

## **Effect of Public Private Partnerships on Delivery of Affordable Housing in Nigeria**

**Owotemu Abel Eseoghene<sup>a</sup>, Dr. Cross Ogohi Daniel<sup>b</sup>, Prof. Hadija Saidu Abubakar<sup>c</sup>**

<sup>a</sup> Department of Business Administration, Nile University of Nigeria, Abuja.

<sup>b</sup> Department of Business Administration, Nile University of Nigeria, Abuja

<sup>c</sup> Department of Business Administration, Nile University of Nigeria, Abuja

### **Abstract**

Public Private Partnership as a practice is making its impact on the Nigerian landscape. The growth of Public private partnerships is linked to the insufficient funds available to government for financing numerous development projects (including Housing) as well as governments poor risk management capacity. The noted challenges to government financing and its impact on the nation's development, has increased the prospects of Public Private Partnerships as an alternative to delivery of infrastructure and housing. The study investigated the Effect of Public Private Partnerships on Delivery of Affordable Housing in Nigeria. Also, other objectives include; examining the impact of management contracts on the delivery of affordable housing in Nigeria, to identify the effect of Joint venture on the delivery of affordable housing in Nigeria. The researcher adopted the survey research design and structured questionnaire was used as instrument for data collection. Data analysis was committed to descriptive statistics of mean and percentages as well as correlation and regression analysis. The results showed that there is significant impact of management contracts on the delivery of affordable housing in Nigeria, there is positive effect of joint venture on the delivery of affordable housing in Nigeria. The study concludes that for public private partnerships to prosper and achieve these objectives, any partnership must establish metrics for success, be able to quantify and track their accomplishments, and spot and address emerging problems. It was recommended that the government must assume the responsibility to ensure that appropriate and affordable infrastructure services are provided to all citizens. It was also recommended that the Government adopts and establishes a Viability Gap funding framework and programme to attract private sector participation and alternative and impact sources of funding to facilitate affordability and enable the identification, development and successful execution of Public Private Partnership Infrastructure and Affordable Housing Projects.

Keywords: Management contracts, Joint venture, Public Private Partnership, delivery, affordable housing

### **1. Introduction**

Practically it has been proven that the efficient provision of socio-economic services for the citizens of a country could be done through the application of Public Private Partnership models. This would facilitate enormously achieving macro level objectives in any country, namely increase in economic

growth, acceleration of development and reduction of poverty etc. Developed countries are mostly adopting this approach in improving their socio-economic infrastructure and presently the developing countries have also paid ample attention in this regard (Kadiri, 2018).

Housing as a basic human need falls into this category of services that governments across the world have had challenges in providing. In view of this background, Nigeria's housing need underscores the gravity of involving private finance initiatives in meeting the country's housing challenges.

According to the United Nations and the World Bank (2019), Housing is an essential need that helps individuals attain self-actualization in line with Maslow's Hierarchy of Needs. Housing features prominently alongside basic needs, like food and clothing and as such its importance cannot be overemphasized. The evolution of housing as a strategic invention and tool also marks humankind's evolution in management, social stratification and creation of value as marked by the progression of leaving in rudimentary dwellings before learning to build improved shelter for protection from the vagaries of socio-environmental conditions including the desire to achieve solitude. According to Izuwah (2019) and Woetzel et al (2018), these shelters evolved over time from basic wood and brick structures into standalone houses and eventually into the modern-day architectural wonders of today.

The Centre for Affordable Housing Finance (2019) and Oosterveer (2019) have noted that Shortage of Housing is a global problem that only differs in relation to population and jurisdiction. As far as housing and Infrastructure provision goes, Nigeria has two main levels of intervention, the private sector, which is driven by economic indices, and the public sector, which is driven by government interventions targeted at providing mass housing for low- and middle-income families that typically are unable to afford housing based on their income.

Given the backdrop of Nigeria's challenging macroeconomic environment, UNCTAD (2019) has noted that Nigeria's administrative experience in recent times has consisted of an overdependence on Government earnings from oil and foreign borrowings as the major source of finance (evident in the growing fiscal deficit, interest rate volatility and social instability that ensues occasionally with implications for poor infrastructural development and slow economic growth and development).

According to Dominic et al (2016), Public Private Partnership as a practice is making its impact on the Nigerian landscape. The growth of Public private partnerships is linked to the insufficient funds available to government for financing numerous development projects (including Housing) as well as governments poor risk management capacity. The noted challenges to government financing and its impact on the nation's development, has increased the prospects of Public Private Partnerships as an alternative to delivery of infrastructure and housing.

This is important as the drive towards Public Private Partnerships connotes the willingness of capital in private hands to be invested in solving major socio-economic challenges like housing. Hence, it is obvious that Nigeria has not been able to deliver and implement Public and Private Partnerships (PPP). This is being achieved via the following specific objectives:

- i. To examine the impact of management contracts on the delivery of affordable housing in Nigeria.
- ii. To identify the effect of Joint venture on the delivery of affordable housing in Nigeria

## **2. Literature Review**

### **Concept of Public Private Partnerships**

Dominic et al., (2016) define public private partnerships as “a long-term contract, to which private sector party often agrees with a public entity to design and build, expand, or upgrade the public sector facilities; take up significant monetary, technical, and operational risks; receive a monetary benefit during the life of the contract from users or the public sector, or from a combination of the two; and usually return the facility to public ownership at contract closure”.

Kadiri (2018) viewed PPPs as long-term contracts for the support and organization of all stakeholder interests and project processes throughout the lifespan of a developmental project. This implies that effective collaborations cannot take place in short- term contracts and PPP interventions would only flourish in environments with synchronized operations and well governed organizational structures.

Consequently, effective PPPs enable accessibility to key resources that may be practically unavailable or inadequate to certain partners to deliver a public service mandate (Alinaitwe and Ayesiga, 2013). However, critics of PPPs argue that, though governments recognise the need for mutual commitment and cooperation in their PPP policy documents, in practice, PPPs are always transformed into ‘contracting out schemes’ since private partners are rarely allowed to innovate beyond the explicit contract provisions Alinaitwe and Ayesiga (2013).

In summary, the common elements that define PPPs are public and private sector (inter-organizational) interactions, risk and responsibility sharing or shifting, competitive dialogue, bundling of construction and operation, partnership based long-term contracts in a project setting, output and outcome based specifications that encourage innovation, institutional systems and organizational processes, service delivery objectives/purpose, payment mechanism (through users and government), and developing public facilities or providing public services through private sector financing.

The basic idea of PPP in housing is that the government should play a promoting role by providing an environment for the private sector to participate in the actual provision and management of housing and social infrastructure.

The main goal of the supportive approach via government is to increase the efficiency and effectiveness of the housing sector by allowing the public sector to focus on providing legal, regulatory and funding frameworks and support to ensure that private sector organizations participate effectively in actual construction and management. This approach aims to address the housing needs of the formal and informal sectors, as research shows that previous PPP endeavors were concentrated in the formal sector and while the key needs remain in the informal sector.

### **Management Contracts**

A management contract is a contract governing a public-private partnership (PPP) agreement. The management contract extends the services to be outsourced to include part or all of the management and operation of public services (i.e., utilities, hospitals, port authorities, etc.). Mostly, the private sector participation is obtained through this method to get the services. Under this method, the government institutions undertake their responsibility in providing the relevant service by continuously investing in the same and the private sector gets involved by way of a short term or long-term

contractual agreements only for the implementation of providing and maintaining such services (Infrastructure Concession Regulatory Commission, 2012)

Although the ultimate obligation to provide services is still in the public sector, daily management control and authority are still assigned to private partners or contractors. In most cases, the private partner provides working capital but not investment capital. Management contracts are often for specific tasks and inputs, rather than output-oriented (World Bank, 2018).

A predetermined rate of payment is made to the private sector for labor and other anticipated operating costs. In order to incentivize performance improvement, additional costs were paid to contractors to achieve pre-specified goals. Alternatively, a portion of the profit can be paid to the management contractor. The public sector's obligation to retain major capital investments, especially those related to the expansion or substantial improvement of the system. Contracts can specify discrete activities funded by the private sector, and they usually interact with customers. The public sector is however responsible for determining tariffs. Management contracts usually upgrades the company's financial systems while management decisions about schedules may be decided on purely commercial terms as per World Bank (2018).

### **Joint Ventures**

A joint venture refers to a partnership in which public and private sector partners pool their resources, finances and expertise under joint management to incentivize long-term growth and mutual benefits. The level of ownership of the shares will vary, depending on whether the public sector is trying to get the project off the balance sheet, or whether the public sector wants to retain management control of the utility company.

However, even if the government transfers most of the shares in the entity to the private sector, there are ways to allow the government to control and even have veto power over certain management issues. For strategic reasons, the public sector will usually (at least initially) maintain control of the entity, especially if the joint venture company owns assets. However, the private sector will want to ensure that it can manage entities and will therefore need to have veto power or weighted voting power on sensitive matters (World Bank, 2019).

In a joint venture, the public sector takes the position of regulator, as well as being a shareholder in PPP operating company. From this position, it may share the profits of the operating company and help ensure broad political acceptance from stakeholders of the project. Private sector partners are usually mainly responsible for performing daily management operations.

In joint ventures, partners in the public and private sectors must cooperate from the earliest stage. Institutional tools (sometimes called "shadow companies") or "project development entities" are usually formed during the pre-investment or development phase of the project.

This tool provides a forum for direct collaborative dialogue between public and private sector partners when formulating the final project. In a more basic form, this can be a formal working group. Several projects have formed joint ventures, dedicated to the development of projects at this initial stage, Liang et al (2018).

At its best, joint ventures remain an effective means to take advantage of the unique advantages that emanate from the public and private sectors and provide the private sector with a tool that can help them provide public services at a lower cost without compromising quality or accessibility. In the joint venture model, partners in the public and private sectors accept the idea of sharing risks and mutual rewards; everyone must be willing to make a quantifiable contribution to project development and implementation.

For a joint venture PPP to succeed, the goals of the public and private sectors need not be the same. They must only be compatible and lead to common or shared results. For example, one partner may be interested in financial returns and another may be interested in improving customer service, but they all have the common goal of creating a profitable and sustainable venture.

The government must assume the responsibility to ensure that appropriate and affordable infrastructure services are provided to all citizens. Whether they assume the responsibilities of providers, partners or regulators depends on government needs, constraints and capabilities, Owolabi et al (2019) and Akintoye & Kumaraswamy (2016).

### **Why PPP Could be an Effective Tool for Affordable Housing**

For the public sector seeking to increase the supply of affordable housing, partnerships with private sector organizations have the potential to increase the resources, funding, and expertise available to the project and enable the project to reach more target families. Although research on this topic is limited, there are many reasons to believe that partnerships provide a way forward for the provision and management of affordable housing, (Bielenberg et al., 2016 and Chan, 2018). Partnerships may not always be the solution of choice, but alternatives worth considering that can help address affordable housing needs. The following explains the basic principles of using PPP as a project delivery mechanism.

#### **a) Increase in Efficiency Gains**

Efficiency improvement is the main source of sustainable public savings, and therefore the main goal and reason for PPP, Clegg (2018). PPP can improve the efficiency of affordable housing by bundling maintenance and operation with the construction of housing projects.

Since private partners are responsible for the construction, operation and maintenance of the project, the incentives for sustainable construction, efficient maintenance and operation are consistent.

PPP can also provide a strong incentive to complete the project as soon as possible, because if users can be charged early, profits will increase. Under traditional public supply conditions, there is usually no (or weaker) incentives, International Monetary Fund (2019). Most governments make PPP decisions based on higher efficiency.

The main driving force for improving efficiency is the transfer of risk to the private sector, the long-term nature of contracts, incentive structures and performance-based payments, and output-oriented service specifications.

In addition, competition among bidders (including feedback) and negotiation in the procurement process, innovation and management skills in the private sector, and reduction of administrative costs,

Kadiri (2018), and Kavishe & Chileshe (2020). By integrating operations into partnerships, design, material and construction costs, and operational considerations can be further optimized, which can often greatly reduce procurement and life cycle costs.

#### **b) Improved Sources of Financing**

The development of affordable housing is very capital intensive. If the government is unwilling or unable to increase public debt to meet investment needs, the private sector can provide capital through PPP arrangements without distorting or impacting government's budgetary plans.

Even if the public sector is willing to increase debt to finance new facilities, private sector financing may still be beneficial, depending on the conditions under which the project can be financed (World Bank PPI Database, 2018).

The main driving force of PPP is the gap between the demand for affordable housing development and the government's ability to meet its funding needs. In other words, the increased use of PPPs worldwide stems from the desire to enhance public funding capabilities. Usually due to lack of funds, public sector participation in PPP is promoted (Winch et al., 2012).

The total cost of financing, construction and operation of private sector partners may be more cost-effective than the sum of public debt and private partner construction and operation. This can be tested by a competitive bidding process, which requires the private sector to provide both financing and non-financing advice, as per World Bank PPI Database (2018).

Therefore, by mobilizing funds from the private sector, public-private partnership arrangements have become a way to solve the funding problem.

#### **c) Improved and Efficient Performance**

Project performance in PPP's is critical due to the inclusion of economic incentives in the terms of most PPP arrangements as incentives to project contractors, equity investors, and institutional lenders.

As part of the incentives for timely delivery most PPP arrangements adopt the "no service, no payment" principle in dealing with private sector contractors (even if the private partner may have to bear additional costs as part of the delivery process).

In practice, project finance, technical and due diligence are conducted before PPP contract execution, with the focus on ensuring the best conditions for the delivery of the infrastructure on time. Also, the hallmarks of PPP's include specifying the structure and a set of clearly defined and agreed timetables, that provides a clear mechanism for change management and handling delays, McNelis (2015) and World Bank PPI Database (2018).

#### **d) Early delivery of Projects**

Public Private Partnerships typical requires the application of privately sourced funds while acting as an important source of supplementary capital for budget expenditures by government. This can help speed up investment plans.

In addition to its long-term commitments, that government entities are required to make under the PPP contracts, the early delivery of projects under PPP can help focus the public sector's attention on more reasonable long-term capital plans. In turn, this can enable the private sector to plan and implement more consistent infrastructure plans, McNelis (2016) and World Bank PPI Database (2018).

**e) As a Source of Innovation**

The motivation to provide innovative solutions in the provision of public services is an important benefit of PPP and has been a money-driven value in several PPP programs. This may take the form of housing design innovation and/or service provision (Kavishe et al., 2018 and Kadiri, 2018).

The public sector usually prefers to use methods that have worked in the past or previously selected solutions because this reduces risks. For private partners in PPP, including innovation in bidding often makes the difference between securing and losing long-term contracts.

In this case, innovation will be greatly encouraged. As a result, public-private partnerships are more likely to produce new ways to provide public services and ensure value for money (McNelis, 2015 and World Bank PPI Database, 2018). As per Kjorstad (2016), Public Private Partnerships experts generally agree that the private sector is generally more capable than government agencies to develop innovative project design and construction technologies. To some extent, this may be due to the expertise that private partners can bring to the project.

Greater design and construction innovation may bring a variety of potential benefits, including reducing project costs, improving project quality, shortening construction schedules and enhancing project functions, Kjorstad (2016).

Compared with services provided by the public sector, private sector participation with innovation and management skills can increase productivity and operational efficiency, improve service quality, and lower service prices, World Bank PPI Database (2018).

**f) PPP as means of Protecting Public Interest**

Under Public Private Partnership structures, the public sector retains asset ownership and can implement the provision of affordable housing by utilizing contracts to control prices as well as other variables. According to Olugbenga et al (2019), this provides a single point of contact for public partners to solve the problem of affordable housing delivery and strengthen control of the delivery process as well as reduce risk and complexity, Sheppard & Beck (2016).

Public partners do not have to make multiple decisions and coordinate multiple aspects of management (labor, technology, budget, etc.) to solve problems, public partners only need to inform the private partner of the problem, and then monitor the behavior of the private partner to ensure compliance or resolution (Oosterveer, 2019).

According to Vallee (2018), to conduct due diligence, a detailed PPP contract will contain provisions for regular monitoring of the compliance of private partners. By providing a feedback loop between goals and performance that is not shrouded in conflicts of interest, the monitoring and evaluation mechanism helps to improve control.

This mechanism is not necessarily established in the public housing system, under the erroneous assumption that public authorities have the expertise to monitor themselves. As a final choice and proof of final control, if the private sector partner fails to fulfill its contractual obligations and breaches the contract, the contract can be terminated, and the old service provider will be replaced by a new service provider, Oshodi (2018) and Sheppard & Beck (2016).

**g) Promotes Transparency and Accountability**

For a long time, accountability has been the basis for successful public management, the International Monetary Fund (2019), UNCTAD (2018) and Schmidt (2017) have all noted in their studies that "the performance of a government depends only on its ability to manage tools and hold users accountable" and PPP as a tool enables governments to create clear responsibilities and remedies for accountability issues through public private partnership agreements.

For public sector operations, when problems arise or need to be improved, it is difficult to allocate responsibilities among the interconnected political, government, regulatory, financial, and operational elements of service provision.

As regarding the execution and delivery of PPP's, the division of responsibilities between public and private partners is clearly defined. Development of standards for reporting and performance monitoring. PPP contracts typically involve a clear commitment to a specific level of performance, the basis for monitoring, the chain of command that can be followed in the event of problems, and an understanding of the consequences of poor performance, Clegg (2018), Charles & Guna (2019) and Muhammad & Johar (2019).

**Theoretical Anchor**

**New public service theory**

New public service theory is considered the most suitable for the study due to the fact that the theory makes relevance to public service provision on complying with public interests through collaborative relationships, shared responsibilities and common understanding of public issues and active involvement of citizens in government activities (Robinson, 2015). New public service practices ensure that PPPs meet the collective public interests, since public servants are given the mandate to develop innovative ways of consolidating civilian participation in providing solutions to community challenges.

The bureaucrats are expected to pursue the implementation of PPP policy through brokering, negotiation and resolving complex service delivery problems in partnership with the citizens. Furthermore, the accountability of public servants extends beyond elected officials to incorporate other public sector stakeholders (Robinson, 2015). There is transparency in New Public Service (NPS) Theory as the key role of government is to provide an environment in which PPPs can address society's service delivery needs through dialogue, open, flexible, accountable, accessible, and transparent means and structures.



### 3. Methodology

In this paper, the researcher employs a cross-sectional design. The design is believed to be most suitable since there are no real experiments carried out with human beings who are the study subjects in this case. The design suitability is also seen in the fact that it involved taking a sample of elements from a population of interest which is measured at a single point in time. The survey instruments such as questionnaire and interview were designed in a way that meaningful results could be achieved.

The target population for this study consists of 10 selected public and private sector institutions. The researcher selects 10 public and private sector institution from the nation's capital, Abuja, Nigeria by Judgmental sampling technique. The organizations identified were those that have been into PPP for many years.

The research instrument used for this study is a structured questionnaire. In the design of the questionnaire, four-point Likert scale format was used. The questionnaire was distributed to the respondent of the selected sectors.

The data was summarized and analyzed using exploratory statistical methods. Moreover, information and opinion that was reported by respondents through close-ended questions questionnaires, structured interview and document analysis were considered in data interpretation and analysis by supplementing those data gained through questionnaires.

Data was presented on tables and values expressed in frequencies and percentages. The researcher used Pearson correlation and multiple regression analysis to test the relationship among variables through the help of statistical package for social science (SPSS) version 21.0.

### 4. Results and Findings

This section deals with data presentation, analysis and interpretation. It covers analysis of questionnaire distribution, percentages and tables, test of hypotheses, discussion of findings and summary of the chapter.

#### Overview of Data Collection

**Table 4.1 Questionnaire Distribution and Retrieval**

Questionnaire	Details	Percentage (%)
Retrieved and usable	280	78
Not Retrieved/Retrieved but not Usable	80	22
<b>Total</b>	<b>360</b>	<b>100</b>

Source: Field Survey Data, 2020

The table above indicates that among the sum 360 copies of questionnaire administered to the unit of analysis, only 80 representing 22% were missing (*invalid*), while 280 copies were retrieved and valid for analysis representing 78% of the total copies distributed. See Chart below:

**Analysis of the Questionnaire****Univariate Analysis of Public Private Partnership (PPP)****Table 2: Frequencies on Item of “management contracts”**

S/N	Items	SA (5)	A (4)	U (3)	D (2)	SD (1)	Total	Mean	Remark
1	management contract extends the services to be outsourced	51 66.2 %	5 6.5% 20	21 27.3% 63	0 0% 0	0 0% 0	77 100% 338	4.4	Agree
2	Management contracts are often for specific tasks and inputs, rather than output-oriented	40 51.9 %	30 39.0 %	3 3.9% 9	4 5.2% 8	0 0% 0	77 100% 337	4.4	Agree
3	Management contracts have an impact on the delivery of affordable housing in Nigeria.	30 39.0 %	23 29.9 %	20 26% 60	2 2.6% 4	2 2.6% 2	77 100% 306	4.0	Agree
4	Management contracts usually upgrade the company's financial systems	27 35.1 %	15 19.5 %	5 6.5% 15	15 19.5% 30	15 19.5% 15	77 100% 255	3.3	
	<b>Total</b>	<b>148</b>	<b>73</b>	<b>49</b>	<b>21</b>	<b>17</b>	<b>308</b>	<b>4.1</b>	<b>Agree</b>
		<b>740</b>	<b>292</b>	<b>147</b>	<b>42</b>	<b>17</b>	<b>1238</b>		

*Source: Field Survey, 2021.*

Table 2 shows that the respondents agreed on each of the four items of Management contracts (i.e., mean scores greater than 3.0). The grand mean is equally greater than 3.0; indicating that management contracts have a positive link as a dimension of Public private partnerships.

**Table 3: Frequencies on Item of “Joint Venture”**

S/N	Items	SA (5)	A (4)	U (3)	D (2)	SD (1)	Total	Mean	Remark
1	In a joint venture, the public sector takes the position of regulator, as well as being a shareholder in PPP operating company	30 39% 150	18 23.4 % 72	18 23.4 % 54	11 14.3 % 22	0 0% 0	77 100% 298	3.9	Agree

effect of public private partnerships on delivery of affordable housing in nigeria

2	joint ventures, partners in the public and private sectors must cooperate from the earliest stage	40 51.9 % 200	20 26% 80	17 22.1 % 51	0 0% 0	0 0% 0	77 100% 300	3.9	Agree
3	For a joint venture PPP to succeed, the goals of the public and private sectors need not be the same.	60 77.9 % 300	9 11.7 % 36	2 2.6% 6	6 7.8% 12	0 0% 0	77 100% 354	4.6	Agree
4	joint ventures remain an effective means to take advantage of the unique advantages that emanate from the public and private sectors	40 51.9 % 200	10 13% 40	11 14,3 % 33	16 20.8 % 32	0 0% 0	77 100% 309	4.0	
	<b>Total</b>	<b>170</b>	<b>57</b>	<b>48</b>	<b>33</b>	<b>0</b>	<b>308</b>	<b>4.2</b>	<b>Agree</b>
		<b>850</b>	<b>228</b>	<b>144</b>	<b>66</b>	<b>0</b>	<b>1288</b>		

Source: Field Survey, 2020.

Table 3 shows that the respondents agreed on each of the items of Joint Ventures (i.e., mean scores greater than 3.0). The grand mean is equally greater than 3.0; indicating that Joint ventures has a positive link as a measure of public private partnership.

### Test of Hypotheses

As specified, the hypotheses were tested using the multiple regression and Pearson moment product correlation.

### Hypotheses One

H<sub>0</sub>: There is no significant impact of management contracts on the delivery of affordable housing in Nigeria.

H<sub>1</sub>: There is significant impact of management contracts on the delivery of affordable housing in Nigeria.

**Table 4: Table of Correlation between Management contracts and delivery of affordable housing in Nigeria**

### Correlations

	Management Contracts	Delivery of affordable housing in Nigeria.
--	----------------------	--

Management Contracts	Pearson Correlation Sig. (2-tailed) N	1 245 280	.293** .000 280
Delivery of affordable housing in Nigeria.	Pearson Correlation Sig. (2-tailed) N	.293 ** .000 280	1 245

\*\* . Correlation is significant at the 0.01 level (2-tailed).

According to above calculations it is observed that amount of correlation coefficient between Management contracts and delivery of affordable housing in Nigeria is equal to 29.3 percent and considering that a significant level is greater than 5%. Then we can say that there is positive relationship between management contracts and delivery of affordable housing in Nigeria

**Table 5: Regression analysis test of Management contracts and delivery of affordable housing in Nigeria**

Model Summary

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.433	.187		18.342	.000
Management contracts	.060	.057	.072	1.054	.293

a. Dependent Variable: delivery of affordable housing in Nigeria.

From the coefficients table above, the p-value was obtained to be 0.293 which is greater than 0.05 (5%). Therefore, the alternate Hypothesis “There is significant impact of management contracts on the delivery of affordable housing in Nigeria” was accepted and we can conclude that management contracts play a vital role on delivery of affordable housing in Nigeria.

In summary, based on the foregoing, majority do support Hypothesis one that management contract plays vital role on delivery of affordable housing in Nigeria. Management contract had a positive correlation with the delivery of affordable housing in Nigeria.

**Hypothesis Two**

**H<sub>0</sub>:** There is no significant effect of Joint venture on the delivery of affordable housing in Nigeria.

**H<sub>2</sub>:** There is significant effect of Joint venture on the delivery of affordable housing in Nigeria

Multiple Regression Analysis showing the relationship between Joint venture and delivery of affordable housing in Nigeria

**Table 6: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.829 <sup>a</sup>	.687	.679	.61929

a. Predictors: (Constant), joint venture

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Joint venture	95.141	3	31.714	82.691	.000 <sup>b</sup>
	Residual	43.338	74	.584		
	Total	138.479	77			

a. Dependent Variable: delivery of affordable housing in Nigeria

b. Predictors: (Constant), Joint venture

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.714	.226		3.165	.000
	Joint venture	.037	.048	.042	.765	.000
		.634	.086	.605	7.343	.000
		.111	.082	.353	1.364	.000

a. Dependent Variable: delivery of affordable housing in Nigeria

**Decision**

The result of the multiple regression of the above variables indicated  $R = 0.829$ ,  $R^2=0.687$  which is equal to 68.7% and this is the explanatory power of the model used for the study. It means that only 68.7% variation in delivery of affordable housing in Nigeria can be explained by the dimensions of independent variable (joint venture.) while the remaining 31.3% can be explained by other external quantitative and qualitative factors of the model not used for the study. It also shows a very strong positive correlation.

The beta value (i.e., 0.042, 0.605 and 0.353) shows the strength or contributions of dimensions of the predictor variable. However, joint venture had highest strength of contribution with 0.605 followed by delivery of affordable housing in Nigeria with a score of 0.353. However,  $R^2 = 0.687$  and  $PV < 0.00$ . Therefore, hypothesis two is rejected and alternative hypotheses accepted.

**5. Discussion of Finding**

Hypothesis one (1) was tested using Pearson’s product moment correlation to examine the impact of management contracts on the delivery of affordable housing in Nigeria. With a computed result ( $r = 0.682$ ;  $p < 0.05$ ). The alternate Hypothesis was accepted and the null Hypothesis was rejected resulting

in the conclusion that There is significant the impact of management contracts on the delivery of affordable housing in Nigeria.

Hypothesis two (2) was tested using Multiple Regression Analysis to identify the effect of Joint venture on the delivery of affordable housing in Nigeria. With a computed result ( $R = 0.829$ ,  $R^2=0.687$ ;  $p < 0.05$ ). The alternate Hypothesis was accepted and the null Hypothesis was rejected resulting in the conclusion that There is significant effect of Joint venture on the delivery of affordable housing in Nigeria.

The general purpose of the study was to explore the effect of public private partnerships on delivery of affordable housing in Nigeria. The concept of Public Private Partnerships takes its root from private financing initiatives aimed at providing services or solutions for which government may typically not have the budgetary allocation to cater for as part of its responsibilities toward citizens. Housing as a basic human need falls into this category of services that governments across the world have had challenges in providing. In view of this background, Nigeria's housing need underscores the gravity of involving private finance initiatives in meeting the country's housing challenges.

In summary, the common elements that define PPPs are public and private sector (inter-organizational) interactions, risk and responsibility sharing or shifting, competitive dialogue, bundling of construction and operation, partnership based long-term contracts in a project setting, output and outcome based specifications that encourage innovation, institutional systems and organizational processes, service delivery objectives/purpose, payment mechanism (through users and government), and developing public facilities or providing public services through private sector financing.

## **6. Conclusion and Recommendations**

Most developed and developing countries, and international organisations such as the World Bank and UN-Habitat, see significant potential for the use of PPPs to help overcome inadequate infrastructure and housing; however, designing and implementing PPPs remains a challenge.

Research also provides insight into the potential evaluation of partnerships by exploring the criteria by which to assess effectiveness. This understanding may ultimately lead to the significant improvements in the collaborative delivery of affordable housing. Organisations enter into partnerships for multiple reasons: to meet specific objectives such as improved efficiency or increased stability, to gain power or control over other organisations. For partnership to prosper and achieve these objectives, any partnership must establish metrics for success, be able to quantify and track their accomplishments, and spot and address emerging problems. This study draws together important issues rose in the literature and the empirical findings from the interviews, that there is a potential for successful PPP for the provision of affordable housing in Nigeria; though it is currently limited by some local constraints.

Against this background, and in order to reduce affordable housing deficit in Nigeria, there is a need to address existing constraints and prepare for future ones by focusing on: monitoring, ensuring good governance and coordination across relevant institutions and sectors and the full and meaningful participation of relevant stakeholders at appropriate levels. To complement national action and capacity, there is a need to enhance international cooperation.

Based on the findings, the researcher recommended thus:

- i. In order for PPP to be used for environmental, social and economic sustainable development, whether in the overall policy framework of the PPP or in the contracting parties at the individual project level, good governance and political will are key requirements to ensure successful management.
- ii. Moreover, collaboration is needed between federal and state governments to help establish local housing trust funds. This can stimulate the creation of local affordable housing partnerships and fuel development of locally designed affordable housing initiatives.
- iii. The government must assume the responsibility to ensure that appropriate and affordable infrastructure services are provided to all citizens. In terms of housing affordability and infrastructure, the significance varies depending on the perspective considered. The affordability of a project from a government perspective often refers to the project's ability to meet government budget constraints. Other researchers noted that from an end-user or supplier perspective, affordability refers to their ability to obtain or pay infrastructure-related charges, and this has become a particular problem for low-income groups.

### Reference

- [1] Akintoye A, Kumaraswamy M. (2016): Public private partnerships, research roadmap-report for consultation. The Netherlands: CIB General Secretariat.
- [2] Alinaitwe H, Ayesiga R. (2013): Success factors for the implementation of public-private partnerships in the construction industry in Uganda. *J Constr Develop Countries*.
- [3] Berawi, M.A. (2019), "Public-private partnership: generating mutual benefits for stakeholders", *International Journal of Technology*, Vol. 10 No. 1, pp. 1-4.
- [4] Bielenberg, A.; et al., (2016): Financing change: How to mobilize private sector financing for sustainable infrastructure. Article from McKinsey Center for Business and Environment.
- [5] Central Bank of Nigeria (2019). *Economic and Financial Review*.
- [6] Chan, A.P., Tetteh, M.O. and Nani, G. (2020), "Drivers for international construction joint ventures adoption: a systematic literature review", *International Journal of Construction Management*, pp. 1-13
- [7] Dominic, C.M., et al., (2016): A Review of Public Private Partnership on some Development Projects in Nigeria. *International Journal of Application or Innovation in Engineering & Management (IJAIEM)* Volume 4, Issue 3, March 2015 ISSN 2319 – 4847
- [8] Federal Ministry of Finance (2019). *Overview of the Nigeria Mortgage Refinance Company (NMRC)*.
- [9] Global Reporting Initiative (2018) *Facts and Figures: Global Reporting Initiative*. Archived from the original on 12 February 2018. Retrieved 11 January 2021.
- [10] Izuwah, C.K., (2019). *Unlocking the Potentials in the Housing Market through Public Private Partnerships (PPP) Investment Model*. Central Bank of Nigeria *Economic & Financial Review* Volume 57/4 December 2019
- [11] Kadiri, S. (2018): Nigeria and the lack of affordable housing. Article from Stears Business Research Publication <https://www.stearsng.com/article/nigeria-and-the-lack-of-affordable-housing>
- [12] Kavishe, N., et al., (2018): Critical success factors in public-private partnerships (PPPs) on affordable housing schemes delivery in Tanzania: A qualitative study. *Journal of Facilities Management*.
- [13] Li, Y. and Wang, X. (2018), "Risk assessment for public-private partnership projects: using a fuzzy analytic hierarchical process method and expert opinion in China", *Journal of Risk Research*, Vol. 21 No. 8, pp. 952-973, doi: 10.1080/13669877.2016.1264451.
- [14] McNelis, S. (2016): "Researching Housing in a Global Context: New Directions in Some Critical Issues" *Housing, Theory and Society*: doi:10.1080/14036096.2016.1167121.
- [15] Muhammad, Z., & Johar, F., (2019): Coping with Challenges of Public-Private Partnership (PPP) for Housing Delivery in Nigeria. *International Journal of Engineering & Technology*.

- [16] Olugbenga, T.D., et al. (2019) Unleashing the Potentials of Housing Sector in Nigeria as Perceived by Users. *International Journal of Built Environment and Sustainability*. Published by Faculty of Built Environment, Universiti Teknologi Malaysia Website: <http://www.ijbes.utm.my> IJBES 4(3)/2017.
- [17] Oosterveer, P., (2019): Is co-living an answer to the affordable housing crisis? [www.weforum.org/agenda/2019/05/co-living-answer-affordable-housing-crisis/](http://www.weforum.org/agenda/2019/05/co-living-answer-affordable-housing-crisis/) (Accessed online on 24th November 2019)
- [18] Shi, J., et al., (2019): Investment Valuation Model of Public Rental Housing PPP Project for Private Sector: A Real Option Perspective. *Sustainability Journal*, 11, 1857; doi:10.3390/su11071857 [www.mdpi.com/journal/sustainability](http://www.mdpi.com/journal/sustainability)
- [19] Woetzel, J., et al. (2018) Tackling the Worlds Affordable Housing Challenge, McKinsey Global Institute <https://www.mckinsey.com/featured-insights/urbanization/tackling-the-worlds-affordable-housing-challenge> (Accessed online 25th September 2019).
- [20] World Bank (2019): World Development Report. Development and Climate Change. Washington, DC: World Bank. Accessed June 14, 2020
- [21] World Bank PPI Database (2018): Private participation in infrastructure database. Available from: <https://ppi.worldbank.org/customer-query>.
- [22] World Bank Group (2018): Atlas of Sustainable development Goals. Research Publication Under World Development Indicators by the World Bank Group ([www.data.worldbank.org/wdi/sdgs](http://www.data.worldbank.org/wdi/sdgs))
- [23] World Bank Institute (2013) “Disclosure of Project and Contract Information in Public-Private Partnerships” Washington DC: World Bank Institute.
- [24] World Economic Forum (2013) “Strategic Infrastructure: Steps to Prepare and Accelerate Public Private Partnerships” May Edition, Boston Consulting Group
- [25] World Bank. (2019). Nigeria Digital Economy Diagnostic Report. The World Bank Group, Washington, DC.
- [26] Yamane, T., (1967) *Statistics an Introductory Analysis*. 2nd Edition, New York, Harper and Row.