

## **INFRASTRUCTURAL DEVELOPMENT THROUGH PPP IN NIGERIA: INTERNAL STAKEHOLDERS' PERSPECTIVES**

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### **ABSTRACT**

The infrastructural development in the developing countries faces serious challenges due to the low funding to undertake such projects. The use of public private partnership (PPP) to development such projects are yet to be fully developed. Therefore, the objective of this study is to identify the parameters that are required for the management of PPP projects for infrastructural development in Nigeria. In order to achieve this, a qualitative research method was adopted for this study and ten interviews were conducted among the public and private participants that were directly involved in the PPP projects. This study identified three key parameters that are very important for the successful implementation of PPP projects in Nigeria. They are the motivating factors for PPP adoption, key performance indicators and the critical success factors for PPP projects. It is recommended that these parameters should be an implementation guide for both public and private sectors participants in the PPP projects.

**Keywords:** infrastructural development; internal stakeholders; public private partnership; success factors

### **1.0 INTRODUCTION**

Nigeria is a country facing infrastructural deficit in most sectors of its economy. The Global Competitiveness Report 2019 ranked Nigeria as 130th in the quality of overall infrastructure among 141 countries [1]. This showed that the country needed to fast track the development of public facilities and services. However, the use of public private partnership (PPP) as an alternative approach for the development and financing of public works and services has increased in the last couple of years [2]. The introduction of PPP method of procurement to deliver public projects in developing countries came with the hope of improving the infrastructure and economic growth. But, in Nigeria, public opposition to PPP projects is prevalent [3] and this contributes to the low level of PPP projects implementation for infrastructural projects. Most of the local participants still lack the technical capabilities to deliver public projects through PPP arrangements while some are still being reluctant to exploit this new method [4, 5].

The experience of implementing PPP projects in early stages established ‘that there were gaps in knowledge and skills in the public sector’ [6]. The outcome of the implementation of PPP method for the procurement for public infrastructure in Nigeria has recorded a very low performance [7]. Some of the past studies made efforts to address the challenges in the implementation of PPP in Nigeria [7, 8, 9, 10] but there is still need to critically identify the key factors that could be adopted to increase project performance. Construction projects are being executed with many stakeholders having many stakes and interests [11]. Their interests, level of influence and power varies. Project Management Institute (PMI) Standard Committee defined stakeholders as individuals and organizations who are actively involved in the project, or whose interests may be affected by the execution of the project or by a successful project [12]. Therefore, a stakeholder has the potentials to be either a threat or a benefit to the project.

By examining the present PPP projects using qualitative approach and involving experienced internal stakeholders, then there would be better understanding of the implementation process for the PPP projects. With this understanding, the variables can better be isolated for better management of PPP projects implementation in Nigeria. This will help the public and private sectors’ participants to plan adequately to prevent poor outcomes of the PPP transactions and there would be value for money. Therefore, the objective of this study is to identify the parameters that are required for the successful management of PPP projects for infrastructural development in Nigeria.

## **2.0 LITERATURE REVIEW**

Public Private Partnership is a procurement method that is increasingly becoming a preferred option among various countries both developed and developing nations for different purposes and in different forms [13, 14, 15]. The different types and models of PPP has been adopted by many government agencies [5, 6, 16 - 20]. PPP has been seen and regarded as a method that can solve most of the shortcomings of the traditional method of procurement while complimenting the efforts of governments in the provision of public projects [21, 22]. However, researchers had reported negative and positive aspects of the PPP as a procurement system [5, 14, 17, 21 - 24]. PPP is presently being listed as priority by many governments due to the benefits of the arrangement while others have seen it as the system that can provide solutions to the sector at large [2, 25].

Public Private Partnership became a procurement option for delivery the public works and services in early 1980s in United Kingdom (UK) but it later got the legal backing in 1992 [2]. The UK government adopted private finance initiative (PFI) system which is a type of PPP and came up with new policy that provides guideline in promoting private sector’s involvement in infrastructure and public services provision [2]. In Austria, there are still varied perceptions and definitions of PPP despite the fact that it has become part of their system in the provision of public facilities [26]. The essential fixture of public private partnership is that the services requirements are defined by the client (public sector) while the

private sector investor undertakes the design, building, financing and operation of the facility before handing over the asset at the end of concession period [27].

The benefits of PPP are provision of quality and efficient public services [17, 28, 29], promotion of local economic growth [17, 28, 30], better risk allocation [2, 28, 30], enhancement of development of integrated solutions [2, 5, 31] and the possibility of reducing project cost [2, 17, 31]. The PPP is also able to reduce the deficiencies in government's budgets [5, 17], avoid public sector up-front capital costs [17, 30], access skills, experience and technology [28, 31] and promote competitiveness and fair competition.

Despite several benefits that have been discussed about the PPP and the increase in its usage to deliver infrastructure in many countries, there are also some obstacles in the implementation. A total of eighteen variables were identified by the five authors and the high cost of financing PPP projects and the lengthy delays in the negotiation for the PPP procurement method are the main barriers identified [5, 16, 17, 23, 29]. Other barriers are higher costs to direct users [17, 23], participants' lack of appropriate knowledge and skills [17, 29], public oppositions [4, 17], non-accountability due to little public information [16, 17], and excessive risks associated with PPPs [16, 29].

A comprehensive review of the literature was able to arrive at a total of four hundred and sixty-six (466) individual success factors and found out that the two most critical success factors for PPPs in South Africa were the delivering of a publicly needed service and achieving the objectives of the partnership [32]. Another study also identified twenty-nine success factors for BOT in India and concluded that concession agreement, short construction period and repayment of the debt were the most critical success factors [33]. It was concluded [34] that the critical success factors for PPP-based HSR Project in Taiwan were (i) commitment/responsibility of public/private sectors and (ii) thorough realistic cost/benefit assessment. Out of the thirty-six critical success factors identified, the cost effectiveness and financial attractiveness were ranked as the most important factors by the public sector and private consortium respectively in Hong Kong PPP projects [35]. The critical success factors according to another study were true partnership, communication and commitment [6].

### **3.0 METHODOLOGY**

This study adopted a qualitative research approach and the interview process was used. The interview was conducted among the experts in public and private sectors that were actively involved in PPP projects implementation in Nigeria. A total of twenty experts on PPP projects (public and private) were invited for the interview. However, six public sector experts were interviewed while four private sectors participated in the interview sections. For the private sector, the companies were participating in PPP projects for infrastructural development in Nigeria. A semi-structured interview procedure was used with an interview guide. The interview guide was adapted from related work carried out to compare the implementation of PPP in Australia and Hong Kong [5]. The qualitative data obtained for the study were analyzed through content analysis procedures. The following steps suggested [36]

in the analysis of the data obtained from the qualitative research work were followed: (i) get the data organized and prepared for analysis (ii) the data should be read carefully (iii) then the detailed analysis starts coding (iv) the coding is used to generate description of the setting or people and the categories for analysis (v) the analysis is then advanced with description/themes represented by qualitative narrative, and (vi) the interpretation or meaning of data.

However, the targeted public sector respondents for the interview sections were the experienced public servants at the senior management level who had participated in the management of PPP procurement (Table 1). One of the interviewees (PU1) was from the Federal regulatory agency for procurement under PPP arrangement and he had spent over 26 years in the construction industry. Two interviewees (PU2 and PU4) were from the Federal ministry/agency with construction experiences of between 28 years and 29 years. Other two interviewees (PU3 and PU5) were from the State ministry/corporation with 30 years and 19 years of construction experiences respectively. The last interviewee (PU6) was a PPP specialist working in the State PPP department with about 19 years in the construction industry. The targeted respondents from the private sector for the interviews were practitioners with experience and active participation in the implementation of PPP projects in Nigeria. Thereafter, a total of four interviews were conducted for the private sector (Table 2). All the interviewees were working with the Special Purpose Vehicle companies undertaking projects under PPP arrangement in Nigeria. Two of the interviewees (PR1 and PR2) were heads of Units in their respective organisations. The interviewee PR3 was a General Manager while the interviewee PR4 was a senior officer in his company. Most of them started their construction work experiences with PPP projects.

**Table 1** Interviewees from the public sector

<b>Code</b>	<b>Position and Organization</b>	<b>PPP Experience</b>	<b>Construction Experience</b>
PU1	Head of Unit, Regulatory Agency	Providing PPP guidelines	26 years
PU2	Director, PPP Unit of Federal Ministry	Coordinating PPP projects	29 years
PU3	Head of Department, State Corporation	Managing PPP projects	30 years
PU4	Deputy General Manager, Federal Agency	Managing PPP projects	28 years
PU5	PPP Analyst, State Ministry	Supervising PPP projects	19 years
PU6	Specialist Project Manager, State PPP Unit	Advising on PPP projects	19 years

**Table 2** Interviewees from the private sector

Code	Position and Organization	PPP Experience	Construction Experience
PR1	Head, PPP Unit, Special Purpose Company	Road project	10 years
PR2	Head, Legal Unit, Special Purpose Company	Road project	10 years
PR3	General Manager, Special Purpose Company	Airport Terminal project	9 years
PR4	Senior Officer, Special Purpose Company	Airport Terminal project	12 years

## 4.0 RESULTS AND DISCUSSION

### 4.1 Public Sector Perspectives on PPP Projects Implementation

This section presents the results of the interview conducted on the public sector participants managing the PPP projects. The findings indicated that the government had not been fully involved in carrying out research into local PPP projects and the implementation processes to determine the challenges and provide possible solutions in the procurement system. The interviewees stated that they had not been engaged to carry out any study into local cases. Despite the fact that very few PPP projects had reached financial close in the country, there are little efforts on the part of government agencies to indicate interest in order to study completed projects to ascertain the challenges in the implementation. Also, this showed that government ministries, departments and agencies (MDAs) were not investing in research and development (R&D). Nevertheless, research is important to any meaningful growth and development of the industry and the economy in general. The results also showed that majority of the interviewees had not deemed it fit to conduct researches into the implementation of PPP projects at the local level. It is observed that there were no motivations for the public sector participants to study the local challenges in order to find out better ways of implementing the public projects under PPP. This is not limited to the Nigerian environment. A study had showed that same practice could be noted in other countries either developed or developing. In the UK, only 2.6% of the total articles published in the selected journals were in the field of PPP in 2003 while the capital value of PPP projects was 18.65% of the construction industry [37].

The results showed that the main factor that distinguished PPP from the traditional method of procurement was ‘service delivery through management skills’. Also, transparency, value for money, reduced project/construction cost and maintainability were other factors considered by the interviewees. The main objective of any responsible government is to provide adequate and quality services for the citizens. Therefore, PPP has come to assist government in this regard and for the purpose of benefiting from the private

management skills and efficiency. This was confirmed by past studies [2, 17, 23, 28, 29, 38]. They concluded that PPP could bring about efficiency in service delivery, value for money, innovation in services, adequate maintenance and many others. However, it was mentioned that PPP could reduce the project and construction cost. Although, the cost reduction could not be fully substantiated but a study [17] was of the opinion that the time-delivery and life-cycle costs of the project can be reduced with the PPP procurement method. The infrastructure project was considered the most preferred by the public sector as the projects that could be executed by the government through this procurement method. These participants with considerable industrial experiences confirmed that the country lacked infrastructural facilities. So, there is need to increase the provision of works and services with great attention. Then, the involvement of private sector under PPP arrangement could be a catalyst for the provision of adequate and qualitative infrastructure. Provision of adequate and qualitative social and economic infrastructure is the backbone of any developmental activity for any country.

The results showed that the ‘project performance’ and ‘user satisfaction’ were the key performance indicators in a PPP project. The poor outcomes of many public projects that were implemented under traditional method were part of the challenges being experienced by both public and private sectors’ participants. Therefore, PPP procurement method became an alternative for the delivery of public projects in order to make public services available to the citizens. Experience had shown that PPP is synonymous with project performance that results in users’ satisfactions. Project performance and user satisfaction were regarded by the public sector participants as the key performance indicators for the implementation of PPP projects. They agreed that the ultimate aim of the projects is to deliver services that the users are satisfied with and that the projects should performance optimally.

‘Transparency’ was considered as the most important success factor for PPP project development by the public sector participants. They also considered contract documentation, competition, adequate preparation, value for money and efficient allocation of risk as other important factors for successful PPP projects implementation. The challenges of the system could be minimized, if due attention is given to these factors. The critical success factors are true partnership, communication and commitment [6]. All these could not be achieved if there is no transparency in the management of the procurement process from inception to project handing over. So, corruption was seen as a major impediment to the political and economic development for any nation and these challenges of corruption had been the major negative issues in Nigeria since colonial area [39]. Mohammed concluded that there was critical link between leadership and corruption while the experience of Nigeria was a ‘top-down’ approach. It was recommended [40] that the public service in Nigeria should be reformed to increase the accountability in government agencies as a way of curbing corruption.



## **4.2 The Private Sector Perspectives on PPP Projects Implementation**

Most of the interviewees agreed that they had been involved in the highway construction under PPP arrangement. This showed that PPP procurement method was being mostly utilized in the road construction. This also confirmed that the private sector organizations were being actively involved in the delivery of road infrastructure under PPP arrangement. Highway concession was dominating the implementation of PPP in Nigeria due to the importance of road construction to the economic and social activities. Road infrastructure in Nigeria is largely underdeveloped. The country was ranked 130<sup>th</sup> in the quality of infrastructure out of 141 countries in the Global Competitiveness Index 4.0 2019 [2]. There were only 60,000km of paved road and 135,000Km of unpaved roads in Nigeria as at 2017 for about 200 million population with the land area of 923,768km<sup>2</sup> [41]. Majority of these paved roads were in deplorable conditions. The findings showed that PPP procurement method were being implemented for the delivery of road construction. Since road construction is capital intensive, the private participants are believed to have the ability to mobilize fund from local and international financial institutions to implement the projects. They could also use their wealth of experience and skills to deliver quality infrastructures through innovation in service.

The private sector participants agreed that the major reason they were engaged to participate in the PPP procurement system was for the purpose of increasing the provision of public infrastructures. Invariably, they were required to assist the government in the provision of additional services that were needed to improve the socio-economic development of the country. The private participants are expected to provide social and economic infrastructures outside those that would normally be provided through annual budgetary allocations. It means that they were needed to assist the government in the provision of additional services so as to increase the delivery of public facilities. A study concluded that the utilization of PPP reduces the deficiencies in the government budget and ensures that the public sector reduces its operational costs [17].

The results also showed that efficiency, transparency and innovation were the key factors that distinguished PPP procurement method from the traditional procurement method by the private sector. They also agreed that PPP could bring about efficiency in the delivery of services than the conventional method. They accepted that the PPP procurement method is more transparent and produce innovation in services. The earlier studies carried out concluded that PPP could bring about efficiency in service delivery, value for money, innovation in services, adequate maintenance and many others [2, 17, 23, 28, 29, 38]. The main objective of any responsible government is to provide adequate and quality services for the citizens. Therefore, PPP has come to assist government in this regard and for the purpose of benefiting from private management skills and efficiency.

The findings showed that the private sector participants also preferred that ‘infrastructure project’ should be delivered through PPP arrangement. They also agreed that the public perception of service delivery, quality of service, profitability of the programme

and adequate planning were the “key performance indicators for the delivery of PPP projects”. This result showed that the private participants accepted the fact that they were well skilled and more professional in the PPP projects implementation than their counterparts in the public sector. They also made it known that the profitability of the project was key to the private sector.

The private sector participants agreed that the commitment of government, strong financial sector, adherence to contractual agreement, and transparent tender process are the critical success factors for PPP projects. These factors were regarded as being important in the delivery of projects under PPP arrangements. Thereby, government must show serious commitment in the projects in order to provide enabling environment for the private sector involvement. Since, funding availability is central to the delivery of PPP projects and the financial sector must be viable for the private investors to source for funds locally and internationally.

#### **4.3 PPP Project Parameters**

Summarily, the results and findings collated from the experienced practitioners in the PPP procurement arrangements with both public and private sectors were reported as listed in Table 3. Both participants viewed the implementation process from different perspectives.

**Table 3** PPP Project Parameters

<b>PPP Parameters</b>	<b>Public Sector</b>	<b>Private Sector</b>
<b>Motivating Factors for Adopting PPP</b>	Transparency; Service delivery; Value for public money; Reduced project and construction cost; and Maintainability	Transparency; Efficiency; and Innovation
<b>Key Performance Indicators</b>	Project performance; and User satisfaction	Public perception of service delivery; Quality of service; Profitability of the project; and Adequate project planning

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<b>Critical Success Factors</b>	Contract documentation, Transparency, Competition, Adequate preparation, Value for money, and Effective allocation of risk	Commitment of government; Strong financial sector; Adherence to contractual agreement; and Transparent tender process
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(Source: Author, 2020)

#### 4.3.1 Motivating Factors for Adopting PPP

Table 3 showed the outcome of findings that identified the “motivating factors for adopting PPP” in this section. The public and private sectors participants agreed that transparency in procurement system distinguishes PPP from the traditional method. The public sector also mentioned service delivery, value for public money, reduced project and construction cost and maintainability. While private sector participants mentioned efficiency and innovation as factors that made PPP to be the preferred option to traditional procurement system.

#### 4.3.2 Key Performance Indicators for PPP Implementation

For the key performance indicators in PPP projects as presented in Table 3 above, the public sector participants mentioned project performance and user satisfaction. While the private sector participants mentioned the public perception of service delivery, quality of service, profitability of the project and adequate project planning as the PPP key performance indicators.

#### 4.3.3 Critical Success Factors for PPP Projects

The “critical success factors” for PPP projects as indicated in Table 3 by the public sector participants were contract documentation, transparency, competition, adequate preparation, value for money, and effective allocation of risk. The private sector participants agreed that the commitment of government, strong financial sector, adherence to contractual agreement, and transparent tender process are the PPP critical success factors in the country.

### 5.0 CONCLUSION

This study was able to identify the key parameters that the participants should consider in the management and implementation of PPP projects in a developing economy. These parameters are the motivating factors for adopting PPP, key performance indicators and the critical success factors for PPP projects. The parameters could guide the public officers in decision making process for the delivery of infrastructures and managing the whole process from the conceptual stage to the final handing over of the projects to the government. Also, the private sector willing to participate in the public projects through PPP are also to use these parameters as guide in undertaking such projects in the interest of the public while maintaining return for investment. The outcome of this study will help the governments in

developing economy with similar experiences like in Nigeria to deliver public works despite the inadequate budgeting. It is recommended that these parameters should be adopted by both the public and private sectors participants for the PPP projects. The study could be further researched using the quantitative method of approach and also with the case study analysis.

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