



ANALYSIS OF THE CRITICAL SUCCESS FACTORS (CSFs) OF PUBLIC PRIVATE PARTNERSHIP (PPP) ON INFRASTRUCTURE DELIVERY IN NIGERIA

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ABSTRACT

For rapid development and accelerated growth of the construction sector in Nigeria, the public private partnership (PPP) if embraced by the all the level of government and the private sector will improve and enhance accelerated growth of the industry. The purpose of this paper is to examine the types of infrastructural projects most suitable using public-private partnership (PPP) for execution and identify the critical success factors in PPP on infrastructural projects with a view to strengthening the partnership between the public (government) and private sector. The overall goal is to enhance infrastructural projects delivery in Nigeria. The primary data consists of survey questionnaires, drawn based on the identified factors on existing literature on critical success factors (CSFs). The structured questionnaires were administered on participants that were involved in the execution of projects through PPP arrangements. The results from the analysis indicate the provision of electricity and water with RII of 0.65, health and social services with RII of 0.63 and transport with RII of 0.62 with the rank of 1st, 2nd and 3rd respectively. However on the critical success factors (CSFs), the study identifies involvement of government providing guarantee with RII of 0.70, committed and organized public sector with RII of 0.69 and cost and benefit assessment that is realistic with RII of 0.68 with the ranks of 1st, 2nd and 3rd respectively. What needs to be done is to ensure that all the success factors responsible for successful implementations of PPPs are well structured in a way that its optimum performance can be guaranteed. Also, in identification of the critical factors in PPP it would help to develop a body of PPP knowledge. This knowledge would help in the establishment of relevant laws, guidelines and regulations and in the development of efficient frameworks for best PPP practices.

KEYWORDS: Critical success factor, Infrastructural projects, PPP, Private sector, Public sector,

INTRODUCTION

The challenges in Nigeria infrastructure deficit towards the social and economic development of the country has compel the Federal government to realize that private sectors involvement and participation in the provision of infrastructure is a key factor to sustainable development. The construction sector has remained very critical for social and economic development of both developed and developing nations (Oyedele, 2012) as it provides linkages between manufacturing and market thereby creating massive employment opportunities. Lack of private sector participation in the provision of public infrastructure has been identified as one of the factors hindering the advancement of Nigeria positively (Ajanlekoko, 2001).

PPP is regarded globally as a panacea for the deficit in infrastructure but in Nigeria, it has not gain total acceptance. This situation has caused diminishing interest of both local and foreign investors to participate. For instance the concession of 105 km road for the construction of Lagos – Ibadan Expressway valued at US\$597 million which was awarded in 2009 under BOT model was revoked in November 2012, the concession of Murtala Muhammed Terminal 2 Airport (MMA 2) commissioned in April 2007 has been in controversy till today between the Federal government of Nigeria and the concessionaire over the concession period which was valued at US\$250 among other cases (Lucas, 2011). The question that agitates mind is why has it (PPP) been successful in South Africa, Australia, UK and other developed nations and become



unsuccessful in Nigeria? This paper is aimed at evaluating the critical success factors of PPP and the objective is to identify and evaluate the projects suitable under PPP

LITERATURE REVIEW

PPPs and the Nature of Infrastructure in Nigeria

The development of infrastructure is among the backbone of assessing the achievements of government. There is high agitation for the development of infrastructure in developing nations as compared to countries that are developed due to the fact that the resources for infrastructure provision are scarce. The initiation of infrastructure projects should be specifically done by an office established to do it as advised by the Office of Government Commerce (OCG) (2008).

In Nigeria, the report on infrastructure with other developing nations is nothing to write home about. The situation of infrastructure is in a state of sorry both quantitatively and qualitatively (Onibokun & Kumuyi, 1996, Agbola 1998, Nubi 2000, Ajanlekoko 2001, Oyedele 2006). Most of the infrastructures are in a state of decay and need refurbishment, repair, rehabilitation and replacement. Planning, organizing, controlling and supervision of people to have conducive environment is the responsibility of the government. The governments have the authority and power to put all measures in place that would make the environment sustainable and beneficial for all to live.

The challenges also include the requirement (quality) of projects to compete or meet international standard. They must meet the requirements for carbon emissions, air capture analysis to emit green house gasses (GHGs) and the preservation of natural environment for sustainable development.

A PPP arrangement as defined by Tang et al., (2010) is a contractual relationship (normally long time) between a public sector and a private partner (or private firm consortium) for the development or construction and operating a facility (infrastructure). The responsibility of building, managing and maintaining the asset lies with the private partners including service provision, finance investment for regular payments exchange by the government and/or charges user. Under the PPP arrangement/scheme, the private sector owned the facility/assets, however there is provision for transferring the initial (legal) property at the contract end to the public sector (Ke et al., 2010).

Yescombe, (2007) opined that there are different names for PPP and they include Public Finance Initiative (PFI), a term which originates from Britain and now widely used in Japan and Malaysia, P3 or 3Ps

widely used in North America, Private-sector participation which is a term used in finance-development sector, is applicable or used in Australia. PPP have so many variants used in infrastructure projects execution to the public. The variants include; BOT, Build-transfer-operate, design-build-operate-maintain, build-own-operate, design-build-finance-operate among others (Zhang and Kumaraswamy 2001). Research conducted by Deliotte (2007) identified joint venture, bundling and alliancing as hybrids of PPP. The table below shows the classification of PPP models based on sector which were adopted in different countries.

CRITICAL SUCCESS FACTORS IN PUBLIC PRIVATE PARTNERSHIP (PPPS)

Critical success factors defined by Rockart (1982), as few key areas of activities in which results that are favourable and necessary for a manager to attain his goals. However, different researchers have studied critical success factors (CSFs) in PPP projects. CSFs in infrastructure delivery as identified by Grant (1996), as appropriate risk allocation and risk sharing and multi-benefit objectives. Jones (1996) identified CSFs in the delivery of infrastructure to include legal framework that are favourable and a public agency that is organized, Stonehouse et al. (1996) further identifies more CSFs as involvement of the government in providing support, authority sharing between the public and private sectors and public private sectors commitment. Tiong (1996) identifies public private partnership (PPP) CSFs based on the model of BOT as technical feasibility of projects, strong and stable private consortium, stable macro-economic environment, and legal frame work (favourable). Qiao et al., (2001) identified CSFs as stable macro-economic environment, technical innovation, technology transfer and technical innovation, financial market availability, social support and political stability, good governance and projects technical feasibility.

Hardcastle et al., (2006) in his study groups PPP critical success factors under five groups. These include;

- 1) *Efficient procurement* – These include procurement process transparency, procurement process competition, good governance, public agency that is organized and committed, social support, public and private sectors share authority and through assessment of benefits and cost realistically.
- 2) *Implementation of projects* – Includes legal framework that is favourable, technical feasibility of projects, risk allocation and



sharing, responsibility and commitment of public and private sectors and good and strong private consortium.

- 3) *Government guarantee* – Comprised the provision of guarantee by the government, objectives that are multi-benefits and potential support.
- 4) *Good and favourable economic condition* – stable macro-economic conditions and economic policy (sound).
- 5) *Financial market availability* – Adequate and stable financial market availability.

THE CHALLENGES OF PPP IN NIGERIA

In Nigeria, PPP is not new, in the nineties it became prominence. The Lagos State government developed the Dolphin Estate in the eighties through PPP arrangement with HEP Construction Limited. Also the Oil industry development immediately after oil was discovered in the Niger Delta (Oloibiri, Bayelsa State) in 1956 was also through PPP. Presently, attempts to adopt the use of the PPP method in construction failed in Nigeria so many times. This is due to the fact that most of the stakeholders do not understand the PPP principles.

The development and maintenance/management of Lagos -Ibadan Expressway into five lanes by Bicourtney Concession failed because the concession could not be financed adequately. The Guto-Bagana bridge over River Benue between the Federal Government of Nigeria, Kogi and Nasarawa State government is also a PPP project. The counterpoint fund of N1 Billion was paid by Nasarawa State to the development partner, but other development partners did not pay their commitment as they claimed they have no money. The leverage left now is how drawn agreement are bad which favours the concessionaires. Victoria Island-Epe Express Road in Lagos State failed as a result of Lekki Concession Company (LCC) (concessionaire) did not carry along other stakeholders. The Murtala Muhammed Airport Messrs Meavis airport landing fee-collection at Ikeja also failed due to

heavy non – receipted amount (upfront) paid by the concessioner.

RESEARCH METHODOLOGY

The population targets for this study are the stakeholders that are involved in PPP projects within the Federal Capital Abuja. The population for the study includes public sector authorities (ministries, departments, agencies etc) and the private sector authorities. A total of 100 questionnaires were administered to respondents organisation out of which 56 were retrieved and only 50 were completed and found suitable for the analysis representing 89.2%. The questionnaire was divided into two sections. Section A comprises information on respondent year of experience, academic qualifications and number of projects executed under PPP model. Section B was structured and designed in line with the objectives of the study. However, the questions were designed based on a 5-point likert scale rating with 5 being the highest in ranking.

RESULTS AND DISCUSSION

Table 1 below shows the respondents type of organisation, academic qualification, years of experience and number of PPP projects participated. The response shows that the public sector authorities have 36% while the private sector has 64%. The table further shows the respondents academic qualification. Thus 36% of the respondents obtained Master degree, 24% obtained Bachelor degree while 40% obtained Higher National Diploma. The table further indicates the years of experience of respondents as 34% have more than 20 years experience, 20% have 16-20 years experience, 16% have 11- 15 years experience while 12% have 6-10 years of experience while 18% have less than 5 years experience. However on the number of PPP projects executed, 42% participated in 1-3 projects while 36% and 22% participated in 2-5 projects and above 5 projects respectively.



Table 1: Respondents Background Information

Item	Category	Frequency (n)	Percent (%)
Type of organisation	Public	18	36.00
	Private	32	64.00
	Total	50	100.00
Years of experience	Above 20	17	34.00
	16-20	10	20.00
	11-15	8	16.00
	6-10	6	12.00
	< 5	9	18.00
	Total	50	100.00
Number of PPP projects	1-3	21	42.00
	3-5	18	36.00
	5 and above	11	22.00
	Total	50	100.00

Source: Authors survey 2018

Table 2 below shows the responses of the types of projects that are suitable for execution under the PPP agreement within the study area. Results from the table reveals that the provision of electricity, health and social services and transportation (road, airport and

railway) are best suitable for execution under the PPP arrangement with a RII of 0.65, 0.63 and 0.62 with mean score of 3.26, 3.16 and 3.12 with ranks of 1st, 2nd and 3rd respectively.

Table 2: Evaluation of projects suitable through PPPs

Ranking of the Projects suitable through PPP model

Project type	N	5	4	3	2	1	Sum	Mean	Relative Importance Index	Rank
Transport (road, airport, railway)	50	13	10	7	10	10	156	3.12	0.62	3 rd
Provision of electricity and water	50	10	14	11	9	6	163	3.26	0.65	1 st
Environmental and natural resources	50	9	8	12	13	8	147	2.94	0.59	4 th
Health and social services	50	11	12	9	10	8	158	3.16	0.63	2 nd
Leisure, tourism and culture	50	4	10	13	12	11	134	2.68	0.54	6 th
Real Estate	50	5	5	12	13	15	125	2.50	0.50	7 th
Educational	50	7	9	14	11	9	144	2.88	0.58	5 th

Source: Authors survey 2018

Table 3 below shows the evaluation of the critical success factors in PPPs for effective delivery of infrastructure. Results from analysis reveals the strong critical success factors (CSFs) as government involvement in the providing guarantee, committed and organized public agency and cost and benefit

assessment that is realistic and thorough, favourable framework and private consortium that is good and strong with mean score values of 3.48, 3.46, 3.44, 3.24 and 3.22 and RII of 0.70, 0.69, 0.68, 0.65 and 0.64 respectively.

**Table 3: Critical success factors of PPPs****Ranking of the critical success factors of PPP**

Critical success factors	N	5	4	3	2	1	Sum	Mean	Relative Importance Index	Rank
Financier market availability	50	8	10	9	12	11	142	2.84	0.57	8 th
Sound economic policy	50	12	10	9	11	8	157	3.14	0.63	6 th
Risk allocation and risk sharing appropriately	50	11	12	9	10	8	158	3.16	0.63	6 th
Macroeconomic condition that is stable	50	6	9	7	13	15	128	2.56	0.51	9 th
Technical feasibility of project	50	10	12	9	11	8	155	3.10	0.62	7 th
Competitive process in procurement	50	9	7	7	14	13	117	2.34	0.47	10 th
Procurement process transparency	50	8	9	11	12	10	143	2.86	0.57	8 th
Private consortium that is good and strong	50	14	10	8	9	9	161	3.22	0.64	5 th
Committed and organized public agency	50	15	12	10	7	6	173	3.46	0.69	2 nd
Involvement of government in providing guarantee	50	12	13	15	6	5	174	3.48	0.70	1 st
Cost and benefit assessment that is realistic and thorough	50	15	12	9	8	6	172	3.44	0.68	3 rd
Favourable framework	50	10	12	15	6	7	162	3.24	0.65	4 th
Authority sharing between public and private sectors	50	6	10	17	5	12	143	2.86	0.57	8 th

Source: Authors survey 2018

CONCLUSION

In order to achieve an accelerated growth of the construction sector in Nigeria, successful PPP should be designed and taken into consideration its implementation within the context of its partnership. This paper identifies electricity and water supply, health and social services and transport as the projects suitable for execution under PPP model. The paper further identifies the critical success factors of PPP in which involvement of the government in providing guarantee, committed and organized public agency and realistic cost and benefit assessment.

RECOMMENDATIONS

This paper recommends that the identified barriers and the critical success factors are to begin consideration by both the public and private parties to ensure successful implementation of projects to be executed under the PPP arrangement so as to accelerate the growth of the construction sector hence, achieve value for money and optimum objectives of the arrangement.

Secondly, international organisations in conjunction with the Nigerian government should organize training workshops and conferences for both the sectors (Public and private) to enhance their capabilities in PPPs.

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