

INVESTIGATING OPTIMUM CONDITIONS FOR PUBLIC-PRIVATE PARTNERSHIP IN HEALTH, EDUCATION AND HOUSING SECTORS IN NIGERIA

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Although many PPP (Public-Private Partnership) projects in the developed countries are regarded as successful and the drivers of success have become subject of extensive investigation, little is known about the relative importance of these success factors in developing countries such as Nigeria. This is particularly noteworthy given that previous studies indicated incongruence between the cross-cultural features of PPPs which suggested inapplicability of the UK Private Finance Initiative (PFI) model in other countries. Therefore, it is essential that adequate attention is given to identification, understanding and management of the specific drivers at national and sectoral levels. This research investigates the optimum conditions for PPPs to thrive in various infrastructure sectors in Nigeria. The study focused on the health, education and housing sectors. Questionnaire survey was adopted to elicit information from PPPs practitioners within the Nigerian construction industry. The identified conditions, through extensive literature review, were rated on five point likert scale and the responses were analysed using Relative Importance Indices and Mean Score Values. The results revealed that acceleration of project development is the most attractive factors for adopting PPPs in health and housing sectors while that of education sector was benefit to local economic development. Prolong delays due to political debate/interest was ranked as the most negative factor for adopting PPP in education and health sectors with high risk of relying on private sector as the most negative factor for housing sector. The research concluded that a 'one-size-fit-all' approach is inappropriate for success of PPPs and recommends further sector specific studies that will ensure sustainable growth of PPPs in Nigeria.

Keywords: driving force, infrastructure, optimum condition, public-private partnership, sector

INTRODUCTION

Nigerian Government, having considered the dearth of infrastructure requirement in the country, has placed high premium on the adoption of public-private partnerships (PPPs) for delivering public infrastructures and services. For example, infrastructure sectors such as transport, education, housing and health have taken PPP options into account when selecting delivery models for their provision. In the past, many of the researches conducted to investigate the success factors or the drivers for adopting PPPs have mainly focused on the developed world, such as the UK (Li et al., 2005 a&b), Australia (Jefferies et al., 2002; Jefferies, 2006,) and Hong Kong (Yuan, et al., 2009; Chan et al., 2010). The studies suggested that many of the PPP projects in the

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developed countries are regarded as being successful and the drivers of success have become subject of extensive investigation (Keene, 1998; Qiao et al., 2001; Cooke-Davis, 2002; Jefferies et al., 2002; Jefferies, 2006; Toor and Ogunlana, 2008). However, little is known about the relative importance of these success factors in developing countries such as Nigeria (Ibrahim et al., 2006a). In Nigeria, the outcomes of application of PPPs have varied. Successes have been recorded in some instances; for example the Murtala Muhammed International Airport Terminal project in Lagos (Adetola, et al, 2011). On the other hand, there have been several other attempts made by different State Governments to provide infrastructure which have not been successful; for example the attempts to provide hostel accommodation in the universities through PPPs.

Previous studies have indicated incongruence between the cross-cultural features (Eaton et al., 2007; Gunnigan and Eaton, 2006, Gunnigan and Rajput, 2010) and risk factors (Ibrahim et al., 2006b) of PPPs which suggests inapplicability of the UK PFI model in other countries. In addition, the demonstration that PPP success factors are isomorphic (i.e. similar in form but genetically different, as between the UK and Nigeria) suggests considerable potential for useful cross-country learning regarding PPPs. However, Eaton et al. (2006a; 2006b) contend that the development of a 'generic' and 'internationalised' PPP approach is almost impossible to achieve and that non-recognition of existing exogenous features of a local area is a recipe for potential operational failures. Therefore, despite the evidence of similarity in PPP success factors, it is essential that adequate attention is given to identification, understanding and management of the specific drivers at national and sectoral levels. This, therefore, supports the development of 'modified individual' approach for each infrastructure sector in each country as suggested by Eaton et al. (2006a). Hence, this paper presents the findings of a study to investigate the optimum conditions for implementing PPPs in various infrastructure sectors in the Nigerian Construction Market with a view to enhancing value for money. The optimum conditions considered in this paper includes attractive factors, negative factors, privileges/attractive for private sector involvement, driving forces for PPP adoption, and measures that enhance the achievement of value for money in PPPs.

LITERATURE REVIEW

Concept of PPP

Public private partnerships (PPP) are not a totally new concept in infrastructure development. In fact, the first PPP in modern history was the concession formed in 1854 to construct and operate the Suez Canal as well as supply of drinking water to Paris (Levy, 1996; Tang, Shen & Cheng, 2010). Pressure to change the standard model of public procurement arose initially from concerns about the level of public debt, which grew rapidly during the macroeconomic dislocation of the 1970s and 1980s. Hoppe, Kusterer and Schmitz (2011) reported that over the last two decades, governments in an increasing number of countries across the continents initiated public-private partnerships to involve the private sector in the provision and building of an infrastructure and subsequently operating it to provide public goods or services.

PPPs originated in the United Kingdom with the development of mines in an arrangement which came to be known as the Public Finance Initiative (PFI) between the government and a merchant bank several centuries ago (Jacoby, 2000; Carrillo et al., 2006; Yusuf, 2011).

The concept of public–private partnerships (PPPs) dates from the end of the twentieth century. Countries such as Bulgaria, Canada, Croatia, Czech Republic, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Poland, Portugal, Romania, Slovenia, Spain, US and the UK began to improve their local economies and combat poverty through PPPs (Grimsey and Lewis, 2004). These schemes are sometimes referred to as PPP, P3 or P³ in Canada and the US. In India the model being adopted is called Public–Private Community Partnership (PPCP) model, this involve situation whereby both the Public and private operators work together to provide for social welfare by eliminating the prime focus of private players which is profit oriented.

Public-Private Partnership Practice

Public–private partnerships (PPPs) have long been advocated and analyzed as organizational solutions to pressing societal problems that call for the comparative advantages of government, private business, and civil society.

In many countries where Public-private partnerships (PPPs) are yet to be fully implemented or appreciated it has been viewed as an alternative to traditional procurement system. PPPs have been used in the developed countries in the provision of infrastructure services in different sectors such health (specialised healthcare delivery services, provision of hospitals) as in the UK, transport sector (in the provision of toll roads, rail or metro lines ,bridges, airport, maritime, tunnels) as in the US and Asia, education (provision schools, libraries and museums), water sector (provision of filtration plants, irrigation of farms, large sewage treatment, pipelines for transportation, water supply), public administration (courts, police stations), and prisons.

Major public infrastructure projects have been undertaken through PPPs in developed countries which includes the Airport Link, Cross City Tunnel, Lane Cove Tunnel, Sydney Harbour Tunnel and M2 Hills Motorway Sydney, all in Australia; the 407 ETR toll road in Toronto, the Royal Ottawa Mental Health Centre in Ottawa, the William Osler Hospital in Brampton, Ontario and the Viva bus rapid transit network in York Region, also in Ontario, Canada. Others include the West-Link Bridge on M50 motorway in Dublin, Ireland, the California State Route 125, San Diego Central Park, New York City; Chicago Skyway Bridge, Chicago and the Indiana East-West Toll Road in Northern Indiana all in the United States (Fashola, 2007). Over the last ten years the United Kingdom is estimated to have expended over £33 billion on the development of new public infrastructure through the private sector. India has with PPP executed 393 projects worth US\$36.20 billion and comprising 198Roads, 54Ports,8Airports, 3Railways, 35Power, 69 Urban Infrastructure and 26 others (Fashola, 2007; Nigerian Institute of Quantity Surveyors(NIQS), 2010).

PPP application and experience in Nigeria

Experience has shown that Public-Private Partnerships in Nigeria is not too glooming and at the same time not doomed but the decaying nature of infrastructure in Nigeria and the constraints on Government finances has called for the combined efforts of both the public and the organised private sector to finance infrastructure development. This has become unavoidable in many parts of the world owing to the fact that government alone cannot aggregate the required and sufficient resources to meet the infrastructure demand of the country. World Bank posited that the enlarged European Union will require up to \$500 billion to provide additional public infrastructure which include schools, roads, hospitals, railways and others. But in Nigeria, Mr. Remi

Babalola, the Minister of State for Finance in 2008 disclosed that Nigeria requires about \$100 billion (N11.70 trillion) to address only four infrastructure areas considered critical: Power -US\$18 – 20 billion; Rail -US\$10 billion; Roads-US\$14 billion; and Oil and Gas -US\$60 billion.

In Nigeria there has been a success story, second terminal of the local wing of the Murtala Mohammed International Airport in Lagos through BOT concession was awarded to Bi-Courtney Aviation Services in 2003 and the project comprises an Airport Terminal Building, a Multi-Storey Car Park and an Apron. This has been completed and operational since 2007. Lagos State Government has also started exploring the various Public Private Partnership options through Build Operate and Transfer (BOT) arrangements and this has been demonstrated in the just completed Lekki Concession Company (LCC) project, on the Lekki-Epe toll road. The same government invested a huge sum of US\$ 100 million in the transport infrastructure in form of Bus Rapid System (BRT) which has been reported to be yielding annual revenue of at least US\$ 50 million (Fashola, 2007). Though, virtually all these projects were greeted with one difficulty or the other but they are still successful and operational.

Optimum conditions for adopting PPPs

Combinations of drivers, success factors, enhancement of value for money, negative and positive factors influencing the attractiveness of PPPs are hereby refers to as optimum conditions for adopting PPP by this study. All these have been well studied globally most especially in the developed countries (Jefferies, 2002; Li et al., 2005b; Chan et al., 2009; Cheung et al., 2009; Liu and Wilkinson, 2011). Thus, the study x-rayed the overseas studies on PPPs adoption to identify the optimum conditions for PPPs to thrive in Nigeria. Investigating optimum conditions for PPPs adoption in Nigeria is highly imperative and required adequate attention as there is no single PPP model that is suitable for different sectors or countries (Eaton et al., 2007).

Many authors from diverse countries have identified different drivers, success factors both negative and positive for adopting PPPs in different sectors and countries, the following are summary of some those positive factors: Appropriate risk allocation and risk sharing (Grant, 1996; Qiao et al., 2001; Li et al., 2005b; Chan et al., 2009); Competitive procurement process aimed at reducing total project cost (Kopp, 1997 & Gentry and Fernandez 1997; Jefferies et al., 2002; Li et al., 2005b); avoiding delays and cost overruns (Tiong and Alum, 1997); Government involvement by providing guarantees (Stonehouse et al., 1996; Zhang et al., 1998; Kanter, 1999; Qiao et al., 2001); reduces public sector money tied up in capital investment (Li et al., 2005b); accelerate project development (Askar and Gab-Allah, 2002; Li et al., 2005b; Liu and Wilkinson, 2011); improve buildability, quality of services and maintainability (Askar and Gab-Allah, 2002; Li et al., 2005b; Chan et al., 2009; Cheung et al., 2009); facilitates creative and technical innovation approaches (Tiong et al., 1992; Birnie, 1999); benefits local economic development (Salzman and Mohamed, 1999; HM Treasury, 2000; Liu and Wilkinson, 2011); Technology transfer (Qiao et al., 2001; Li et al 2005b); Value for money (Grimsey and Lewis, 2005; Binza, 2008; Yuan et al., 2009); Transparency in the procurement process (Kopp, 1997; Gentry and Fernandez, 1997; Manalingam, 2010); commitment (Hardcastle et al., 2005).

The literature reviewed also uncovered some obstacles/barriers/negative factors hampering successful implementation of PPPs in different countries such as in Burnes and Coram (1999) in a research carried out in UK to identified barriers to

partnerships in the public sector within the UK construction industry. Burnes and Coram (1999) argued that the barriers are product of four factors: the lack of experience among both purchasers and providers of long-term partnership arrangements; the risk-averse nature of the public sector; the pressure on departments from ministers to minimise risk; and government guidelines on competitive tendering which make it difficult to enter into long-term agreements.

Also, in another research conducted in the UK by Li et al. (2005b), it was submitted that lack of experience and appropriate skill on implementation of PPP is a common obstacle hampering the use of PPPs by the public authorities. Li et al. (2005b) identified further other barriers to PPP such as imposing excessive restriction on participation; high risk relying on private sector; high participation costs are incurred; Leads to higher direct charges to users; May lead to high project costs (Ezulike et al., 1997; Birnie, 1999; Public Services Privatization Research Unit, 2000).

Mahalingam (2010) in his study of PPP experiences in Indian cities, identified some Barriers which includes: Distrust between public and private sectors, Lack of political will, Absence of an enabling institutional environment, Lack of public sector capacity, Poor project design and structuring as obstacles to PPPs adoption.

Value for money (VFM) is one of the essential requirements for adopting PPP in the provision of basic infrastructures (Binza, 2008). To meet this important requirements for achieving VFM in any PPP projects, PPP projects should be awarded through competitive and transparent procurement process aimed at reducing total project cost. This should be done in an environment where various bidders bid for the construction of the project, and appropriate risk allocation mechanism adopted so that risks are allocated and shared reasonably between the public and private sector (Grant, 1996; Qiao et al., 2001; Li et al., 2005b; Binza, 2008; Chan et al., 2009) using best economic appraisal techniques. Among other factors considered for achieving VFM in this research, Grimsey and Lewis (2004) identified six determinants of VFM as submitted by (Arthur Andersen, 2000). These include: risk transfer; long-term nature of contracts; competition; performance measurement and the use of an output specification; performance measurement and incentives; and private party's management skills.

RESEARCH METHODOLOGY

The paper adopted quantitative research design with questionnaire chosen as the data collection instrument. The research considered stakeholders (which include consultants, contractors and clients) who have been involved in the construction and PPP projects with requisite experience on the use of PPP in different sectors since its introduction to Nigeria as the unit of analysis. This due to the fact that PPP procurement methods are still at formative stage in Nigeria and as such the required expert knowledge of PPP is constrained. The identified key stakeholders include PPP financiers, advisors, infrastructure concession companies and clients with the required knowledge and expertise to comment on the optimum conditions for PPP in different sectors in Nigeria. Since there is no any comprehensive list or database of all the stakeholders or organisations involved in PPP projects in Nigeria due to the infancy nature of PPPs, a purposive but convenience sampling technique was used for data collection as suggested by Ibrahim et al. (2006).

The complete questionnaire was divided into three sections: - questions about respondents, individual and organizational background and experience; questions

about PPPs optimum conditions in various infrastructure sectors in Nigeria: - and questions requesting for suggestions and comments on ways of ensuring successful delivery of PPP projects. The respondents were asked to rate the identified features of PPPs based on a 5 point Likert rating scale ranging from 1 “no importance” to 5 “very important”.

A total of 100 questionnaires were administered to the respondents who were either familiar with or involved in PPP implementation. The questionnaires were administered during workshop organised by the Nigerian Institute of Quantity Surveyors (NIQS) on Public Private Partnership Approach to Infrastructure Provision in Nigeria and also workshop organized by the Federal Capital Territory, Abuja chapter of NIQS tagged Infrastructure Concession: A tool for Sustainable Economic Stability Prospects and Challenges.

To guarantee homogeneity and common comprehension of the questionnaire, the working definition of PPP and the aim of the research were included in the questionnaire. Overall, 44 questionnaires were returned, of which 39 were properly answered and usable. This represents a 39% effective response rate. From the respondents whose questionnaire were analysed, 25 worked in the public sector while, 14 worked with the private sector. Idrus and Newman (2002) considered any questionnaire in the range of 20% to 30% to be adequate for research in construction industry. Similar questionnaire survey carried out in the UK by Li *et al* (2005a) received a response rate 11%.

RESULTS AND DISCUSSION

In this research, the identified optimum conditions for PPPs through extensive literature review, were rated on five point likert scale and the responses were analysed using Mean Score Values, Standard Deviation and Relative Importance Indices. The standard deviation (SD) was used to measures the variability of the responses and it also demonstrated how clustered the response values were around the means for each PPP optimum conditions identified factors. Higher Standard Deviation is often interpreted as higher disparity. The ranking of optimum conditions for PPP in Nigeria was based on arithmetic mean value scores. A lower value indicates a lower level of importance. The optimum conditions considered by this research includes: attractive factors, negative factors, privileges/attractive for private sector involvement, driving forces for PPP adoption and measures that enhance the achievement of value for money in PPPs.

Attractive factors for adopting PPP instead of traditional procurement;

The analysis of survey response data produced mean importance values for the 15 attractive factors for adopting PPP instead of traditional procurement ranging from housing (2.94 to 4.26), health (2.60 to 4.60), education (2.85, to 4.42) and sectors (2.20 to 4.40). The PPP acceleration of project development was ranked first as an attractive factor for adopting PPPs. However, benefit to the local economic development is ranked as the most attractive factor for adopting PPP in education sector. Research has shown a positive correlation between availability of infrastructure and growth rates, development indices and income level of most economies. These could be seen in the miraculous transformations of Japan, Hong Kong, the Republic of Korea, Singapore, Taipei, China, Thailand, Malaysia and the People’s Republic of China which have been attributed to substantial investment in physical and social infrastructure, some of which were developed through PPP.

Table 2: Attractive factor for adopting PPP

Optimum Conditions	Housing sector		Health sector		Education sector		Others	
	Mean score	Rank	Mean Score	Rank	Mean Score	Rank	Mean Score	Rank
Attractive factors for adopting PPP instead of traditional procurement								
accelerate project development	4.26	1	4.60	1	4.42	2	4.40	1
benefit to the local economic development	4.21	2	4.60	2	4.71	1	3.00	2
technology transfer to local enterprise	3.78	6	4.20	3	4.42	3	3.00	3
Provided an integrated solution	4.05	3	4.20	4	4.00	6	2.80	4
transfer risk to the private partner	3.52	9	4.00	5	3.57	13	2.80	5
improve maintainability	3.68	7	4.00	6	4.00	8	2.80	6
Facilitate creative and innovative approaches	3.84	4	3.80	8	4.00	5	2.80	7
reduce public money tied up in capital investment	3.42	10	3.80	7	4.00	4	2.80	8
solve the problem of public sector budget restraint	3.63	8	3.60	11	3.71	12	2.80	9
Save time in delivering the project	3.84	5	3.60	9	4.00	7	2.60	10
Non recourse or limited recourse to public funding	3.36	12	3.60	10	3.71	9	2.60	11
reduce public sector administration costs	3.26	14	3.20	14	3.42	14	2.60	12
Cap the final services cost	3.36	11	3.20	12	3.71	11	2.40	13
improve buildability	3.31	13	3.20	13	3.71	10	2.20	14
Reduce the total project cost	2.94	15	2.60	15	2.85	15	2.20	15

Negative factors for PPP arrangements

As shown in table 2, lengthy delays due political, social and legal debate/interest emerged to be the most negative factor for adopting PPP arrangements in health, education and other sectors (mean value 4.0, 4.40 and 3.00), while high risk relying on private sector ranked as the most negative factor for PPP arrangements in housing sector (mean value 3.59). Timothy (2009) reported that, lengthy delay in negotiation is one of the most negative factors for adopting PPP arrangements in housing delivery in Abuja.

Table 3: Negative factors for adopting PPP

Negative factors for adopting PPP arrangements	Housing sector		Health sector		Education sector		Others	
	Meanscore	Rank	MeanScore	Rank	Mean Score	Rank	MeanScore	Rank
Lengthy delays because of political, social and legal debate	3.54	2	4.00	1	4.42	1	3.00	1
High risk relying on private sector	3.59	1	3.80	2	3.85	2	2.80	2
Higher charge to the direct users	3.22	4	3.60	3	3.71	4	2.80	3
Reduce project accountability	3.31	3	3.60	5	3.57	6	2.60	4
High project costs	3.22	5	3.60	4	3.85	3	2.60	5
High participation costs	3.04	7	3.40	6	3.57	5	2.40	6
A great deal of management time spent in contract transaction	2.95	9	3.00	7	3.28	7	1.80	7
Less employment position costs	2.81	11	2.80	8	2.85	9	1.80	8
lengthy delays in negotiation	3.00	8	2.60	9	3.14	8	1.20	10
Excessive restrictions on participation	2.90	10	2.40	10	2.71	10	1.20	9
Confusion over government objectives and evaluation criteria	2.72	12	2.40	11	2.57	11	1.00	11
Very few schemes have actually reached the contract stage	3.04	6	2.20	12	2.00	12	1.00	12
Lack of experience and appropriate skills	2.54	13	2.00	13	1.57	13	.80	13

Privileges/attractions for private sector involvement in PPP;

The analysis of survey response data produced mean importance values for 5 identified (from literature) privileges/attractions for private sector involvement in PPP ranging from housing (3.04 to 3.54), health (1.60 to 4.20), education (3.28 to 4.28) and other sectors (1.20 to 3.80). Table 4 shows that the government guarantee ranked as the most privileges/attraction for private sector involvement in PPP (mean value 3.54, 4.20, 4.28 and 3.80) and this is the most fundamental issue tends to attract private promoters or PPP agencies in most countries that have relatively long history of PPP in infrastructure development programme. The government's assistance that public-sector procurement is carried out on the basis of PFI or PPP contracts is designed to ensure that the public-sector borrowing requirement is limited. The concession agreement is regarded as the "heart" of a BOT project as it determines the commercial viability and profitability (Ibrahim et al, 2007). A concession agreement includes the government guarantees. The host government offers guarantee to the private promoters (concessionaire) like supporting loans, guarantees of minimum operating income etc.

Table 4: Privileges /attractions for private sector involvement in PPP

Privileges /attractions for private sector involvement in PPP	Housing sector		Health sector		Education sector		Others	
	MeanScore	Rank	MeanScore	Rank	Mean Score	Rank	MeanScore	Rank
Government guarantee	3.54	1	4.20	1	4.28	1	3.80	1
Incentive of new market penetration	3.45	3	3.60	2	3.57	3	2.80	2
government assistance in financing	3.45	4	2.60	3	3.85	2	2.80	3
Government sponsorship	3.54	2	2.40	4	3.28	4	2.80	4
Tax exemption or reduction	3.04	5	1.60	5	3.28	5	1.20	5

Driving forces leading to the adoption of PPP

The analysis of survey response data produced mean importance values for the 8 driving forces leading to the adoption of PPP ranging from housing (2.95 to 4.31), health (2.20 to 4.40), education (3.00 to 4.57) and other sectors (1.40 to 4.80). High quality of services required is ranked as the most driving force leading to the adoption of PPP in the survey analysis (Table 4, mean values 4.31, 4.40, 4.57 and 4.80) in all of the sectors, this certainly a fundamental requirement for establishing and sustaining PPP implementation in any country. Holmes et al (2006) stated that in health, the intentions of PFI/PPP procured premises is to improve the quality of services by utilizing a wider range of providers and learning good ideas and better techniques. He further argued that the purpose-build centres that were provided in the 1960s and 1970s are now relatively small, out of date, in poor repaired and fail to meet legislative and other requirement on issues such as access and sustainability. Contract should be based upon principle of fairness, mutual trusts and team work and a construction taskforce on "Rethinking construction" promoted the concept of partnering. These concepts, together with a tight control on public sector borrowing, provides the drivers towards the PFI/PPP as a major procurement tool for new build in the UK (Holmes et al, 2006). The primary objectives of PPPs is to facilitate the delivery of high quality public facilities and services by the private sector over an extended period of time at a cost that represents value for money, whilst at the same time transferring an appropriate level of risk to the private sector (Ibrahim et al, 2006).

Table 5: driving forces leading to the adoption of PPP

Optimum conditions	Housing sector		Health sector		Education sector		Others	
	Mean	ScoreRank	Mean	ScoreRank	Mean	Score	Rank	MeanScoreRank
Driving forces leading to the adoption of PPP								
High quality of services required	4.31	1	4.40	1	4.57	1		4.80 1
Inefficiency because of public monopoly and lack of competition	3.77	3	4.20	2	4.00	4		3.00 2
Shortage of government funding	3.90	2	3.60	3	3.71	5		3.00 3
Social pressure of poor public facilities	3.59	5	3.40	4	4.00	3		2.80 4
Economic development pressure of demanding more facilities	3.72	4	3.20	6	4.14	2		2.80 5
Lack of business and profit generating skill in the public sector	3.31	6	3.20	5	3.71	6		2.60 6
Private incentives	3.18	7	3.20	7	3.57	7		2.60 7
Avoid public investment restriction	2.81	9	2.80	8	3.28	8		2.20 8
Political pressure	2.95	8	2.20	9	3.00	9		1.40 9

Measures that enhance the achievement of value for money in PPP

Efficient risk allocation is ranked as the measure tends to enhance the achievement of value for money in PPP project (mean values 4.20, 4.20, 4.71 and 4.00).

Charoenporpattana and Minato (2009) suggested that key issues to be carefully considered in PPP project is the management of the schemes. Charoenporpattana and Minato (2009) submitted further, that efficient risk allocation also tends to enhance the achievement of value for money in PPP project and this is certainly the fundamental requirement for attracting foreign investors.

According to Ibrahim (2005) government transfers most of the risk to the private sectors; therefore the degree of control over the risk is an important factor that should be considered while allocating risk. As a general approach to risk management and allocation, the risk should be transferred to the party that is best able to control it. And this has brought us to conclusion that efficient risk allocation and transfer tends to enhance the achievement of value for money in PPP projects.

Table 6: Measures that enhance the achievement of value for money in PPP projects

DISCUSSION OF FINDINGS

The research work in this paper presents the perceptions of stakeholders or PPP practitioners in Nigeria with respondents from both the public and private sector on their perception of the identified optimum conditions to PPP projects. A total of 39 out of 44 survey questionnaires returned were good enough for the analysis as discussed.

The results generated from this questionnaire survey exercise was in tune to the submission and findings of the research conducted in the UK (Li, 2003; Rukuts, 2004; Li et al., 2005b, Carrillo et al., 2008), Ireland (Gunnigan and Eaton, 2006) Hong Kong (Chan et al., 2010) and New Zealand (Liu and Wilkinson, 2011). The findings were compared to show that the result of this survey is generic and consistent with the findings of the previous authors (Li, 2003; Rukuts, 2004; Li et al., 2005b, Gunnigan and Eaton, 2006; Carrillo et al., 2008; Chan et al., 2010, Liu and Wilkinson, 2011).

The most attractive factor revealed by the research is acceleration of project development, Liu and Wilkinson (2011) in their research carried out in New Zealand submitted that private sector have the opportunities of accelerating infrastructure provision by making use of their project finance techniques and instruments as additional charges either on taxes or rate will only bring more hardship and negative impacts on the economy. Askar and Gab-Allah (2002) and Li et al. (2005b) supported the argument that PPPs provide government opportunities to advance priority infrastructure projects for economic development without making the initial payment or bearing the total cost. The results also indicated that the optimum positive conditions for adopting PPPs in Nigeria is in its acceleration of development and benefit for local economics and social development. The findings also affirm the earlier assertion of Li et al (2005b) and Liu and Wilkinson (2011) that PPP adoption improves local economic and social development.

From the results of the analysis Lengthy delays in either negotiation or approval as a result of political/social or legal debate was ranked as the most negative factor impeding successful adoption of PPPs, this followed by high risk relying on private sector to provide all the enabling environment. The lengthy lead time in making PPP projects a reality could also be traced to unavailability of workable mechanisms and frameworks for procuring PPPs at the early stage to remove bottlenecks in the transaction and eliminate poor project definition by the proponents (Aziz, 2007; Kwak et al., 2009; Liu and Wilkinson, 2011). The result was in tune with the submission of (Li, 2005a&b; Chan et al., 2010; Liu and Wilkinson, 2011). These findings reveal that this negative factor was important irrespective of the different cross-cultural attitudes.

Measures that enhance the achievement of value for money in PPP projects	Housing sector		Health sector		Education sector		Others	
	Mean Score	Rank	Mean Score	Rank	Mean Score	Rank	Mean Score	Rank
efficient risk allocation	4.22	1	4.20	1	4.71	1	4.00	1
Optimal use of asset and project efficiency	3.95	3	4.00	2	4.42	2	3.00	2
private sector technical innovation	3.72	8	4.00	3	3.85	7	3.00	3
private management skill	3.95	2	4.00	4	4.14	4	3.00	4
Competitive tender	3.86	6	4.00	5	4.28	3	3.00	5
profitability to the private sector	3.54	12	4.00	6	4.00	5	2.80	6
Early project service delivery	3.81	7	3.80	9	3.71	11	2.80	7
out based specification	3.90	5	3.80	7	3.71	9	2.80	8
Level of tangible and intangible benefits to the users	3.95	4	3.80	10	3.42	14	2.60	9
improved an additional facilities to the public sector	3.68	9	3.80	8	3.85	6	2.60	10
long term nature of contract	3.27	16	3.60	11	3.42	15	2.60	12
risk transfer	3.59	10	3.60	12	3.57	12	2.60	11
Low shadow tariffs	3.50	13	3.60	14	3.71	10	2.40	13
Nature of financial innovation	3.13	17	3.40	13	3.42	13	2.20	14
Off the public sector balance sheet	3.54	11	3.20	15	3.85	8	2.20	15
Environmental consideration	3.40	15	3.20	16	2.85	18	2.20	17
Low project life cycle cost	3.45	14	2.80	17	3.00	16	2.20	16
Reduction in disputes, claims and litigation	2.77	18	2.80	18	3.00	17	1.80	17

Government guarantee is the most privileges/attraction for private sector involvement in PPP and according to Fishbein and Babber (1996) no private investor would like to join an infrastructure project without any mitigation mechanism or support from government. High quality of services required is ranked as the most driving force leading to the adoption of PPP, the finding was in tune with (Askar and Gab-Allah, 2002; Chan et al., 2009; Cheung et al., 2009; 2010) they, asserted that private sectors are geared towards better and improved maintenance of public assets through proper execution of efficient design of public facilities.

Efficient risk allocation is ranked as the measure tends to enhance the achievement of value for money in PPP project and this was supported by Grimsey and Lewis (2005) who argued that the optimal allocation of risk is the key objective of all PPPs and the value of transferable risk needs to be included in the PPP arrangements. Efforts geared towards achieving efficient risk allocation has been identified as a significant driver for PPP adoption in a wide range of practical PPP guidance materials and academic publications (Cheung et al., 2009; European Commission, 2003; United Nations Economic Commission for Europe, 2004).

CONCLUSION AND RECOMMENDATION

PPP is increasingly gaining popularity and becoming the most preferred method for procuring public infrastructure and social amenities projects across the globe, hence gaining recognition as a special vehicle to finance much-required public infrastructure worldwide. Not all PPP projects are always a failure or success and the required conditions for carrying out different PPP projects are not the same since 'one-size-fits-all' is not applicable to some of these PPP projects and they are exposed to different positive and negative factors. The need to identify optimum conditions for PPP projects is therefore becoming an important issue for both research and practice also in Nigeria.

Thus, the research concluded that the identified optimum conditions are very relevant not only to European and Asian continents but also to African countries. Though, some of the conditions ranking differ across continent most especially Europe and Asia and may be accounted for by the infancy nature of PPP adoption in Nigeria as a country in procuring public infrastructure. Finally, the research also concluded that the most attractive factor for PPPs in Nigeria is the acceleration of development brought by the procurement method. Lengthy delay due to political/legal or social debate was revealed to be the most negative factor for adopting PPP. High quality of services generated by PPPs was the main driver leading to PPP adoption and lastly, to enhance value for money there must be efficient mechanism in place for allocating risk efficiently.

The research recommended that, given the amount of importance the respondents attached to high quality of service required by the citizens as well as PPP accelerate project development, it is therefore crucial for the Nigerian government to recognize PPP as a catalyst for infrastructure development. Also, it is important for the PPP participants to allocate the Risk to the person or sector that is best able to manage it and guarantee also should be maintained by the government. Lastly, based on the findings of this report, Lengthy delays because of political debate appeared to be the most negative factor for adopting PPP arrangements, therefore both public agency and private sector should device a means for eliminating politics in PPP infrastructure projects where possible to provide the full benefit of PPPs to the end-users.

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