



## Improving the implementation of public private partnership (PPP) housing projects in bauchi metropolis, Nigeria

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### Abstract

Improving the implementation of Public Private Partnership (PPP) Housing Projects has being a concern to many stakeholders. This is due to many challenges that hindered the successful implementation of the scheme. This study aim to identify and assess factors for improving the Implementation of Public Private Partnership (PPP) Housing Projects. The study adopted research strategies which is descriptive and explorative research design. The area of the study is Bauchi state located in the North Eastern part of Nigeria. The composition of the study population are the principal actors of PPP housing project in the study area. The study identified seventy five (75) construction professionals stakeholders in PPP housing projects from previous study and documented records. Sixty three (63) Questionnaires were distributed. The analysis of the acquired data through questionnaire distribution was processed using SPSS software version 20. The result of the study shows that a well organised public sector, comprehensive feasibility and viability study, effective procurement process, selction of strong and reliable private partner, government guarantee and sound financial plan are the most significant ways to consider for improving the successful implementation of PPP housing projects. Therefore, the study recommend that Government and other stakeholders should give necessary attention to those factors for successful implementation of the scheme.

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**Key words:** Improving, Implementation, Public, Private, Partnership Housing

### 1. Introduction

Ogunsanmi (2013) defined Critical Success Factors (CSFs) in Public Private Partnership (PPP) projects as those factors necessary for successful implementation of the projects. Several study were carried out to establish factor that will improve successful implementation of PPP housing projects. Therefore, this study will identify those factors from relevant previous study and assess their application in improving the successful implementation of the scheme in Bauchi Metopolis, Nigeria

#### 1.1 Comprehensive feasibility and viability study

Ogunsanmi (2013) observed that comprehensive feasibility study preceeding the project implementation can detect several issues about the project feasibility and suggest several solutions to make the project viable. Feasibility study of a

proposed project is conducted to check the suitability of the project location and the availability of technical and material resources requirements of a project. viability study deals with the return on the investment. Some researchers suggest that government should conduct a comprehensive feasibility study to examine the applicability of the PPP approach to a specific infrastructure project before it is implemented (Hoon, *et., al*, 2009).

#### 1.2 Appropriate Risk Identification and Allocation Via Reliable Contractual Agreement

Hoon, *et., al*, (2009) found in Berkeley, Humphreys and Thomas (1992) that the identification of risks is the first step for managing them appropriately. Researchers recommend that risks that are related to the project environment should be retained by the government, while the risks that are directly related to the project should be allocated to the private sector

and risks that are beyond the control of both the public and private sectors should be shared (Hoon, et., al, 2009).

### 1.3 Effective Procurement process

The principal hallmarks of proficient public procurement are: Economy, Efficiency, Fairness, Reliability, Transparency, Accountability and Ethical Standards (Public Procurement act, 2007). The government should standardize its PPP procurement process and provide general PPP guidelines and standardized tender documents and model contracts for a range of infrastructure sectors (Garvin 2007, Hoon, et. al, 2009). Effective and efficient procurement play a significant role in the selection of competent private partner as well as the overall success of the implementation of PPP projects.

### 1.4 Selection of Strong and Reliable Private Partner

Hoon, et., al, 2009 recommend that a financially strong, technically competent, and managerially outstanding concessionaire is required for the success of a PPP project. In addition to that, concessionaires with good consortium and adequate financial capability should be engaged for future PPP procurements (Ogunsanmi, 2013).

### 1.5 Well Organised Public Sector

The New Nigerian Housing Urban Development Policy NNHUDP, (2002) in Nigeria recommend the establishment of ministry of land and housing at federal and state level as part of the preparation and organisation of public sector for PPP housing project. Ogunsanmi, (2013) added that dedicated PPP units at various government levels should be established to booster the effective implementation of PPP projects. Musa and Usman (2013) also suggest that the activities of these ministries should be strengthened by establishing PPP steering unit that will be responsible for the general oversight of PPP arrangement. It is the responsibility of government to organise the public sector for smooth implementation of PPP projects.

### 1.6 Sound Financial Plan

Construction project require intensive capital for it successful implementation, as such Hoon, et., al, (2009) observed that a sound financial plan is necessary for PPP projects. Ibem, (2013) also suggest that there is need to increase capital plan for PPP project through pension contribution scheme in Nigeria. Ogunsanmi (2013) concluded that for Nigeria and other developing countries to move to stage two of PPP maturity model for infrastructure provision, it is recommended that leverage for funds through capital market should be undertaken.

### 1.7 Government Guarantee

Government guarantee as one of the ways of Government

support to secure minimum guaranteed revenue from the government is a way for the private sector to mitigate market demand risk (Hoon, et., al, 2009). Ogunsanmi (2013) found that Government guarantee is one of the critical success factor for the implementation of PPP projects.

### 1.8 Commitment Responsibility of Partners

Ogunsanmi (2013) affirmed that commitment of responsibilities of partners is also one of the critical success factor for the implementation of PPP projects. Ibem (2010) found that the basic features of PPPs are a collaboration among public, private and third sectors in joint decision-making and resource commitment. The Commitment of responsibilities of partners as enshrined in the MOU is an important factor to consider in the implementation of PPP project. Therefore, any failure of commitment of responsibility by a party may affect the success of the project and a bridge to contract agreement.

### 1.9 Favourable Investment Environment

Hoon, et., al, (2009) concluded that a PPP project cannot be successfully implemented unless government establishes adequate legal framework and creates a favourable investment environment that will attract investors.

### 1.10 Good Governance

A dedicated and conversant public client will be able to synchronize with the private parties much more effectively and act as an observing authority to certify that the private consortium acts according to the agreement (Reetigal et., al. 2015). Albert, et., al. (2010) found that judicious government control can cover both good governance and government involvement. Mohammed, (2011) observed that good governance and well organised agency for the procurement processes are also significantly improving the effectiveness of the procurement process.

### 1.11 Thorough and Realistic Cost Benefit Assessment

Li, et., al. (2005) suggest that before a project is subjected to the procurement process, government should ensure that all the potential options that are beneficial to the government and end-users are considered as part of the complete project feasibility study. Cost benefit assessment estimate the strength and weakness of various alternatives of a project.

### 1.12 Transparent and Sound Regulatory Framework

Dahiru, (2012) states that the purpose of the legal sound regulatory framework is to provide the requisite regulatory framework within which Government can effectively enter into partnership with private sector for financing, construction, operation and maintenance of infrastructure projects. Ogunsanmi, (2013) recommends that public agencies should

develop a viable and robust legal and regulatory framework for PPP implementation. Hoon, *et., al.*, (2009) also concluded that PPP project cannot be successfully implemented unless the government establishes an adequate legal framework.

### 1.13 Public Awareness Campaign

Government should undertake sufficient public awareness campaign on the need to pay for the use of PPP infrastructure projects on concession, thorough public awareness campaign on the need for payment can enable concessionaire repay their loan facilities as well as obtain their marginal profit on such investments (Ogunsanmi, 2013).

### 1.14 Attractive Financial Package

It has been found that attractive financial package should be base on the principle of low capital cost, low operation and maintenance cost, credibility, minimal financial risk to the government and minimal reliance on debt servicing capability of project cashflows (Qiao *et., al.* 2001).

### 1.15 Sound Economic Policy

Sound economic policy affects successful implementation of PPP project in several ways. Government or public agency needs to adopt economic policies that will assure stable and growing economic environment for private sector operation and participation in PPP projects (Ogunsanmi 2013).

### 1.16 Available Financial Market

Mohammed, (2011) states that one of the critical success factor for financing the PPP is availability of well-established financial markets. In addition, Ogunsanmi (2013) also found that the availability of financial market is one of the critical success factor for the implementation of PPP projects.

## 2. Methodology

This study adopted research strategies which is descriptive and explorative research design. Descripve survey used closed ended questionnaire to collect data for the study while explorative design review the relevant literature. The area of the study is Bauchi state located in the North Eastern part of Nigeria. The composition of the study population are the principal actors of PPP housing project in the study area (Ibem, 2010). The study identified seventy five (75) construction professionals stakeholders in Bauchi PPP housing projects from previous study and documented records of the private sectors and public agencies that are involve in the scheme (Ibem, (2010). According to the Krejcie and Morgan (1970) table of determind sample size, a population of seventy five (75) has sixty three (63) sample size. Therefore, sixty three (63) Questionnaires were distributed to the core building

professionals (Architect, Builders, Quantity surveyors and Estate valuers). The analysis of the acquired data through questionnaire distribution was processed using the SPSS software version 20.

## 3. Results and Discussion

### 3.1 Response to Questionnaires

Sixty three (63) Questionnaires were administered to construction professional stakeholders of PPP housing projects in Bauchi state. Fourty two (42) valid Questionnaires were successfully retrieved, which represent 67% response rate.

### 3.2 Demographic Profiles of Respondents

The results of the demographic profile information of the respondents were collected through the questionnaire survey. Results of the analysis were presented in Table 1, Table 2 and Table 3 respective.

#### 3.2.1 Respondents Professional Background

Table 1 present the result of the professional background of the respondents. It shows that there are 10 Architect (23.8%), 8 Builder (19.0%), 9 Estate valuer (21.4%) and 15 Quantity Surveyor (35.7%) respectively

Table 1: Respondents professional background

	Frequency	Percent	Valid Percent	Cumulative Percent
Architect	10	23.8	23.8	23.8
Builder	8	19	19	42.9
Estate Valuer	9	21.4	21.4	64.3
Quantity surveyor	15	35.7	35.7	100
Total	42	100	100	

The result of the survey shows that the respondents' background supported in the survey are all professionals but Quantity Surveyors participated more than any other professionals, follows by Architects and the least are Estate Valuers.

#### 3.2.2 Respondents' Academic Qualification

Table 2 shows the academic qualification of the respondents. B.Sc/B.Tech/HND has the highest frequency of 27 (64.3%) then follows by M.Sc/M.Tech with frequency of 8 (19%), Phd 2 (4.8%) and others 2 (4.8%) respectively.

The findings shows that there are more professionals with first degree than other academic qualifications. It is expected that they possessed the minimum knowledge to contribute to the success of this research.

Table 2: Academic qualification of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Phd	2	4.8	4.8	4.8
Msc/Mtech	8	19	19	23.8
Bsc/B.Tech/ HND	27	64.3	64.3	88.1
OND	3	7.1	7.1	95.2
Others	2	4.8	4.8	100
Total	42	100	100	

### 3.2.3 Respondents' Years of Experience in Construction Industry

Table 3 represent the respondents years of experience in construction industry. It reveals that respondents with 6-10 years of experience have the highest frequency of 18 (42.9%), then follows by a group of respondent with over 20years and 2-5years of experience 9 (21.4%). lastly, the respondents with less than 2years of experience have the least frequency of 2 (4.8%).

Table 3: Respondents' years of experience in construction industry

	Frequency	Percent	Valid Percent	Cumulative Percent
Below 2years	2	4.8	4.8	4.8
2 - 5 years	9	21.4	21.4	26.2
6 -10 years	18	42.9	42.9	69
11 -20 years	4	9.5	9.5	78.6
Above 20years	9	21.4	21.4	100
Total	42	100	100	

The result shows that most of the respondents have the minnum 5year of experience in the construction industry. It is expected that they will give a valid information for the achievement of the aim and objectives of this research.

Table 4: Ranking of ways for improving Bauchi PPP housing projects.

Factors	N	Sum	Mean	Std. Dev.	Ranking
Well organised public sector.	42	186	4.43	1.129	1
Comprehensive feasibility and viability study.	42	183	4.36	.577	2
Effective Procurement process	42	183	4.36	.656	2
Selection of strong and reliable private partner.	42	181	4.31	1.047	4
Government guarantee	42	176	4.19	.671	5
Sound financial plan.	42	176	4.19	.671	5
Favourable investment environment	42	175	4.17	.660	7
Thorough and realistic cost benefit assessment	42	170	4.05	.731	8
Good governance	42	169	4.02	.975	9
Sound economic policy	42	166	3.95	.909	10
Public awareness campaign	42	165	3.93	.894	11
Attractive financial package	42	163	3.88	1.152	12
Commitment responsibility of partners	42	163	3.88	1.214	12
Appropriate risk identification and allocation via reliable contractual agreement	42	162	3.86	.814	14
Available financial market	42	162	3.86	1.241	14
Transparent and sound regulatory framework	42	160	3.81	.994	16

The results were arranged from the highest mean to the lowest. Based on the respondents' responses, well organized public sector, comprehensive feasibility and viability study,

### 3.3 Ranking of Ways for Improving the Implementation of Bauchi PPP Housing Projects

Table 4 present the result of Mean and Ranking of ways for improving the implementation of Bauchi PPP housing projects. The results were arranged from the highest mean to the lowest and were ranked accordingly. Well organized public sector is the most significant factor which was ranked number 1 with a mean of 4.43. Comprehensive feasibility and viability study was ranked 2 with a mean of 4.36 and Effective procurement process was also ranked 2 with a mean of 4.36, thus, another important factor to consider for improving the PPP housing projects. Selection of strong and reliable private partner with a mean of 4.31 was ranked 4, government guarantee with mean of 4.19 was ranked 5 and sound financial plan with a mean of 4.19 was also ranked 5. Moreover, in the middle of the table, favorable investment environment was ranked 7 with a mean of 4.17, thorough and realistic cost benefit assessment was ranked 8 with a mean of 4.05, good governance was ranked 9 with a mean of 4.02 and sound economic policy with mean of 3.95 was ranked 10 among the factors for improving the implementation of Bauchi PPP housing projects. Furthermore, public awareness campaign with a mean of 3.93 was ranked 11, attractive financial package was ranked 12 with a mean of 3.88, commitment responsibility of partners with a mean of 3.88 was also ranked 12 respectively. In addition, appropriate risk identification and allocation via reliable contractual agreement and available financial market each having a mean of 3.86 were ranked 14 among the factors for improving the implementation of PPP housing projects. Lastly, transparent and sound regulatory framework with a mean of 3.81 was ranked 16 and last in the table.

effective procurement process, Selection of strong and reliable private partner and government guarantee are the top five (5) ranked and most important ways for improving the

implementation of PPP housing projects. Hence, this result is in line with Ogunsanmi, (2013), who found that effective procurements, government guarantee, comprehensive feasibility and viability study and effective procurement process are among the most important critical success factors for the implementation of PPP projects in Nigeria. He further stated that private investors would like to be assured of government guarantee of the likely revenue that may accrue from PPP projects if undertaken in any concession project.

#### 4. Conclusion

The foregoing study is aimed to assess ways for improving the implementation of PPP housing projects in Nigeria. Sixteen (16) ways for improving the implementation of PPP projects were identified, analysed and ranked based on mean values. The results show that the top five (5) factors with highest mean are: a well organised public sector, comprehensive feasibility and viability study, effective procurement process, selection of strong and reliable private partner, government guarantee and sound financial plan are most significant ways to consider for improving the successful implementation of PPP housing projects in Bauchi, Nigeria. Therefore, the study recommends that Government and other stakeholders should give necessary attention to those factors for successful implementation of the scheme.

#### References

- [1] Albert, P. C. C., Patrick T. I. L., Daniel W. M. C., Esther C., & Yongjian K. (2010). Critical Success Factors for PPPs in Infrastructure Developments: Chinese Perspective. *Journal of Construction Engineering and Management*. Asce pp. 484-494.
- [2] Dahiru, A. (2012). Factors Influencing Technology Transfer in Built Operate Transfer (BOT) Projects in Nigeria. *ATBU Journal Of Environmental Technology*. 5 (1) 60-77
- [3] Garvin, M. (2007) Are Public-Private Partnerships Effective Infrastructure Development Strategies. *Proceedings of Construction Management and Economics 25th Anniversary Conference*, University of Reading, UK.
- [4] Hoon, Y. K., Chih Y. & William I.C. (2009) Towards a Comprehensive Understanding of Public Private Partnerships for Infrastructure Development. *California Management Review* (51) 2 Winter 2009 Cmr.Berkeley.Edu.
- [5] Ibe, E. O. (2011): Public-Private Partnership (PPP) in Housing Provision in Lagos Megacity Region, Nigeria. *International Journal Of Housing Policy*, 11 (2): 133-154.
- [6] Ibe, E. O. (2010). An Assessment of the Role of Government Agencies in Public-Private Partnerships in Housing Delivery in Nigeria. *Journal of Construction in Developing Countries*, 15(2), 23-48.
- [7] Krejcie, R.V. and Morgan, D.W. (1970). Table of Determining Sample Size for Research Activities. *Educational and Psychological Measurement*
- [8] Li, B., Akintoye A., Edwards P. J., and Hardcastle C. (2005). Critical Success Factors for PPPs/PFI Projects in the U.K. construction industry. *Construction Management and Economy*, 23, 459-471.
- [9] Mohammed, A. H. (2011). Investigating the Critical Success factors for PPP Projects in Kuwait. M.Sc Thesis; Kungliga Tekniska Hogskolan, (KTH), Stockholm, Sweden.
- [10] Musa, D. & Usman M. Y. (2013) Private Sector Participation in the Provision of Urban Services: An Overview of Housing Supply in Minna, Niger State, Nigeria. *International Journal of Humanities and Social Science Invention*. 2 (4):51-58.
- [11] Ogunsanmi, O. E. (2013) Critical Success Factors (CSFs) Determining the Implementation of Public-Private Partnership Projects. *Covenant Journal of Research in the Built Environment (Cjrbe)* 1 (2).
- [12] Qiao, L., Qing S. W., Robert L. K. T. And Chan T. (2001) Framework for critical Success Factor of BOT Projects in China. *The Journal of Project Finance*. Spring 2001, 53-61.
- [13] Reetika S., Ashish, M. D., & Nidhi T. (2015). A Conceptual Framework on Critical Success Factor for Implementation of Public Private Partnership (PPP) Based on Literature Review. *International Journal of Science, Technology & Management* 4 (1)