

**CONSTRUCTION OF RESIDENTIAL HOUSES A CASE STUDY OF
PUBLIC HOUSING IN GOMBE STATE, NIGERIA**

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*I dedicate this thesis to:
my family, my parents
and my state.*

Thanks for your prayers and support

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ABSTRACT

The construction of public housing is common in the developing country like Nigeria. The demand of the houses is on the rise as people need shelter. Due to the high demand of residential houses has caused many problems to arise. One of the problems is the quality of residential houses. The quality is poor and it is presumed that the root of the problems started from the approval process to the poor monitoring by the authorities. The aim of this study is to explore the factors that cause lack of conformity to construction standards, poor finishing quality of residential houses and occupant dissatisfaction. The objectives of this study are to examine and compare the differences between the Nigerian and Malaysian building plan approval process for the construction of residential houses, to evaluate factors that contributed to the poor quality of residential houses in Nigeria, to examine and compare the differences in the Nigerian and Malaysian sales and purchase agreement clauses and to determine the level of satisfaction of the occupants regarding the quality of the residential house in Nigeria. The study is conducted in Gombe, Nigeria. This study is conducted through questionnaires and interviews. Questionnaires were distributed to the consultants, contractors and also the house occupants. The data are analysed using Average Index. From the study, it was found that the building approval process in Nigeria is not comprehensive as compared to the Malaysian building approval process. The factors that contributed to the poor quality of the public residential houses are inadequate personal, corruption and poor monitoring and inspection. The occupant level of satisfaction regarding the finishing quality of the houses in Nigeria is “Dissatisfied”.

ABSTRAK

Pembinaan perumahan awam merupakan perkara yang biasa di negara-negara membangun seperti Nigeria. Permintaan terhadap rumah terus meningkat selama mana manusia memerlukan tempat perlindungan. Disebabkan permintaan yang tinggi terhadap rumah kediaman, ia telah menyebabkan banyak masalah yang timbul. Salah satu masalahnya ialah kualiti rumah kediaman tersebut. Kualitinya adalah rendah dan menjadi suatu anggapan bahawa punca masalahnya bermula daripada proses kelulusan sehinggalah kepada pemantauan yang lemah oleh pihak berkuasa. Tujuan kajian ini adalah untuk mengenalpasti faktor-faktor yang menyebabkan kurangnya pematuhan kepada piawaian pembinaan, rendahnya kualiti kemas pada rumah-rumah kediaman dan rasa ketidakpuasan hati oleh penghuni. Objektif kajian ini adalah untuk meneliti dan membandingkan perbezaan antara proses kelulusan pelan bangunan Nigeria dan Malaysia untuk pembinaan rumah-rumah kediaman, untuk menilai faktor-faktor yang menyumbang kepada rendahnya kualiti rumah-rumah kediaman di Nigeria, untuk memeriksa dan membandingkan perbezaan dalam klausa perjanjian penjualan dan pembelian di Nigeria dan Malaysia dan untuk menentukan tahap kepuasan penghuni mengenai kualiti rumah kediaman di Nigeria. Kajian ini dijalankan di Gombe, Nigeria. Kajian ini dijalankan melalui soal selidik dan temu bual. Soal selidik telah diagihkan kepada para perunding, kontraktor dan juga penghuni rumah. Data tersebut dianalisis dengan menggunakan Indeks Purata. Daripada kajian ini, didapati bahawa proses kelulusan bangunan di Nigeria tidak komprehensif berbanding dengan proses kelulusan bangunan di Malaysia. Faktor-faktor yang menyumbang kepada rendahnya kualiti perumahan kediaman awam adalah kakitangan yang tidak mencukupi, rasuah serta pemantauan dan pemeriksaan yang lemah. Tahap kepuasan penghuni mengenai kualiti kemas rumah-rumah di Nigeria adalah "Tidak berpuas hati".

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CHAPTER 1

INTRODUCTION

1.1 Background

The population of the world is increasing in most urban areas of the developing nations. Thus, the need for a provision of adequate shelter has been an issue that requires urgent attention. Hence, shelter constitutes one of man's basic needs. Shelter should not only be adequate but also be qualitative. Residential quality is basically an important health element, since it affects the well-being of the people, their productivity, manner of living and the decencies of their lives. Housing is a complex product that serves as a shelter and is crucial for national development in terms of both economy and welfare.

Gombe State located in the north-eastern part of Nigeria, is one of the country's 36 states; its capital is Gombe. The State nicknamed the 'Jewel in the Savannah' was formed in October 1996 from part of the old Bauchi State by the Abacha military government. Its creation was a fulfillment of the aspiration of its people who for long have been yearning for a state of their own.

History of the present Gombe state dated back to several centuries when the descendant of Usman Dan Fodio Islamic flag bearers migrated northeastward and founded Gombe, now capital of Gombe state. Being located in the northeastern zone, right within the expansive savannah allows the state to share common borders with the states of Borno, Yobe, Taraba, Adamawa and Bauchi.

1.1.1 Land and People

Gombe state has an area of 20,265 km² and a population of about 2,353,000 people, (Census 2006). The state is made up of various tribes these include: The Fulani, Hausa, Tangale, Tera, Waja, Bolawa, Jukun, Jare and Kanuri. Despite the heterogeneous nature of the state, the people are completely detribalized.

1.1.2 Economic Potentials

The state is immensely endowed with natural resources which have earned it the name ‘‘Jewel in the Savannah’’ . Her mineral resources include gypsum, kaolin, coal, limestone, Uramine, and salt. The main occupation of the people is farming but they also engage in carving, art and craft.

1.1.3 Agriculture

Agriculture remains the bedrock of the state’s economy and employment, presently Gombe state maintains national leadership in the cultivation on harvesting millet, maize, cowpea, groundnut and cotton. Livestock is also produced in large quantities. For instance, Gombe state produces over 500,000 herds of cattle,

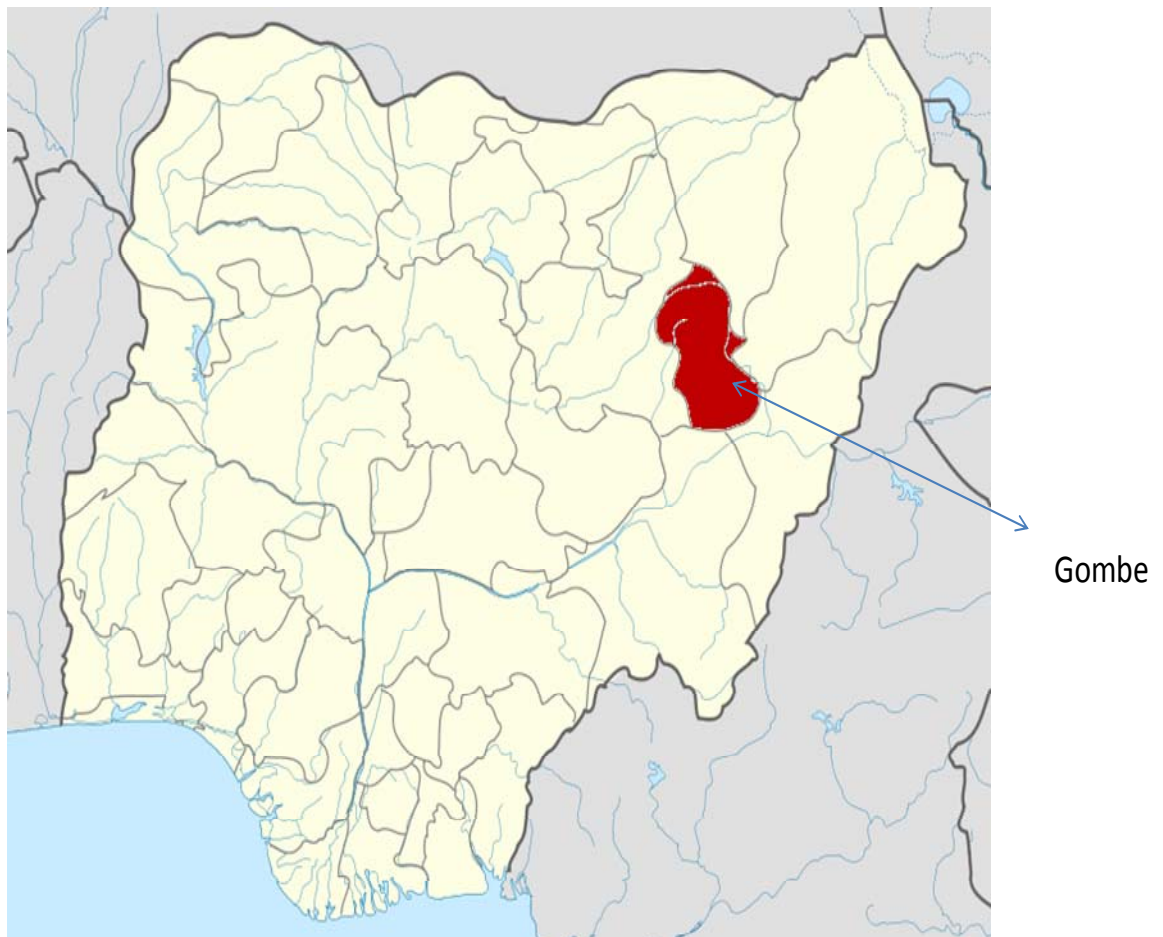
representing 10% of Nigeria total cattle production, vegetables are also produced in commercial quantity. Gombe has remained the undisputed national producer of maize (50%), and sorghum 22%, The state is at the forefront in tomato production in the nation. Summary of the food and cash crops and livestock produced in the state:

- **Cereals** : Maize, Sorghum, rice and wheat:
- **Legumes** : Cowpeas, groundnuts, soya beans and Bambara nuts.
- **Fruits**: Orange, Lemon, Mango, Guava, pawpaw and grapes.
- **Vegetables** : Tomatoes, pepper, onions, okra, pumpkin and melon.
- **Tree Crops**: Gum Arabic, Kenaf, sugar cane, sunflower and ginger and Fisheries.
- **Livestock** : cattle, sheep, goats, pigs, poultry, rabbits and fish of different varieties.

As a young state, Gombe experienced serious accommodation problem due to the influx of people. However, Buhari, Shongo, Orji, Tunfure estates and Labour housing units were provided as to ease accommodation problems in the state. Private individual and prospective landlords have invested in the building industry to help improve the situation.

The Nigeria Labour Congress (NLC) Gombe state chapter, in 2004 initiated an integrated public housing program of 500 housing units with the sole aim of ensuring the state civil servant own or gain access to quality housing at an affordable cost. Completed residential buildings should not only fit for the purpose of the users, but also be able to perform their functions in such ways as to ensure occupant satisfaction (Liu, 1999). Similarly, Husock, (2003) and Vorady (2004) viewed this perception as an underlying stigma attached to public housing schemes, and the public perception of the quality of such housing does not seem very flattering.

Consequently, low quality of shelter in the built environment has become an attractive issue especially in the urban centers of developing countries, where population keeps on increasing on a daily basis (Jinaidu, 2004). However, good quality housing is necessary for planning. It does not only ensure the safety and well being of the people, but promotes the beauty, convenience and aesthetics in the overall built-up environment (UN-Habitat, 2008); (Kumaraswamy, 1996); (Kaming et al, 1997); (Al-Momani, 2000); (Frimpong et al 2003); (Assaf , Al-Hejji, 2006); (Odeh and Bettaineh, 2002); (Murali and Yau, 2007); (Mohammed, 2004).



Map of Nigeria indicating Gombe State.

Figure 1.1: Map of Nigeria indicating Gombe State



Figure 1.2: Plan of Overlay of Satellite image with the Layout Plan of Study area

Problem Statement

In Nigeria, provision of housing has been a major concern and the inability to provide adequate, qualitative house and enhance the existing housing environment as to meet the rapidly increasing population in most towns and urban cities lead to nonconformity to residential building construction standards. Gombe state like other states of Nigeria, the provision of housing has been a major concern.

Buildings are unique in nature and the construction process varies widely because of variation in factors such as the physical and economic environment, the construction team, location and time. Hence, the construction of residential building is an area that contains a variety of issues, starting from architectural design (building plan), survey, layout development, and on site construction activities. The essence of this process is to coordinate the work activities on site towards construction quality.

Pall (1987) defined process as the logical organization of people, materials, equipment and procedures into work activities designed to produce a specified end result. Similarly, Mondy et al, (1995) highlighted the issue of the controlling process which is vital to keep things from going wrong. Hence, the state government under the department of urban planning and development board, Ministry of works and infrastructure is charged with the responsibilities of approving building plans, survey and layout of the plots, supervising, monitoring and control of building constructions. Also, to ensure that building's construction is carryout in accordance with the state and federal government building construction bylaws.

Despite this body whose primary responsibilities are approval, monitoring and control of building construction in the state. Yet the residential houses did not meet with the required construction quality standards such as quality of the floor, walls, painting, ceiling, windows, doors, tiling, electrical fittings, and mechanical work. Ukoha and Beamish, (1997); , Nor Aini et al, (2011) state that indicators of housing condition that contributed to the quality of the house, are quality of the wall, quality of the floor, quality of window, quality of door and quality of painting.

Therefore, the success of the project depends largely on the clarity of the project objectives, detail specifications, good schedule, client consultation and involvement, effective monitoring and control of the project activities. The alarming situation raised the question of why the urban planning department who is responsible for ensuring buildings were erected according to approved design objectives, could not impose this adherence of conformity to residential construction standards by the developers. The question on the side of the ministry of works and infrastructure (client) is it due to:

- Corruption
- Politics
- Lack of qualified and personnel
- Lack of adequate personnel
- Lack proper guided policy
- Improper planning

And on the side of the private developers is it:

- Corruption
- Lack of skilled personnel
- The state government's inability to fulfil its obligation
- Subcontractors inexperience
- Delay in contract payment
- Substandard materials



Figure 1.3: 500-Labour Housing Units



Figure 1.4: Exterior wall showing painting decay and poor plumbing work



Figure 1.5: Exterior wall showing painting decay



Figure 1.6: Exposed drains due to inadequate provision of drainage system



Figure 1.7: Poor Asses and Unpaved Road



Figure 1.8: Scattered Refuse due Lack of collection and disposal point



Figure 1.9: Illegal Building Extension due to lack of Monitoring and Control



Figure 1.10: Poor Roofing

Aim of the Study

The aim of this study is to explore the factors that cause lack of conformity to construction standards, poor finishing quality of residential houses and occupant dissatisfaction.

Objectives of the Study

1. To examine and compare the differences between the Nigerian and Malaysian building plan approval process.
2. To evaluate factors that contributed to the poor quality of public housing in Nigeria.
3. To examine and compare the differences in the Nigerian and Malaysian sales and purchase agreement clauses.
4. To determine the level of satisfaction of the occupants regarding the quality of 500-Labour housing units.

1.5 Research Questions

The research will search for answers to the following questions:

1. Compare the stages of the building approval process of Nigeria and Malaysia
2. What are the factors that contribute to the poor quality of residential houses
3. Compare the rights of the occupant (purchaser) in the Sales and purchase agreement clauses of public housing in Nigeria and Malaysia
4. What is the occupant level of satisfaction regarding the finished quality of the houses

1.6 Scope and Delimitation of the Study

The scope of this study is limited to the building defects and poor finishing quality in relation to occupant satisfaction and the study is limited to newly constructed 500-Labour Housing Units of Gombe metropolis, Gombe State. Target responders for the study are the occupants of the residential houses, consultants (architects, builders, surveyors, town planners) and contractors. The Malaysian building approval process and the sales and purchase agreement regulation will be used as a benchmark (baseline) for comparison against the Nigerian counterpart.

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