

# Causes and Effects of Abandoned Build-Operate-and-Transfer (BOT) Hostel Building Projects in Public Universities: A Case Study of University of Ilorin, Nigeria

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## ABSTRACT

*In Nigerian public universities, there are acute shortage of on-campus student accommodation. However, the introduction of Private Public partnership through Build-Operate-and-Transfer (BOT) scheme has yielded a lot of positive results in reducing the gap created by shortage of student accommodation. The success recorded by this programme is been threatened by the abandonment of some of the BOT hostel projects in public universities. Majority of these projects are either abandoned, neglected or uncompleted. This study examined the causes of such abandonment and its adverse effect on university environment. The study uses the University of Ilorin as a case study. Review of other researchers concepts, findings and theories were carried out. Structured questionnaires and observations are the primary data acquired for the research work. About 120 questionnaires were directly distributed to elicit responses from various stakeholders in other to find out reasons for the abandonment of these projects. Analysis of data collected was done by percentage, frequency counts and pie chart. Issues relating to financial misappropriation by the developer were identified as one of the major reasons that contributed to the abandoned projects at the University of Ilorin as agreed by the respondents. 103 respondents (87.29%) agreed that most of these abandoned projects were abandoned as a result of financial problem, while only 15 (12.71%) disagreed. It was concluded that socio – economic and environmental wellbeing of the university community and effect on the components of the buildings may be negatively impacted if drastic measure is not taken to stop the trend. The study therefore recommends a robust terms and condition in the agreement to be signed by developers and the university authority in order to forestall future abandonment of BOT projects.*

## 1. INTRODUCTION

Abandoning of construction site is one of the major problems facing building industries in developing countries, Nigeria inclusive; where majority of building projects are either uncompleted or out rightly abandoned (Olalusi *et al.*, 2012). There are so many challenges that hinders the progress or total stoppage of building construction; such are popularly referred to as an abandoned project. These challenges of abandoned construction projects are common across the globe, most especially in developing countries thereby breeding negative impact on the nation's built environment (Ariffin *et al.*, 2013).

Nigeria government is facing a lot of challenges in meeting ever increasing demand for more and improved infrastructural facilities and services, of which our public universities are not exempted. Olopade *et al.* (2012) opined that abandoned projects commenced at an earlier date but stopped for some reasons before completion. They further explained that such abandonment is just not limited to building

projects alone but other infrastructural facilities such as roads, industrial structures, bridges, factories, dams, electricity and communication facilities projects, among others. It is also necessary to note that this menace of abandoned projects is not only limited to government projects.

Generally, infrastructural facilities such as hostel accommodation are inadequate in most of our public universities due to the increase in the population of the students' enrollment on yearly basis and infrastructural deficit surfacing as a result of economic instability of our nation. This yearly increase in student enrollment in public universities, especially in the last fifteen years without a corresponding development in the provision of hostel accommodation has contributed to an acute shortage of such infrastructure on our campuses. In most cases, the number of students living in a room in students' hostel are always more than the designed capacity; hence, a consequent stress on such hostel facilities.

Partnering with the private sector had over the years helped in addressing the problem of infrastructural deficit in the country. Build – Operate – and – Transfer (BOT) scheme under Public – Private Partnership (PPP) is being used as tool for rapid infrastructural development (Zaki, 2011). This is because it is very difficult for any government to provide all infrastructural facilities required in public universities as a result of dwindling revenue.

There is no doubt that the initiative of the government of Nigeria by her partnership with a private investor through PPP in finding solution to the shortage in student accommodation has yielded positive results, most especially at the University of Ilorin as evidenced in Tables 1 and 2; but this positive result is been threatened by the abandonment of some hostel projects under this scheme. The main purpose of this research is to investigate various causes and effects of abandoned BOT hostel building projects in public universities using University of Ilorin as a case study with a view to suggesting measures to be taken against bastardising the scheme.

### **1.1 Private Sector Participation (PSP) in On-campus Hostel Provision in the University of Ilorin.**

According to British Colombia (2003), a PPP is a legally binding contract between government and private investor for the provision of assets and the delivery of services that allocates responsibilities and business risks among the various partners. Thus, for the public and private partnership to work out, there must be an agreement between the two parties that will be legally binding. Zhang *et al.*, (2013) opined that PPPs play an important role in the introduction of private sector competition to public sector monopolies in infrastructural development and service provision. The PPP model also assists in merging resources of both public and private sectors to better serve the public.

The main objective of the PPP as it concern public universities, is to encourage private sector participation in the provision of hostel facilities in public universities and plough back some of their profit into very critical areas of national need (Okebukola *et al.*, 2004).

In the year 2015, the University of Ilorin proposed a private hostel accommodation project based on a long lease, a twenty-one academic session leasehold. The project is said to be viable based on the requested deliverables and condition of the lease. The university manages this development through the physical planning unit, who in turn have itemised expected deliverable for the project. This served as a guideline through the feasibility and design stage of the project. The private sector participation has yielded good results for the university in meeting the housing demands of the students. The coordination being carried out by the physical planning unit of the university has also helped in providing good quality infrastructure. Findings revealed that a total number of 8365-bed spaces was constructed through BOT scheme between 2015 and 2020 (Table 1); while a total number of 2064 bed spaces are ongoing (Table 2). Further investigation also revealed that some of the on-going projects had been abandoned (Table 3) without properly notifying the university management, an act that may negatively impact the economy, environment, security, etc, of the university community.

### **1.3 Causes of Abandoned BOT Projects**

Akhanolu *et al.* (2016) examined factors contributing to abandonment of projects in Nigeria and reported that the major factors include but not limited to insufficient fund allocation and payment delay, poor project budgeting, legal or land disputes, death of the project sponsor, improper project estimate, and lack of project risk assessment. The efficacy and success of any building projects are determined at the time of completion of such projects, but most of the construction process depends on many variables and unpredictable factors, which result from many sources, ranging from performance of parties, availability of resources, environmental conditions, involvement of other parties, and contractual relations.

Other reasons advanced by Oyelola (2010) and Makalah *et al.* (2008) for failed building construction projects are incorrect estimation of projects, failure to use skilled personnel during the design and construction stages, inadequate planning and risk management, ignorance of work requirement, and non-compliance with quality measures especially during the construction stage. There are several building projects with good potentials at the inception but later abandoned at different stages of the design and construction process. The economic recession experienced by many countries of the world is believed to be another reason for the abandonment of numerous housing projects (Carrero *et al.*, 2009; Abdul-Rahman *et al.*, 2013).

**Table 1:** BOT Scheme Hostel at the University Of Ilorin as at November 2020 (Completed)

S/N	Name of Developer	No of Bed Spaces	Sex
1	Scientific Co-operative	90	Female
2	Sasakawa	88	Female
3	Probitas Co-operative	100	Female
4	ASUU	40	Female
5	Union Co-operative	100	Female
6	Academics Co-operative	80	Male
7	Michael	258	Female
8	Kam Abioye	234	Female
9	Robiat Ajike	202	Female
10	El-Mubarak	214	Female
11	Edge Contracting	86	Female
12	Gulf Pearl Nig. Ltd	316	Female
13	Arafims Hostel	720	Male
14	Rubiks system	264	Female
15	Hawa Hostel	320	Female
16	Albanic Nig. Ltd	200	Female
17	Synergy Hostel	240	Female
18	Pyramid Nig. Ltd	252	Male
19	Sandakata Hostel	240	Female
20	Bumok Hostel for PG Students	108	Female
21	Unilorin Healthcare	200	Male
22	Mahri Kaffy Hostel	200	Male
23	Ibidun Hostel	268	Female
24	Arafims 2 Hostel	520	Male
25	Al-Muttawakil	240	Female
26	Takleema Hostel	259	Male
27	Isalu Property Hostel (Sanusi)	360	Male
28	Al-Bishar/Zapel Hostel	264	Male
29	Atlantic Height Hostel	512	Female
30	Easy & Quiet Hostel	312	Male
31	Easy & Quiet Hostel	312	Female
32	Bethany Hostel	216	Female
33	Queens (Las Vegas)	550	Female
<b>Total</b>		<b>8365</b>	

**Source:** Physical planning unit, university of Ilorin (2020)

**Table 2:** BOT Scheme Hostel at the University Of Ilorin as at November 2020 (On-going)

S/N	Name of Developer	No of Bed Spaces	Sex
1	Interfem Hostel	412	Male
2	Isalu Edu Hostel	360	Male
3	Shayasi Hostel	252	Female
4	Bethany Hostel	216	Female
5	Mutiu Anthony Hostel	624	Female
6	Mahri Kaffy Hostel	200	Male
<b>Total</b>		<b>2064</b>	

**Source:** Physical planning unit, university of Ilorin (2020)

Further investigation showed that abandoned projects are due to financial challenges on the part of developers, poor marketing and sales strategies, poor company and disputes management between developers and contractors or with landowners. Also, the survey revealed that developers with “massive” structures (500 bed spaces and above) abandoned their projects either at the site clearing stage or at before the completion of the sub-structure, all due to funding challenges.

**Table 3:** Inventory of Abandoned BOT Hostels Projects at the University of Ilorin

S/N	Name of Developer	Bed Space	Stage of Abandonment	Duration of Abandonment (Months)
1	Dat Multibiz Hostel	786	Ground floor slab	15
2.	Mikky Tai Hostel	600	Ground floor slab	64
3.	Carrera Investment Ltd	400	Columns to First-floor slab	14
4.	Ahmah Pategi Hostel	400	Columns to Roof Level	14
5.	Haads Global	220	Foundation level	43
6.	First Magnate	200	Foundation level	52
7.	Treasure Comfort Hostel	700	Clearing of site	31
8.	Radiance hostel	500	Clearing of site	16
9.	Karistec Hostel	300	Columns to Roof Level	18
10.	Jumsab Hostel	200	Excavation of trenches	28
11.	Memlak Hostel	200	Excavation of trenches	28
12.	Keywise Hostel	400	Column bases/starter bar	64
13.	Strasborg Int. Plc	500	Clearing of site	14
<b>Total</b>		<b>5406</b>		

**Source:** Author Field Survey (2020)

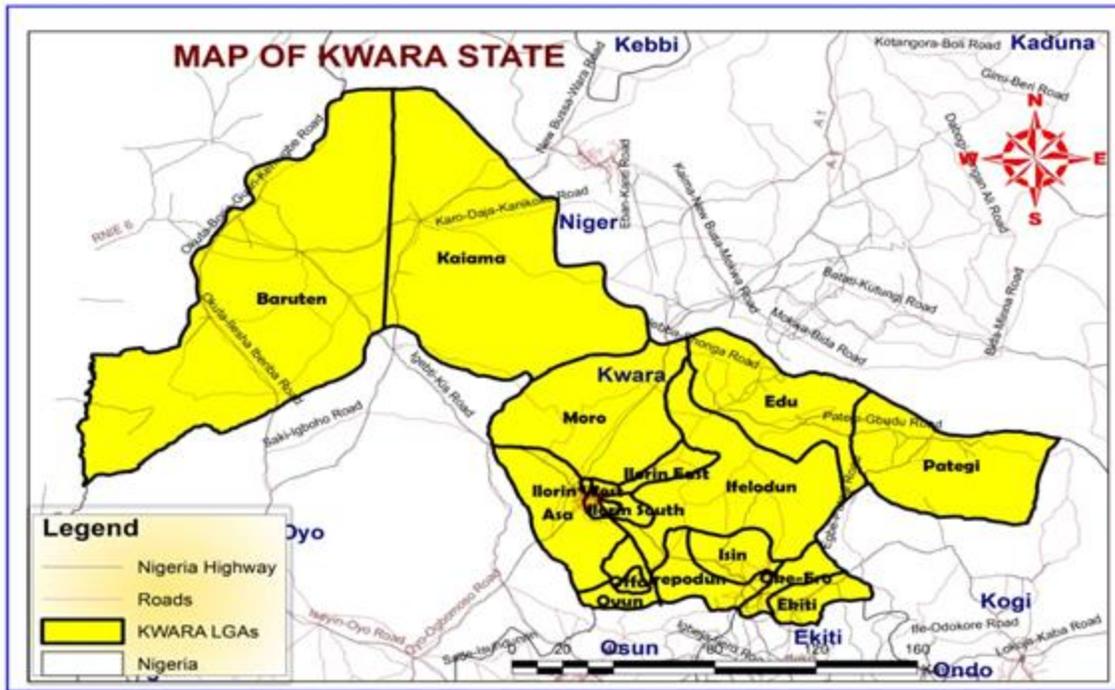
### 1.3 Effects of Abandonment of BOT Hostel Building Projects

There are so many effects of abandonment of building projects especially in an academic environment, they include:

- i. **Economical Effect:** The main economic effect is the monetary loss on the part of the developers and the university management. The goal of any private investors is financial gain and for a project to serve this purpose, timely completion of such project is sacrosanct. Tijani *et al.* (2016) opined that if private projects are well and timely completed, there will not be any reduction in the combined values of the properties and the total income receivable from the properties. Therefore, the economic effects on abandoned BOT hostel building projects are monetary loss because the developers stand to lose a great deal for abandoning a project as compared to what is needed to complete such project.
- ii. **Social Effect:** Many of the abandoned Built Operate and Transfer hostel project has turned to hideout to criminals on campuses where these projects are being executed. So many criminal activities such as raping, smoking, illicit sexual acts are being carried out on daily basis in these buildings. Abandoning projects after roofing has the tendency of providing shelter and or hide-out for hoodlums, armed robbery gangs and street boys (Dumo, 2017).
- iii. **Environmental Effect:** Osunfowora (2006) asserts that one of the most notable features of environmental challenges in Nigeria is her built environment and abandoned projects have seriously contributed to the disorderly nature of this built environment. Nigerian environment is threatened and this trickles down to several problems that have emerged as a result of the uncontrolled exploitation of the environment.
- iv. **Effect on the Components of the Building:** This is as a result of the disintegration of the already-built area, the possibility of theft, vandalism and decay of materials. This does not affect the developer or sponsoring institution alone but affect the contractor as they may not be able to get all their claims. This can even lead to the collapse of the building. Akhanolu *et al.* (2016) revealed that the effect of abandonment of project may also lead to de-motivation of investment in real properties, loss of employment opportunities, etc.

### 1.4 Study Area

Ilorin is the capital city of Kwara state in the North Central zone of Nigeria. It is located on longitude 4° 32' 31.70" E and latitude 8° 29' 47.90"N. It has a population of 908,490 as at 2011, making it the 13<sup>th</sup> largest city in Nigeria with a land area of 765 sq. km and density of 1,188/km square (Odunjo *et al.*, 2015). It lies in the savannah climatic region and has three local governments which are Ilorin East, Ilorin West and Ilorin South as shown in Figure 1.



**Figure 1:** Map of Kwara State

**Source:** GIS Laboratory, Urban and Regional Planning Department, (LAUTECH 2021)

The population of Ilorin community is mixed. It thus explains why it is earlier described as a melting pot for many Nigerian linguistic groups. In Ilorin, there are Yoruba, Hausa, Fulani, Nupe, Kanuri, and the Gobawas. It is these and other cultural groups that make up the population of Ilorin to a little over a million people (Mehmet, 2013).

### 1.5 University of Ilorin

University of Ilorin is located in the ancient city of Ilorin. The University of Ilorin was one of the seven institutions of higher learning established by a decree of the Federal Military Government in August 1975. The step taken to implement one of the educational directives of the country's Third National Development Plan was aimed at providing more opportunities for Nigerians aspiring to acquire a university education and to generate high-level manpower, so vital for the rapidly expanding economy.

## 2. METHODOLOGY

The study was done at the University of Ilorin main campus being one of the universities that embraced the BOT method of housing delivery in reducing hostel shortage in public universities in Nigeria. Concepts, theories and findings from other researchers were reviewed. Using both primary and secondary sources of data, the research determined the causes and effects of abandonment of construction projects in Nigeria. The study makes use of the data obtained on some abandoned BOT hostel building projects on campus. Primary data was acquired through the use of structured questionnaires, interviews, and observations.

A well-structured questionnaire was used for data collection with the main respondents being contractors, sub-contractors, clients and building professionals within the university community. 120 questionnaires, obtained based on Cochran (1977) approach on sample size determination, were directly distributed to elicit responses from targeted audience within the university environment in order to determine the major reasons for the abandonment of BOT hostel building projects on the campus. The questions were simple and straightforward and the language employed was at a level commensurate with the survey population to increase the response level. The data collected were presented in tabular form and simple statistical tools were used to avail the researcher opportunities to identify factors responsible for the abandonment of construction BOT hostel projects in Nigeria.

## 3. RESULTS AND DISCUSSION

Financial misappropriation by majority of the developers was identified as the main factor that contributed to the abandonment of BOT hostel project at the University of Ilorin as agreed by the respondents in Table 4. 64 respondents strongly agreed that most of the abandoned BOT hostel projects were abandoned as a result of financial related issues, while 39 agreed and 15 disagreed.

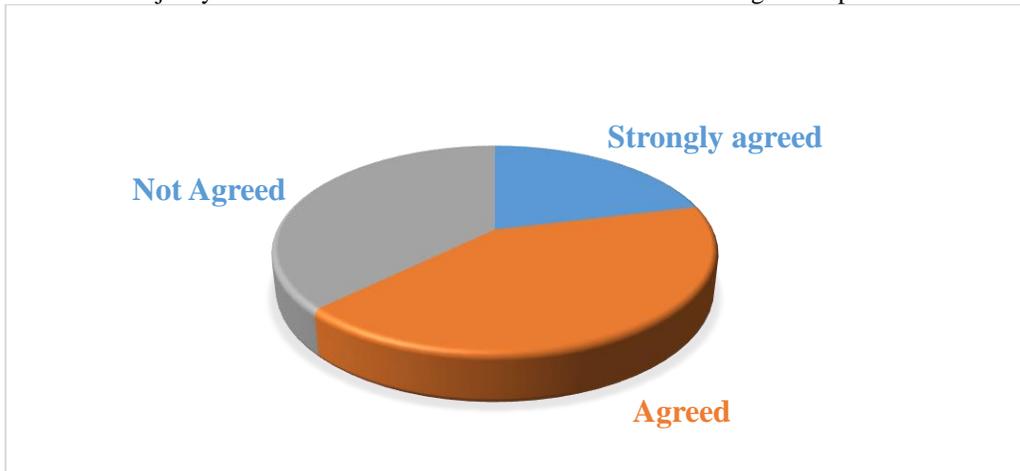
Financial resources are very important in all construction projects and a good financial system is required to manage the cash flow in building industry, in order to avoid unnecessary delay like late payment, poor cash flow management, and inflation, in the execution of work items.

**Table 4:** Financial Related Issues on the Part of Developer

Classification	No. of Respondents	Percentage (%)
Strongly agreed	64	54.24
Agreed	39	33.05
Disagreed	15	12.71
<b>Total</b>	<b>118</b>	<b>100.00</b>

Source: Author compilation

Incorrect estimation is another factor that contributes to the abandonment of BOT hostel projects at the University of Ilorin as agreed upon by the respondents. 25 respondents strongly agreed that most of the abandoned BOT hostel projects were abandoned as a result of incorrect estimation, while 49 agreed and 44 disagreed, as presented in Table 5. According to the findings, many of the developers failed to engage a qualified Quantity survey that will guide them in cost planning. The data from the physical planning unit of the University shows that majority of the abandoned BOT hostels are hostels with large bed spaces.



**Figure 2:** Incorrect Estimation by the Developers

#### 4. CONCLUSION

This research work concluded that though the initiative of Build – Operate – and - Transfer hostel buildings has yielded a lot of positive results especially in combating the acute shortage of student accommodation on campus, these positive results are now being threatened by monster called abandonment. If nothing is done in the nearest future, the socio – economic and environmental wellbeing of the University community may be negatively impacted.

In light of the above findings, the following recommendations are put forward to help mitigate the problems arising from abandoned BOT hostel projects in public universities in Nigeria:

- Bills of the quantity of the proposed BOT hostel by developers prepared by a registered Quantity Surveyor should be part of the agreement or other technical documents to be submitted to the project management team (physical planning unit) of the institution, which will be well scrutinized by the relevant authority before necessary approval will be conveyed to the developers to commence construction.
- The terms and condition with the developers should include taking over of abandoned BOT hostel projects by the institution if such developer failed to complete the projects at the expiration of the completion period.

Proof of fund or bank certification that shows that the developers or investors have the financial capacity to undertake the proposed hostel building construction should be one of the pre-qualification document to be submitted by the investor before the approval by the management.

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