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Challenges of Student Housing Provision through Public Private Partnership

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Abstract

The conditions of suitable accommodation congruent to students' academic pursuits are at their worst decline. Inadequate hostels for students in Nigerian Universities have been of great concern to Government and the University authorities. In the absence of public funds for infrastructure projects, the government's attempt to attract the private sector in the provision of student housing has not recorded significant achievement. This study reports on the challenges faced by developers in adopting the Build Operate Transfer (BOT) model of project delivery with focus on public private partnerships (PPP) in Nigeria. The study found that developers perceive investment in student housing under BOT as worthy of investment. The study used a mixed method of data collection. One hundred and twenty questionnaires were administered to members of the Real Estate Developers Association of Nigeria, and interviews were conducted with the Nigerian Infrastructure Regulator commission (ICRC). The study found that Developers are willing to adopt BOT for Student Housing. The study concludes that lack of long term loans, time and cost intensiveness of a BOT project, high interest rate on loans, disinterest on the part of lending institution, and preference for traditional procurement route are the challenges faced by developers in adopting Build-Operate-Transfer for the provision of student housing.

Keywords: build-operate-transfer, Nigeria, public private partnership, student housing

1. INTRODUCTION

Housing is one of the basic needs for everyone closely related to human life cycle (Nurdini and Harun, 2012). Nowadays, proper housing is considered to be the very basic requirement of modern day living. Aigbavboa (2015) asserts that student housing has long been regarded as an essential component of the facilities provided by higher learning institutions in assisting students to expand their intellectual capabilities.

Hostel accommodation is regarded as one of the essential facilities required in any academic environment to facilitate learning (Muhammad, Dodo & Adamu, 2014). Students cannot survive

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without housing facilities. Accommodating students on campus is second only to the dissemination of specialist knowledge (Aigbavboa & Thwala, 2012). Therefore providing student housing is important to any tertiary institution. Najib, Yusof & Osman (2011) defined student housing as a supervised living and learning hostel consisting of shared housing facilities and amenities for the community of residents who use it, is built on-campus, owned by the university, provided for inexpensive chargeable rooms, and administered to accommodate the undergraduate or postgraduate students.

Nigerian Universities have traditionally accommodated students almost exclusively on campuses and hostel buildings because student housing has been an integral component of Nigerian universities. Financial constraints and population explosion of students have made this impossible and difficult for universities to provide on campus accommodation for students which has resulted in overcrowded buildings, continuous deterioration and the decay of these facilities (Onyike & Uche, 2012)

The conditions of most hostels in Nigerian universities is not congruent to students' academic pursuits and is at its worst decline. According to (Muhammad, Dodo & Adamu (2014) overcrowding is the major problem in hostels. The report by the presidential committee on critical needs of Nigerian Universities stated that only 111,509 (8.9%) of the total student population of 1,252,913 students across 61 public universities are accommodated on campus (Edet, 2012). According to AbdulAzeez, AbdulHafeez and Kado (2015) only few universities in Nigeria can accommodate up to 50% of their student population and there is as much as 90% deficit in some Universities. Alaka, Pat-Mbano, and Ewulum (2012) lament on the overcrowding in hostels in Nigerian universities and this has mounted pressure on the facilities.

In 2004 the estimated cost of meeting the shortfall in student accommodation alone in Federal Universities was estimated at ₦63.19 Billion (USD175Million) (Sulaiman, 2004). It is obvious that government will find it difficult to do it alone. In the absence of sufficient public funds for infrastructure projects, it makes sense to explore innovative financing models such as Build Operate Transfer (BOT). The government has in this regard encouraged private developers to go into hostel development and management, and relieving federal universities of these duties as directed by the Federal of Ministry of Education in 2004.

The government's attempt to attract the private sector in the provision of student accommodation, has however not recorded significant achievements (Muhammad, Dodo and Adamu, 2014). Ibrahim (2014) found the level of private sector participation in providing hostel accommodation in Nigeria tertiary institutions using BOT to be low. Zaki (2011) concludes from his research that university hostel development schemes under the Build-Operate –Transfer scheme is economically viable and promise to be profitable to developers who engage under the scheme. However investors and developers haven't been able to participate in the scheme. According to Dahiru (2011) most BOT infrastructure projects fail at procurement stage in Nigeria. Therefore this paper

looks into the challenges faced by developers in the provision of student housing through Build Operate Transfer.

2. LITERATURE REVIEW

2.1 Student housing

Universities are not only responsible for providing facilities to cater for academic (teaching and research) activities, but they are also saddled with the responsibility for ensuring that adequate facilities for living while studying, are provided for the students to stimulate their learning abilities (Alaka, Pat-Mbano & Ewulum, 2012). Bella-Omunagbe (2015) defined student housing as accommodation specially constructed to create an environment that supports the living and learning experience of students while pursuing their education. South African Government Gazette (2013) defines on-campus accommodation as “units for accommodation within the university premises, which can differ from big blocks of rooms which are similar to residence halls, to multiple bedrooms that accommodate students”.

Student Housing are either located on campus or off campus. They may be owned and managed by the institution; by a private entity; or by partnership between the institution and a private entity. Student hostels can be institutionally or privately managed; self-catering or with catering services; and a variety of shared amenities like bathrooms, kitchens, laundry, lounge and recreational facilities. In other cases, basic amenities can be en suite. Student Housing must be well managed to promote and sustain a safe and comfortable environment that promotes the living and learning experience of occupying students (Penven, Stephens, Shushok and Keith, 2013).

Various studies have shown the importance of On-campus hostels. Kobuea, Oke, Aigbavboa (2017) observed that being accommodated in a harmless, safe, well managed residence is both socially and academically advantageous for students. Equally, Thomsen (2007) opined that student housing or accommodation contributes critically to the attainment of the overall objectives of universities. On campus student housing enhance the integration of students, promote diversity and foster unity. According to the authors, student accommodation provides security and privacy, as well as promote good friendships among the residents.

Student accommodation also provides an environment that stimulates intellectual development, allows for easy interaction with fellow peers; fosters team and communal spirit among students; make students see studying as their main occupation and also provide a community setting (Onyike and Uche, 2010; Banning and Kuk, 2011; Najib and Osman, 2011). Therefore providing student housing should be a priority for universities.

2.2 Public private partnership (PPP)

There is a huge demand for public infrastructure and services worldwide and government's budgets are restricted. As the gap between the growing demands for public services and infrastructure, on one hand, and financial and budgetary constraints, on the other hand, is constantly widening, the governments around the world especially in developing countries are interested in implementing PPP projects as a way of delivery the much needed infrastructure including student accommodation (Khmel and Zhao, 2016). According to Zhang and Chen (2013) Public-Private Partnerships (PPPs) play an important role in bringing the private sector competition to public monopolies in infrastructure development and service provision. The PPP model also assists in merging resources of both public and private sectors to better serve the public.

PPPs are a long-term contract between a private and a public party for the provision of public services or goods. Sources of funds or Sponsors of the project can include banks, pools of banks, international financial institutions, any counterparty of the project company. Capital for the project can be provided from different sources and use one or several financial instruments (Khmel and Zhao, 2016).

One important type of PPP arrangement that is mostly practiced is the Build- Operate-Transfer. In this system, a private sponsor finances the design, construction, maintenance, and operation of a public project for a specified concession period, at the end of which it transfers ownership to the government agency, hopefully after recouping its costs and achieving profits (Algarni, Arditi, and Polat, 2007).

The main idea behind using BOT is to alleviate the spending on governments' side by seeking capital from external financiers especially on large-scale projects. Project participants include the granting authority, usually a government agency; the project sponsor; and usually one or more financial institutions. The granting authority identifies project requirements, establishes the concession period, solicits tenders, and awards the contract. The project sponsor typically is a consortium or a joint venture of engineering, construction, and venture capital firms.

2.3 Build operate transfer in providing student housing

Private sector participation is the involvement of formal and informal private enterprise in the provision and management of accommodation in tertiary institutions (Asare- Kyire *et al.*, 2012). One of the reasons for private sector participation is that governments are facing deep budget and public finance difficulties. University authorities have also complained that there has been no finance to adequately provide student accommodation. The Federal Government of Nigeria has been responsible for providing the capital and recurrent expenditure of the Federal owned universities in Nigeria. Over the years the capital allocations to universities have been declining. Consequently, the Nigerian government is no longer able to provide adequate funding to enable

universities meet their management needs. The Federal Government of Nigeria in 2004 directed Heads of Tertiary Educational Institutions in the country to hand over hostels in campuses to private managers and also encourage private investors to build hostels for students. However the policy was not fully implemented. In 2006 the Federal Government issued a policy statement directing that new hostels can only be constructed through Public-Private Partnership (PPP) based on Build Operate and Transfer (BOT) basis.

According to Okebukola, Abdullahi, Balogun and Bankole (2004) the objective of the policy is to encourage private sector participation in the provision of hostel facilities in universities and to encourage private sector to plough back some of their profit into very critical areas of national need. By involving the private sector, universities are able to channel their resources more to teaching and research activities rather than to municipal functions.

3. METHODOLOGY

The approach used to collect, assess and analyze the data is both quantitative and qualitative (mixed method) because the study sought to understand the perception of stakeholders (developers and Infrastructure Concession Regulatory Commission) on the challenges in providing student housing through BOT. The sample was purposively selected based on their knowledge and experience on Public Private Partnership and student housing.

Questionnaires were administered to Real Estate Developers and interviews were conducted with the Director General and the Public Private Partnership resource centre of the Infrastructure Concession Regulatory Commission. The respondents were requested to rank and indicate their level of agreement on statements to challenges that they face. Descriptive statistics were used in analyzing and rating the responses obtained from the respondents through questionnaires. One hundred and twenty questionnaires were administered to developers Registered with the Real Estate Developers Association of Nigeria. Eighty Two were received back translating to sixty eight percent was response rate.

4. FINDINGS, ANALYSIS AND DISCUSSION

In table 1, perceptions of developers on the viability and feasibility of investing in student housing in tertiary institutions is presented. As shown 76% of developers perceived investment in student housing under BOT to be a worthy investment. On the other hand, 24% of the respondents did not think that it was worth it investing in student accommodation. These findings suggest that largely, private developers are interested in investing in student housing given that the majority saw the investment to be worthwhile. This finding seem to confirm Zaki's finding (2011) on viability of BOT in student housing in which they found that they were profitable and viable as a business venture.

Table 1: Private Developers' perception on viability of investing in student housing under BOT

Type of response	Frequency (Fr)	Percentage (%)
Viable	61	74
Not Viable	21	24
Total	82	100

Developers were asked if they were willing to participate in the university BOT scheme. Table 2 shows the willingness of developers to go into Build Operate Transfer for Hostel Provision. About 85% of the respondents indicated willingness to go into BOT for Student Housing and 15% were unwilling to invest in student hostel under BOT.

Table 2: Willingness to participate in build operate transfer in student housing provision

Type of response	Frequency (Fr)	Percentage (%)
Willing	70	85
Not willing	12	15
Total	82	100

The study looked into developers' major sources of finance. As can be seen from Table 3 most of the developers indicated that they utilised internal funds, 81% of the respondents indicated thus, and while 68% of the respondents used bank loans as the major sources of finance for project development. Other sources of finance include loans from thrift and credit society as well as foreign direct investment. BOT projects need long term loans. Most banks only give short term loans. Medium and long term loans are usually obtained from access to insurance and pension funds. There is need for developers to have access to long term loans.

Table 3: Sources of Finance used for funding project

S/N	Sources of finance	Frequency (Fr)	Percentage (%)
1	Internal funds	67	81
2	Thrift and credit society	12	15
3	Banks loans	56	68
4	Insurance and pension funds	-	-
5	Bonds	-	-
6	Foreign Direct Investment (FDI)	4	5

Table 4 shows the level of participation in provision of student housing. Findings show that 59% of the developers adjudged their level of participation to be low (below 45 %), 32% percent of private developers perceived their level of participation as average. Nine percent of developers ranked their participation in BOT for student accommodation to be high. None of the respondents ranked their participation as very high. The finding on BOT participation by the private sector

conforms to findings by Muhammad *et al.* (2014) who from their studies found that most developers have not been able to participate in the BOT scheme for student housing.

BOT is a more expensive method of funding capital projects because of the requirement to finance the profits of the private firms (financial parties) and the additional borrowing costs (interest rate). Developers have difficulty in accessing long term credit. Some financial institutions especially commercial banks have not been willing to grant long term loans. The interest rate in Nigeria is double digit and banks are not willing to give long term loans. This is in agreement with Shonibare (2010), who argues that local banks provide inadequate access to long term capital and the interest rate is high.

Table 4: Developer’s level of participation in student housing provision under BOT

Level of participation	Frequency	Percentage (%)
Very high ($\geq 70\%$)	-	-
High (60-69%)	7	9
Average (45-59%)	26	32
Low (30-44%)	34	41
Very low ($< 30\%$)	15	18
Total	82	100

4.1 Challenges of student housing provision through build operate transfer

The long term nature of BOT investment has also posed challenges to investors and developers alike. As most Nigerian investors prefer short term investment while BOT hostel project are long term. Developers also decry the lack of commitment by tertiary institutions to attract private sector investment in the provision of hostel.

Table 5 presents the findings on the challenges of student housing through BOT. The time and cost intensiveness of a BOT project has scared away investors. Nigerian investors seem to opt for projects which are short time in nature whereby they are able to invest and recoup their investment after a short period rather that tie down their capital for a long term. Zaki (2011) reached a similar conclusion and assert that private investors in Nigeria may not be willing to tie down their capital in investment that will start yielding profit in 15 years.

The finding of this study is also in line with Ayeyemi (2012) who opined that long term nature of BOT has been a challenge to its adoption and implementation. In addition, findings show that governance problems in Nigeria with its government ever changing policies tends to scare away private sector investment. Inconsistent Government policy has also affected the adoption. According to Akuta (2013) Policy continuation is something that is lacking in Nigeria and therefore not conducive to investment.

Table 5: Challenges of student housing provision through public private partnership

Challenges	1	2	3	4	5	Sum	Mean
Time and cost intensiveness of a BOT project	1	3	5	15	59	375	4.57
Lack of long term loans	1	7	3	19	52	360	4.39
High interest rate on loans	4	6	3	19	50	360	4.39
Disinterest on the part of lending institution	4	7	9	16	46	339	4.10
Preference for traditional procurement route	4	10	6	22	40	330	4.02
Inconsistent government policy	12	19	15	16	20	323	3.94
Lack of transparency in the procurement process	7	7	9	22	37	321	3.91
Hostel provision still seen as the role of the government	4	16	10	18	34	312	3.80
Challenge of structuring a BOT package	9	10	7	20	36	310	3.78
Resistance to change	5	12	14	22	29	304	3.71
Lack of commitment by higher institution to explore BOT	10	23	7	15	27	269	3.28
Inexperience and lack of understanding of BOT	14	19	10	17	22	260	3.17
Poor regulation of BOT concession agreement	27	22	13	15	4	234	2.84
Fear of vandalism (During student protest)	20	23	10	17	12	224	2.73
Lack of skill and expertise in implementing BOT projects	27	16	22	10	7	200	2.44
Low level of confidence in BOT procurement method	30	20	19	7	6	185	2.20

4.2 Response from the Infrastructure Concession Regulatory Commission

According to the Infrastructure Concession Regulatory Commission there was no record of any Build Operate Transfer Hostel in Nigeria. The ICRC being the custodian of all concession agreement and all PPP project don't have any record of BOT project while there a number of BOT hostel projects in the country. This may be due to the fact that universities were autonomous entities and so they were free to enter in to a contract with any organisation or entity they chose to. The university councils ratify which contracts they would like to sign and not the ICRC.

According to the respondents, Build Operate Transfer (BOT) PPP models have been used in several jurisdictions where new infrastructure is required. BOTs by nature require significant investment from the private sector in the areas of technical and financial expertise. As a result, private companies are typically concerned about ensuring due returns to investors and shareholders. In other words, managing risks such as revenue risks, financing risks and construction risks are of optimum importance to private companies.

5. CONCLUSION

There is a huge demand for public infrastructure and services worldwide whereas government's budgets of most countries are always limited. One of the major problems facing higher institutions

in Nigeria is shortage of housing for student accommodation. Private sector has been brought into this space to contribute towards providing hostels through BOT. This study has examined the challenges of BOT procurement in providing student housing in universities in Nigeria. The study also looked into the procurement procedure for PPP in Nigeria. The study found that developers perceive investment in student housing under BOT as worthy of investment. Developers are willing to go into BOT for Student Housing. The study concludes that lack of long term loans, time and cost intensiveness of a BOT project, high interest rate on loans, disinterest on the part of lending institutions, and preference for traditional procurement route hinder the adoption of BOT in Nigeria to develop student accommodation. Future research should investigate how the issue of finance can be tackled.

REFERENCES

AbdulAzeez, A D, Abdulhafeez I and Kado D (2015) "An Investigation into challenges of build operate transfer hostel provision in Nigerian tertiary institutions" *Journal of Nigerian Institute of Building*, 6(1):17-28.

Aigbavboa, C O (2015) "Geographical diversity and students' housing satisfaction in South Africa" *Socioeconomica The Scientific Journal for Theory and Practice of Socio-economic Development* 4(8): 449-460

Alaka I N Pat-Mbano, E C & Ewulum, I O (2012) "Examining the Physio, Psycho and Socio-Economic Implications of Non- Residential Policy on Imo State University Students. *Canadian Social Science*, 8 (2):170 -179.

Algarni, A M, Arditi, A and Polat, G (2007) "Build-Operate-Transfer in Infrastructure Projects in the United States", *Journal of Construction Engineering and Management*

Asare- Kyire, L, Apienti, W A, Forkuor, S K and Osie, A (2002) "The Economics of Private Hostels in Ghana: A case of Private Hostels on KNUST Campus" *International Journal for Social sciences tomorrow*, 1,(8)

Ayeyemi, D (2012) "Why Developers are not Keen to Invest in Students' Hostels" *National Mirror* Retrieved from <http://nationalmirroronline.net/index.php/business/business-andfinance/33865.html>.

Banning, J and Kuk, L (2011) "College housing dissertations: a bounded qualitative meta-study" *The Journal of College and University Student Housing*, 37(2): 90–104.

Bella-Omunagbe, O C 2015 "*Drivers and consequences of residents' satisfaction with off-campus student housing in south-south, Nigeria*" PhD Thesis, Nelson Mandela Metropolitan University, South Africa

Edet, B (2012) "Nigerian students live in 'zoos" *Daily Trust Newspaper*, retrieved from <http://www.dailytrust.com.ng/index.php/education/47896-nigerian-students-live-in-zoos>.

Khmel, V and Zhao, S (2016) "Arrangement of financing for highway infrastructure projects under the conditions of Public-Private Partnership", *IATSS Research* 39 :138-145

Kobuea, T, Oke A, and Aigbavboa, C (2017) "Understanding the Determinants of Students' Choice of Occupancy" *Procedia Engineering* 423 – 428

Muhammad, M Z, Dodo M, and Adamu Y M (2014) "Hostel Accommodation Procurement using Build-Operate Transfer (BOT) in Ahmadu Bello University, Zaria, Nigeria" Proceedings' of the International Council for Research and Innovation in Building and Construction (CIB) Conference 2014 (CIB) W107

Najib, N U, Yusof, N A, and Osman, Z (2011) "Measuring Satisfaction with Student Housing Facilities" *American Journal of Engineering and Applied Sciences*, 4(1) :52-60.

Nurdini, A and Harun, A. S (2012) "Phenomena of Spatial Bounded Choice: Students Behaviour Related to Rental Housing in Bandung as Case Study" *Procedia - Social and Behavioral Sciences* 36: 187 – 195

Okebukola, P, Abdullahi, I, Balogun, B and Bankole, A (2004) "Private Sector Participation in University Hostel Development and Management" *Nigerian Universities Commission NUC, Monograph Series*, 1(4), 1-30

Onyike, J A, and Uche, O N (2013) "An assessment of the students' hostels of tertiary institutions in Imo State Owerri, Imo State" *Tropical Built Environment Journal*, 1(1), 11-20

Penven, J, Stephens, R, Shushok, F and Keith, C (2013) "The past, present, and future residential colleges: looking back at S. Stewart Gordon's "living and learning in colleges". *The Journal of Colleges and University Student Housing*, 39(2)114-126

SA Government Gazette (2013). Draft Policy on Student Housing at Public University and minimum Norms and Standards Applicable. Higher Education and Training, 574, 1-48.

Shonibare, W (2010) "Encouraging Sustainable Investment in Infrastructure through Public Private Partnership". *A paper presented at a 3-day workshop on Public Private Partnership*

approach for Infrastructure Development in Nigeria, Organised by NIQS held at Shehu Musa Yar'adua Centre, Abuja.

Sulaiman, I A (2004) *Private Sector participation in Hostel Development and Management for students in Nigerian university: case study of A.B.U Zaria*. (An unpublished thesis), Ahmadu Bello University Zaria.

Thomsen, J (2007) "Home experience in student housing: about institutional character and temporary homes" *Journal of Youth studies*, 10(5)577–596.

Zaki, Y M (2011) "An appraisal of Economic Viability of the University Hostel Development scheme under the Build Operate and Transfer System" (Unpublished Thesis), Ahmadu Bello University Zaria.

Zhang, X and Chen, S (2013) "A systematic framework for infrastructure development through public private partnerships" *IATSS Research* 36: 88–97