Tropical Journal of the Built Environment (TJOBE)
Vol. 4 No. 1 June 2023

Evaluation of the Constraints in the Implementation of Public Private Partnership in Housing Delivery in Oyo State, Nigeria

***[1]Mojisola H. AKINOLA, [1]Olufunmilayo ADEDIRE, [2]Oluwole A. Alagbe & [3]Oluwafemi K. AKANDE**
[1,] *Architecture Department, Lead City University, Ibadan, Nigeria*
[2]*Architecture Department, Caleb University, Lagos, Nigeria*
[3]*Department of Architecture, Federal University of Technology, Minna, Nigeria*
Corresponding author: *halimatakinola72@gmail.com

Abstract
In developing countries, Public-Private Partnerships (PPPs) have gained popularity as a strategy for housing procurement because of a lack of financial resources and insufficiency of public funds for housing delivery. In an emerging economy such as Nigeria, a number of impediments to the adoption of PPPs have culminated to a drop in interest from both domestic and international private investors. Thus, there is a need for a well-designed PPP scheme with significant consideration to create an enabling environment within which PPP can be successfully implemented. The aim of this study is to evaluate the constraints in the implementation of PPP in housing delivery in Oyo state. A quantitative research approach was adopted for this study using a questionnaire survey to obtain data from experts (N=120) in the housing industry from Ibadan. SLEEPT (Social, Legal, Economic, Environmental, Political, and Technological) approach was adopted to categorize the barriers identified from literature for respondents to rate using 5-point Likert scale. Findings shows that political, economic, environmental and technological constraints constitute greater influence on the implementation of PPP for housing delivery. This paper concludes that for PPP to be fully implemented for housing delivery, there would be need to give significant attention to address the identified barriers in the state. It recommends the creation of enabling environment for a well-functioning partnership as a crucial approach to successful implementation of PPP for housing delivery.

Keywords: *Public-Private Partnership, Constraint, Procurement strategy, Housing delivery*

Introduction
In developing countries, public-private partnerships (PPPs) have gained popularity as a method for housing construction projects because of a lack of financial resources and public sector inefficiency. Several governments have adopted PPP as an alternate means of acquiring public services as a result of a lack of public funds. This is because PPP entails working with the private sector of industry (Berezin *et al*., 2018). PPPs give the public sector the opportunity to invest in capital projects without taking on any additional debt, which creates a platform for financing infrastructure and other public services (Cui *et al*., 2018). Despite the fact that many countries have recently adopted PPP for infrastructure development, Bao *et al.*, (2018) observed that not all projects have been successful due to ineffective risk distribution and a lack of knowledge about success criteria in specific countries. For instance, PPP has been widely used in the worldwide construction market, but a variety of variables have hampered its performance, leading to inefficiency and ineffectiveness of the projects (Liu *et al*., 2017).

Fatai *et al*., (2021) argued that despite PPPs' widespread acceptance and growing use in

infrastructure development, both the public and private sectors have not always had great experiences with them. Many PPP initiatives, particularly in developing nations, are either delayed or abandoned. Meanwhile, Wu *et al*., (2017) on the other hand, observed that PPPs allow governments to obtain much-needed infrastructure funding from the private sector while minimizing government capital investment, circumventing capital market restrictions, and addressing inefficiencies in government operations. According to Robert *et al.*, (2014) private sector involvement in infrastructure can contribute expertise, efficiency, and funding to the provision of high-quality infrastructure services at a lower cost than typical government procurement. A number of impediments to the adoption of PPPs in emerging economies have resulted in a drop in interest from both domestic and international private investors. To produce a successful and well-designed PPP, significant consideration should be given to the context or enabling environment within which the partnerships will be implemented (Babatunde *et al*., 2014).

The need for sustainable development in Nigeria has prompted the government to pursue a number of policy options to address the country's infrastructure issues (Fadeyi *et al.,* 2018). The PPP arrangements in the country are governed by the Infrastructure Regulatory Commission (IRC) Act of 2005, the Public Procurement Act of 2007 and PPP policies established by state legislation (Makinde, 2014). Nigeria, like all other nations, is seeing a rise in population and urbanization, which has increased demand for new housing and infrastructure (Fadeyi *et al*., 2018). The housing issue, in both quantitative and qualitative terms, is still a difficult one to solve with the adoption of PPP (Yakubu *et al*., 2016). The National Development Plan (2021–2025) emphasizes the nation's dedication to closing the housing gap in the nation, projecting the construction of one million homes per year throughout Nigeria, or around 28,000 units each state. The proposal also indicated that as of 2017, there were 2,287 homes constructed nationwide and 2,591 more were built throughout 36 States. Additionally, Federal Mortgage Bank disbursed N55.198 billion for housing loans and home improvements. Meanwhile, housing sector have a deficit of N26 million nationwide.

Oyo State, one of Nigeria's fastest-growing states, has only recently implemented PPP for the delivery of housing and infrastructure. Despite the government's involvement in various housing delivery techniques, preliminary studies of public-private partnerships in housing projects suggest that implementation is still stalled. Against this backdrop, the purpose of this study is to investigate the impediments to PPP adoption in order to improve housing delivery in the study region.

Literature Review

Concept of Housing Delivery

The housing delivery system can be viewed as a social structure with more or less formalized ties between the actors performing the necessary tasks in the housing process when it comes to the creation and distribution of housing (Ademiluyi, 2010). Housing distribution is a contentious and politically charged topic, with problems being more significant in regions with severe housing shortages, substandard living conditions, high housing costs, and an increase in slums and squatters (Eziyi & Egidario, 2012). Housing delivery is all about providing adequate, standard, and cheap housing to ensure that everyone in a country has access to high-quality housing at an affordable price (Izuwah *et al.*, 2019).

In Nigeria, the housing delivery system is made up of a number of interconnected elements, including land, building supplies, infrastructure, legislation, building regulations, and, most crucially, financing (Jiboye, 2011). Most governments see the provision of adequate but modest housing as a top priority for fulfilling the social needs of the community because of how highly valued the housing issue is. It is obvious that

countries with more developed home financing systems are those with stronger legal protections for borrowers and lenders through bankruptcy and collateral laws, savvy credit information systems, and stable macroeconomic situations (Warnock & Warnock, 2008). These factors also help explain differences in home finance among emerging market countries.

Some of the major organizations involved in providing housing in Nigeria include the Federal Ministry of Lands, Housing, and Urban Development, the Federal Housing Authority, the Federal Capital Development Authority, the State's Housing Corporations, the State Ministries of Housing and Urban Development, the FMBN, the Central Bank of Nigeria (CBN), the Primary Mortgage Banks, the Deposit Money Banks, the Insurance Companies, the Security and Exchange Commission, and the Real Estate Developers. Others include academic institutions and professional associations (Makinde, 2014).

Public-Private Partnership for Housing Delivery

The PPP is an alternative mechanism to traditional procurement that entails an agreement between governments or the public and private sectors to jointly perform a service with profit-oriented goals in order to achieve efficient project management, built-environment innovation, limits on public borrowing or funding, or technical expertise (Batra, 2021). The concession agreement specifies that while the government is responsible for providing the public service, it will contract out a large number of the operational activities to a private service provider (Sarmento & Renneboog, 2021).

Although the PPP has been used for centuries as a project delivery mechanism, it is now used for infrastructure projects and service procurements in both developed and developing countries around the world. It has recently gained increased popularity as a result of the public sector's financial crisis, the private sector's ability to deliver services, and the market efficiency it brings to the table (Osei-Kyei *et al*., 2017). Unfortunately, despite the enthusiasm of the public and private sectors, the PPP implementation strategy has moved slowly, and there have been more failed or distressed projects, particularly in developing countries (Wang *et al.*, 2018). Public-Private Partnerships have attracted a lot of interest from the public infrastructure, housing development, and financial sectors in recent years due to their fundamental benefits and are now used in more than 40 countries (Halvitigala, 2019).

A global review of PPP transactions revealed that between 2005 and 2010, one thousand and forty-six PPP transactions totaled $330 billion. The PPP market peaked in 2007 with 241 projects totaling $79 billion in capital value, and these development projects' financing was completed, while in 2010, one hundred and twenty two PPP transactions totaling $79 billion were completed (Izuwah et al., 2019). The key PPP support nations are the UK, USA, Australia, Canada, India, South Africa, Malaysia, Ireland, Spain, France, Japan, Singapore, Finland, and Nigeria. Depending on the services to be provided, PPP may take on a variety of forms or terminology that is commonly used to describe the arrangements. The most common forms are design, build, and operate (DBO), build, operate, and transfer (BOT), build, own, and operate (BOO), design, build, finance, and operate (DBFO), and build, own, operate, and transfer (BOOT) (Bello, 2017). However, Aliyu (2013) pointed out that not all private sector participation involves PPP projects; rather, PPP projects are those concessions in which the public sector assumes all project-related risks and rewards in exchange for a predetermined agreement codified in a contract.

The impact of PPP is of great importance for the delivery of public housing developments on a global scale. The benefits of PPP for the government, according to Fatai *et al*., (2021) include accountability, lifecycle maintenance, public ownership control, effective risk transfer, payment for

performance, reward for performance, and higher innovation. The United Nations 2030 Agenda for Sustainable Development calls for long-term, inclusive economic growth, social inclusion, and environmental protection in partnership and peace. Both developed and developing countries use public-private partnerships to fund infrastructure projects (Zhang & Nations, 2020). The PPP adoption and implementation present unique challenges in both developed and developing countries. As a result, the context or enabling environment should be carefully considered in a well-designed PPP (Babatunde *et al*., 2014).

Constraints in Implementation in PPP Housing Delivery

Despite PPPs' widespread acceptance and growing use in infrastructure development, the experiences of the public and private sectors with PPPs have not always been positive (Tshehla, 2018). Implementation limits in PPP projects have become a hot topic because so many reported PPP projects have stagnated or failed (Babatunde *et al*., 2014). He discovered 58 significant obstacles to PPP ventures in underdeveloped nations while conducting a study on them. To identify the constraints, the study used factor analysis from five stakeholder groups from the public and private sectors, with a focus on Nigeria. Following a thorough investigation of the underlying link, the fifty-eight barriers were divided into ten groups. The barriers as identified by Babatunde *et al*., (2014) include (i) capacity deficiencies in public and private partners (ii) weak political will and administrative bottlenecks (iii) weak economic conditions and environmental problems (iv) related problems (v) corruption and ineffective government actions in PPPs (vi) low social acceptance (vii) legal and regulatory issues (viii) inadequate relationships between internal and external stakeholders (ix) delay and politicization of concessions and (x) lack of competition and due diligence.

In the housing sector, the implementation of PPP has not been without challenges as expressed by Gbage and Opeyemi (2019). The main impediments to the effective implementation of the PPP arrangement are a lack of political will and government commitment. Other difficulties include a lack of continuity in government, a misalignment of priorities on the part of the government, inadequate supervision, the private sector's pursuit of self-interest, insufficient planning and a lack of local or internal financing. Among others are corrupt practices among the contracting parties, a lack of experience in the development of PPPs, a lack of demand for the project, and a lack of an adequate legal framework to protect the private investor. The use of PEST (Political, Economic, Social, and Technological) approach or its variants, such as SLEEPT (Social, Legal, Economic, Environmental, Political, and Technological) and PESTLE (Political, Economic, Social, Technological, Legal, and Environmental), among others have also been adopted to fully categorize the barriers to the implementation of PPP. Meanwhile, Babatunde *et al.*, (2014) has posited that it is crucial to classify obstacles to PPP implementation using the SLEEPT approach because it's a very helpful and popular tool for understanding the larger business environment and assisting business leaders all over the world in creating their future visions. In their studies, the authors found fifty-seven (57) obstacles or limits to the implementation of PPPs in developing nations. The authors gave the summary of those findings and grouped them into six as follows: (i) social barriers (ii) legal barriers (iii) economic barriers (iv) environmental barriers (v) political barriers and (vi) technological barriers.

Study area

The research was carried out in Ibadan, the capital city of Oyo State in southwest Nigeria (latitude 7° 23' N and longitude 3° 56' E) (Figures 1a and 1b). Ibadan is 128 kilometres (80 mi) inland northeast of Lagos and 530 kilometres (330 mi) southwest of Abuja, the federal capital. Ibadan is the third-largest city by population in Nigeria with a total population of 3,649,000 as of

2021, and over 6 million people within its metropolitan area (Ajayi *et al.,* 2022).

Methodology

The study employed a quantitative survey approach, with a questionnaire serving as the instrument of choice for sampling a large population. Akande *et al.,* (2018) identified the use of a questionnaire as the most ideal tool for quickly reaching respondents in the most cost-effective, efficient, and popular approach to acquire important data. To obtain data from respondents, a structured questionnaire survey was utilized, allowing researchers to generalize their findings from a sample of a population (Bryman, 2012). A pilot study was done to identify potential barriers prior to the administration of the questionnaire to ensure that the questionnaire was understood by the responders. The pilot questionnaire was distributed to a subset of the expected responders.

The sample size for this study was calculated using the following formulas from Creative Research Systems (2003) and Czaja and Blair (1996):

$$ss = \frac{Z^2*(p)*(1-p)}{C^2}$$

Where:

Z = Z value (e.g., 1.96 for 95% confidence level)
P = percentage picking a choice, expressed as decimal
(.5 used for sample size needed)
C = confidence interval, expressed as decimal

It is typical practise in surveys to strive for a 95% confidence level or a precision level of 5%. As a result, as is typical in other research, a 95% confidence level was adopted with z = 1.96 for 95% confidence level (i.e., significant threshold of = 0.05). A confidence interval (c) of 10% was chosen adequate for this investigation based on the need to strike a balance between precision, available resources, and the utility of the research findings. Czaja and Blair (1996) advocated that the worst-case percentage of picking an option (p) be considered to compute the sample size for a specific degree of accuracy, which is 50% or 0.5.

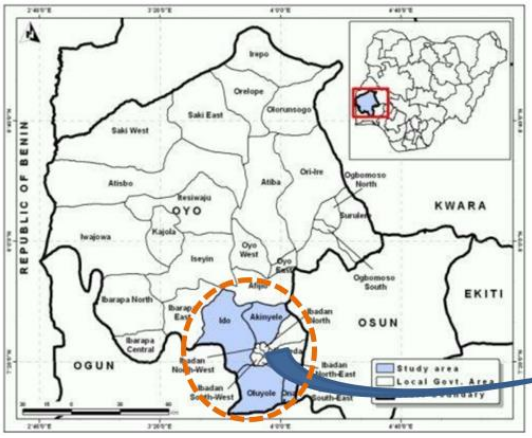

Figure 1a: Nigeria map showing Oyo State & Ibadan

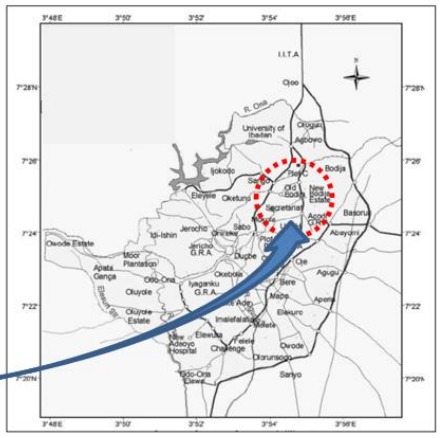

Figure 1b: Ibadan metropolitan map

Source: Aiki-Raji *et al.,* (2016)

The following assumptions were used to calculate the sample size:

$$ss = \frac{1.96^2 \times 0.5\,(1 - 0.5)}{0.1^2}$$

$$ss = 96.04$$

The questionnaire survey will have a sample size of 96 respondents. However, for small populations, the computed value must be adjusted further. With an estimated population of 3000 stakeholders in housing industry in Oyo State, Nigeria, the following formula for computing finite populations was adapted from Czaja and Blair (1996):

$$new\ ss = \frac{ss}{1 + \frac{ss - 1}{pop}}$$

Where: Pop = population

$$new\ ss = \frac{96.04}{1 + \frac{96.04 - 1}{3{,}000}}$$

$$new\ ss = 93.01$$

This formula can be used to calculate the finite populations, and it is clear that 96 samples are the absolute minimum required. The issue of nonresponse rate, which is common with questionnaire surveys, was deemed to be critical to consider when establishing sample size. As a result, it was critical to adjust the sample size to account for nonresponse. The appropriate sample size for the survey was thus established using the approach derived from Akadiri (2011) and based on the assumption of a conservative response rate of 80% as recommended by Botani (2021) for in-person face-to-face surveys:

$$survey\ ss = \frac{new\ ss}{response\ rate}$$

$$survey\ ss = \frac{93.01}{0.80} = 116$$

A minimum of 116 respondents with an 80% response rate were necessary to conduct the survey.

The questionnaire was divided into two pieces. The first section (A) focused on bio-data information on the respondents' demographic profile. The second section (B) focused on the constraints in implementing PPP in housing provision having 32 tick-box alternatives. The questionnaire was constructed as a multiple-choice type on a five-point Likert scale. It assessed perceived constraints in PPP implementation in housing provision from 1=Very low influence to 5=Very High Influence. Participants were asked to rate the extent to which the identified constraint measures affect the implementation of PPP in housing delivery from indices developed such as 'Perceived Social Constraint Index' (PSCI), 'Perceived Legal Constraint Index' (PLCI), 'Perceived Economic Constraint Index' (PECI), 'Perceived Environmental Constraint Index' (PEI), 'Perceived Political Constraint Index' (PPCI), and 'Perceived Technological Constraint Index' (PECI). The Statistical Package for the Social Sciences (SPSS) version 23 was used for descriptive and some inferential statistics analyses**.**

Results and Discussion

A total number of 120 questionnaires were sent out and administered to selected expert personnel (i.e., Head of departments and senior staffs). A total of 120 questionnaires was returned giving a response rate of 100%. This response rate is excellent and makes this study empirical, as most built-environment survey response rates range between 7% and 40% **(Moyo & Crafford, 2010).** The experts were selected from the Bureau of Public procurements, Oyo State Investment and Public Private Partnership Agency (OYSIPA) and Ministry of Lands, Housing and Urban Development, Consulting Ministry. Other selection was made from Ministry of Public Works and Transport, Agency; Housing Corporation using purposive sampling. A reliability test was also conducted on the research instrument using Cronbach's alpha. The

internal consistency of the scale used in assessing the six different constraints were tested. Therefore, a scale reliability analysis was performed using Cronbach alpha reliability test.

Cronbach's alpha Coefficient measures the degree to which the items that make up the scale 'hang together'. As such, a scale is acknowledged to be valid and reliable provided that the Cronbach's alpha coefficient is above 0.7 (Pallant, 2005). In line with the information in Table 1, the scales for the six PPP constraints were valid and reliable as the Cronbach's alfa coefficient was observed to be greater than 0.7.

Stakeholders' Bio-Data

As summarized in Table 2, the gender distribution revealed that majority of the stakeholders (70.8%) were male while only 29.2% were female. In terms of age group, a high proportion of the sampled stakeholders were in their mid-40s and 50s. This was evident as majority (84.5%) of stakeholders' age group was within 46 – 55 years and 36 – 45 years. On the other hand, 8.3% of the stakeholders' age group was below 36 years. The least age group (7.5%) in the study were stakeholders above 55 years. The educational qualification of the stakeholders in the study revealed that 47.5% of the stakeholder had bachelor's degree while about 26.7% had master's degrees. Stakeholders with Diploma certificates accounted for 18.3% only. In addition, other educational qualification accounted for 7.5% only. This finding, therefore, suggests that stakeholders were educated and capable of providing relevant information regarding the subject matter for the research.

Furthermore, the sector categories of the stakeholders revealed a whopping majority (93.3%) of the stakeholders worked with the Public Sector Authorities (i.e., Ministries, Departments and Agencies). This was followed by stakeholders who worked as consultants and concessionaries (Private Investors); thus, accounting for 5.0% and 1.7% respectively. Information concerning stakeholders' position in office revealed that a bulk (45.8%) of the sampled stakeholder were 'Senior Officers'. However, only 42.5% were 'Principal Officer'. The proportion of stakeholders with the job nomenclature 'Deputy Director' and 'Director' accounted for 7.5% and 4.2% respectively.

Table 1: Scales for the six PPP constraints with their Cronbach's Alpha coefficient values

Scales	Cronbach's Alpha	Number of items
Social Constraints	0.819	5
Legal	0.783	4
Economic	0.754	7
Environmental	0.794	5
Political	0.885	5
Technological	0.834	5

Table 2: Stakeholders' Bio-Data

Attributes	Frequency (*N=120*)	Percentage (%)	Attributes	Frequency (*N=120*)	Percentage (%)
Gender			***Position in Office***		
Male	85	70.8	Senior Officer	55	45.8
Female	35	29.2	Principal Officer	51	42.5
			Chief Officer	-	-
Age Group (years)			Deputy Director	9	7.5
≤ 35	10	8.3	Director	5	4.2
36 – 45	38	31.7			
46 – 55	63	52.5			
56 & above	9	7.5			
Educational Qualification			***Experience in PPP (years)***		
Diploma	22	18.3	1 – 2	8	6.7
Bachelor Degree	57	47.5	3 – 4	19	15.8
Master Degree	32	26.7	5 – 6	26	21.7
Others	9	7.5	7 – 9	19	15.8
			10 & above	48	40.0
Stakeholder division			***No. of PPP Projects Involved***		
Public Sector Authorities (MDAs)	112	93.3	1 – 2	14	11.7
Concessionaries (Private Investors)	2	1.7	3 – 4	33	27.5
Local Tenders / Local Banks	-	-	5 – 6	22	18.3
Consultants	6	5.0	7 – 8	27	22.5
			9 & above	24	20.0

In addition, the results in Table 2 further showed that, although, a considerable proportion of the stakeholders had varying years of experience of PPP, however, majority (40.0%) had above 9 years of experience. This was followed by 21.7% of the stakeholders with 5 – 6 years of PPP experience; 3 – 4 years' experience and 7 – 9 years' experience with 15.8% respectively. However, only 11.7% of the stakeholders had between 1 – 2 years of PPP experience. In terms of the number of the PPP projects the stakeholders were involved in, about 22.5% of the stakeholders claimed to have partaken in a number of projects 7 – 8 years. This was followed by 20% of the stakeholders affirming to have been involved in PPP housing delivery projects for a period of 9 years and above. Figure 2a and Figure 2b shows the percentage of distribution of gender by their educational qualifications and age. It can be seen that in most cases, the number of male respondents surpassed the number of female respondents. This could be as a result of the fact that there are more males working in the housing industry more than the females.

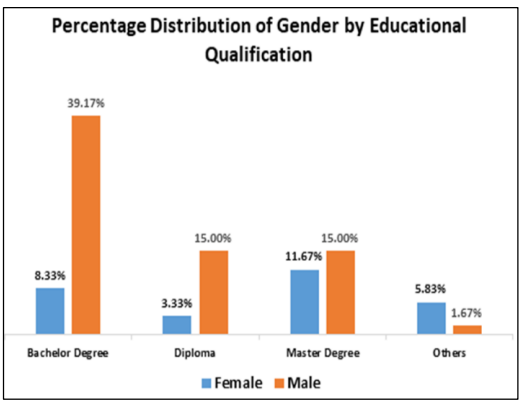

Figure 2a: Distribution of gender by educational qualifications

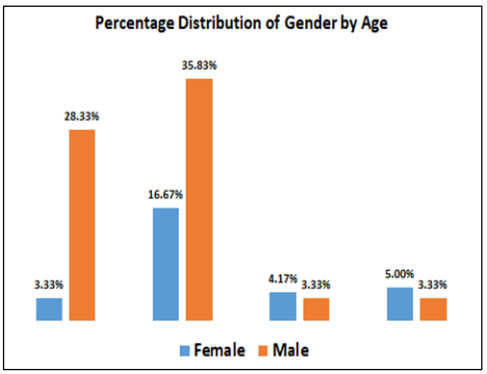

Figure 2a: Distribution of gender by age.

Stakeholders' Perceived Constraints to Implementing PPP in Housing Delivery

Findings from Table 3 revealed the average perceived ratings for each of the identified PPP constraint. As observed in the overall mean averages in Table 3, stakeholders in the study opined that political constraints (3.64), economic constraints (3.39), environmental constraints (3.18), and technological constraints (3.02) had average influence on the adoption of PPP in housing delivery. This finding corroborates with those of Ahmed and Sipan (2019) who found among the factors influencing PPP project to include the composition of partners, political, economic, socio-cultural, technology and other contextual situation. On the other hand, the average view of stakeholders concerning other constraint themes such as social constraints (2.90) and legal constraints (2.66) was perceived to have low influence on PPP housing delivery.

A cursory look at each constraint themes further revealed the rank of constraints rated by the stakeholders. For instance, the top three social constraints stakeholders rated high and having an average influence on PPP housing delivery were linked with the public resentment due to tariff increases, lack of confidence and mistrust, and societal discontent against the private sector. These three constraints had a Perceived Social Constraint Index (PSCI) of 3.33, 3.11 and 2.90 respectively (Table 3). In the case of legal constraints, weak/poor enabling policies, weak judiciary framework, and weak institutional capacity and PPP strategy were top of the list of stakeholders' legal constraints to PPP housing delivery. These three constraints had a Perceived Legal Constraint Index (PLCI) of 2.78, 2.69 and 2.64 respectively. In the case of economic constraints to PPP housing delivery, the aggregated perception of the stakeholders showed that all the listed economic constraints had 'average influence' on PPP housing delivery. However, it was further observed that constraints such as the: difficulty in obtaining foreign exchange/foreign exchange risk, inability of local institution to provide long term financing, and high transaction cost were top ranked among the perceived economic constraints by the stakeholders.

The Perceived Economic Constraint Index (PECI) for the three constraints was 3.73, 3.64 and 3.42 respectively. A similar result was also noticed with regards to stakeholders perceived environmental constraints as majority of the listed constraints were perceived to have an average influence on PPP housing delivery. The Perceived Environmental Index (PEI) for the top four constraints: accusation of corruption and other corrupt tendencies, land acquisition problem, lack of transparency and accountability, lack of enabling environment and favorable investment, and were 3.53, 3.24, 3.21 and 3.13 respectively.

Table 3: Stakeholder's perception of thew constraints to PPP housing delivery

	Frequency of Ratings									
Social Constraint	1	2	3	4	5	TR	TWV	PSCI	M.D.	Rank
Public resentment due to tariff increases	7	6	57	40	10	120	400	3.33	0.43	1
Lack of confidence and mistrust	2	1	76	20	5	116	361	3.11	0.21	2
Societal discontent against the private sector	9	3	34	34	5	120	348	2.9	0.00	3
Cultural impediment	13	37	36	27		113	303	2.68	-0.22	4
Public opposition/public resistance	7	56	46	2	5	116	290	2.5	-0.40	5
Overall Mean								**2.90**		
Legal Constraint	1	2	3	4	5	TR	TWV	PLCI	M.D.	Rank
Weak/poor enabling policies	11	3	37	23	5	112	311	2.78	0.11	1
Weak judiciary framework/weak judiciary for solving PPP disputes	9	5	33	21	5	118	317	2.69	0.02	2
Weak institutional capacity and PPP strategy	10	4	46	9	7	118	311	2.64	-0.03	3
Poor regulatory frameworks and enforcement	19	3	36	24		118	301	2.55	-0.11	4
Overall Mean								**2.66**		
Economic Constraint	1	2	3	4	5	TR	TWV	PECI	M.D.	Rank
Difficulty in obtaining foreign exchange/foreign exchange risk		8	40	48	24	120	448	3.73	0.34	1
Inability of local institution to provide long term financing	6	1	22	50	27	120	437	3.64	0.25	2
High transaction cost	5	2	10	75	5	120	410	3.42	0.02	3
High bidding cost	9	1	33	61	5	120	401	3.34	-0.05	4
Macroeconomic fluctuations in currency	6	3	14	40	23	120	397	3.31	-0.09	5
Perception of developing countries as high-risk economy by foreign investors	4	25	33	53	5	120	390	3.25	-0.14	6
Inadequate domestic markets	9	2	44	36	7	120	368	3.07	-0.33	7
Overall Mean								**3.39**		

The average perception of stakeholders regarding political constraints suggested an average influence on PPP housing delivery. Top among the ranked constraints were the lengthy delays of projects due to political debates (3.88), politicization of concessions (3.79), and political reneging (3.72). In the case of technological constraints, the stakeholders' perception varied between low and average influence (See PTCI values). Constraints such as the lack of experience and expertise of the private and public sector (3.23), and the unavailability of large construction companies to deliver PPP projects (3.03) were perceived by stakeholders to have an average influence on PPP housing development. This finding agrees with the views of Itu and Kenigua (2021) who stated lack of experience and expertise in both the public sector and private investors among others as one of the challenges hindering effective implementation of the public-private partnership for better infrastructural

development in Nigeria. On the other hand, constraints such as the provision of comprehensive upfront project information by the public sector, inconsistent risk assessment and management (2.98) respectively while shortage of professional to handle PPP projects (2.81) were perceived by the stakeholders to have a low influence on PPP housing delivery.

Conclusion/Recommendation

This study identified the key barriers/constraints to successful implementation of PPP in Oyo State, Nigeria. The most significant of these constraints were political, economic and environmental constraint. Meanwhile, technological, social, and legal constraints constituted the least influential constraints. This paper argued for PPP to be fully implemented for housing delivery, there would be need to give significant attention to address the identified barriers in the state. Finally, this study brings to fore the direction of focus to successful implementation of PPP in housing delivery in Oyo state. It recommends the creation of enabling environment as a crucial approach to successful implementation of PPP housing delivery and a well-functioning partnership.

References

Ademiluyi, I. A. D. (2010). Journal of Sustainable Development in Africa. *Journal of Sustainable Development in Africa*, 12(6), 153–161.

Ahmed, Y. and Sipan, I.A.B. (2019). Critical Factors for Implementation of Public-Private Partnership for Affordable Housing in Nigeria. *International Journal of Scientific & Technology Research* Volume 8, Issue 09. Pp. 1125 -113.

Aiki-Raji, C.O., Oluwayelu, D.O., Adeyemo, I.A. and Adebiyi, A.I. (2016). Seroprevalence of Foot-and-Mouth Disease in Slaughtered Pigs in Ibadan, Southwest Nigeria. *Alexandria Journal of Veterinary Sciences* 48 (2): 18-22 DOI: 10.5455/ajvs.199130

Akadiri, O.P. (2011). Development of a Multi-Criteria Approach for the Selection of Sustainable Materials for Building Projects. PhD Thesis University of Wolverhampton, Wolverhampton, United Kingdom.

Akande, O.K., Olagunju, R. E., Aremu, S. C. and Ogundepo, E.A. (2018). Exploring Factors Influencing of Project Management Success in Public Building Projects in Nigeria. *YBL Journal of Built Environment* 6(1) 47-62 DOI: https://doi.org/10.2478/jbe-2018-0004

Ajayi. J.O., Osabohien, R., Adebayo, I.T., Christopher A. Wojuade, C.A. and Aworemi, J.R. (2022). Urban Population Characteristics Benchmarking Inequity of Access to Public Transport Services in Ibadan, Nigeria. Research Square. Pp. 1-13.

Aliyu, A. I. (2013). Public Private Partnership in Nigeria and Improvement in Service Delivery: An appraisal. IOSR *Journal of Humanities and Social Science*, 10(3), 63–71. https://doi.org/10.9790/0837-01036371

Babatunde, S. O., Perera, S. O. B., Udeaja, C., & Zhou, L. (2014). Identification of barriers to Public Private Partnerships implementation in developing countries. In: International Conference on Construction in Changing World, May, 4–7.

Bao, F., Chan, A. P. C., Chen, C., & Darko, A. (2018). Review of Public–Private Partnership Literature from a Project Lifecycle Perspective. *Journal of Infrastructure Systems*, 24(3), 04018008. https://doi.org/10.1061/(asce)is.1943-555x.0000424

Batra, R. (2021). A thematic analysis to identify barriers, gaps, and challenges for the implementation of public-private-partnerships in housing. *Habitat International*, 118, 102454. https://doi.org/10.1016/j.habitatint.2021.102454

Bello, T. (2017). Public Private Partnership in Nigeria: Algorithm and the Templates. *SSRN Electronic Journal*, 1–13. https://doi.org/10.2139/ssrn.3010135

Berezin, A., Sergi, B. S., & Gorodnova, N. (2018). Efficiency assessment of public-private partnership (PPP) projects: The case of Russia. *Sustainability* (Switzerland), 10(10), 1–18. https://doi.org/10.3390/su10103713

Botani, D. (2021). What is the acceptable response rate for survey research? Retrieved from: https://www.researchgate.net/post/What-is-the-acceptable-response-rate-for-survey-research/60fbdf4b213b617c7a2f0aff/citation/download.

Bryman, A. (2012). Social research methods. 4th edition. New York: Oxford University Press.

Creative Research Systems (2003). The survey system. Available at http://www.surveysystem.com/sscalc.htm

Creswell, J. W. (2014). The Selection of a Research Approach. Research Design, 3–23. https://doi.org/45593:01

Cui, C., Liu, Y., Hope, A., & Wang, J. (2018). Review of studies on the public–private partnerships (PPP) for infrastructure projects. *International Journal of Project Management*, 36(5), 773–794. https://doi.org/10.1016/j.ijproman.2018.03.004

Czaja, R. and Blair, J. (1996). Designing Surveys: A Guide to Decisions and Procedures. SAGE Publications, Retrieved at https://books.google.com.ng/books/about/Designing_Surveys.html?id=3UO4RwAACAAJ&redir_esc=y

Eziyi, I., & Egidario, A. (2012). ublic-Private Partnerships (PPPs) in Urban Housing in Nigeria: Evidence from Ogun State. *International Journal of Architecture and Urban Development*, 2(1996), 5–14.

Fatai, O. B., Aigbavboa, C., & Elizah, O. K. (2021). Appraisal of facility provisions in public-private partnership housing delivery in southwest Nigeria *African Journal of Reproductive Health, suppl.* Special Issue; Benin City Vol. 25: 46-54. DOI:10.29063/ajrh2021/v25i5s.4

Gbage, M. M., & Opeyemi, M. (2019). Evaluation of Factors Affecting Implementation of Public-Private Partnership (PPP) in Housing Provisions in Niger State (2008-2017) 12 *International journal of strategic research in education, technology and humanities.* Vol.6. No.1. Pp.116-126

Halvitigala, H. A. and C. E. (2019). Public-Private Partnership for affordable housing delivery in Ghana: Experience of the Ghana national housing project and policy implications. In *Proceeding of the 43rd Australasian Universities Building Education Association (AUBEA) Conference* (Issue November).

Itu, M. and Kenigua, W.E. (2021). The Role of Public-Private Partnership (PPP) On Infrastructural Development in Nigeria. *Journal of Global Social Sciences*, Volume 2, Number 5, 23-43.

Izuwah, C. K. C., Chidi, E., & Izuwah, K. C. (2019). Unlocking the Potentials in the Housing Market through Public Private Partnerships (PPP) Investment Model. *CBN Economic and Financial Review*, 57(4), 12–2019. https://dc.cbn.gov.ng/efr

Jiboye, A. (2011). Urbanization challenges and housing delivery in Nigeria: The need for an effective Policy framework for Sustainable Development. *International Review of Social Sciences and Humanities*, 2(1), 176–185.

Liu, J., Gao, R., Cheah, C. Y. J., & Luo, J. (2017). Evolutionary game of investors' opportunistic behaviour during the operational period in PPP projects. *Construction Management and Economics*, 35(3), 137–153. https://doi.org/10.1080/01446193.2016.1237033

Makinde, O. O. (2014). Housing delivery system, need and demand. Environment, Development and Sustainability, 16(1), 49–69. https://doi.org/10.1007/s10668-013-9474-9

Moyo, T. & Crafford, G. (2010). The impact of hyperinflation on the Zimbabwean construction industry. Acta Structilia, 17(2), pp. 53-83.

Fadeyi, O.I., Kehinde, O.J. Nwachukwu, C., Adegbuyi,A.A. & Agboola, O.O. (2018). Public Private Partnership for Sustainable Infrastructural Development in Lagos Metropolis: Prospects and Challenges. *Research and Science Today*, 1, 25–40. www.rstjournal.com

Osei-Kyei, R., Chan, A. P. C., Javed, A. A., & Ameyaw, E. E. (2017). Critical success criteria for public-private partnership projects: international experts' opinion. *International Journal of Strategic Property Management*, 21(1), 87–100. https://doi.org/10.3846/1648715X.2016.1246388

Pallant, J. (2005). SPSS Survival Manual Second Edition. United Kingdom: Open University Press

Robert, O. K., Dansoh, A., & Ofori-Kuragu, J. K. (2014). Reasons for adopting Public-Private Partnership (PPP) for construction projects in Ghana. *International Journal of Construction Management*, 14(4), 227–238. https://doi.org/10.1080/15623599.2014.967925

Sarmento, J. M., & Renneboog, L. (2021). Renegotiating public-private partnerships. *Journal of Multinational Financial Management*, 59, 100661. https://doi.org/10.1016/j.mulfin.2020.100661

Tshehla, M. F. (2018). Constraints for successful implementation of Public Private Partnership (PPP) for tourism infrastructure projects. *African Journal of Hospitality, Tourism and Leisure*, 7(4), 1–10.

Wang, H., Xiong, W., Wu, G., & Zhu, D. (2018). Public – private partnership in Public Administration discipline: a literature review Public – private partnership in Public Administration. *Public Management Review*, 20(2), 293–316. https://doi.org/10.1080/14719037.2017.1313445

Warnock, V. C., & Warnock, F. E. (2008). Markets and housing finance. *Journal of Housing Economics*, 17(3), 239–251. https://doi.org/10.1016/j.jhe.2008.03.001

Wu, Y., Li, L., Xu, R., Chen, K., Hu, Y., & Lin, X. (2017). Risk assessment in straw-based power generation public-private partnership projects in China: A fuzzy synthetic evaluation analysis. *Journal of Cleaner Production*, 161, 977–990. https://doi.org/10.1016/j.jclepro.2017.06.008

Yakubu, S. N., Anigbogu, N. A., & Daniel, M. M. (2016). An Assessment of Public Private Partnerships for Housing Projects in Bauchi State, North Eastern Nigeria. *International Journal of Regional Development*, 4(1), 35. https://doi.org/10.5296/ijrd.v4i1.9933

Zhang, X. Q., & Nations, U. (2020). Public-Private Partnerships in Housing and Urban Development (Issue January 2011).