desired outcomes because their focus is on speed, standardisation and technologically oriented solutions. Top-down approaches to housing reconstruction for the IDPs are mostly based on prefabricated technology and expert's judgement which is believed to be the answer to large quantity of housing reconstruction due to natural or manmade disasters. Under such approaches socio-economic and cultural issues are being ignored because of the urgency to re-house the IDPs.

In contrary to the top-down approaches, in the last decade many experts have supported the used of bottom-up approaches for the reconstruction of housing for the IDPs due to natural or manmade disasters (IDNDR, 1996; Cockburn and Barakat, 1991). Bottom-up approaches encourages the involvement of the IDPs in the reconstruction in collaboration with the housing construction professionals to have all-inclusive housing reconstruction. These

approaches have advantages over top-bottom approaches and produce better results if they are well planned and executed, cheaper to implement and are tailored towards the needs and preferences or aspirations of the beneficiaries.

Findings from the enquiry of the appropriate approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in the first stage of data collected through questionnaire survey shows that fifty-eight (58) of the IDPs representing 67.4% out of eighty-six (86) indicates owner driven approach as the best approach to adopted for the reconstruction of the houses destroyed by Boko Haram terrorist in Maiduguri. The displaced people believe if they handle the reconstruction by themselves, they will reconstruct their houses quick and the houses will reflect their need and preferences. It was also understood that post conflict housing reconstruction should be carry out based on the needs and preferences of the displaced people because ignoring the needs and preferences of the end users can lead to rejection and abandonment of the houses.

Adopting owner driven approach will reduce the cost of labour because the displaced people can be employed to carry out some of the labour work like mixing of sand and cement, block laying, provide water etc. The approach will also provide opportunity for the displaced people to learn different building skills from the housing construction professionals that will work with them during the reconstruction. This type of approach was adopted by donor agencies and many countries in the past to reconstruct houses destroyed due to natural or manmade disasters. For example, Sri Lankan government and some donor agencies used this approach to reconstruct many houses destroyed by tsunami in 2005 (AETS, 2012).

The findings also show that twenty-eight of the internally displaced people representing 32.6% want government driven approach to be adopted. The reason is that they don't have the building skills or knowledge to handle the reconstruction by themselves even with support from the housing construction engineers. They believe if the government handle the reconstruction the building construction professionals will make sure that the houses are rebuild in accordance with standard practice. It is assumed that any post-conflict housing reconstruction that is carry out by the government through the housing construction professionals will be successful. But in most situations the displaced people reject the houses because the professionals used their judgement, experience and knowledge to reconstruct the houses without considering or understanding their needs. For example, the temporary houses constructed under this type of approach in Kobe, Japan were rejected by the displaced people

because the houses were far away from the original home of the displaced people, building materials used are substandard, lack of electricity, water, small living space and lack of insulation (Edgington, 2010).

However, out of fifty-nine housing construction professionals that responded to the questionnaire, twenty-three representing 39.0% want government driven approach to be adopted for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri. The professional believes that the IDPs does not have the building skills required to handle the reconstruction alone without the support or guidance of the housing construction professionals which will limit their contribution. But the government have many housing constructions engineers that can handle the reconstruction successfully. Under government driven approach (GDA) the government will be confident enough to provide the required resources needed for the project believing that the housing construction professionals handling the reconstruction will make sure the project is successful, even though, the success or failure of any post-conflict housing reconstruction depends on the acceptance of the housing by the displaced people.

But twenty of the housing construction professionals representing 33.9% want owner driven approach (IDPs driven approach) to be adopted because it allows both the displaced people and the housing construction professionals to work together in order to reconstruct houses that will meet the needs and preferences of the beneficiaries. The approach can serve as a capacity building or empowerment process whereby the internally displace people will learn both skilled and unskilled building skills from the housing construction professionals which they can use in the future to earn additional income. This approach was adopted in different housing reconstruction and has produced positive results. For example, after the 2009 war in Sri Lanka the government adopted owner driven approach to reconstruct majority of the houses destroyed in Northern Province and NGOs adopted owner driven assisted housing approach to reconstruct some of the houses (Adelakun, 2014). However, in Lebanon after the war in 1991, the government adopted owner driven approach by providing cash compensation to the displaced people from Al-Burjain, Debbie and other communities to reconstruct their houses destroyed during the war (El-Masri and Kellet, 2001).

While sixteen housing construction professionals representing 27.1% believe donor driven approach should be adopted because the reconstruction will be faster, and the houses will be delivered to the displaced people in good time. But the major problem associated with this

type of approach is that the houses reconstructed will not meet the needs and preferences of the displaced people because the engineers or consultants hired by the donor agency to handle the reconstruction will not consider what the displaced people want instead, they will used their knowledge and experience to reconstruct the houses or what they think is the best thinking the beneficiaries will like it. This approach has yielded positive results in some countries but failed in many countries because the housing failed to meet the needs of the beneficiaries. It could be agreed that the data collected through questionnaire survey revealed that owner driven approach is the preferred approach by the internally displaced people while housing construction professionals preferred the adoption of government driven approach for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri.

The findings from the qualitative data gathered through one-on-one interviews show that, out of the nine housing construction professionals interviewed, six housing construction professionals representing 0.6% reported that government/owner driven approach is the most appropriate approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. It was understood that the adoption of government/owner driven approach (GODA) will provide opportunity for the housing construction engineers and the internally displaced people to work together towards achieving the same goal. The working relationship is vital because on one hand, the professionals has the knowledge and experience in housing construction therefore they will make sure the building procedures are followed and the houses meet the standard. On the other hand, the displaced people know exactly what their needs and preference are or what they want so they will make sure that their needs and preferences are considered by the professionals during the reconstruction

Two housing construction professionals equating to 0.2% believe government driven approach is the most suitable approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. The adoption of government driven approach will allow the housing construction engineers to handle the reconstruction project in order to ensure building regulations are obeyed, quality control and to avoid using sub-standard materials. The approach if adopted will reduce waste of building materials because the engineers will inspect and evaluate the houses destroyed in order to know the quantity of building materials required. It was discovered that under government driven approach the housing reconstruction will be completed within short considering the knowledge and experience of the engineers in housing construction.

One housing construction professional representing 0.1% believe owner driven approach is the best approach to adopt for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria. Owner driven approach (ODA) is a type of approach that allows the IDPs to handle the reconstruction by themselves the role of government or donor agencies under this approach is to provide financial and technical support to the displaced people to reconstruct their houses. For example, after the war in Lebanon in 1991 the government provide cash compensation to the displaced people to reconstruct their houses. While in Sri Lanka, the government after the war in 2009 provide financial assistance to the IDPs in form of soft loans with flexible repayment terms to reconstruct their houses (Gunasekara et al, 2016).

6.2.2 Discussion of the findings on the approach to adopt for reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria and the advantages and disadvantages of adopting the approach.

Findings from the questionnaire survey revealed that most of the internally displaced people want owner driven approach to be adopted instead of government driven approach for the reconstruction of the internally displaced people houses destroyed by the Boko Haram terrorist in Maiduguri. Owner driven approach (ODA) is one of the approaches or strategies used for the reconstruction of housing for the IDPs due to natural or manmade disasters. The approach is also called cash-based approach. Under this type of approach, the government or donor agencies will only provide funds and technical support to the IDPs to reconstruct their houses by themselves. Owner driven approach was adopted by many donor agencies to reconstruct housing for the IDPs in different post-disaster housing reconstruction (Ratnayake and Rameezdeen, 2008). For example, the international federation of red cross and red crescent societies were the main donor during the post-tsunami housing reconstruction in Sri Lanka and adopted owner driven approach for the reconstruction of fifteen thousand one hundred and twenty housing out of twenty-two thousand three hundred and fifty houses.

Even though, most of the donor agencies adopted donor driven approach to reconstruct the displaced people houses in Sri Lanka, but still owner driven approach is being used in many posts natural or manmade housing reconstruction. Bernstein et al, (2006) carried out a research on different types of approaches or strategies adopted for the reconstruction of

housing for the displaced people in Gujarat, India and discovered five approaches that include owner driven approach, subsidiary housing approach, participatory housing approach, contractor-driven approach in situ and contractor-driven approach ex nihilo. The contractor-driven approach in situ and contractor-driven ex nihilo are mostly used for the reconstruction of housing for the internally displaced people due to natural disasters. Bernstein et al (2006) argued that owner driven approach is a new approach or strategy that is commonly used for housing reconstruction and the approach is also called cash-based approach or cash-grant approach and can serve as an alternative to relief materials.

The housing construction professionals highlighted some advantages of adopting owner driven approach for the reconstruction of housing for the IDPs in Maiduguri which include cost effective, serve as capacity building process, faster etc. Adoption of ODA will reduce the cost of hiring unskilled labourers because the displaced people can be employed to work as mixers, water, block laying etc. The approach will serve as a capacity building process or as a way of empowering the internally displaced people because they will learn different building skills which they can use in the future as an additional source of income. However, under owner driven approach, the houses produced will reflect or meet the needs of the beneficiaries and the reconstruction will be faster than under government or donor driven approach due to the urgency from the displaced people to return to their home.

It was understood that one the disadvantage of adopting owner driven approach is that the IDPs might decide to use the money given to them to rebuild houses for other purposes like business, marriage, farming or use it to solved a different problem. Some of the countries that adopted owner driven approach and successfully reconstruct housing for the displaced people include Sri Lanka, India and Indonesia. There are some factors that are responsible for the success of post-conflict housing reconstruction such as availability of resources, support and cooperation of the affected communities, favourable government policies, involvement of the displaced people, community participation and understanding of the displaced people culture and their environmental conditions.

Finding from the questionnaire presented to the housing construction professionals showed that most of the experts preferred the adoption of government driven approach for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. Even though the difference in responses between government and owner driven approach is not much. Government driven approach is one of the approaches used for the reconstruction of

housing for the IDPs due to natural or manmade disasters. The experts pointed out that if the government handle the reconstruction the houses will be reconstructed in accordance with building procedures and practice. It was also discovered that under this approach the government will provide all the funds required for the reconstruction because of the confidence and believe that the engineers will deliver housing to the IDPs successfully.

But the findings from the one-on-one interviews shows that six of the housing construction professionals believe government/owner driven approach is the most appropriate approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. The professionals believe the approach will allow the engineers handling the reconstruction or contractors to work closely with the displaced people in order to achieve the best result. The engineers or contractors will interact with the beneficiaries with the aim of understanding what they want or their needs and preferences so that the houses will meet their needs and preferences. This approach can produce housing that is acceptable by the beneficiaries because if adopting owner driven approach, donor driven or government driven approach can produced the anticipated result or outcome that is accepted by IDPs, then housing produced under government/owner driven approach (GODA) will be accepted by all the beneficiaries in Maiduguri.

The findings further revealed that adopting government/owner driven approach for the reconstruction of housing for the IDPs due to Boko Haram conflict will reduce the cost of labour because the beneficiaries (IDPs) can work as labourers without expecting any cash compensation in return since they are the end users. It was also understood that adopting GODA will ensure judicious use of resources because the IDPs will monitor closely the activities of the engineers and how they spend the funds for the reconstruction. Under GODA the housing will be completed faster or quicker than when government driven approach, owner driven approach or donor driven approach is adopted because of the collaboration between the housing construction professionals and displaced people. The experts also believe adopting GODA approach will serve as a way of training and retraining of the displaced people on different building skills, create job opportunities for the communities, improve local businesses and markets in Maiduguri.

The findings also revealed some disadvantages of adopting government/owner driven approach even though the advantages of adopting the approach surpassed the disadvantages. Disagreement between the engineers or contractors and the IDPs may occur particularly

during planning and redesigning of the houses is considered as one of the major disadvantages of adopting government/owner driven approach but the disagreement can be resolve through discussion and understanding. Lack of commitment from the engineers or contractors is another disadvantage because if they are not going to make money from the project or divert some of the funds for their personal use, they will be reluctant to be committed to the project. Lack of building skills from the displaced people is another disadvantage of adopting owner driven approach because most of the displaced people does not have any building skills therefore, their contribution during the reconstruction will be limited due to lack of building skills, but they can still make significant contribution if used as unskilled labourers.

"*Post-conflict housing reconstruction that involved the internally displaced people or that is carried out based on the needs and preferences of the beneficiaries has produced a good result in many housing reconstructions projects* (Ophiyandri et al, 2010).

Though, adopting government/owner driven approach for the reconstruction of housing for the displaced people due to Boko Haram conflict in Maiduguri will produce a good result that will be acceptable by both the government and the displaced people, but there is a need for the engineers and the displaced people to understand their roles during the reconstruction.

Owner driven approach is one of the approaches used for the reconstruction of housing for the IDPs due to natural or manmade disasters. The approach is also called cash-based or cash-grant approach and can be used as a replacement to relief materials. Under this approach the IDPs will handle the reconstruction project while the government and donor agencies will only provide the resources and technical support the displaced people need to reconstruct their houses. This does not necessary mean that the displaced people will rebuild their houses by themselves, but they will be at the forefront in order to make sure that the houses are reconstructed based on their needs and preferences. This approach was adopted by many government and donor agencies to reconstruct housing for the IDPs in different post-natural and manmade disaster housing reconstruction situations (Ratnayake and Rameezdeen, 2008). For example, the approach was adopted by the International Federation of Red Cross and Red Crescent Societies to reconstruct fifteen thousand one hundred and twenty houses out of the twenty-two thousand houses destroyed by tsunami in Sri Lanka**.**

Berstein et al, (2006) argued that owner driven approach is a new strategy compare to government driven approach and donor driven approach because the approach is not mostly used for post conflict housing reconstruction. The advocates of the cash-based approach highlighted some of the advantages and disadvantages of adopting the approach for the reconstruction of housing for the internally displaced people. The experts believe the approach will serve as capacity building process, quick way of delivering housing to the IDPs, cheaper to adopt, improve local businesses and markets among others. Adopting owner driven approach will provide the IDPs will different choice in terms of whether to redesign their houses or to maintained the old design and the opportunity to learn different kind of building skills during the reconstruction. However, under ODA the houses will be completed quicker than under government or donor driven approaches because of the urgency from the IDPs to move into the houses.

The approach is cheaper to adopt because the IDPs will not expect any cash compensation by taking part in the reconstruction since they are the beneficiaries or end users which will reduce the cost of labour when compare to GDA or DDA whereby the government or donor agencies will have to hire many engineers and consultants that will handle the reconstruction and skilled and unskilled labourers or even award contract for the housing reconstruction to local contractors or companies to carried out the projects.

6.3 Discussion on the challenges associated with reconstruction of housing for the internally displaced people due to conflict and in relation to reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria

Based on the research question 2 (see section 1.3.2) this section discussed the findings from the literature reviewed, questionnaire and one-on-one interviews in order to identify the challenges associated with reconstruction of housing for the internally displaced people due conflict and in relation to Boko Haram conflict in Maiduguri. The findings will provide a good understanding of the challenges and the extent to which the challenges can delay or hinder the housing reconstruction in Maiduguri, Nigeria. To achieve objective 3 and the main objective of this research, the findings are discussed based on the Relative Importance Index (RII) Rankings of the challenges identified from the questionnaire survey (see section 4.5,

4.5.1, 4.6 and 5.4) and will be related to the references made to the latent themes resulting from the semantic themes in the one-on-one interviews.

6.3.1 Discussion of the findings on the challenges associated with reconstruction of housing for the internally displaced people due to conflict and the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria

Compare to normal housing construction, reconstruction of housing for the internally displaced people is different, dynamic and complex therefore, require the understanding of the cultural, economic, needs and preferences of the beneficiaries and the environmental condition of the area affected for the housing reconstruction to be successful (Davidson, 2010). Therefore, there is a need for further research in the area of post-conflict housing reconstruction in order to find new ways to enhance the existing practices and improve the future outcomes of such projects (Saunders, 2011; Lloyds-Jones, 2010). It is equally important whilst carrying out such projects to give more attention to the challenges that can affect the success of the reconstruction because very little or no attention was given to the challenges that can delay or hinder such an important project.

It was discovered from the literature that ignoring the challenges completely or refusing to give them the required attention will delay or hinder such projects. Some of these challenges include refusal to involve the beneficiaries (IDPs) in the reconstruction, insecurity, relocation, lack of funds, mismanagement of the reconstruction funds or corruption and ignoring the needs and culture of the displaced people etc. Findings from the questionnaire survey presented to the internally displaced people revealed that insecurity is the major challenge the displaced people will face during the reconstruction if the government decide to adopt owner driven approach for the reconstruction of the IDPs houses destroyed by the Boko Haram terrorist in Maiduguri. Other challenges identified by the displaced people which was presented in Table 4.12 include inadequate skill labourers, lack of good transportation system, scarcity of water and lack of building skills from the internally displaced people. It was understood that if these challenges are not properly address or overcome it will be difficult for the IDPs to carry out the reconstruction successfully.

The findings from the questionnaire survey presented to the housing construction professionals revealed that lack of water, inadequate building materials and scarcity of labour are the major challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri. However, other challenges highlighted by the housing construction professionals include lack of roads, insecurity, insufficient resources and lack of transportation system (see section 4, table 4.27). These findings correspond with the findings from the one-on-one interviews carried out with the housing construction professionals as well as the findings from the literature review presented in section 2.10. Based on the Relative Importance Index analysis carried out to understand the challenge/s with high RII, lack of water, inadequate building materials, scarcity of skilled labourers came first with Relative Importance Index of 0.990. Lack of roads was second with Relative Importance Index of 0.987 and Insecurity came third with Relative Importance Index of 0.981. However, insufficient resources and lack of transportation system with lowest joint Relative Importance Index of 0.762 came forth (see table 4.12). Therefore, findings from the literature review and the questionnaire surveys validated the findings from the questionnaire in table 4.12 and 4.28 respectively.

The findings from the one-on-one interviews with housing construction professionals further revealed the extent at which the challenges above will affect the housing reconstruction for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria. The professionals maintained that insecurity is the major challenge because Boko Haram terrorist are still attacking some communities in Maiduguri using gun and explosive devices. Therefore, without peace and security across in Maiduguri it will be difficult for the reconstruction to commence, and even if the reconstruction begins while the conflict is ongoing, with pocket of attacks being carried out the reconstruction will not be completed in this kind of situation. It was discovered that mismanagement of the funds for the reconstruction by government officials, engineers or contractors will delay the housing reconstruction which will increase anxiety among the IDPs and worsen their condition. For, example, the literature revealed that after the tsunami in Sri Lanka in 2004, the donor agencies and other NGOs had to used part of their money to bribe some government officials to repair their relationship with the government when they are not happy with housing reconstruction project. Therefore, there is possibility for the engineers, contractors and government officials with the responsibility to rehouse the IDPs in Maiduguri to mismanage or divert part of the funds for their personal used.

It was also understood that relocation will affect the outcome of the housing reconstruction to a large extent, because if the displaced people are not involved in the relocation process from the early stage they will be against the idea. For example, Dikmen and Nese (2005) carried out a research on post-disaster housing reconstruction after the earthquake in Cankiri, Turkey and discovered that relocating the displaced people from their original homes to a different place can be failure because they don't easily accept relocation without understanding the reason behind it. The study further revealed that the houses reconstructed in Situ were occupied quickly by the beneficiaries, but the new houses built at a different location were abandoned. However, if the location where the government or donor agencies intend to build new houses for the IDPs is far away from their original home they will reject the houses even if the houses are already built. This is because of their businesses, family members, relatives, friends, jobs, farms etc. Government bureaucracy is another challenge that will affect the progress of the reconstruction because of the administrative way of doing things within government set up. Before decision are made in a government organisation many people must be involved in the process that's why many housing construction projects in Nigeria last for many years and sometimes are being abandoned.

Lack of commitments from the government officials with the responsibility to rehouse the IDPs, engineers and contractors can have serious effect on the reconstruction of housing for the IDPs in Maiduguri. For example, the government officials might decide to waste time before they provide funds to the engineers handling the reconstruction if they are not going to take part of it or because of political, tribal or ethnic reasons. Likewise, the engineers might to go to the site of the reconstruction late or refuse to go for the whole day or days if they are not going to benefit financially from the project which will slow down the progress of the work. However, inadequate building materials due late payment of building materials supply by the contractors will delay the progress of the reconstruction which mostly lead to abandonment of the project. The findings further revealed that lack of funds is another major challenge that will delay or hinder the reconstruction because presently the government does not have adequate resources to rebuild the houses destroyed by the Boko Haram terrorist in Maiduguri and also face other challenges like kidnapping, job creation, poor education, bad roads among others.

It was discovered from the literature that resources are very important element that determines the success of every housing reconstruction projects. The use of resources has

increased significantly recently due to population growth and socio-economic development in some countries with strong economy. Many countries like Qatar, Saudi Arabia, Nigeria, Iran that generate most their revenue from crude oil are experiencing shortage of resources because of the fall in the crude oil price (Abed et al, 2013). There are other internal challenges apart from the fall of the crude oil price that are responsible for the scarcity of resources in most of these countries. For example, the pipeline vandalism, crude oil theft by Niger Delta Militant Group (MDMG) has reduce the volume of crude oil produce daily in Nigeria. This is one of the reasons why Nigerian government will find it very difficult to provide the needed funds for the reconstruction of houses destroyed by the Boko Haram terrorist in Maiduguri and ignored other area like health, education, roads, Agriculture etc.

The findings revealed that lack of good motorable roads linking the areas where the houses will be reconstructed will affect or delay the reconstruction. For example, if the engineers handling the reconstruction cannot get to the site of the reconstruction in time and the contractors cannot transport building materials to the location then the reconstruction is going to last for a long time, and when construction projects are slow, they end up being abandoned most especially in inaccessible areas in Nigeria. However, the urgency from the IDPs to return to their original homes is another challenge that will put pressure on the engineers or contractors to complete the project in time which can affect the quality of the houses due to anxiety from the engineers and contractors to finish the houses in good time.

6.3.2 Discussion of the findings on how to overcome the challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria.

The findings from the one-one-one interviews with housing construction professionals revealed how to address or overcome the challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria. It was discovered that the problem of insecurity is one of the major challenges associated with reconstruction of houses destroyed by the Boko Haram terrorist in Maiduguri. The insecurity problem can be address by improving the security architecture within and outside Maiduguri. For example, by employing many secret informants from the affected communities, procurement of latest military hard and software's, enhancing the sources of intelligence information as well as improving the welfare of the security agencies like

military, police, customs, air force, navy and other local support groups. The professionals believe that problem of urgency from the IDPs to return to their homes due to the condition of temporary camps they are staying in across the country can be address by improving their condition and providing their basic needs. For example, enough food, clean drinking water, medical care, electricity and other basic amenities that will make them comfortable.

It was also understood that lack of commitments from the government with the responsibility to rehouse the displaced people can be address through the establishment of committee of reconstruction that will supervise and monitor the project and the members should come from all the communities affected by the conflict. The engineers that will handle the reconstruction and contractors should come from the same place with the beneficiaries because the members of the committee, engineers and contractors might have a family member/s among the displaced people which will encourage them to be fully committed to the success of the project. However, the issue of corruption or mismanagement of resources can only be minimised but not completely eradicated through proper monitoring and evaluation of the project by the committee of reconstruction, considering the level of corruption amongst the people in Nigeria.

The findings further revealed that government can source funds for the reconstruction from other sources of generating revenue like Customs Service, Federal Inland Revenue Service, Nigerian Port Authority instead of depending on revenue from the sales of crude oil. The government can also source funds for the reconstruction by seeking support from big local and international companies operating in the country as well as from United Nation department of humanitarian activities. However, lack of good roads can be address through collaboration between the local government and state government so that they can find a way to either expand the existing roads or create new roads within their financial power or through community development for easy movement of people and transportation of building materials to the sites of the reconstruction.

6.4 Discussion of the findings on the challenges that can delay or hinder the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria.

Further to the anxiety about the effect of challenges that can hinder the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, after identifying the challenges associated with the reconstruction of housing for IDPs in Maiduguri. The housing construction professionals were asked to rate challenges that can hinder the reconstruction of housing for the IDPs in Maiduguri like corruption, lack of resources, relocation, urgency, government bureaucracy, insecurity, lack of motorable roads, lack of commitments and culture. It can be remembered from the table 4.38) that many challenges were identified that can delay or hinder the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri and lack of commitment had RII of 0.992 while corruption, insecurity, lack of resources, and lack of good roads had a joint RII of 0.991. The findings revealed that all the challenges highlighted will affect the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri if not address. Nevertheless, the impact of each challenge varies but challenges like insecurity, lack of resources, corruption, lack of good or motorable roads, urgency from the displaced people to return home and lack of commitments from the government, government officials, engineers and contractors will have much more effect on the housing reconstruction more than government bureaucracy, relocation of the displaced people to another place and ignoring or refusal to consider the culture of the beneficiaries during the reconstruction.

6.5 Summary of chapter six

This chapter presents further analysis and discussion in combination with the findings from the literature reviewed, questionnaire presented to the internally displaced people and housing construction professionals as well as the one-on-one interviews conducted with housing construction professionals. The chapter presents the discussion of the findings on the history of Boko Haram conflict and its effect on housing demand in Maiduguri, discussion of findings on the approaches use for the reconstruction of housing for the IDPs due to conflict,

approach to adopt for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria, and advantages and disadvantages of the approach. The chapter further discussed the findings on challenges associated with reconstruction of housing for the internally displaced people due to conflict and in relation to reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. The also discussed the findings on how to address the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri and challenges that can delay or hinder the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria. Modification of the framework for the reconstruction of housing for the IDPs due to conflict is discussed next.

Chapter 7:   Modification of the framework

7.1 Introduction

This chapter presents the modification of the framework for the reconstruction of housing for the internally displaced people due to conflict. The framework was initially developed based on the literature reviewed presented in chapter 2 (see figure 2.4). Modification of the framework is necessary in order to improve its contents or the concepts. Bryman (2008) sees validation as a process of understanding whether an indicator that is developed to measure a concept if it measures it well based on its value. The main aim of this chapter is to achieve objective 4 of this research presented in section 1.4, and the findings from the literature reviewed, quantitative and qualitative data were used in developing the framework. This research was carried out to develop a framework that will be used for the reconstruction of housing for the internally displaced people due to conflict. This chapter begins with further review of the justification of this research which was presented earlier in section 1.2.

7.2 Reconstruction of housing for the internally displaced due to Boko Haram conflict in Maiduguri, Nigeria.

The concept of internal displacement due to natural or manmade disasters is an old phenomenon, but it was in 1990 that United Nation started giving more attention to the internally displaced people. In 1998, United Nation Commission for Human Rights came up with a guiding policy on internal displacement and helping the IDPs. Even though, the commission give permission to the non-governmental organisations NGOs, stake holders and other corporate organisations to assist IDPs, but the commission emphasised that the responsibility of rehabilitation, reconstruction and resettlement of the IDPs is on government. Internally displaced people are group of people that are disconnected from their houses, livelihood due to natural or man-made disasters or as a result of crisis, but Kalin (2008) sees IDPs as a group of people who are forced to abandoned their own houses, livelihood and become refugees in their own country due conflict, war, flood, earthquake, tsunami among others. In this research, IDPs are referred to as a group of people who are displaced or fled their homes due to Boko Haram conflict in Maiduguri, Nigeria.

Nigeria have witnessed different kind of conflict since independence, which was due to ethnic, political, religious differences which is the reason why the people cannot live with each other in peace and harmony (Bassey and Dokubo, 2011). Most of the violent conflict or crisis that took placed in the past were caused by different ethnic, political and religious groups like the Maitatsine group, Oduduwa People Congress (OPC), Egbesu Boys of Africa Congress (EBAC), Movement for the Actualisation of the Sovereign State of Biafra (MASSOB), Niger Delta Militant (NDM) AND Indigenous People Of Biafra (IPOB) among others. The destruction caused by these groups was nothing or pale in comparison to that of Boko Haram terrorist in terms of destruction of lives, properties and internal displacement. Presently there are over five million internally displaced people living in different camps across Nigeria due to destruction caused by the Boko Haram terrorist including those that abandoned their homes and move to other safe places for fear of attack.

These group of people are facing different kind of challenges in the camps they are living in which include lack of food, clean water, good health care, medicine, clothes, schools, security, but their biggest problem is lack of reasonable housing (Adewale, 2016). This is one of the reasons why this research is vital because of the way and manner the IDPs are living in different camps across the country is an evidence that the level of attention or care they are receiving in such camps from the government and other donor agencies is not enough. Most of the camps are breeding places for inhuman and undignified conditions which in return give rise to a multitude appalling factors such as lack of bare social amenities to be able to survive to rape and death from exposer to diseases and malnutrition. In addition, lack of housing has exposed the IDPs particularly women and children to all sort of environmental and manmade dangers like child abuse, child labour, prostitution, drug abuse and diseases etc (Abdu, 2017). Therefore, providing housing for these group of people will play significant role towards their rehabilitation, resettlement and reintegration back into their communities and will improve their living condition (Abdu, 2017). However, most of the research carried in this area focused more on reconstruction of housing for the IDPs due to natural disaster and the destruction caused by manmade disasters such as war, conflict, terrorism, will continue to increase across the world most especially in Africa. Therefore, there is a need for further research/es that focus on post-conflict housing reconstruction and a well-developed framework that will encompasses the approaches use for the reconstruction of housing for the internally displaced people due to conflict, that identified the challenges associated with

reconstruction of housing for the IDPs due to conflict and in relation to reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, and how to overcome the challenges in order to successfully deliver housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria.

This research started by reviewing the existing literature related to the area under study (see section 2), which led to the development of the initial framework presented in section 2.12. The framework provided the theoretical process on how the research aim and objectives are to be achieve. Therefore, based on the findings from the literature reviewed, questionnaire and one-on-one interviews presented in chapter 2, 4 and 5 respectively and discussed in chapter 6. The initial framework will be modified in the next chapter using key factors that originated from the housing construction professional's understanding and opinion on reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria.

7.3 Modifying the framework

Frameworks are formalised statements or recommendations that can be applied towards achieving a specific objective or certain goals. Many authors acknowledged the significance of paying attention to philosophical issues as overlooking them can affect the research processes (Easterby-Smith et al, 2012). The methodological, ontological and epistemological assumptions about the nature of social reality play vital role in the development of the framework. The methodological assumption focusses on the process through which the framework is developed and what it will explain about reconstruction of housing for the IDPs due to conflict and ontological assumptions focus on the knowledge of the way things are or the nature of reality and epistemological assumptions explain the acceptable knowledge.

Therefore, in this research, the ontological assumptions which is about the nature of reality is referred to the reality about reconstruction of housing for the internally displaced people due to conflict based on the perception and views of housing construction professionals and epistemological assumptions that is concern with acceptable knowledge is referred to the knowledge that should be acceptable regarding reconstruction of housing for the internally displaced people due to conflict, approaches used for the reconstruction of housing for the IDPs due to conflict, challenges associated with reconstruction of housing for the IDPs due to conflict and in relation to Boko Haram conflict in Maiduguri and how to address the

challenges. As such, there is a need for the modification/revision of the framework earlier developed based on literature review using the findings from the empirical quantitative and qualitative data to enhance and improve its contents or concepts.
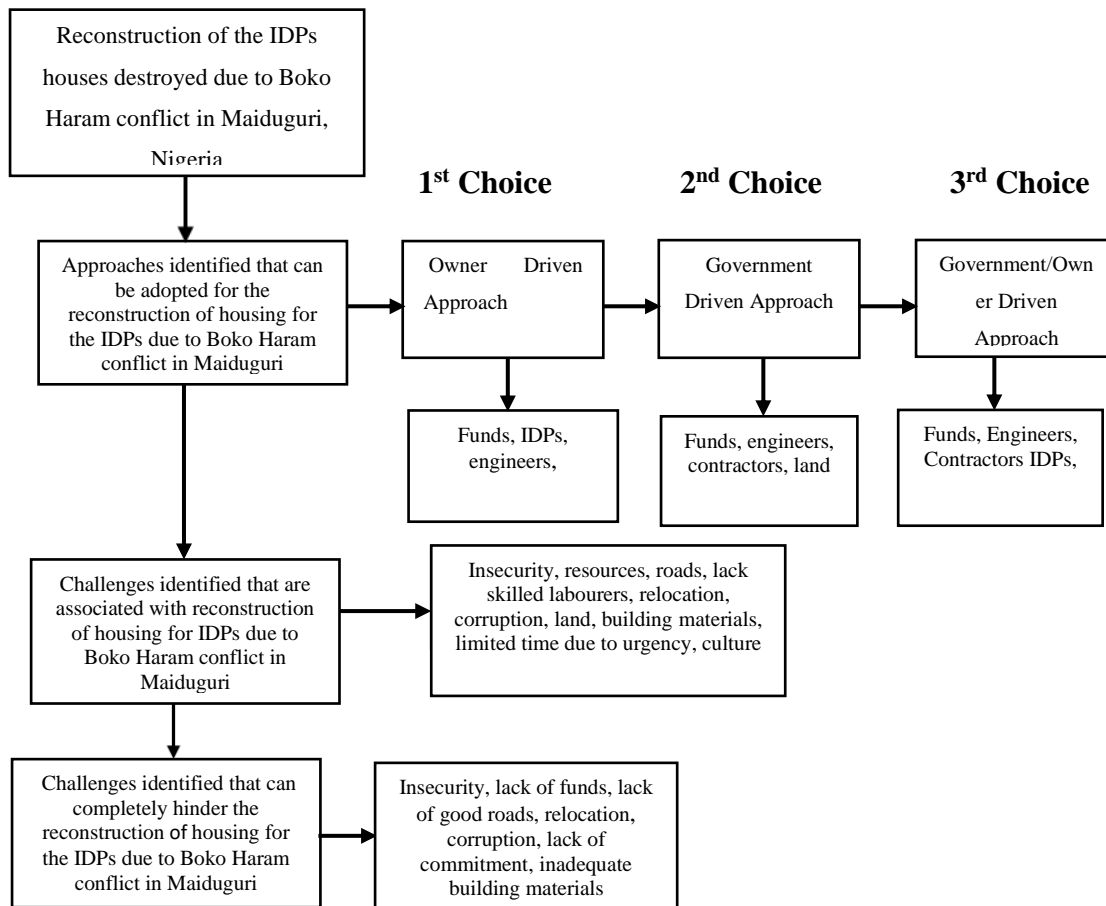
Figure 7.1: Modified Framework for the reconstruction of housing for the IDPs due to Boko Haram conflict developed based on the findings from quantitative and qualitative data

7.3.1 The elements of the framework explained

The initial framework was introduced in chapter 2, section 2.12. Therefore, this section presents the discussion of the modified framework which is based on the findings from the questionnaire presented to the internally displaced people, housing construction professionals and one-on-one interviews with housing construction professionals. The discussion centre on how the key elements of the framework lead to the achievement of the aim and objective of this research. The modification of the framework begins by modifying different types of approaches use for the reconstruction of housing for the internally displaced people due to

natural or man-made disasters. The elements within the framework are developed based on the findings from the literature reviewed, opinion of housing construction professionals in Nigeria which was gathered through questionnaire and one-on-one interviews.

The initial framework developed earlier in chapter 2 identified different approaches that can be adopted for the reconstruction of housing for the IDPs due to natural or man-made disasters. The approaches include owner driven approach, government driven approach and donor driven approach. While the framework developed based on the quantitative data gathered through questionnaire and one-on-one interviews highlighted different approaches that can be used for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria. The approaches include owner driven approach, government driven approach and government/owner driven approach.

7.3.1.1 Owner driven approach

The first approach within the framework modified that was recommended for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri is owner driven approach. The approach is one of the approaches used for the reconstruction of housing for the IDPs due to natural or man-made disasters. The IDPs believe adoption of owner driven approach for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri will allow the IDPs to take control of the reconstruction by themselves with the assistance of the housing construction professionals. It will also allow them to reconstruct their houses according to their needs and preferences since they know what they want better than the housing construction professionals even though the experts have the knowledge and experience in housing construction. Housing reconstructed under this approach will meet the need and preferences of the IDPs than housing produce under government driven approach. Adopting owner driven approach will reduce the cost of labour because some of the IDPs can carry out some building activities such as mixing cement and sand, block laying among others. The IDPs can also assist in transporting building materials using local means of transportation like donkeys, locally made wheelbarrows etc. Under owner driven approach the housing reconstruction will be faster because of the urgency from the IDPs to return to their original homes due to lack of basic needs and amenities in the temporary camps.

7.3.1.2 Government driven approach

The second approach within the framework modified that was recommended for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri is government driven approach. Adoption of government driven approach for the reconstruction of housing for the IDPs will allow the engineers hired or selected from the ministry of works and housing to handle the reconstruction from the beginning to the end without involving the displaced people. The approach also allows the engineers to carried out the housing reconstruction in accordance with the building procedures or practices. That's why under this approach the engineers will ensure quality in the building by assessing the building materials they will use to avoid using sub-standard building materials because quality control is essential under this approach. However, adopting government driven approach will minimise waste of project funds because the engineers will assess or evaluate the houses destroyed to ascertain the extent of the damage in order to determine the cost of reconstructing each house. This will give them an idea about the quantity of cement, sand, woods, blocks and other building materials they need, to avoid buying more than they required. It was also understood that under government driven approach the housing reconstruction will be faster, and the engineers will deliver the houses to the IDPs within short time since they have knowledge and experience in mass housing construction. Though, most of the time government driven approach doesn't produce the required outcome because the professionals will reconstruct the houses based on their knowledge and experience without engaging the beneficiaries.

7.3.1.3 Government/owner driven approach

The third approach in the framework modified that was recommended for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri is government/Owner driven approach. Adopting the approach will provide an opportunity for the housing construction engineers or contractors and IDPs to work as a team in order to carried out all-inclusive housing reconstruction in Maiduguri. The collaboration is essential because the engineers will make sure the reconstruction is carried out in accordance with building procedures and practices, while the IDPs on the other hand will ensure their needs and preferences are consider during the reconstruction. This type of approach will produce the required outcome if planned and executed very well since the housing reconstruction under this approach is towards meeting the needs of the beneficiaries when compare to government or donor driven approach.

It was understood that post-conflict housing reconstruction that involve the beneficiaries the project become successful. This is because the IDPs know exactly what they want and how their houses were built before the destruction in terms of the number of rooms, position of the toilet and kitchen, space in the house etc. However, under government/owner driven approach, the engineers will have clear understanding of the needs and preferences of the IDPs in order to avoid making unnecessary mistakes during the redesigning of the houses that will lead to rejection and abandonment of the houses by the IDPs. This type of approach is cheaper compare to government or donor driven approach because the IDPs can be use as unskilled labourers during the reconstruction without paying them since they are the beneficiaries. Adoption of government/owner driven approach for the reconstruction of housing for the IDPs due to Boko Haram conflict will not only lead to successful housing reconstruction in Maiduguri but will serve as a way of empowering the IDPs or as a capacity building process because the IDPs will learn both basic and professional building skills they can used in the future as manual job to earn additional income. In addition, the approach will create employment opportunities for the communities affected and improve local markets and business. Even though, adopting government/owner driven approach will produce outcome that will be acceptable by both the government and the IDPs, it is equally important for the engineers and the displaced people to understand their roles before and during the reconstruction.

Post conflict housing reconstruction project that adopt government/owner driven approach become successful because the outcome always reflects the needs and preferences of the beneficiaries (IDPs). If many IDPs would accept housing produced under government or donor driven approach, then there is every possibility for all the internally displaced people in Maiduguri to accept housing reconstructed or produced under government/owner driven approach. After the modification of the approaches use for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, next is the modification of the challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria.

7.4 Challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria

The findings from the quantitative and qualitative data revealed that there are many challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria. The challenges include insecurity, lack of resources, corruption, relocation, urgency, government bureaucracy, lack of motor able roads, lack of water, lack skilled labour, inadequate building materials and lack of commitments. These challenges must be address before the reconstruction commence in order to successfully deliver housing to IDPs in Maiduguri.

- **Insecurity**; is still the major problem in Maiduguri because the Boko Haram terrorist are still attacking some towns and villages using guns and explosive devices. In this condition, it will be very difficult for the housing reconstruction to take place and the engineers, contractors and labourers will not involve in the reconstruction for fear of being attack or killed in the process. if the reconstruction begins while the conflict is still ongoing the project may not be completed or end up being abandoned and if the engineers manage to finish the houses the IDPs will abandoned the houses for fear of being attack or killed by the Boko Haram terrorist.

- **Corruption**; corruption is one of the major challenges that has affected many housing constructions projects in Nigeria and will have serious effect on the housing reconstruction for the IDPs in Maiduguri. Embezzlement of government resources has become a culture in Nigeria most especially among the government officials and politicians. Many housing construction and developmental projects have been delayed or abandoned in the past due to corruption, therefore, there is every possibility for the government official, engineers or contractors handling the reconstruction to divert some of the funds for the reconstruction for their own personal use. The reason is that up till now there is no strong law against corruption or punishment for those individuals that mismanage or steal money from the government in Nigeria.

- **Lack of funds**; scarcity of resources is a serious challenge that will not only affect the housing reconstruction for the IDPs due to Boko Haram conflict in Maiduguri but can also hinder the housing reconstruction completely. Nigeria generate most of its

revenue from the sales of crude oil and the government generated so much revenue between 2007 to 2015 when a barrel of crude oil was sold at $100 at the international market, and it was at the same time when Boko Haram conflict was at its peak. The government was not able to save from the revenue generated within that period instead the resources was misappropriated and diverted for personal use by many senior government officials. Presently the price of crude oil has fallen between $45 to $55 per barrel which as a result the revenue government generate from the sales of crude oil has fallen to 50%. Therefore, the government does not have enough resources to reconstruct one million houses destroyed by the Boko Haram terrorist across the twenty-seven local government areas in Borno State, and also address other challenges like lack of good health care, lack of good roads, poor education, infrastructure decay and unemployment among others.

- **Lack of roads**; this is another major challenge associated with reconstruction of housing for the IDPs in Maiduguri. lack of motor able roads for easy movement of people and building materials will delay or hinder the reconstruction. For example, if the contractors cannot get to the site in time and cannot transport building materials to the location easily then the reconstruction is going to last for a long time. Sometimes when construction projects are moving slowly, they end up being abandoned most especially in inaccessible areas in Nigeria

- **Relocation**; relocating the internally displaced people to a different area is always in the agenda of those with the responsibility of rehousing the IDPs and housing construction engineers but is always a big task that most of the time is unachievable. The displaced people always want to return to their original homes may be because of their businesses, families, friends or jobs. That is the reason why it is always difficult for the IDPs to agree to relocate to another place. Therefore, it will be very difficult for the IDPs in Maiduguri to relocate to another place and abandon their home and businesses they established for many years.

- **Government bureaucracy**; government policies or hierarchical way of doing things is one of the biggest challenges when it comes to construction projects that are funded or financed by government. Government bureaucracy will delay and affect the success of housing reconstruction for the internally displaced people in Maiduguri. The

administrative way of doing things within government organisation most of the time slow down the commencement and progress of many housing projects in Nigeria. For example, before government approve or spend a penny many people must be involved in the process, therefore, before the government will approve or provide the funds required for the reconstruction it will take time the same thing before the resources are made available to the engineers or contractors. These processes are the reason why many housing construction projects are being delayed and sometimes being abandoned.

Lack of skill labour; shortage of skill labour within the areas affected will delay the commencement of the housing reconstruction in Maiduguri and can increase cost of labour if the skill labourers are going to be hire from other places. The success of any housing construction or reconstruction depends not only on the availability of resources, experts, but also on skill labourers because they play crucial role towards the success of any housing project. As a result of frequent attack carried out by the Boko Haram terrorist in Maiduguri many people have abandoned their homes and move to other neighbouring towns and cities that are not affected by the conflict for safety. Therefore, it is possible most of the people that fled Maiduguri are among those with building skills and the few with building skills that stayed behind could not cope with the size of the housing reconstruction considering the number of houses destroyed in Maiduguri.

Scarcity of land; lack of reasonable land that will be used for the reconstruction of new houses for the internally displaced people in case if the government decided to relocate the IDPs to another place in Maiduguri is going to be a big challenge. The reason is that there is no vacant land in the city or in a reasonable area that can be used for such purpose. Most of the vacant and accessible land in Maiduguri are outside the city and far away from their actual homes. Therefore, it will be very difficult to convince the IDPs to move to such location. That is the main reason why the displaced people are always against the idea of construction of new housing rather prefer or support the reconstruction of their old houses.

- **Inadequate building materials**; access to adequate building materials within the areas affected by the Boko Haram conflict in Maiduguri will be very difficult because

a lot of businesses have been destroyed, many people who are into building materials business have lost their lives and some have lost their resources. Thus, it will be very difficult for the engineers and contractors to buy all the building materials they need for the reconstruction in Maiduguri. Even if the engineers or contractors manage to get the building materials, they might be expensive because the supply chain has been affected by the conflict which will delay the reconstruction and increase the cost of transportation. Though, the engineers and contractors can buy all the building materials they need from other places, but it will be easy and cheaper to buy in Maiduguri.

- Limited time due to urgency; As a result of the destruction caused by the Boko Haram terrorist, it was estimated that more than five million people have been displaced and most of these people are domiciled in different temporary camps spread across the country. Many of these camps are in bad condition which as a result gives rise to different kind of appalling factors such as lack of basic social amenities, food, clean water, medical care, security that is required to avoid rape and death from exposure to diseases and malnutrition (Akeju, 2007). Lack of decent housing has also exposed the displaced people especially women and children to different kinds of environmental hazards and manmade dangers. Therefore, considering the condition of the IDPs the government will not have enough time to reconstruct the houses because of the urgent need to rehouse the IDPs and the anxiety from the IDPs to return home. After modifying the challenges associated with reconstruction of housing for IDPs due to Boko Haram conflict in Maiduguri, ways where provided on how to address the challenges in order to successfully reconstruct the houses destroyed by the Boko Haram terrorist in Maiduguri.

7.4.1 How to overcome the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria

The last element of the modified framework is how to overcome the challenges associated with reconstruction of housing for IDPs due to Boko Haram conflict in Maiduguri. The experts explained the possible ways to address the challenges.

- **Insecurity**; To ensure security in Maiduguri and other local government areas attack by Boko Haram attack is by improving the security within and around Maiduguri. This can be achieved through recruitment of secret informants or spies from the local communities affected, procurement of latest military hard and soft wares, enhancing and increasing the sources of intelligent information and reviewing and increasing the salaries and allowances of the security agencies involved in the fight such as military, air force, police, navy and other local support groups.

- **Limited time due to urgency**; this can be address by improving the condition of the temporary camps built and managed by the government and those under the control of donor agencies in terms of adequate supply of food, clean drinking water, good medical care, electricity and provision of other basic social amenities that will make the IDPs a more comfortable or relax. This will reduce the urgency from the government to rehouse the IDPs and will remove the anxiety from the IDPs to return to their original homes.

- **Lack of commitments**; lack of commitment from the government officials, engineers or contractors can be address through formation of committee for the reconstruction. The members of the committee should be selected from the local government areas affected by the conflict and the engineers or contractors that will handle the reconstruction should also come from the same community with the displaced people. The reason is that, if the committee members, engineers and contractors are from the same community with the beneficiaries there is possibility their family members are among the beneficiaries which will encourage them to be fully committed to the project and make sure the reconstruction is successful.

- **Corruption**; it was understood that the issue of mismanagement of resources or corruption can only be minimise through proper monitoring and evaluation of the progress of the reconstruction but cannot be eliminated completely. Considering how corruption has become a culture in the society most especially among the people government officials, civil servant and politicians.

- **Lack of funds**; government can source money for the reconstruction from other sources of revenue generation for example, custom duty, federal inland revenue service, Nigeria port authority instead of depending on revenue from the sales of

crude oil. The government can also source funds for the reconstruction by seeking support from local and international companies doing business in the country and from united nation humanitarian department.

- **Lack of good roads**; lack of good roads for easy movement of people and building materials can be address through collaboration between the communities affected, local government and state government to find a way to expand the existing roads and make them better within their financial ability or through community participation fo easy transportation of building materials to the site.

Further to the concern about the effect the challenges will have on the housing reconstruction, after identifying the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. The challenges that can delay or hinder the housing reconstruction where also identified which include corruption, lack of resources, insecurity, relocation, urgency, government bureaucracy, lack of good roads, lack of commitment and culture. The housing construction professionals were asked to rate them in order to understand the level of effect each challenge will have on the reconstruction. It was discovered that all the challenges identified can affect the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri even though the effect of the challenges varies but insecurity, lack of resources, corruption, lack of good roads, urgency from the IDPs to return home, lack of commitment from the government, engineers, contractors can affect the reconstruction much more than challenges such as government bureaucracy, relocation and ignoring the culture of the displaced people during the reconstruction. Therefore, it could be agreed that all the challenges must be address before the reconstruction begin in order to successfully deliver housing to the IDPs in Maiduguri.

7.5 Validation of the framework to ascertain whether its operationalization can address the research problem

It is important to show reliability of research because it is part of research process. Denscombe (2010) pointed out that for a research to be considered reliable it must prove that the research findings are from the practices that are acceptable which is the foundation of good research. It was argued that the concept of reliability is connected to the quantitative research and believe to have very little or no connection with qualitative research (Parahoo,

2014). Validation is part of qualitative research because it shows the rigor in the data gathered, analysed and interpreted (Parahoo, 2015; Sarantakos, 2013). It could be said that reliability has been achieved in this research through the adoption of questionnaire survey strategy based on the definition of reliability by Parahoo (2014) and Sarantakos (2013). Parahoo (2014) pointed out that in qualitative research mostly in the structured interviews there is no standardised or common instruments that are used and considered the interviewer as an instrument of gathering data. He further explained that qualitative research can be replicated, and the data gathered can be examined again to ensure consistency. In this research, the qualitative data was gathered through semi-structured interviews.

There are different validation techniques or process use by researchers which include

- Cumulative validation

- Communicative validation

- Argumentative validation

- Ecological validation

- Reflexibility validation

- Validation of the data by interviewees themselves

The aim of conducting qualitative research is to explain the difference in a phenomenon, behaviour, attitude or situation, but quantitative research is to quantify the disparity and assist the researcher to quantify the disparity or difference (Kumar, 2011). The aim of this research is to develop a framework for the reconstruction of housing for the internally displaced people due to conflict. In order to ensure rigor in the validation process, the validation of the framework was carried by the housing construction professionals in Nigeria in order to understand or determine their acceptance of the framework in relation to the reconstruction of houses destroyed by the Boko Haram terrorist in Maiduguri. This type of validation technique was considered by Sarantakos (2013) as communicative validation, but Bryman (2012) sees this type of validation as a process where a researcher presents the research findings to those that participated in the research and ask them to assess its operationalisation and provide feedback on the outcome (see Appendix 8).

Validation of research findings is necessary in any type of research therefore, the framework will be assessed in different ways by the housing construction professionals to ascertain if its structure is appropriate by evaluating the outcome using some set of procedures to make sure that it is helpful to the housing construction professionals and academics or researchers (Fellows and Liu, 2003; Eppler and Wittig, 2000). The areas of the framework identified by Eppler and Wittig (2000) which may need improvements are;

- Applicability of the framework

- Interdependencies among different criteria

- Identification and inclusion of the areas with problem and elements of the solution to the problem

The validation of the framework for the reconstruction of housing for the internally displaced due to Boko Haram conflict was carried out in order to understand whether the way the framework was structured meet the above procedure or criteria based on analytic and pragmatic evaluation criteria (Eppler Wittig, 2000). The analytic criteria focus on academic standard which insist on clear definitions of the concepts or terms used in the framework, the positioning of the framework in the existing literature. The pragmatic criteria focus on the elements that make the framework useful, applicable and operational in terms of applying or implementing it in practice.

Table 7.1: Validation criteria of the framework recommend by Eppler and Wittig (2000) standards.

Evaluation Criteria	Focus	Evaluation questions (adapted questions used in the validation questionnaire of the framework)
Analytical **(Scientific)**	Definition of terms	Are all the terms in the framework well defined? How well defined are the terms in the framework for reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri?
	Positioning	Is the context of the framework made clear? How well does the framework apply to the delivery of housing for the internally displaced people due to Boko Haram conflict in Maiduguri?

	Consistency	Are the elements of the framework equally important? How well do you think the framework are in consistence with reconstruction of housing for the IDPs?
Pragmatic (**Operational**)	Conciseness	Does the framework contain few numbers of the elements? Do you think there are so many elements in the framework?
	illustration	Can the framework be demonstrated or explained by examples or by presentation to other people? Can the framework be explained easily to other people? Can the framework be used to enhance practice
	Practicability	Can the framework be used to improve the practice of housing reconstruction for the internally displaced people due to conflict

7.5.1 Validation Process

The validation process of the framework was carried out through questionnaire survey which was distributed to the housing construction professionals at the federal ministry of works and housing in Nigeria. Purposive sampling technique was used by the researcher in selecting the sample size. The respondents where ask to express their views and opinions through the questionnaire which consist of closed and open-ended questions in Likert scale for them to rate the framework. The Likert scale was arranged from "Strongly Agree to Strongly Disagree", where 1= Strongly Agree, 2= Agree, 3= Neither Agree/Disagree, 4= Disagree, 5= Strongly Disagree (see Appendix 8). The open-ended questions provide opportunity for the respondents to express their views by providing more information on the areas within the framework that needs improvements that was included in the closed ended questions.

The questionnaire including the invitation, the aim and objectives and description of the framework was distributed to twenty-five (25) housing construction professionals. The respondents were requested to rate the statements made about the framework based on the analytical and operational criteria listed in table 7.1.

7.5.2 Analysis of the data gathered

Out of twenty-five (25) questionnaires, fifteen (15) were completed and returned which represents 75% of the total questionnaires. The descriptive analysis was carried out using Special Package for Social Sciences Software (SPSS) version 23. Pallan (2013) pointed out

that descriptive data analysis or statistical analysis provides clear description of the characteristics of the data gathered in a research. The data are presented in tables and figures for easy understanding and interpretation. Section one of the questionnaire seek for information from the respondents about their profession in order to provide insight on the background of the population from whom the researcher collected the data.

Table 7.2: Profession of the respondents that take part in the framework validation process

What is your profession

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Electrical Engineer	6	40.0	40.0	40.0
	Quantity Surveyor	2	13.3	13.3	53.3
	Town Planner	2	13.3	13.3	66.7
	Builders	5	33.3	33.3	100.0
	Total	15	100.0	100.0	

From the above table, it was understood that six of the respondents representing 40.0% are electrical engineers while five respondents representing 33.3% are builders. Two of the respondents equating to 13.3% are quantity surveyors and two respondents also representing 13.3% are town planners. After identifying their profession, the respondents were asked to indicate their years of experience in the construction industry.

Table 7.3: Respondent's years of experience in the construction industry

Years of experience in the construction industry

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5 years	7	46.7	46.7	46.7
	10 years	1	6.7	6.7	53.3
	15 years	2	13.3	13.3	66.7
	15 years above	5	33.3	33.3	100.0
	Total	15	100.0	100.0	

Respondents experience in the construction industry will play significant role towards validation of the framework and achieving the aim and objectives of this research. It was observed from the table above that seven of the respondents representing 46.7% have five years experienced in the construction industry, while five respondents equating to 33.3%

have been in the construction industry for the past fifteen years. However, two of the respondents equating to 13.3% have fifteen years' experience working in the construction industry and one of respondents have been in the industry for the past ten years. The findings revealed that all the respondents have enough experience in the construction industry to be able to add rigour and value to the validation of the framework. The respondents were also asked to indicate how long they have been practising building construction

Table 7.4: Respondents years of practicing building construction

How long have you been practicing building construction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5 years	8	53.3	53.3	53.3
	10 years	1	6.7	6.7	60.0
	15 years	2	13.3	13.3	73.3
	15 years above	4	26.7	26.7	100.0
	Total	15	100.0	100.0	

Table 7.4 revealed that eight respondents equating to 53.3% have been practicing building construction for the past five years while four respondents with 26.7% indicated that they have been practicing building construction for fifteen years. Two respondents representing 13.3% revealed that they have been practicing building construction in the last fifteen years and one respondent with 6.7% indicated that he/she has been practicing building construction for ten years. Therefore, based on these findings it can be agreed that the respondents have the knowledge and experience to assess the reliability of framework. After the respondents have indicated their years in building construction, the respondents were asked to indicate their years of experience in housing construction.

Table 7.5: Respondents years of experience in housing construction

What are your years of experience in housing construction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3 to 5 years	5	33.3	33.3	33.3
	5 to 10 years	6	40.0	40.0	73.3
	10 to 15 years	2	13.3	13.3	86.7
	15 years above	2	13.3	13.3	100.0
	Total	15	100.0	100.0	

From the table 7.5 it is observed that six respondents equating to 40.0% have five to ten years knowledge and experience in housing construction and five respondents equating to 33.3% indicated that they have been practicing housing construction for the past three to five years. Two of the respondents representing 13.3% revealed that they have been practicing housing construction for fifteen years while two respondents equating to 13.3% indicated that they have ten to fifteen years of experience in housing construction. The results shows that all the respondents have enough knowledge and experience in housing construction, therefore, they will be able to add rigor to the validity of the framework. The second part of the validation questionnaire asked respondents to assess the framework based on analytical or scientific and pragmatic or operational criteria recommended by Eppler and Wittig (2000). The definition of the concepts and other terms was evaluated first by the respondents in order to ascertain if all the concepts and terms in the framework are well defined.

Table 7.6: Respondents ratings of the definition of concepts and terms in the framework

The approaches and other concepts and terms in the framework for the reconstruction of housing for the IDPs in Maiduguri are well defined

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	1	6.7	6.7	6.7
	Agree	8	53.3	53.3	60.0
	Neither Agree/Disagree	5	33.3	33.3	93.3
	Disagree	1	6.7	6.7	100.0
	Total	15	100.0	100.0	
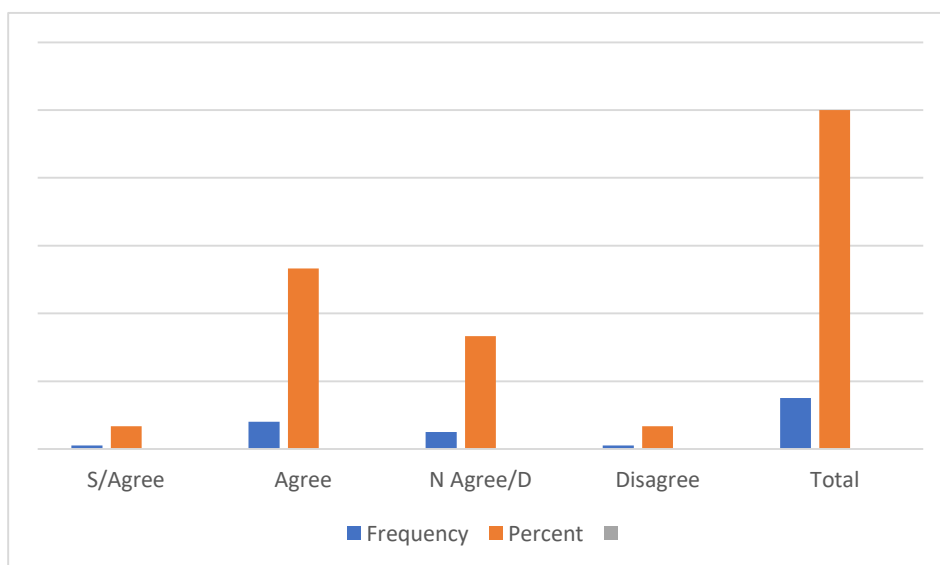
Figure 7.2: Respondents ratings of definition of concepts and terms in the framework in chart

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The findings revealed that eight of the respondents equating to 53.3% agreed that the concepts and terms used in the framework are well defined and five of the respondents representing 33.3% of the total responses neither agree or disagree with claimed that the concepts and terms in the framework are clearly well defined. One respondent with 6.7% strongly agreed that the concepts and terms in the framework are well defined, but one respondent also representing 6.7% disagreed with the statement that the concepts and terms in the framework are well defined. Based on these findings, it can be agreed that 60% of the respondents agreed that the concepts and terms used in the framework for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri are well defined. Even though, five respondents indicated that they neither agree or disagree and one respondent disagreed with the statement may be the respondent find it very difficult to understand what concepts and terms means or approaches for the reconstruction of housing for the IDPs due to conflict. The respondents were asked to further evaluate the concepts and terms in the framework.

Table 7.7: Respondents ratings of definition of concepts and terms in the framework

The challenges associated with reconstruction of housing for the IDPs due to Boko Haram in Maiduguri are well defined

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	4	26.7	26.7	26.7
	Agree	7	46.7	46.7	73.3
	Neither Agree/Disagree	3	20.0	20.0	93.3
	Disagree	1	6.7	6.7	100.0
	Total	15	100.0	100.0	
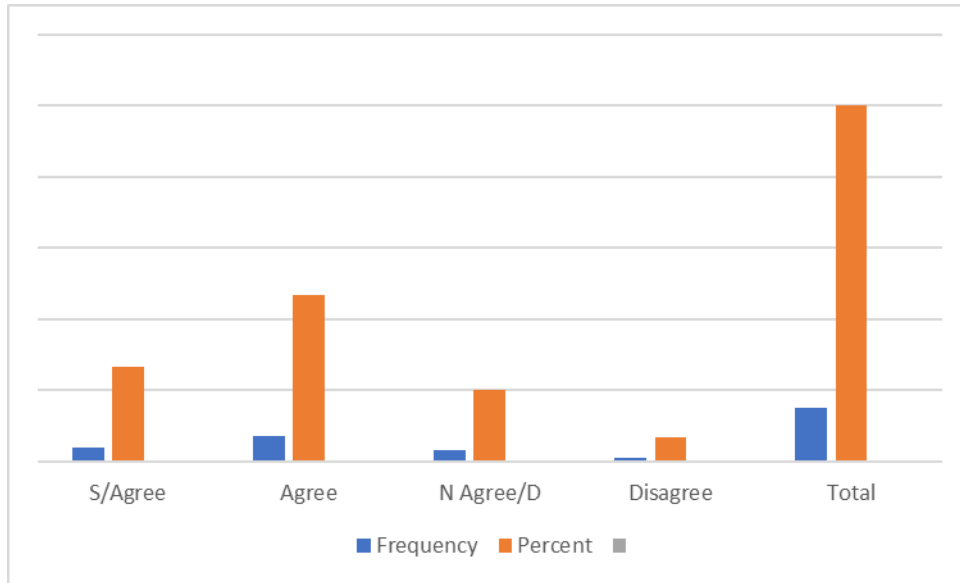
Figure 7.3: Respondents ratings of definition of concepts and terms in the framework in chart.

Table 7.7 revealed that seven respondents representing 46.7% agreed that the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri are well defined in the framework and four respondents equating to 26.7% strongly agreed that the challenges associated with reconstruction of housing for the IDPs in Maiduguri are clearly defined. However, three respondents with 20.0% neither agree nor disagree with the statement, but one respondent representing 6.7% disagreed that the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri are well defined. These findings revealed that 74.7% of the respondents believe that the challenges were well defined and explained in the framework. The next criterion evaluated by the respondents is the positioning of the framework in order to determine how applicable and effective it is towards reconstruction of housing for the IDPs in Maiduguri. Therefore, the respondents were asked to indicate the level of their agreement with statement that the framework if implemented will produce the desired outcome.

Table 7.8: Respondents ratings of the applicability of the framework

The framework will produce the desired outcome

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	1	6.7	6.7	6.7
	Agree	9	60.0	60.0	66.7
	Neither Agree/Disagree	3	20.0	20.0	86.7
	Disagree	2	13.3	13.3	100.0
	Total	15	100.0	100.0	
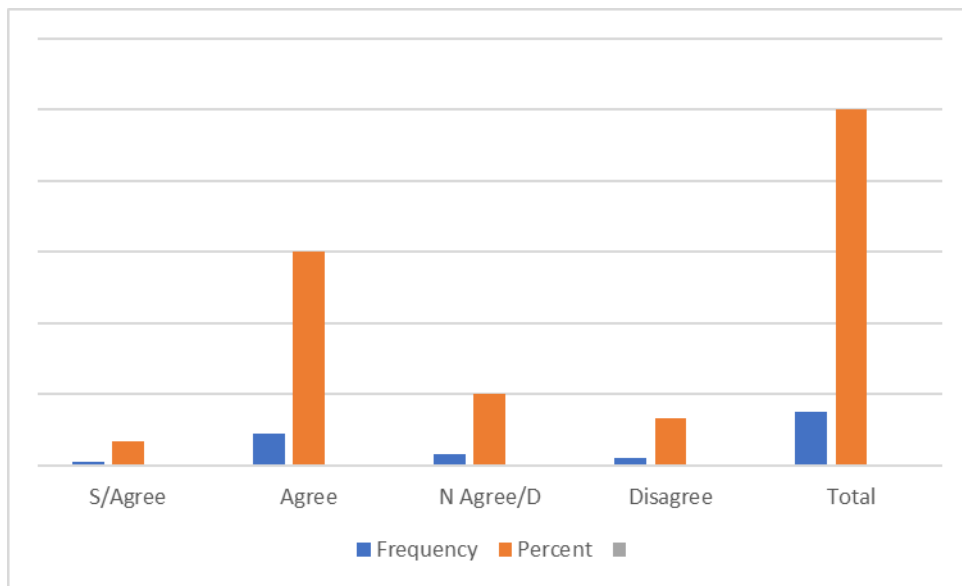
Figure 7.4: Respondents ratings of the applicability of the framework in chart

Table 7.8 revealed that nine respondents equating to 60.0% indicated that they strongly agreed that the framework will produce the desired outcome if applied while three respondents representing 20.0% indicated that they neither agreed nor disagreed that the framework will produce the desired outcome. Two respondents with 13.3% of the total responses disagreed that the framework if applied will produce the desired outcome, but one respondent representing 6.7% strongly agreed that the framework if applied will produce the desired outcome. based on these findings, it can be said that 73.3% of the respondents agreed that the framework if applied will produce the desired outcome.

The respondents also evaluate the applicability of the framework by indicating the level of their agreement with the statement that the challenges identified in the framework can delay or hinder the reconstruction of housing for the IDPs in Maiduguri.

Table 7.9: Respondents ratings of the applicability of the framework

The challenges identified can delay or hinder the reconstruction of housing for the IDPs in Maiduguri

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	6	40.0	40.0	40.0
	Agree	5	33.3	33.3	73.3
	Neither Agree/Disagree	4	26.7	26.7	100.0
	Total	15	100.0	100.0	
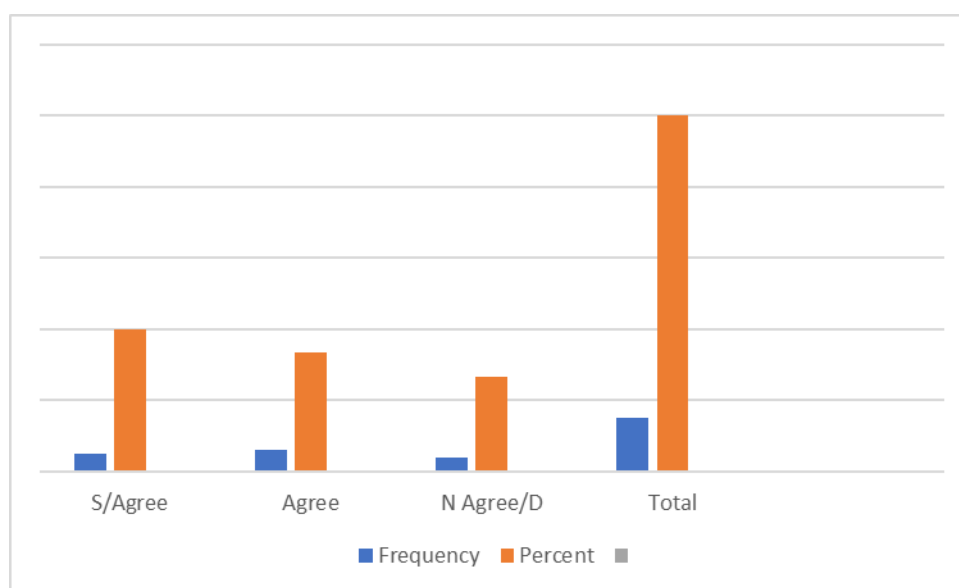
Figure 7.5: Respondent's ratings of the applicability of the framework in chart

Table 7.9 revealed that six respondents representing 40.0% indicated that they strongly agreed that the challenges identified in the framework can delay or hinder the reconstruction of housing for the IDPs due to Boko Harm conflict in Maiduguri. Five respondents equating to 33.3% agreed that the challenges identified in the framework can delay or hinder the reconstruction, but four respondents equating to 26.7% neither agreed nor disagreed that the challenges identified in the framework can delay or hinder the reconstruction of housing for the IDPs in Maiduguri. Therefore, it can be said that 73.3% of the respondents agreed that the challenges identified in the framework can delay or hinder the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. The respondents further evaluate the applicability of the framework by indicating the level of their agreement with the statement

that overcoming the challenges identified in the framework can lead to successful housing reconstruction in Maiduguri.

Table 7.10: Respondents ratings of the applicability of the framework

Overcoming the challenges can lead to successful housing reconstruction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	10	66.7	66.7	66.7
	Agree	5	33.3	33.3	100.0
	Total	15	100.0	100.0	
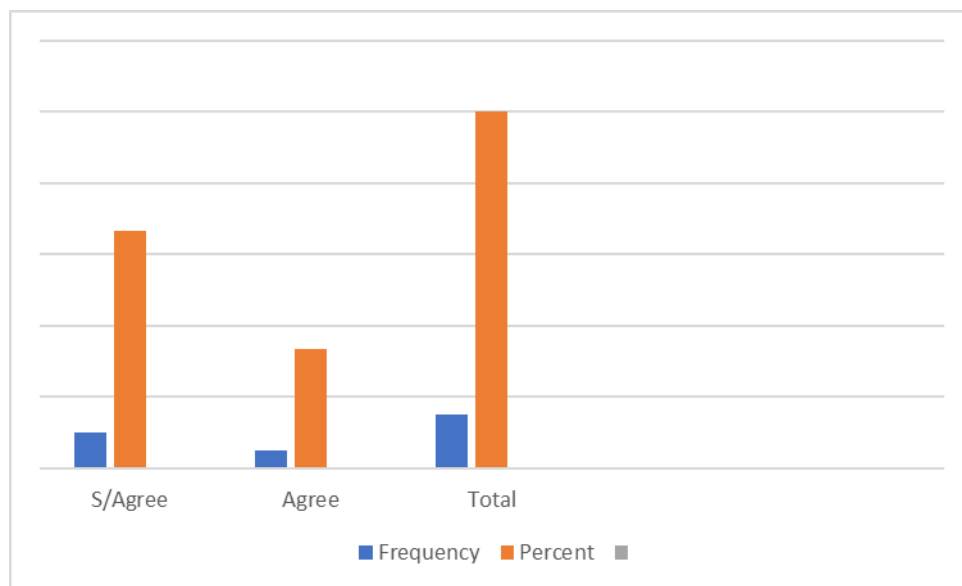
Figure 7.6: Respondents ratings of the applicability of the framework in chart

Table 7.10 showed that ten respondents representing 66.7% indicated that they strongly agreed that overcoming the challenges identified in the framework can lead to successful housing reconstruction project in Maiduguri. The remaining five respondents representing 33.3% agreed that overcoming the challenges identified in the framework will lead to successful housing reconstruction in Maiduguri. These findings revealed that all the fifteen respondents representing 100% agreed that overcoming the challenges identified in the framework is the key to delivering housing to the IDPs due to Boko Haram conflict in Maiduguri. The last criterion evaluated by the respondents is the conciseness of the framework in terms of the way the framework was structured or organised for the

reconstruction of housing for the IDPs due to Boko Haram conflict. The respondents were asked to indicate the level of their agreement with the statement that the scope and the content of the framework was well identified and appropriate.

Table 7.11: Respondents ratings of the conciseness of the framework

The scope and the content of the framework was well identified and appropriate

|		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	7	46.7	46.7	46.7
	Neither Agree/Disagree	7	46.7	46.7	93.3
	Disagree	1	6.7	6.7	100.0
	Total	15	100.0	100.0	
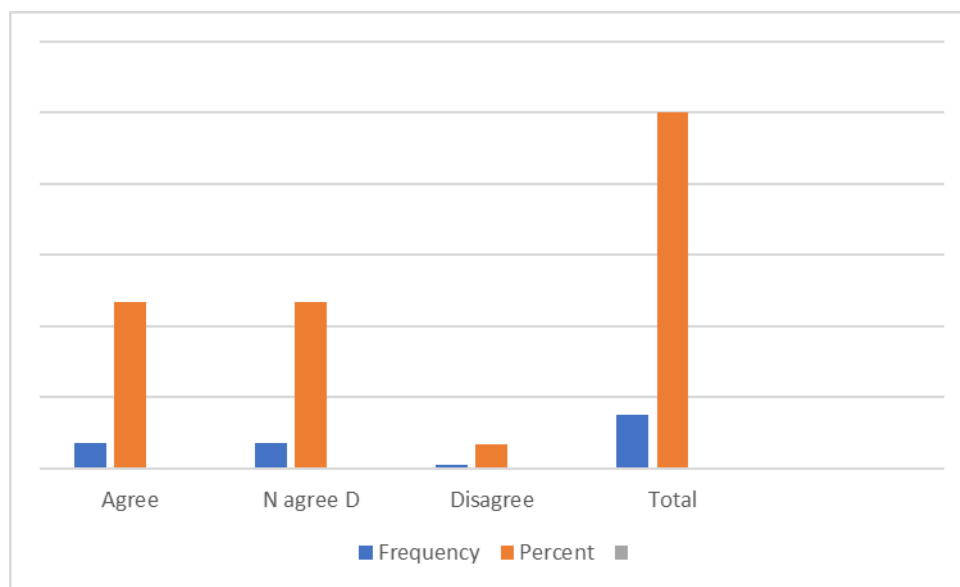
Figure 7.7: Respondents ratings of the conciseness of the framework in chart

Table 7.11 revealed that seven of the respondents representing 46.7% agreed that the scope and content of the framework was well identified and appropriate while seven respondents also equating to 46.7% indicated that they neither agreed nor disagreed that the scope and the contents of the framework was well identified and appropriate, but one respondent with 6.7% disagreed that the scope and content of the framework was well identified and appropriate. The result showed that only 6.7% of the respondents disagreed therefore, the scope and the

content of the framework is well identified and appropriate for the reconstruction of housing for the IDPs in Maiduguri. The respondents were asked to indicate the level of their agreement with the statement that the framework can be explained or demonstrated to others.

Table 7.12: Respondents ratings of the conciseness of the framework

The framework can be explained to others

|		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	3	20.0	20.0	20.0
	Agree	7	46.7	46.7	66.7
	Neither Agree/Disagree	5	33.3	33.3	100.0
	Total	15	100.0	100.0	
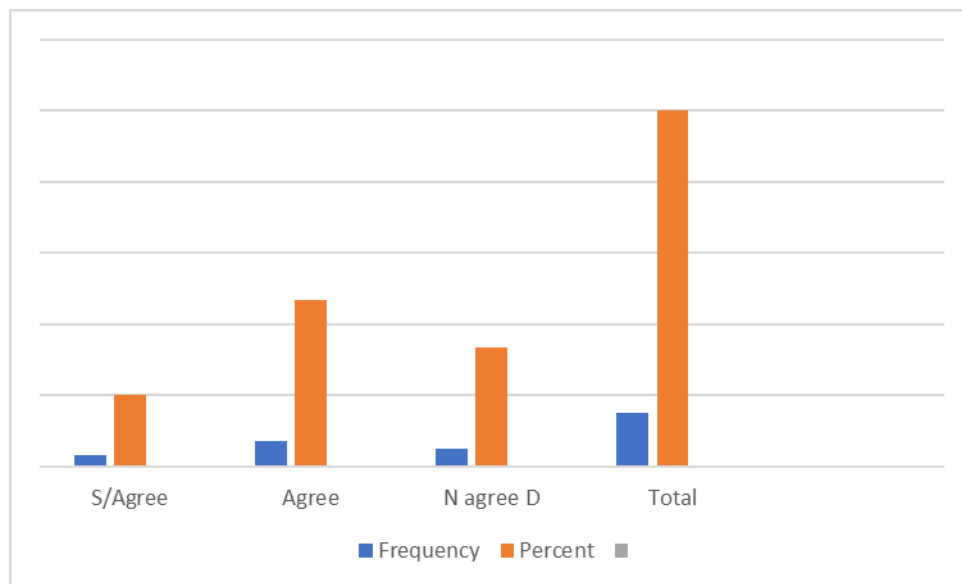
Figure 7.8: Respondents ratings of the conciseness of the framework in chart

Table 7.12 showed that three respondents representing 20.0% indicated that they strongly agreed that the framework can be illustrated or explained easily to others while seven respondents equating to 46.7% agreed that the framework can be demonstrated easily to others. However, five respondents with 33.3% indicated that they neither agreed nor disagreed with the statement. The findings revealed that 66.7% of the respondents agreed with the statement that the framework can be demonstrated or presented to others. The

respondents further indicated their agreement with the statement that the framework can be used to improve the knowledge and practice associated with reconstruction of housing for the internally displaced people due to conflict.

Table 7.13: Respondents ratings of the conciseness of the framework

The framework can be used to improve the knowledge and practice associated with reconstruction of housing for the IDPs due to conflict					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	5	33.3	33.3	33.3
	Agree	8	53.3	53.3	86.7
	Neither Agree/Disagree	2	13.3	13.3	100.0
	Total	15	100.0	100.0	
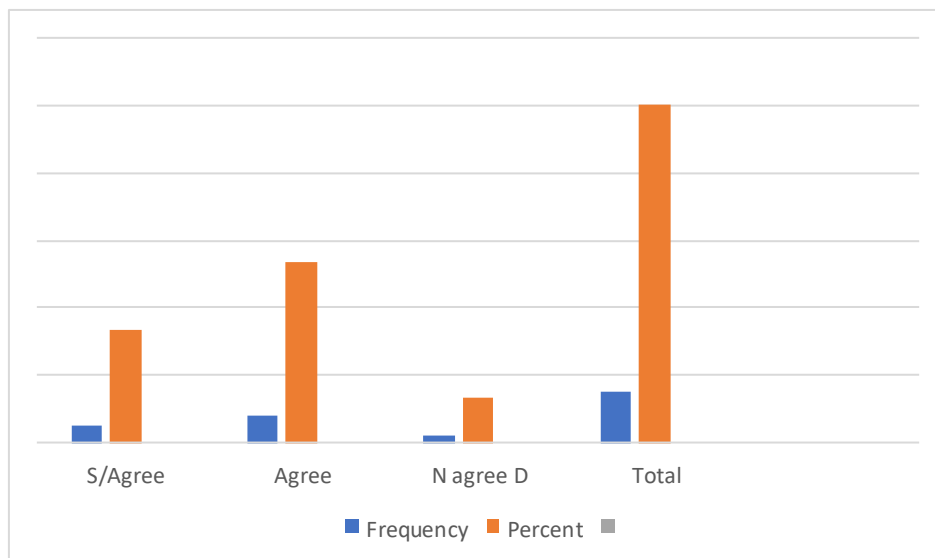
Figure 7.9: respondents ratings of the conciseness of the framework in chart

Table 7.12 showed that eight respondents equating to 53.3% indicated that they agreed that the framework can be used to improve the knowledge and practice associated with reconstruction of housing for the IDPs due to conflict while five respondents representing 33.3% strongly agreed with the statement. However, two respondents choose to neither agreed or disagreed that the framework can be used to improve the knowledge and practice associated with reconstruction of housing for the IDPs. The findings showed that 86.6% of the respondents agreed that the framework can be used in improving the knowledge and practice of reconstruction of housing for the IDPs due to conflict. The respondents were

asked to indicate their level of agreement with the statement that the framework can be used for the reconstruction of the internally displaced people houses destroyed by the Boko Haram terrorist in Maiduguri.

Table 7.14: Respondents ratings of the conciseness of the framework

The framework can be used for the reconstruction of the IDPs houses destroyed by the Boko Haram terrorist in Maiduguri

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	4	26.7	26.7	26.7
	Agree	9	60.0	60.0	86.7
	Neither Agree/Disagree	1	6.7	6.7	93.3
	Strongly Disagree	1	6.7	6.7	100.0
	Total	15	100.0	100.0	
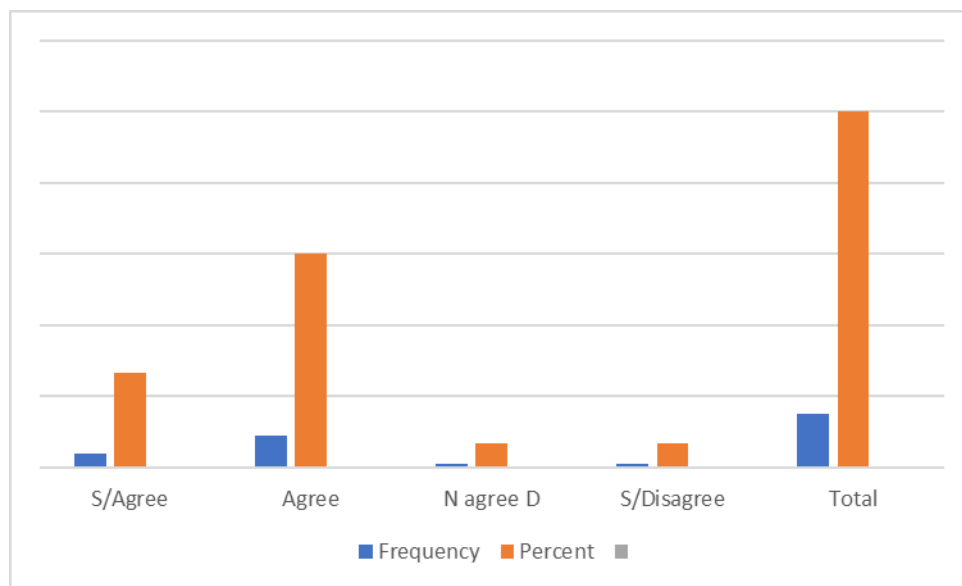
Figure 7.10: Respondents ratings of the conciseness of the framework in chart

Table 7.14 revealed that nine respondents representing 60.0% agreed that the framework can be used for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, while four respondents equating to 26.7% indicated that they strongly agreed with the statement. However, one respondent with 6.7% choose to neither agreed nor disagreed that the framework can be use for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, but one respondent representing 6.7% strongly disagreed. The findings clearly showed that 86% of the respondents agreed that the

framework can be used for the reconstruction of houses destroyed due to Boko Haram conflict in Maiduguri, Nigeria.

7.6 Summary of the validation of the framework

The analysis carried out on analytic and pragmatic criteria, revealed that the conciseness of the framework in terms of the way the framework was structured or organised for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri has 83.35%. The second criterion is the applicability of the framework towards successful housing reconstruction in Maiduguri with 80% and the last criterion is how well defined the concept and terms in the framework with 66.7%.

Table 7.15: Validation criterion used to validate the framework

Evaluation Criteria	Focus	Questions used in the validation questionnaire
Analytical **(Scientific)**	Definition of concepts and terms	The approaches, concept and terms for the reconstruction of housing for internally displaced people due to Boko Haram conflict are well defined The challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict are well defined
	Positioning of the framework	The first, second and the third approaches proposed in the framework for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri can all produce the desire outcome The challenges identified in the framework can delay or hinder the reconstruction The scope and the content in the framework are appropriate
	Consistency	Overcoming the challenges can lead to successful housing reconstruction for the IDPs due to Boko Haram conflict in Maiduguri
Pragmatic **(Operational)**	Conciseness of the framework	The framework can be used to improve the practice and processes associated with reconstruction of housing for the internally displaced people due to conflict
	Demonstration	The framework can be demonstrated to other people
	Practicability	The framework is for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri

7.7 Summary of chapter seven

This chapter presents the modified framework developed based on the quantitative and qualitative data gathered and the procedure used for the validation of the framework for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri. The validation of the framework was carried out based on the major findings from the literature reviewed, quantitative data collected through questionnaire and the qualitative data gathered through one-on-one interviews (see chapter 2, 4 and 5). The framework encompasses the elements of housing construction that will lead to successful housing reconstruction for the internally displaced people due to Boko Haram conflict in Maiduguri. The validation was carried out in order to understand whether the way the framework was structured meet the analytic and pragmatic evaluation criteria (Eppler Wittig, 2000). The analytic criteria focus on academic standard which insist on clear definitions of concepts or terms used in the framework and positioning of the framework in the existing literature.

Chapter 8:   Conclusion and Recommendations

8.1 Introduction

This chapter presents the conclusions and recommendations that emerged from this research and the achievement from the aim and objectives identified in chapter 1 (see section 1). Chapter 2 presented the findings from the literature reviewed which served as the foundation of this research. Chapter 3 presented the research methodological procedures used to achieve the aim and objectives of this research. Chapter 4 presented the analysis and discussion of the quantitative data gathered from the questionnaire survey presented to the IDPs and housing construction professionals while chapter 5 presented the analysis and discussion of the qualitative data gathered through one-on-one interviews with the housing construction professionals. Chapter 6 presented the analysis and discussion of the findings from the literature reviewed, questionnaire survey and interviews which the chapter used as the basis for modifying the framework presented earlier in chapter 3. Chapter 7 presented the modification and validation of the framework, which was based on findings from the data gathered from the literature reviewed, questionnaire survey and the one-on-one interviews discussed in chapter 6.

The chapter also presented the findings from the validation of the framework, and how it reflects or met the analytical (scientific) and pragmatic (operational) procedure or standards as highlighted by Eppler and Wittig (2000). Chapter 8 presented the summary of the major conclusion and recommendations derived from the achievement of the research aim and objectives. However, references are also made to different sections, tables, figures within each chapter in order to back the presentation. The chapter begins by reflecting on the justification of the research and the overall aim and objectives. Then the contribution of this research to the existing knowledge within the area of the research, theory, practice as well as from what was established from the validation process of the framework. The chapter also presented the generalisation of the research findings, recommendations to the government, recommendations to the housing construction professionals, recommendations for academic purposes that can be used for future research related to this area of research.

8.2 Research justification, aim and objectives of this research

The research began with review of the literature related to the research area before justification of the research area which led to the development of the aim and objectives as well as the research questions of this research. Research question 1 was designed to answer objective 1 of this research (see section 1.3 and 1.3 in chapter 1). It aimed at understanding the history of the Boko Haram conflict and how the conflict increase housing demand in Nigeria particularly in Maiduguri (see section 2.5.1, 2.5.2, 2.5.3). This question provided the foundation of the remaining questions towards achieving the main aim of this research. Since Nigeria have experienced different violent conflicts that caused serious destruction in the past. It is important to understand why the Boko Haram conflict increased housing need in Maiduguri. The answer to this question is that many people move to Maiduguri to cover the event, provide support some for work and some people who are living in the villages affected by the conflict left their homes for fear of attack and relocate to the city. In order to further the research process towards achieving the aim and objectives of this research, research question 2 explore different types of approaches use for the reconstruction of housing for the internally displaced people due to natural or manmade disasters. The question was designed to answer objective 2 of this research (see section 1.4 and 1.5). The questions in this section investigated and identified the approaches used for the reconstruction of housing for the IDPs and the appropriate approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria. The findings from the questions presented also highlighted the reasons for the choice of the approach and the advantages and disadvantages of the approach (sees 2.9, 2.13.1)

Equally, research question 3 was designed to answer objective 3 of this research (see 1.4 and 1.5). The question was designed to identified and examined the challenges associated with reconstruction of housing for the IDPs and in relation to reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri and challenges that can delay or hinder the housing reconstruction. The findings identified different challenges that are associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri and many challenges that can delay or hinder the reconstruction completely if not address or overcome. The findings are subsequently verified by the findings from the merger of the results of both the quantitative and qualitative data gathered that was presented in chapter 4 and 5

respectively. Based on the views of housing construction professionals on addressing the challenges identified in (section 5.5) will make the reconstruction of housing for the IDPs in Maiduguri successful. The outcome highlighted in the aim of this research which is the basis for the development of the framework that will be used for the reconstruction of the internally displaced people houses destroyed by the Boko Haram terrorist in Maiduguri in order to rehouse them. To achieve the aim the research was divided into four different sections which includes.

1. History of the Boko Haram conflict and the effect of the conflict on housing in Maiduguri, Nigeria

2. Approaches use for the reconstruction of housing for the internally displaced people due to natural or manmade disasters

3. Challenges associated with reconstruction of housing for the internally displaced people and in relation to the reconstruction of housing for the IDPs due to Boko Haram conflict

4. Validation of the framework for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria

The sections are connected to the research questions and objectives of this research, so that the findings from each section will assist in achieving the specific objective, which will eventually lead to the achievement of the main aim of this research.

8.2.1 Research Objective One

The objective one of this research was **'to examine the history of the Boko Haram conflict and the effect of the conflict on housing in Maiduguri, Nigeria.'** Under this objective investigation was carried out to find out how the conflict started before the conflict became violent and the effect of the conflict on housing in Maiduguri. This objective was answered based on the literature reviewed on the history of Boko Haram conflict and the effect of the conflict on housing. The findings established that the group was formed by Mohammed Yusuf in 2002 with the aim to force government to introduce Islamic Legal System (sharia) in Borno State where everything will be carried out based on islamic laws. Initially, the group were called Jama 'Atul Ahlas Sunnah Lida'awati Wal jihad (JASD) which means the

Muslims that follow the deeds and actions or the complete way of life of the Prophet Muhammad (SAW) before they change their name to Boko Haram.

The word Boko Haram is a mixture of words derived from Hausa word Boko which means Book or western education and Haram is an Arabic word that means impermissible or forbidden. In combination the word Boko Haram in the real sense means western education is forbidden in Islam. Most of the people from the north believe western education has connection with Christianity because it was introduced and teach by the missionaries in the early 60s (Onuoha, 2012). The group later change their motto that seeking for western knowledge is not allow (forbidden) and adopted the motto of learning western culture is forbidden in Islam. The difference between the two mottos is that, the actual impression of the first motto is that the Boko Haram terrorist are against seeking for western education or knowledge while the second motto reveal the group believe in the supremacy of the Islamic values because it comprises education over the western education.

It was discovered that the first misunderstanding between the group and security took occurred while the police try to enforce a road safety law in Yobe State (Danjibo, 2009). The law requires all motorcyclist riders to wear crash helmet for safety but the members of the group who are mostly the commercial motorcyclist refused to wear the crash helmet while riding their motorcycle. The police while trying to enforce the law decided to arrest any motorcyclist that is not wearing crash helmet and unfortunately majority of the commercial motorcyclist arrested were members of the Boko Haram terrorist. The arrest of the members of the group led to the first attack carried out by the group on Nigerian police force which as a result seven-teen members of the group were killed during crossfire. Following the violence, the group mosque, Arabic school and other structures they used was searched by a joint team of military and police where guns, ammunitions and other local materials they used in making explosives were found and seized by the team of security personnel.

This operation provoked the group therefore, they mobilised their members and stage a violent attack on Nigerian security agencies which caused the death of many police personnel and civilians. The attack was contained when the military attack the headquarters of the group and captured their leader together with many members of the group who were all handover to the police.

The findings further revealed that the decision taken by the police to killed Yusuf and other members of the group was the reason why the group came out in 2009 attacking security agencies, civilians, religious institutions, individuals, non-governmental organisations in order to show their anger. Since the death of their leader, Boko Haram terrorist has carried out several attacks in all part of northern Nigeria that killed thousands of people and displaced many across ethnic group in Nigeria. Some of the attacks carried out by the group include the attack of Baga town where one hundred and eighty-six thousand people were killed, and two thousand one hundred and twenty-eight thousand houses were completely burnt including cars and other structures (Danjibo, 2009). On 4th November the group carried out multiple attacks using Impoverish Explosive Device (IEDs) and Vehicle-Borne (IEDs) in Yobe, Damaturu and Maiduguri towns where over one hundred people were killed, many displaced, and houses destroyed (CNN Library, 2019). The group also attack mosque, churches, motor parks, police stations, markets in Kano which as a result more than two hundred people were killed. As a result of frequent attacks carried out by the group and the number of people dying every-day from 2009 to 2012, Human Right Organisation (HRO) revealed that over three thousand five hundred people were killed between 2009 to 2012 in Nigeria.

The findings further revealed that because of the attacks carried out by the group many people have been displaced, businesses have closed across north-eastern Nigeria, forcing people to abandon their houses and relocate to neighbouring states to avoid being killed. In the early 2012 to 2013 the group carried out many attacks within the suburbs of Maiduguri over powering the communities and establishing their rules in those areas, but the trends was changed in 2015 when the military overpowered and flushed the terrorist out of those areas they have been controlling for months (Usman, 2018). The terrorist further moved to far flung towns and villages destroying houses schools, markets, mosques, churches etc. The presence of the terrorist in those towns and villages caused a mass movement of people who fled for fear of being killed and escape persecution from the hands of the terrorist.

It was understood that due to series of attacks carried out by the group the international displacement monitoring centre estimated that over one million nine hundred and fifty thousand people have fled their homes to urban areas within the crisis areas or zones. Out of this figure it is only one hundred and fifty thousand that where leaving in the official humanitarian camps or shelter in the thirteen states with majority in Maiduguri the battle

ground of the Boko Haram terrorist. It was also discovered that the people fleeing the conflict areas to the city came with money to buy new houses in the safe areas but the prices of houses in such areas keep on increasing every day due to high demand (Iyorah, 2016). However, the effect of the conflict was not only on housing but also affected hotels particularly in Maiduguri because many people from different locations in Nigeria and outside the country where tripping in and out of Maiduguri to provide support or cover the crisis or events like journalist, expatriates, NGOs, humanitarian agencies, government officials all are squeezed into a very small city competing for available room or a place to sleep.

This has over stretched the houses, hotels and other properties in the heart of Maiduguri because the town was initially designed to accommodates not more than two million people, but because of the conflict the city in recent times accommodates up to five million people (Abdu, 2018). A house that is built for families of two or three people now accommodates about nine to ten people because the demand is high, which makes it is very difficult to find an empty house or land within the major city. This is one of the reasons why in 2015, the Borno State government established ministry of reconstruction rehabilitation and resettlement to rebuild the destroyed communities, rehouse the displaced people and to reduce the pressure on housing and hotels in Maiduguri. It also appears that the Nigerian government and the Borno state government did not see displacement of people as a serious national security challenge or as an issue of national importance because there were no serious commitments from both the federal and state government towards reconstructing the houses destroyed by the Boko Haram terrorist.

Instead, the government is more interested in fighting the terrorist group through huge investment in military hardware than giving more attention towards rehousing the internally displaced people. However, there is also problem of lack of proper documentation and record of the number of the internally displaced people which makes it difficult to provide the required interventions. Over the years, the number of people in need of housing continue to increase with new report emerged from the international displacement management commission (IDMC) that apart from the two hundred and seventy-nine thousand people displaced in 2017, another four hundred and seventeen thousand people were displaced from January to June 2018.

8.2.2 Research Objective Two

The second objective of this research is **'to explore different types of approaches use for the reconstruction of housing for the internally displaced people due to Natural or manmade disasters.** This objective started with the review of the literature which provided an insight on different approaches used for the reconstruction of housing for the internally displaced people due to natural or manmade disasters. Then the quantitative data gathered through questionnaire survey which was presented to the IDPs and housing construction professionals as well as the qualitative data collected from the one-on- one interviews with housing construction professionals. Achieving this objective involves the investigation of different approaches that are used for the reconstruction of housing for the internally displaced people in order to come up with appropriate or best practice approach for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria. However, in order to find out the best approach to adopt for the reconstruction of housing for the IDPs in Maiduguri, IDPs were asked to identify their preferred approach at the early stage of the sequential explanatory mixed methodological strategy adopted in this research, which started with questionnaire survey (see section 4). The quantitative data collected using questionnaire was coded and transferred into SPSS for analysis.

The findings from the quantitative data collected from IDPs regarding the type of approach to adopt for the reconstruction of houses destroyed by the Boko Haram terrorist revealed that fifty-eight respondents representing 67.4% preferred the adoption of owner driven approach over government driven approach. The IDPs believe adoption of owner driven approach will allow the IDPs to rebuild their houses so that houses will reflect their needs. Owner driven approach is one of the approaches or strategies used for the reconstruction of housing for the IDPs due to natural or manmade disasters. The approach is also called cash-based approach where the government or donor agencies give money to the displaced people and provide technical support for them to reconstruct their houses by themselves. Owner driven approach was adopted by donor agencies in different post-natural or manmade disasters housing reconstruction projects (Ratnayake and Rameezdeen, 2008). For example, the international federation of red cross and red crescent societies adopted ODA to reconstruct fifteen thousand one hundred and twenty houses out of twenty-two thousand houses destroyed by tsunami in Sri Lanka. Even though, many of the donor agencies adopted donor driven approach to reconstruct many houses in Sri Lanka.

While the quantitative data collected from the housing construction professionals revealed that twenty of the respondents representing 33.9% believe that owner driven approach is the best approach to adopt for the reconstruction of housing for the IDPs due Boko Haram conflict in Maiduguri. However, sixteen of the housing construction professionals representing 27.1% are against the adoption of government or owner driven approach instead they are in support of the adoption of donor driven approach because the approach will produce the required outcome that will be acceptable by the beneficiaries. Therefore, based on the findings from the quantitative data collected through questionnaire survey presented to the IDPs and housing construction professionals, it can be agreed that owner driven approach is the most appropriate approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria.

The findings were further explored in the qualitative data gathered through one-on-one interviews carried out with nine housing construction professionals to understand their opinion on the best approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. The qualitative data gathered was analysed and presented using NVivo version 12. It was discovered that six of the housing construction professionals representing 0.6% believe that government/owner driven approach is the best approach to adopt for the reconstruction of housing for the IDPs in Maiduguri because the approach will produce the outcome that will be acceptable by both the government and the beneficiaries. It was also observed that adopting government/owner driven approach will reduce the cost of labour since the IDPs can be employed as unskilled labourers and some of them can even carry out some of the skilled work.

Furthermore, the approach will allow the engineers and IDPs to work together towards achieving a common goal and at the end the IDPs will learn different housing construction skills they can use to earn additional income. Government/owner driven approach can produce outcome that will reflect what the beneficiaries aspire, because if adopting government or donor driven approach alone can produce housing that was accepted by many IDPs then there is every possibility government/owner driven approach will produce housing that will be accepted by all the displaced people. It was also discovered that adopting government/owner driven approach will reduce mismanagement of the reconstruction funds because the IDPs will monitor the activities of the engineers in terms of expenditure or how the money is being spend. However, under this approach the reconstruction will be faster than

under government driven approach or donor driven approach. Even though, the completion period will depend on the willingness of the government to provide the resources required for the reconstruction.

Despite the advantages of adopting government/owner driven approach, it was understood that there is also disadvantages of adopting the approach which include government policies or bureaucracy, disagreement between the engineers and IDPs. Government bureaucracy or procedure can delay the commencement and progress of the reconstruction because of the people involved in the decision-making process in terms of approving and providing funds for the reconstruction. Disagreement between the engineers handling the reconstruction and IDPs can also affect the reconstruction particularly when it comes to planning of the way the reconstruction will be carried out and particularly during redesigning of the houses that are going to be constructed from the scratch. The findings further revealed that lack of building skills from the IDPs will limit their contribution because they don't have the building skills to make significant contribution, but they can carry out some of the unskilled building work like mixing of cement and sand, brick laying etc.

Two of the housing construction professionals equating to 0.2% reported that government driven approach is the most appropriate approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. While one of the housing construction professionals want owner driven approach to be adopted for the reconstruction. Therefore, based on the one-on-one interviews with housing construction professionals on the approach to adopt for the reconstruction of housing for the IDPs in Maiduguri, it was discovered that majority of them want government/owner driven approach to be adopted for the reconstruction because the approach will produce outcome that will meet the needs of the beneficiaries.

8.2.3 Research Objective Three

The objective three of this research is '**to examine the challenges associated with reconstruction of housing for the internally displaced people due to natural or manmade disasters and in relation to Boko Haram conflict in Maiduguri, Nigeria.**' This objective was achieved through the review of the literature on the challenges associated with reconstruction of housing for the internally displaced people in general then followed by the quantitative data gathered using questionnaire survey from both the IDPs and housing

construction professionals and qualitative data collected from the housing construction professionals through one-on-one interviews. Investigation was carried out on the challenges that are associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri and those that can delay or hinder the reconstruction.

Based on the quantitative data gathered from the IDPs in connection to this objective, it was observed that the challenges the IDPs will encounter if owner driven approach is adopted for the reconstruction of houses destroyed by the Boko Haram terrorist includes lack of building skills, inadequate labourers, lack of transportation, scarcity of water and insecurity. While the quantitative data collected from the housing construction professionals in connection with the challenges associated with reconstruction of housing for the IDPs in Maiduguri disclosed that insecurity, lack of transportation, lack of good roads or motorable roads, limited resources, lack of water, inadequate building materials, scarcity of skill labourers as the major challenges associated with reconstruction of the internally displaced people houses destroyed by the Boko Haram terrorist in Maiduguri.

However, the quantitative data gathered through Likert Scale from the housing construction professionals on the challenges that can delay or hinder the reconstruction of housing for the IDPs in Maiduguri revealed that majority of the housing construction professionals agreed that, lack of commitments from the government officials, engineers, corruption, insecurity, lack of funds, lack of good roads, urgency from the IDPs to return home, government bureaucracy, relocation and ignoring the culture of the IDPs during the reconstruction can hinder the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, if not address. Though, it was observed that some of the challenges like lack of commitments, insecurity, limited resources, lack of good roads, urgency from the displaced people to return home and government bureaucracy will have high effect on the reconstruction more than relocation and cultural challenges.

The data gathered from the one-on-one interviews carried out with the housing reconstruction professionals on the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, disclosed that there are many challenges that are associated with reconstruction of housing for IDPs in Maiduguri. The challenges include insecurity, lack of funds, lack of roads or access to the areas affected, relocation, government bureaucracy, lack of skill labour, scarcity of land and inadequate building materials. It was discovered that the challenges if not address properly or overcome can delay or hinder the

reconstruction of housing for the IDPs in Maiduguri completely. That is the reason why the qualitative data gathered from one-on-one interviews with housing construction professionals provided better ways to overcome the challenges.

It was understood that the best way to address the issue of insecurity is by recruiting many informers from the local communities affected so that they can assist in providing useful information to the security agencies. The welfare of the military must be reviewed in terms of their salaries, feeding allowances to sort of motivate and encourage them to be committed to the fight. The government should also purchase latest arms, fighter jets and other equipment the military need so that they can overcome the strength of the terrorist group. The establishment of temporary and permanent military barracks in the local government areas affected most especially near the boarders separating Borno State with other African countries like chad, Benin Republic and Niger will also play key role towards providing lasting peace and security.

Lack of funds, the government can address this challenge through other sources of revenue like custom service, Nigerian port authority, federal inland revenue service, local and international companies doing business in the country like Dangote, Bua, MTN, Airtel and Glo. Since the price of crude oil has fallen below $60 per barrel which was the government major source of revenue. For example, the government can increase the custom duty, vat and tax in order to sources funds for the reconstruction. The government can even source the funds from the United Nation department for humanitarian activities.

The findings revealed that the issue of government bureaucracy can be overcome if the government is really committed to rehousing the IDPs by making sure that all the people involved in the decision making regarding the reconstruction understand the importance of resettling the IDPs back to their homes so that the decision-makers will take quick decisions on any matter related to the reconstruction project or connected to displaced people. The findings also disclosed that the issue of relocation can be address by explaining to the IDPs the reason why they are going to be relocated to other place before the housing construction begin. Because most of the time the government will just build houses somewhere far away from the original homes of the displaced people without consulting them and after the project they ask the displaced people to move there, that's why on many occasions the displaced people prefer to abandoned the houses and remain in the temporary camps.

8.2.4 Research Objective Four

The objective four of this research was **'to present and validate the framework for the reconstruction of housing for the internally displaced people due to Boko Haram conflict.'** The framework is developed through the analysis of findings from the quantitative data gathered from questionnaire survey and qualitative data gathered through one-on-one interviews presented in chapter four and five (see section 4.0 and 5.0) respectively. The validation of the framework was carried out in line with the procedures recommended by Eppler and witting (2000) using a sampling method that seek for the views of twenty-three (23) housing construction professionals through questionnaire using open-ended questions (see appendix 8).

8.3 Contribution to the Knowledge

This research has explored and provided more insights on the approaches used for the reconstruction of housing for the internally displaced people due to natural or manmade disasters and in relation to reconstruction of housing for the internally displaced people due to Boko Haram conflict. The research also introduced a new approach for the reconstruction of housing for the IDPs due to conflict, identified the best approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, as well as challenges associated with reconstruction of housing for the IDPs due to natural or manmade disasters and challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria. Therefore, it can be agreed that this research has made the following contributions.

8.3.1 Contribution to the Practice

This research has developed a framework for the reconstruction of housing for the internally displaced people due to conflict that encompasses different types of approaches used for the reconstruction of housing for the internally displaced people due to natural or manmade disasters. Therefore, the framework has demonstrated that:

- A systematic set of process or procedure for the development of a framework for the reconstruction of housing for the internally displaced people due to conflict by

understanding different approaches used for the reconstruction of housing for the IDPs due to natural or man-made disasters.

- A well-developed framework for improving housing reconstruction practice for the internally displaced people due to conflict.

- The framework has further improved the knowledge of building construction professionals on post-conflict housing reconstruction in general and in relation to reconstruction of housing for the IDPs due to conflict and in relation to reconstruction of housing for the IDPs due to Boko Haram conflict.

- The framework provides a good understanding of the differences between reconstruction of housing for the internally displaced people and normal housing construction for other purposes.

- As a basis for the government officials responsible for rehousing the IDPs and housing construction professionals, contractors to understand the best practice approach to adopt for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria

- A good understanding of the challenges associated with reconstruction of housing for the internally displaced people due to natural or manmade disasters and in relation to reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri and the challenges that can delay or hinder the reconstruction completely.

- Best ways of overcoming or addressing the challenges associated with reconstruction of housing for the IDPs in order to successfully deliver housing to the IDPs in Maiduguri, Nigeria.

8.3.2 Contribution to the existing theory

The framework has contributed to the existing theory by improving the theory, identifying the gaps, weaknesses and the strengths of the current approaches used for the reconstruction of housing for the internally displaced people. The researcher has specifically recommended this area for further study. This research has also provided the housing construction engineers, academicians, and researchers with a framework that can be used for the reconstruction of housing for the internally displaced people due to conflict.

8.4 Generalisation

This research was carried out within the context of building construction industry, and particularly in the area of post-conflict housing reconstruction. The interpretation of the outcomes and the framework was also carried out within these areas based on specific sample size using appropriate research strategy. Therefore, the use or applicability of the outcome in other research areas or subject areas may not be beneficial, instead it should be tested systematically in order to authenticate its practicality.

8.5 Limitations of this Research

Limitations are important part of research process, and how properly the researcher manages limitations throughout the research improves the researcher's skill and level of experience in conducting future research. Lack of clear research limitations affect the level of confidence in the findings and conclusions that said to be truth (Saunders et al, 2012). In this research pragmatist philosophical stance was adopted, therefore, the findings are based on the interpretation of the quantitative and qualitative views and perceptions of the housing construction professionals as the social actors in this research. This approach was adopted based on the pragmatist axiological position or stance, that cannot be separated from the researcher's values. In order to avoid bias, mixed method strategy was adopted so that the findings derived from the literature are used to support the results from the quantitative and qualitative data through questionnaire survey and one-on-one interviews. This strategy has further increased the rigour in the process and accuracy of the framework.

However, it was very difficult for the researcher to find and convinced the housing construction professionals to take part in the research. It was also a big task for them to fill and returned the completed questionnaire as well as to take part in the interview which was due to mass housing construction projects on going across Nigeria presently. This is the reason why the participation in the research was not easy for them. The researcher had to contact the targeted respondents by calling them and sending emails to the extent the researcher had to go to their respective offices to explain the importance of their participation in the research in order to encourage them to complete the questionnaire and take part in the interview. This was how the researcher was able to gather 38% response rate from the

questionnaire which is believe to be significant number and nine housing construction professionals were interviewed.

8.6 Recommendations and Conclusion

8.6.1 Recommendations for the government

It was recommended that the government should concentrate on important issues highlighted in section 4, 5 and 6 including

- The government should make sure all the funds required for the reconstruction are provided before the commencement of the reconstruction to avoid slowing down the progress of the project.

- The government should establish a committee for the reconstruction and all the members should come from the local government areas affected by the conflict or same communities with the internally displaced people because the members might perhaps have family members, friends, relative among the beneficiaries as such, they will be committed towards achieving the desire goal.

- The engineers hired or selected from the ministry of works and housing that will handle the reconstruction should also come from the local government areas affected by the conflict because they may also have a relative, family member or friend that are among the displaced people.

- The government should adopt government/owner driven approach for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, because the approach will produce outcome that will be accepted by the government and most importantly by the beneficiaries.

- In order to support the committee established for the reconstruction, the government should constitute a monitoring team that will comprise the village heads of the communities affected, staff of the EFCC and ICPC who are from the same communities with the beneficiaries if possible in order to reduce misappropriation of the funds for the project.

- The housing reconstruction should be carried out in phases or community after community or local government after local government to avoid dividing the attention or concentration of the engineers and contractors handling the project, because if there are many housings reconstruction project on going at the same time in different places the concentration of the engineers or contractors will be divided unlike when the concentration is towards just a single housing reconstruction project.

- The IDPs should be used as unskilled labourers particularly the young men amongst them to reduce the cost of hiring unskilled labourers and it will serve as capacity building process or empowerment because the IDPs will learn different kind of building skills during the reconstruction.

8.6.2 Recommendations for the housing construction engineers or professionals that will handle the reconstruction

- The engineers should involve the internally displaced people in the reconstruction process most especially in the planning and redesigning because they know exactly how their houses were built before the destruction and how they want their houses to look like in terms of the size of the rooms, living room, position of the kitchen and toilet etc.

- The engineers should make sure they understand the needs and preferences of the IDPs before the reconstruction work begin, because if the houses fail to reflect what the displaced people want, they might reject the houses or abandoned them.

- The engineers should employ or use the IDPs as unskilled labourers in order to reduce the cost of labour since the government does not have enough resources to reconstruct to address other challenges like insecurity, health care, bad roads, unemployment, poor education etc.

- The engineers should see the collaboration between them and IDPs as a capacity building process or as an opportunity for the IDPs to learn different building skills which they can use in the future as additional source of income.

8.6.3 Recommendations for Academics Purposes

- Thorough assessment of this framework should be carried out in order to identify the areas that needs further improvement.

- This research should be enhanced in order to serve as a guide towards reconstruction of housing for the internally displaced people due to conflict.

- Further studies on this topic and other areas of post-conflict housing reconstruction should be carried out because most of the researches carried out in this area concentrated on post natural disaster housing reconstruction.

8.7 Concluding Observations

This research has explored different types of approaches used for the reconstruction of housing for the internally displaced people due to natural or manmade disasters in order to identify the best practice approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria. The outcome of this research is the development of a framework for the reconstruction of housing for the IDPs due to conflict. In spite, of the rigorous and methodological approach adopted in this research, but still there are some limitations. This chapter provided in detailed on how the set objectives of this research was achieved and the contribution made by the research to the existing knowledge both in theory and practice in relation to reconstruction of housing for the internally displaced people due to conflict. The chapter also provided the limitations of this research and how the researcher was able to handle such issues. Finally, the researcher made some recommendations for the government, housing construction professionals that will handle or supervise the reconstruction and for academic purposes.

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Appendices

APPENDIX 1: Ethical Approval Letter

University of
Salford
MANCHESTER

22 August 2017

Yakubu Abdu

Dear Yakubu,

RE: ETHICS APPLICATION STR1617-90: DEVELOPING TOOLS FOR THE RECONSTRUCTION OF AFFORDABLE HOUSING FOR THE INTERNALLY DISPLACED PEOPLE DUE TO CONFLICT IN NIGERIA

Based on the information you provided, I am pleased to inform you that your application STR1617-90 has been approved.

If there are any changes to the project and/ or its methodology, please inform the Panel as soon as possible by contacting S&T-ResearchEthics@salford.ac.uk

Yours sincerely,

Dr Anthony Higham
Chair of the Science & Technology Research Ethics Panel

APPENDIX 2: Participants Information Sheet

Title of the Research

Developing a framework for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria

Name of the Researcher   xxxxxxxxxxx

Name of the Supervisor   Dr xxxxxxxxxxx

Name of the Co-supervisor Dr xxxxxxxxxxx

Invitation Paragraph

You are invited to take part in a research that is being undertaken as partial fulfilment of the award of Doctor Degree. This information sheet is design to provide you with the necessary information concerning this research and your participation. The information will guide you to make a right decision concerning your participation in the research. There will be no material or financial reward for participating in this research because it is a voluntary exercise and the research will be conducted in English.

Psychological risk assessment in this research is very crucial, therefore, in the questionnaire for the displaced people in Maiduguri the researcher will not ask the IDPs questions that will cause disquiet/or upset to them, because of the psychological trauma they pass through during the conflict.

The researcher intends to conduct interview with the building construction professionals and the data collection process will include the following methods

Diary; the data collected during the interview will be kept in a diary which will later be transfer into laptop and computer. The researcher will seek permission from the housing construction professionals to record the conversation during the interview.

The aim of the research
The aim of this research is to develop a framework for the reconstruction of housing for internally displaced people due to conflict.
Why you are chosen

This research focuses on the reconstruction of housing for the internally displaced people due to Boko Haram conflict The researcher will like to gain more insight about the approaches use for the reconstruction of housing for the IDPs due to conflict and the challenges associated with the reconstruction of housing for the IDPs and in relation to reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri. Your knowledge and experience in this area of research is needed in order to achieve the aim and objectives of this research.

Do I have to participate?

Participation in this research is not must, it is entirely up to you and you can decide to withdraw from the research at any time you wish. If you require more information about the research in order to participate it will be provided to you. However, if you agree to take part, there is a consent form which will be given to you, for you to sign. As mentioned earlier, you can withdraw from the research at any time you wish without being question by the researcher.

If I agree to take part, what is the next step?

If you decide to take part in the research, you will be given a copy of the interview guide which will explain to you, the extent of your involvement in the research and the kind of questions the researcher intends to ask you. If you have any questions about the research, the researcher will be happy to provide you with answer. After all the guidelines, have been mate a convenient date, location and the time for the interview will be arrange between you and the researcher.

What is expected from me if I take part in the research?

If you agreed to take part in the research, you and the researcher will agree on the date and time that is convenient for you to conduct the interview. The day of the interview, a semi-structured interview will be conducted over the phone or in person in an open discussion to explore your knowledge of building construction. The interview will last between 30-45 minutes maximum and if necessary, the researcher might record the discussion if you agree. The reason for the recoding is to enable the researcher to have a backup of the information gather during the interview and the content of the interview can also be translated for data

analysis in a later stage. To adhere to the anonymity, your name will not be capture in the recording instead your name will only appear on the consent sheet before the interview.

Will my involvement in this research be strictly confidential?

The researcher is committed to adhere to confidentiality by protecting any information or data gather. All the information gathered from the interview will be kept confidentially to adhere to the anonymity. The researcher will use coding and numbers as way of identifying information or data because all the information will be presented in such a way that, the participant cannot be identify. The interview will be translated with a strict confidentiality and the information gather will be store in a password protected computer that can only accessed by the researcher. The data will be used in writing the thesis and any other publication related to this research, and the researcher supervisor and co-supervisor can also have access to the data, but their names will still be confidential.

The data collected will be kept for at least three years after the researcher completed his PhD in order to adhere to the University of Salford data retention rule. After the period of three years the data will be secretly destroyed to adhere to the data protection rules and to still maintain confidentiality.

What are the benefits of take part in this research?

Your knowledge and experience on housing construction which you share with the researcher will play a crucial role towards developing framework that will be use for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria. Such contributions will help a lot towards reconstruction of the IDPs houses destroyed by the Boko Haram terrorist in Maiduguri.

What is going to happen with the findings from the research?

The findings or results from the research will be analysed and compiled to develop a framework for reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria. The findings will also be presented to the Nigeria government as part of recommendation for implementation and will also be publish in form of academic journals, paper presentation during seminars, conferences etc. for whatever the findings are used, the anonymity of the information will still be maintained.

Is there any reward for the participant?

Participation in this research is voluntarily therefore, there is no material or financial reward attached.

Additional Information

The researcher is a PhD student from the School of Science, Engineering and Built Environment, University of Salford. If you need more information or you have any question concerning this research or about your participation, please feel free to contact the researcher below

Contact Details

y.a.abdu@edu.salford.ac.uk

c.p@edu.salford.ac.uk

Hope you will take part in this research; your participation will be highly appreciated

Thank you for your time and cooperation

Yours Sincerely

xxxxxxxxxxxx

APPENDIX 3: Informed Consent Form for Questionnaire Survey Participants

The aim of this survey is to understand the effect of Boko Haram conflict on housing, identify approaches use for the reconstruction of housing for IDPs and the challenges

associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria.

You are invited to take part in the questionnaire because of your knowledge and experience in building construction. There is no material or financial reward for the participants as participation in the research is a voluntary exercise and it is your choice to take part in the research. Your participation in this research is very important and you are free to withdraw from this research at any time you wish without any excuse.

To participate in this research, you are required to complete the online questionnaire that will last for 30 minutes. Your responses will be treated with strict confidentiality as well as your name, email address and other data. The questions will be about reconstruction of housing for IDPs, focusing on the approaches use for the reconstruction of housing for IDPs and challenges associated with reconstruction of housing for IDPs. The findings will be kept for academic purposes and it will also be share with the School of Science, Engineering and Built Environment, University of Salford where the findings will be kept confidentially.

If you need more information concerning this research, please feel free to contact the researcher.

Consent Undertaken:

I have read and understood what the research is all about and I agree to take part in this research

- ☐ Yes
- ☐ No

APPENDIX 4: Informed Consent for Interview Participants

Title of the research: Developing a framework for the reconstruction of housing for the internally displaced people due to conflict.

Name of the Researcher: xxxxxxxxxxx

Name of the Supervisor: Dr xxxxxxxxx

Please tick the appropriate answer

- I will confirm that I have read and understood the information sheet for this research and what my contribution are   Yes   No
- I had the opportunity to ask questions concerning the research   Yes   No
- I agree to participate in the research   Yes   No
- I agree the interview should be recorded   Yes   No
- I understand that my involvement in the research is voluntary exercise   Yes   No
- I understand that I have the right to withdraw from the research at any time I wish, without being question by the research   Yes   No
- I understand that, if I decide to withdraw from the research all my responses will be destroyed by the researcher   Yes   No

Name of the Participant…………………… Date……………………………….

Name of the Researcher…………………… Date……………………………….

For more information, please contact

Researcher: xxxxxxxxx   y.a.abdu@edu.salford.ac.uk

Supervisor: Dr xxxxxxxxx c.p.pathirage@salford.ac.uk

APPENDIX 5: Pilot Questionnaire for the IDPs

Section1: Respondent personal information

Please tick the right answer

1. What is your gender

   Male ☐

   Female ☐

2. What age group do you belong to?

   a. Below 20 years ☐
   b. 20 to 30 years ☐
   c. 30 to 40 years ☐
   d. 40 to 50 years ☐
   e. 60 above ☐

3. What is your main business?

   a. Fishing ☐

   b. Farming ☐

   c. Trader ☐

   d. Civil servant ☐

   e. Others…………………………………………………………………………….

4. Which local government are you from?

   a. Maiduguri

   b. Bama

   c. Gwoza

   d. Madagali

   e. Gobaron Ngala

Objective 1: To Examine the nature of Boko Haram conflict and the effect of the conflict on housing in Maiduguri, Nigeria

Section 2: Nature of the Boko Haram conflict and the effect of the conflict on housing in Maiduguri, Nigeria

1. Do you think the conflict is?
   a. Religiously motivated   Yes ☐   No ☐
   b. Politically motivated   Yes ☐   No ☐
   c. Economically motivated   Yes ☐   No ☐

2. How will you define Boko Haram?
   a. Terrorist ☐
   b. Al-Qaeda ☐
   c. Jihadist ☐
   d. Others ☐

3. Do you own a house?
   a. Yes ☐
   b. No ☐

4. How many bedrooms in your house?
   a. One bedroom
   b. Two bedrooms
   c. Three bedrooms
   d. Four bedrooms

5. Was your house destroyed or damaged due to Boko Haram conflict?
   a. Yes ☐
   b. No ☐

6. If yes, please indicate how destroyed is your house
   a. Completely Destroyed
   b. Substantially Destroyed
   c. Partially Destroyed

Objectives 3: what are the approaches use for the reconstruction of housing for internally displaced people due to conflict

Section 3: Opinion on the type of approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri

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Since independence Nigeria has experienced different kinds of conflict ranging from political, ethnic and religious conflict. However, Boko Haram conflict have caused the deaths of many people and displaced over five million people in North-Eastern part of Nigeria and there are over 985 656 houses destroyed across the 27 local government areas of Borno State, Nigeria. In this part the questions are aimed at highlighting the approach to adopt and challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri.

Please tick your answer to indicate your opinion

1. Do you have the means to reconstruct your house?
   a. Yes ☐
   b. No ☐

2. Do you think the government should handle the reconstruction of your houses?
   a. Yes ☐
   b. No ☐

3. Do you think you should handle the reconstruction of your houses?
   a. Yes ☐
   b. No ☐

4. What are the challenges you may encounter if you are to handle the reconstruction of your house?

………………………………………………………………………………………………..
………………………………………………………………………………………………..
…………………………………………………………………………………………………
…………………………………………………………………………………………………

5. Do you have the require skills to handle the reconstruction of your houses?
   a. Yes ☐
   b. No ☐

If yes, what are the skills……………………………………………………….

……………………………………………………………………………………………….

APPENDIX 6: Questionnaire for the IDPs

Section1: Respondent personal information

Please tick the right answer

1. What is your gender

   Male ☐

   Female ☐

2. What age group do you belong to?
   a. Below 20 years ☐
   b. 20 to 30 years ☐
   c. 30 to 40 years ☐
   d. 40 to 50 years ☐
   e. 60 above ☐

3. What is your main business?

   a. Fishing ☐

   b. Farming ☐

   c. Trader ☐

   d. Civil servant ☐

   e. Others…………………………………………………………………………………….

4. Which local government are you from?

   a. Maiduguri

   b. Bama

   c. Gwoza

   d. Madagali

   e. Gobaron Ngala

Objective 1: To Examine the nature of the Boko Haram conflict and the effect of the conflict on housing in Maiduguri

Section 2: Effect of the Boko Haram conflict on housing in Maiduguri

1. Do you own a house?
   a. Yes ⬜
   b. No ⬜

2. How many bedrooms in your house?
   a. One bedroom
   b. Two bedrooms
   c. Three bedrooms
   d. Four bedrooms

3. Was your house destroyed or damaged due to Boko Haram conflict?
   a. Yes ⬜
   b. No ⬜

4. If yes, please indicate how destroyed is your house
   a. Completely Destroyed
   b. Substantially Destroyed
   c. Partially Destroyed

5. If no, please go to Section 3

Objectives 3: what are the approaches use for the reconstruction of housing for internally displaced people due to conflict

Section 3: Opinion on the type of approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria

Since independence Nigeria has experienced different kinds of conflict ranging from political, ethnic and religious conflict. Boko Haram conflict have caused the deaths of many people and displaced over five million people in the North-eastern part of Nigeria and over 985 656 houses destroyed across the 27 local government areas of Borno State, Nigeria. In this part the questions are aimed at highlighting the approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri and challenges associated with reconstruction of housing for the IDPs in Maiduguri.

Please tick your answer to indicate your opinion

1. Do you have the means to reconstruct your house?
   a. Yes ☐
   b. No ☐

2. Do you think the government should handle the reconstruction of your houses?
   a. Yes ☐
   b. No ☐

If no, why…………………………………………………………………………………....
………………………………………………………………………………………………
……………………………………………………………………………………………..

3. Do you think you should handle the reconstruction of your houses?
   a. Yes ☐
   b. No ☐

If yes, why do you think so? ……………………………………………………………
………………………………………………………………………………………..
………………………………………………………………………………………..

4. What are the challenges you may encounter if you are to handle the reconstruction of your house?
………………………………………………………………………………………..
………………………………………………………………………………………..
………………………………………………………………………………………
………………………………………………………………………………………

5. Do you have the require skills to handle the reconstruction of your houses?
   a. Yes ☐
   b. No ☐

If yes, what are the skills you possess…………………………………………………
………………………………………………………………………………………
………………………………………………………………………………………

APPENDIX 7: Pilot Questionnaire for the Building Construction Professionals

Section 1: Respondent personal information

Please tick the correct information

1. Gender

   Male ☐

   Female ☐

2. What age bracket do you belongs to
   a. Below 20 ☐
   b. 20 to 30 ☐
   c. 30 to 40 ☐
   d. 40 to 50 ☐
   e. 60 and above ☐

3. What is your profession

   ☐

4. How many years of experience do you have in the construction industry?

   a. 3 to 5 years ☐

   b. 5 to 10 years ☐

   c. 10 to 15 years ☐

   d. 15 years and above ☐

5. How long have you been practicing building construction?

   a. 3 to 5 years ☐
   b. 5 to 10 years ☐
   c. 10 to 15 years ☐
   d. 15 years and above ☐

6. How many years of experience do you have in housing construction

   c. 3 to 5 years ☐
   d. 5 to 10 years ☐
   e. 10 to 15 years ☐
   f. 15 years and above ☐

Objective 1: To examine the nature of the Boko Haram conflict and the effect of the conflict on housing in Maiduguri, Nigeria

Section 2: Effect of the Boko Haram conflict on housing in Maiduguri, Nigeria

This section focusses on understanding the impact of Boko Haram conflict on housing and how the conflict increased housing demand in Maiduguri, Nigeria

1. How many people have been displaced due to Boko Haram conflict in Nigeria?

2. How many people have been displaced by the Boko Haram terrorist in Maiduguri?

3. How many houses have been destroyed by the Boko Haram terrorist in Maiduguri?

4. On a scale of 1-5 and 5 is the highest score, please indicate the level of your agreement with the following statements as it shows the impact of Boko Haram conflict on housing in Maiduguri, Nigeria

Meaning of scale:

1= Agree 2 = Strongly Agree 3 = Neither Agree/Disagree 4 = Disagree 5 = Strongly Disagree

	Impact of the Boko Haram conflict on Housing	**1**	**2**	**3**	**4**	**5**
1	Millions of people have been displaced by Boko Haram conflict in Nigeria					
2	Majority of the displaced people are from Maiduguri					
3	Majority of the houses destroyed are from Maiduguri					
4	Majority of the houses destroyed in Maiduguri are 3 bedrooms houses					
5	Housing demand has increased in Maiduguri due to Boko Haram conflict					

Objective 2: what are the approaches use for the reconstruction of housing for internally displaced people?

Section 3: Opinion on the importance of reconstruction of the internally displaced people houses destroyed by the Boko Haram terrorist in Maiduguri and the approach to adopt for the reconstruction

On a scale of 1-5 and 5 is the highest score, please indicate the level of agreement as regard to the following statements as it shows the importance of reconstruction of housing for the IDPs and the approach to adopt for the reconstruction of housing for the IDPs in Maiduguri

Meaning of scale:

1= Agree 2 = Strongly Agree 3 = Neither Agree/Disagree 4 = Disagree 5 = Strongly Disagree

	The need for the reconstruction of housing for the IDPs in	**1**	**2**	**3**	**4**	**5**

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	Maiduguri					
1	There is a need for the government to reconstruct the IDPs houses destroyed by the Boko Haram terrorist in Maiduguri					
2	Reconstruction of housing for the IDPs due to Boko Haram in Maiduguri will play crucial role towards their rehabilitation back to the community					
3	The houses should reflect the preferences of the IDPs					
4	Government should focus on reconstruction of the IDPs houses destroyed due to Boko Haram conflict					

5. Which of these approaches should government adopt for the reconstruction of housing for the internally displaced people in Maiduguri?

      1. Government Driven Approach

      2. IDPs Driven Approach

      3. Donor Agencies Driven Approach

Please explain the reason why you choose the approach……………………………………

………………………………………………………………………………………………

……………………………………………………………………………………………

Objective 3: What are the challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Nigeria?

Section 4: The challenges government need to overcome in order to deliver housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria

    1. Based on your experience, what are the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria?
       ………………………………………………………………………….........................
       ....
       ....

    2. Based on your experience, do you agree that the challenges below can hinder the reconstruction of housing for the IDPs in Maiduguri, Nigeria
       On a scale of 1-5 being 5 the highest score, please indicate your agreement as regard to the following challenges as it is important for the government to overcome these

challenges in order to successfully reconstruct IDPs houses destroyed by the Boko Haram terrorist in Maiduguri, Nigeria

1 = Agree 2 = Strongly Agree 3 = Neither Agree/Disagree 4 = Disagree 5= Strongly Disagree

	Challenges associated with reconstruction of housing for the IDPs in Maiduguri, Nigeria	1	2	3	4	5
1	Corruption					
2	Lack of resources					
3	Relocation					
4	Urgency					
5	Government Bureaucracy					
6	Insecurity					
7	Roads access					
8	Commitment					
9	Culture					

APPENDIX 8: Questionnaire for the Building Construction Professionals

Section 1: Respondent personal information

Please tick the correct information

1. Gender

   Male ☐

   Female ☐

2. What age bracket do you belongs to

   a. Below 20 ☐

   b. 20 to 30 ☐

   c. 30 to 40 ☐

   d. 40 to 50 ☐

   e. 60 and above ☐

3. What is your profession

   _____

4. How many years of experience do you have in the construction industry?

   a. 3 to 5 years ☐

   b. 5 to 10 years ☐

   c. 10 to 15 years ☐

   d. 15 years and above ☐

5. How long have you been practicing building construction?

   a. 3 to 5 years ☐

   b. 5 to 10 years ☐

   c. 10 to 15 years ☐

   d. 15 years and above ☐

6. How many years of experience do you have in housing construction

   c. 3 to 5 years ☐

   d. 5 to 10 years ☐

   e. 10 to 15 years ☐

   f. 15 years and above ☐

Objective 1: To examine the nature of the Boko Haram conflict and the effect of the conflict on housing in Maiduguri, Nigeria

Section 2: Effect of the Boko Haram conflict on housing in Maiduguri, Nigeria

This section focusses on understanding the impact of Boko Haram conflict on housing and how the conflict increased housing demand in Maiduguri, Nigeria

1. How many people have been displaced due to Boko Haram conflict in Nigeria?

2. How many people have been displaced by the Boko Haram terrorist in Maiduguri?

3. How many houses have been destroyed by the Boko Haram terrorist in Maiduguri?

4. On a scale of 1-5 and 5 is the highest score, please indicate the level of your agreement with the following statements as it shows the impact of Boko Haram conflict on housing in Maiduguri, Nigeria

Meaning of scale:

1= Agree 2 = Strongly Agree 3 = Neither Agree/Disagree 4 = Disagree 5 = Strongly Disagree

	Impact of the Boko Haram conflict on Housing	1	2	3	4	5
1	Millions of people have been displaced due to Boko Haram conflict in Nigeria					
2	Most of the displaced people are from Maiduguri					
3	Majority of the houses destroyed are in Maiduguri					
4	Majority of the houses destroyed in Maiduguri are 3 bedrooms houses					
5	Housing demand has increased in Maiduguri due to Boko Haram conflict					

Objective 2: what are the approaches used for the reconstruction of housing for internally displaced people due to natural or manmade disasters?

Section 3: Opinion on the importance of reconstruction of the internally displaced people houses destroyed due to Boko Haram conflict in Maiduguri and the approach to adopt for the reconstruction.

On a scale of 1-5 and 5 is the highest score, please indicate the level of your agreement regarding the following statements that;

Meaning of scale:

1= Agree 2 = Strongly Agree 3 = Neither Agree/Disagree 4 = Disagree 5 = Strongly Disagree

	The need for the reconstruction of housing for the IDPs in Maiduguri	1	2	3	4	5
1	There is a need for the government to reconstruct houses for the IDPs in Maiduguri					
2	Reconstruction of housing for the IDPs will play crucial role towards their rehabilitation back to the community					
3	The houses should reflect the preferences of the IDPs					
4	Government should focus on reconstruction of housing for the IDPs					

5. Which of these approaches should government adopt for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria?

1. Government Driven Approach
2. IDPs Driven Approach
3. Donor Agencies Driven Approach

Please explain the reason why you choose the approach………………………………………
……………………………………………………………………………………………….
……………………………………………………………………………………………

6. What are the advantages and disadvantages of the approach you choose?

……………………………………………………………………………………………
……………………………………………………………………………………………
……………………………………………………………………………………………
……………………………………………………………………………………………

Objective 3: What are the challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria?

Section 4: The challenges government need to overcome in order to reconstruct the IDPs houses destroyed by the Boko Haram terrorist in Maiduguri, Nigeria

1. Based on your experience, what are the challenges associated with the reconstruction of housing for the IDPs in Maiduguri, Nigeria?

   …………………………………………………………….............................

   ....

   ....

2. Based on your experience, do you agree that the challenges below can hinder the reconstruction of housing for the IDPs in Maiduguri

   On a scale of 1-5 being 5 the highest score, please indicate your agreement as regard to the following challenges as it is important for the government to overcome these challenges to successfully reconstruct the IDPs houses destroyed by the Boko Haram terrorist in Maiduguri

1 = Agree 2 = Strongly Agree 3 = Neither Agree/Disagree 4 = Disagree 5= Strongly Disagree

	Challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria	1	2	3	4	5
1	Corruption					
2	Lack of resources					
3	Relocation					
4	Urgency					
5	Government Bureaucracy					
6	Insecurity					
7	Roads access					
8	Commitment					
9	Culture					

APPENDIX 9: Pilot Semi-Structured Interviews

The aim of this research is to develop a framework for the reconstruction of housing for internally displaced people due to conflict. The interview consists of three questions focusing on the profession of the participant, approaches use for the reconstruction of housing for the internally displaced people and challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri. Therefore, it is important for the researcher to select participants with knowledge and experience in building construction specifically housing construction.

Section 1 focus on general information about participants such as their profession, experience in building construction industry, experience in housing construction and housing reconstruction for the IDPs. Section 2 aim at understanding the approaches use for the reconstruction of housing for internally displaced people and the approach to adopt for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria. Section 3 try to investigate the challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria.

Section 1: General Information

1. What is your profession

2. How many years of experience do you have in the building construction industry?

3. Do you have experience in housing construction?

4. How many years of experience do you have in housing construction?

5. do you have experience in reconstruction of housing for the IDPs due to conflict?

Section 2: Approaches use for the reconstruction of housing for internally displaced people due to natural or manmade disasters

1. What are the approaches use for reconstruction of housing for the internally displaced people?

2. which of the approach should government adopt towards reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria?

Section 3: Challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria

1. What are the challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria?

2. To what extent the challenges you identify can delay or hinder the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria?

APPENDIX 10: Questionnaire Guideline

Background

The aim of this research is to develop a framework for the reconstruction of housing for internally displaced people due to conflict. to rehouse them. The information generated from the questionnaire will help the researcher to understand the effect of the Boko Haram conflict on housing in Maiduguri, the approaches use for the reconstruction of housing for the IDPs and the challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, which will be use in developing framework for the reconstruction of the IDPs houses destroyed due to Boko Haram conflict in Nigeria.

Rights of the participant

As a participant, you have the right to withdraw from the research at any time you wish without giving any reason. In the event, you decide to withdraw from the research, you have the right to make sure whatever data you supply is destroyed. You have the right to refuse to answer any question that you are not comfortable with.

General Information

1. Participant profile, profession
2. Effect of the Boko Haram conflict on housing in Maiduguri
3. Approaches use for the reconstruction of housing for the IDPs and the approach to adopt for reconstruction of IDPs houses destroyed by the Boko Haram terrorist in Maiduguri
4. Challenges associated with reconstruction of housing for the IDPs in Maiduguri

APPENDIX 11: Interview Guideline

The aim of this research is to develop a framework for the reconstruction of housing for internally displaced people due to conflict. The information generated from the interview will help the researcher to understand the current practices in the building construction industry, effect of the Boko Haram conflict on housing in Maiduguri, approaches use for the reconstruction of housing for the IDPs and the approach to adopt in relation to the IDPs houses destroyed by the Boko Haram terrorist in Maiduguri, challenges associated with reconstruction of housing for the IDPs in Maiduguri. The information gathered will assist in developing framework for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria.

You are invited to take part in this research because of your experience in building construction

Rights of the participant

As a participant, you have the right to withdraw from the research at any time you wish without giving any reason. In the event, you decide to withdraw from the research; you have the right to make sure whatever data you supply is destroyed. You have the right to refuse to answer any question that you are not comfortable with.

Question 1: General Information

1. What is your profession

2. How many years of experience do you have in the building construction industry?
   a. 3 to 5 years
   b. 5 to 10 years
   c. 10 to 15 years
   d. 15 years and above
3. Do you have experience in housing construction?
   Yes ☐
   No ☐

4. How many years of experience do you have in housing construction?

    a. 3 to 5 years

    b. 5 to 10 years

    c. 10 to 15 years

    d. 15 years and above

Question 2: Approaches use for the housing reconstruction for the internally displaced people due to natural or manmade disasters

1. What are the approaches use for the reconstruction of housing for the internally displaced people?

2. Which of the approach should the government adopt for the reconstruction of the IDPs houses destroyed by the Boko Haram terrorist in Maiduguri?

Question 3: Challenges associated with reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri

1. What are the challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria

2. To what extent the challenges can delay or hinder the reconstruction of housing for the IDPs in Maiduguri due to Boko Haram conflict in Nigeria

APPENDIX 12: NVivo Screen Shot of Themes
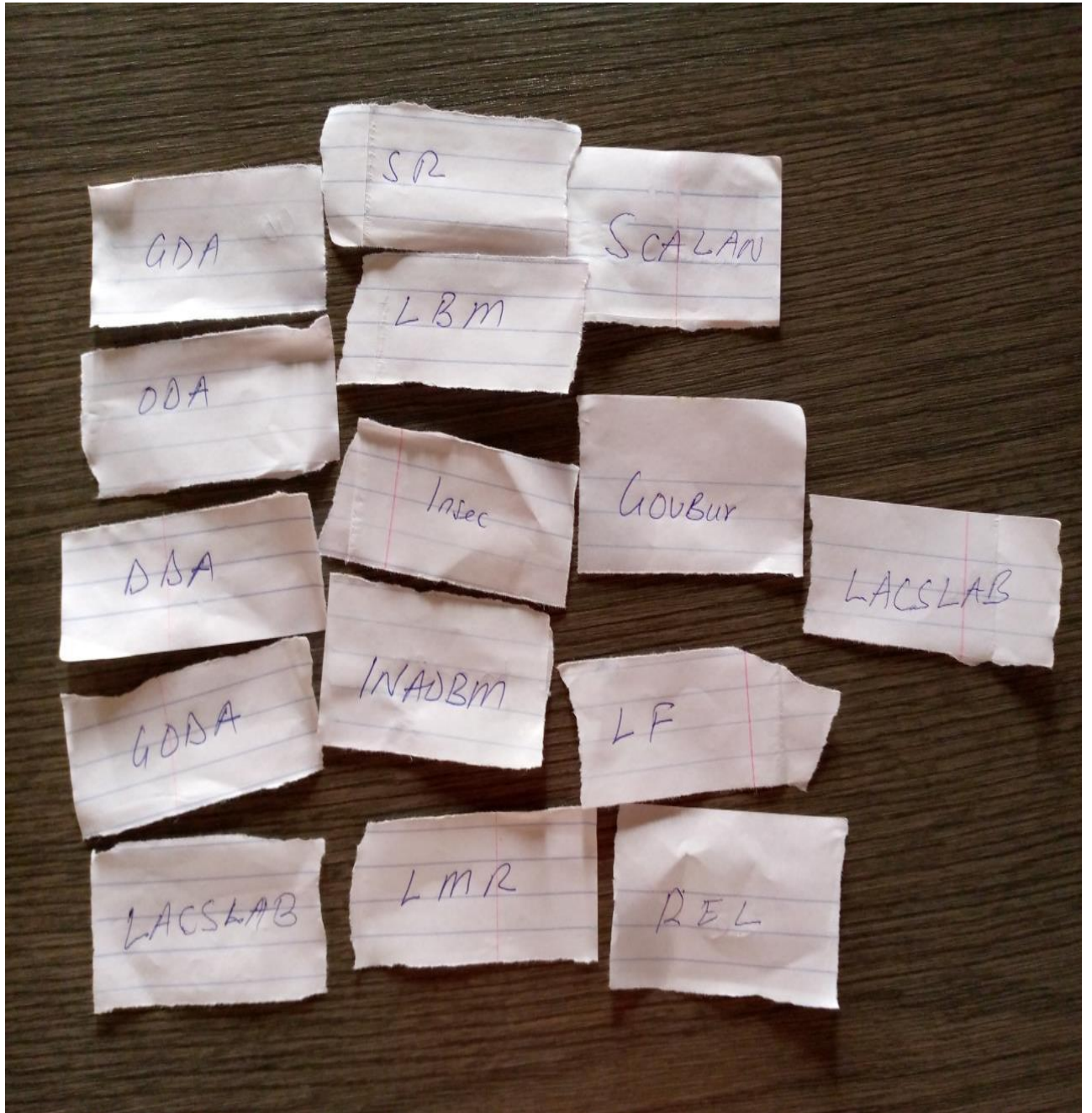
APPENDIX 13: Framework Validation Questionnaire

Dear Sir

An invitation to take part in the validation of the framework for the reconstruction of the internally displaced people houses destroyed by the Boko Haram terrorist in Maiduguri. Nigeria

My name is Yakubu Abdulkadir Abdu PhD student at the School of Science, Engineering and Built Environment, University of Salford, Manchester, United Kingdom. I am presently conducting PhD research to develop framework for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri.

This questionnaire is to gather relevant information and objective view on the importance of the attached "framework for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri". The framework is the result from the PhD study carried out focusing on the internally displaced people in Maiduguri using mixed method of data collection which consist of questionnaire survey and one-on-one interviews. The questionnaire is divided into four (4) sections. Section one comprises the aim and objectives of the study and the second section presents the summary of the framework. The third section provide the respondents personal information while section four (4) presents the relevant questions for evaluating the framework. Validation of the framework is an important part of the process towards achieving the overall aim of this study.

 Privacy: all your information will be treated with strict confidentiality and the feedback will not be linked to any respondent. For further details or information please feel free to contact me or my supervisor through the following email addresses.

Name of the researcher   **Name of my supervisor**

Yakubu Abdulkadir Abdu   Dr Chika Udeaja

y.a.abdu@edu.salford.ac.uk   c.udeaja@salford.ac.uk

1.1:   Research Aim

The aim of this research is to develop a framework for the reconstruction of housing for internally displaced people due to conflict.

1.2:   Objectives of the research

The under listed research objectives were formulated in order to achieve the aim of this research.

1. To examine the nature of the Boko Haram conflict and the effect of the conflict on housing in Nigeria

2. To explore different types of approaches, use for the reconstruction of housing for the internally displaced people due to natural or manmade disasters and in relation to other countries

3. To critically examine challenges associated with reconstruction of housing for the internally displaced people due to conflict and in relation to Boko Haram conflict in Maiduguri, Nigeria

4. To develop and validate the framework for the reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri, Nigeria

2.0:   Description of the framework

The study was carried out to understand different approaches that are used for the reconstruction of housing for the internally displaced people, appropriate approach to adopt for the reconstruction of housing for the internally displaced people in Maiduguri, understanding the challenges that can delay or hinder the reconstruction of housing for the IDPs in Maiduguri and how to overcome or address the challenges could be the basis for delivering or reconstruction of housing for the IDPs in Maiduguri, Nigeria. Based on the findings from this study framework for the reconstruction of housing for the IDPs in Maiduguri was developed that includes the views and perceptions of the housing construction professionals on the research area. The framework consist of the approaches use for the reconstruction of housing for IDPs, appropriate approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, challenges associated with reconstruction of housing for the IDPs in Maiduguri and challenges that can delay or hinder the housing reconstruction.

The success of the reconstruction of IDPs houses destroyed by the Boko Haram terrorist in Maiduguri depends on the approach adopted and ability to overcome the challenges

associated with the reconstruction and challenges that can hinder the success of the reconstruction.

1)   Approach to adopt for the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria

- Adopting government/owner driven approach for the reconstruction of housing for the IDPs in Maiduguri will provide the required result

- Involving the displaced people in the housing reconstruction will give the engineers the opportunity to understand what the displaced people wants

- Adopting government/owner driven approach is cheaper because it will reduce the cost of labour and the reconstruction, since the displaced people can be used as unskilled labourers without expecting any financial compensation because they are the beneficiaries

- Under government/owner driven approach, the displaced people will learn different building skills which they can used as hand job that will give them additional source of income after the reconstruction project

- The houses reconstructed through government/owner driven approach will meet the needs and preferences of the displaced people

2)   Challenges associated with the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria

- Overcoming challenges associated with reconstruction of housing for the internally displaced people due to Boko Haram conflict in Maiduguri such as inadequate resources, lack of skilled labourers, lack of water, lack of good roads, urgency from the IDPs, government policies or bureaucracy, lack of commitments from both the government and the engineers or contractors, mismanagement of resources will make the reconstruction project successful.

- Involving the IDPs in the reconstruction processes and in the housing reconstruction will solve the issue of urgency or anxiety from the IDPs to return to their home in time, because they will be monitoring the progress of the project every day without putting pressure on the engineers or contractors

- Expanding the security architecture by employing or recruiting internal informants from the communities in Maiduguri, provision of latest arms, communication gadgets, surveillance jets and reviewing the welfare of the military will be the major step towards ensuring security within the affected communities in Maiduguri and in Nigeria in general.

- Setting up of reconstruction committee whereby the all the members are from the north-east particularly from the Maiduguri and the engineers or contractors that will handle or carried out the reconstruction should also come from the same communities

with the beneficiaries. This will solve the problem of bureaucratic bottle neck because the members of the committee, the engineers or contractors may have family members among the beneficiaries therefore, they will be committed and make sure the decision making is smooth and fast.

3) Challenges that can hinder the reconstruction of housing for the IDPs due to Boko Haram conflict in Maiduguri, Nigeria

- Overcoming challenges that can delay or hinder the housing-reconstruction for the IDPs in Maiduguri such as insecurity, lack of resources, corruption, culture, roads relocation, government bureaucracy is important in order to successfully reconstruct the internally displace people houses destroyed by the Boko Haram terrorist in Maiduguri, Nigeria.

- Lack of roads that will be used to transport building materials to the site where the housing reconstruction will take place can be overcome through collaboration between the local government, the state government and the communities to find a way to expand the existing roads or construct new roads in order to make the roads motorable so that building materials can be transported to the site in good time and when needed.

- The government should discuss or explain to the internally displaced people the reason why they will be relocated another areas or location because most of the after the displaced people used to abandon the houses build far away from their original homes. Therefore, it necessary to involve the displaced people in the relocation process and decision making in connection with relocation.

- The government can source funds for the housing reconstruction from other government agencies like FIRS, Customs, NPA that generate revenue beyond what the government forecast or expect in a year instead of relying on the revenue generated from the sales of crude oil to finance the reconstruction project. The government can also source the funds for the reconstruction from the resources that are kept for humanitarian activities at the United Nation since Nigeria is one of the members and contributors or from the stolen money recovered from individuals and government officials.

Conclusion

It is expected that the framework will guide the government and the housing construction professionals or engineers in adopting the appropriate approach for the reconstruction of the internally displaced people houses destroyed due to Boko Haram conflict in Maiduguri. It is also expected that the framework will highlight the challenges that will delay or hinder the success of the housing reconstruction in Maiduguri and provide the possible ways to overcome the challenges.