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# EVALUATION OF FACTORS INFLUENCING THE ATTRACTIVENESS OF PPP/PFI PROCUREMENT FOR CONSTRUCTION PROJECTS IN ABUJA, NIGERIA

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#### **ABSTRACT**

In the guise of public finance initiative (PFI), public private partnership (PPPs) has become an integral part of national government policy in the delivery of public facilities and services. This paper aimed at perceptions of what makes PPP/PFI attractive or unattractive as a procurement system for projects in Nigeria. The study uses primary data while relevant factors were through review of literature. Survey responses were subject to statistical analysis using relative importance index (RII). From the analysis conducted PPP/PFI project procurement is perceived as most attractive in terms of positive factors relating to acceleration of project development, transfer of risk to the private sector, solves the problem of public sector project restraints, reduces public sector administrative cost and benefit to local economic development with RII of 0.72, 0.71, 0.69, 0.68, 0.67 with ranking as 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> respectively. Negative factors relating to much management in contract transaction, lengthy delays in negotiation, high participation cost, high project cost and lack of experience and appropriate skill makes PPP/PFI less attractive. In the project development process, the parties have to make decisions based on suitable evaluation criteria. At the early stage of preparing a business case, a clear and common understanding of the positive and negative factors surrounding PPP/PFI procurement will provide a more informed basis for decision making.

KEYWORDS: PPP, PFI, Procurement, Public facilities, Relative importance index

#### INTRODUCTION

Public Private Partnerships (PPP) in the guise of Public Finance Initiative (PFI) has become an integral part of national government policy in the delivery of public facilities and services (HM Treasury, 2000). With the increasing use of PFI and other PPP schemes in the UK and other developing nations, there are still some aspects of PPP/PFI which are not clear to all the participants. For instance, the Institute of Public Policy Research (IPPR) across the United Kingdom collected "evidence calling for Public Private Partnerships" across the UK in 2000 (Institute of Public Policy Research, 2000a). The IPPR survey aim was to produce authoritative guidelines which will inform the use of such partnership arrangement inn future. A lot of researches and surveys were conducted by so many researchers addressing different aspects of public private partnerships and public finance initiative. However, this paper focuses on the positive and negative factors that influence the attractiveness of

PPP/PFI procurement for construction projects in Nigeria.

#### GENERAL PERCEPTIONS OF PPP/PFI

In developed and developing nations, public and private sector response to PPP/PFI has been mixed so far. Some of the participants welcome the policy actively (Allen 1999, Middleton, 2000). Reactions from others have been largely negative (Owen and Merna, 1997). Complimentary review about PPP/PFI derives the benefit it brings about in terms of its effect on economic development strategy. The procurement (PPP/PFI) allows the public sector and the Government to learn from each other and synergistic effect for both parties is created. In the UK, it is claimed that PPP/PFI will become a cornerstone of the current UK Labour Government modernization programme through the delivery of better quality public services by introducing in new investment and improved management, and will provide a major boost to the construction industry (HM treasury, 2000).

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On the other hand, critics suggest that PPP/PFI is a controversial and problematic approach to capital development in the public sector (Ruane, 2000).

perceptions contrasting attractiveness of PPP/PFI as a means of delivering public facilities and services complicate the task of decision makers involved in preparing the business case for a project to be delivered through PPP/PFI procurement. Policy development for public sector project procurement generally can also be influenced. However, while some aspects of PPP/PFI projects will make them more attractive to one stakeholder than to another, it should be necessary to explore the concept of attractiveness at greater depth. This will be done by first identifying the factors that may positively or negatively influence PPP/PFI projects attractiveness, and then testing the factors against the perception of project participants.

### POSITIVE ATTRACTIVE FACTORS OF PPP/PFI

One of the primary objectives of PPP/PFI project procurement is the transfer of risk. The risk associated with the delivery and operation of desired public facilities and services will be divested by the public sector partner. Most of the risks are related to time, cost and quality objectives of the project. Risk transfer however may be an obvious positive feature of PPP/PFI for the public sector. In the UK for instance. under current guidelines, explicit information about risk allocation is provided by the public client to conformed private sector bidders during the contract procurement process for the project (National Audit Office 1999, National Health Service, 1999). This must yield greater clarity about project risk, the private sector in its participation in PPP/PFI may likely agree that risk transfer is also a positive factor. The fact that risk and reward goes hand in hand also suggests that the private sector participants may be enthusiastic about securing opportunities to profit from the risk transfer that occurs.

Regardless of unforeseen increases in the capital costs of projects, or higher than expected ongoing service delivery and maintenance costs, it is expected that money will be available to resolve matters.

This image is corrected by PPP/PFI with the fact that it subjects the decision of capital expenditure to the scrutiny of public sector commercial practice. In addition, the public sector partner is able to cap its final cost of services at pre-determined levels through the concessional agreements made with the private sector partner (Tiong and Anderson, 2003).

The amount of public money is reduced in PPP/PFI that is tied up in capital investment since it relieves government of a substantial proportion of public debt. Public service provision through public sector involvement means that the private investment solves the bottleneck problem in demand and supply of infrastructure.

PPP/PFI procurement is seen as attractive to public and private sector participants because it forces a project to service any financial debt from the revenue streams derived from the project itself. There is no recourse to public funding, nor can the debt be secured by the underlying asset value since for most projects ownership reverts to the public client after a pre-determined period. The revenue streams may comprise fees paid directly to the concessionaire by users (e.g. toll road fees), or fees paid by government on behalf of all potential users (e.g. fees per hospital patient serviced, or per school pupil accommodated). This non-recourse or limited recourse public funding is an important ingredient of PPP/PFI procurement (sAkintoye et al., 2001).

Since PPP/PFI approaches encourage private sector commercial efficiency to replace public sector inefficiency, it is expected that the total cost of the project can be reasonably reduced (Hambros, 1999).

An attractive feature of PPP/PFI procurement method is that it offers both the public client and the private contractor more freedom to select innovative methods in the provision of assets and services. This should lead to time saving by accelerating project development and by avoiding delays in project delivery (Downer and Porter, 1992; Hall, 1998; Utt, 1999).

By taking over the responsibility for design, construction, operation and maintenance, private contractors have to consider design suitability and convenience for future construction and operation practice, by placing emphasis on improving the buildability and maintainability of projects (Hambros, 1999).

PPP/PFI is seen as attractive in terms of the potential benefits it may bring to local economic development in the region(s) where the facility is built or the services are delivered. Local employment opportunities are enhanced, not only for the direct construction and operational activities associated with the project, but also for ancillary services and businesses established by entrepreneurs eager to exploit the opportunities created by its location (National Audit Office, 2001).

Internationally, and particularly in developing countries, PPP/PFI is seen as attractive in terms of its capacity to achieve the transfer of technological knowledge to local enterprises. Project procurement is arranged so that private sector partners with the desired technological expertise from more developed nations are enticed into joint venture type agreements with local companies (Nielsen, 1997; Trim, 2001).

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#### **NEGATIVE FACTORS OF PPP/PFI**

Lack of experience and appropriate skills in PPP/PFI exist not only in the public sector but also in the private sector. The developments of public projects under the PPP/PFI concept are quite new, especially in areas of public service such as schools and hospitals. In countries with strong public welfare policy, the PPP concept is comparatively less well understood in terms of operational service delivery. Governments have less experience in alternative ways to finance their projects. Morledge and Owen 1999 identify that lack of understanding and better training need by public officials involved in PPP/PFI projects is the major issue in PPP/PFI. The private sector also lacks appropriate skills in PPP/PFI projects (Ezulike et al., 1997).

Some of the factors that negatively affect the attractiveness of PPP/PFI projects include lack of critical experience, coupled with high participation costs, mean that participation to date in such schemes has been restricted to relatively few private sector partners. Grimsey and Graham (1997) have noted problems with complexity and affordability.

Currently, it is likely that too many scheme proposals are chasing too few private players (Public Services Privatization Research Unit, 2000). The nature of PPP/PFI, with its emphasis on complex, large scale long term projects and substantial elements of risk transfer, means that a mature and sufficient private sector market has not yet been established, in the UK and other developed countries. Despite the capacity to form project consortia, there are comparatively few private sector organisations, with sufficient confidence in their own ability to make them successful, capable of taking on such projects. In turn, this restricted participation has resulted in fewer schemes reaching the contract stage (Public Services Privatization Research Unit, 2000).

A PPP/PFI project is normally proposed in order to achieve several objectives. In the UK for instance, the Government uses the PFI and other types of PPP to complement additional public sector investment and to ensure that genuine economic benefits are shared between the public and private sectors. It is possible for conflicting objectives to arise and cause confusion in terms of their assessment criteria for both private contractor and public participants.

The contrary although was suggested earlier as a positive factor, and has been argued that some projects under PPP/PFI have had a higher project cost as compared to projects delivered through the traditional procurement.

The cost of a PPP/PFI project itself is claimed to be generally higher than the comparable public sector facility provision through traditional procurement (Ezulike et al., 1997; Birnie, 1999). High project cost might have been caused by the

private sector adding a larger profit margin to cover unfamiliar risks, and such premiums may subside as experience is gained. Public Services Privatization Research Unit (2000) claims that PFI costs more than conventional procurement, since the private sector could not borrow capital to finance projects as cheaply as the public sector. Critics of PPP/PFI believe that it reduces project accountability (Infrastructure Journal, 2001b; Pollock and Vickers, 2001).

Another contradiction with a positive factor proposed earlier is that PPP/PFI may result in fewer employment opportunities in the local area (Public services Privatization Research Unit, 2000).

#### SUMMARY OF FACTORS THAT INFLUENCE THE ATTRACTIVENESS OF PPP/PFI PROJECT DELIVERY

#### **Positive Factors**

- Reduces public sector administrative cost
- Improves buildability
- Improves maintainability
- Benefit local economic development (HM Treasury, 2000)
- Transfer technology to local enterprise
- Transfer risk to the private partner
- Solves the problem of public sector budget restraint (Akintoye et al., 2001)
- Accelerates project delivery
- Reduces total project cost
- Saves time in project delivery

#### **Negative factors**

- Few scheme reach the contract stage
- Threatened by lack of experience and skills
- Higher direct charges ton users
- Excessive restriction on participant
- High participation cost is incurred
- High risk relying on private sector
- Reduces project accountability
- Fewer employment opportunities available
- Can lead to high project cost (Ezilike 1997, Birnie 1999, Public Service Privatisation Reserch Unit 2000)
- Much management time is spent in contract transaction (Ezulike et al., 1997)

#### **METHODOLOGY**

Questionnaire survey was conducted to source information for the survey. The survey targets were limited to those with experience in PPP/PFI projects or experienced interest in PPP/PFI. The sampling technique adopted for this survey was a convenience sampling because there is no standard database for organisations involved in PPP/PFI projects.

The questionnaire comprises of three (3) sections/parts. The first part seeks background information about the respondent and their organisations. The second part deals with general

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issues about PPP/PFI while the third part investigates the positive and negative factors that influence the attractiveness of PPP/PFI procurement. The responses from the survey were analysed using the multiple-attribute method which involves computing the mean of the entire responses to a particular

variable using the relative importance index (RII). However, each variable was rated on a five point Likert scale rating point 5 being the highest rating for most important factor while rating point 1 for factor that were perceived to be not important at all.

#### DATA ANALYSIS AND DISCUSSION OF RESULTS

Table I: Respondents role in PPP/PFI Projects

Sector	Role	Frequency	Percent (%)
Public	Fed. Government	6	55.00
	State Government	3	27.00
	Local Government	0	00.00
	Public enterprise	2	18.00
	Sub total	11	100.00
Private	Financier	14	58.33
	Designer	1	4.17
	Consultant/adviser	5	20.84
	Supplier	1	4.17
	Financier, main contractor and operator	2	8.34
	Main contractor and designer	1	4.17
	No indication	0	0.00
	Subtotal	24	100.00

Source: Field Survey 2018

Of note in the survey response demographics was the relatively high proportion of Federal government involvement in PPP/PFI, compared with lower level public sector entities. This suggests that useful PPP/PFI learning/skills transfer could be offered by Federal government. The survey responses also revealed a substantial multi-role involvement on

the part of private sector organisations, with a financier role evident in all combinations. This suggests that a strong culture of role diversity is now developing in the Nigerian construction industry. Table I indicates the roles undertaken by the survey respondents in PPP projects.

Table II: PPP/PFI project type

Project	Public sector	%	Private sector	%
Hospital	3	27.28	10	41.67
Transport	1	9.09	3	12.50
Power and Energy	2	18.19	5	20.84
Water supply	3	27.28	3	12.50
Schools	1	9.09	1	4.17
Housing and offices	1	9.09	2	8.34
Others	-	-	-	-
Total	11	100.00	24	100.00

Source: Field Survey 2018

Table II above shows the PFI/PPP project types reflected in respondents' experience. Both the public and private sectors have the same opinion in terms of

projects delivery through PPP/PFI with three respondents with 27.28 for the public sector and 10 respondents with 41.67% for the private sector.

Table III: Ranking of factors influencing PPP/PFI procurement

Factor(s)	Sum	Mean	RII	Rank
Accelerates project development	126	3.60	0.72	1 <sup>st</sup>
Transfer of risk to the private sector	124	3.54	0.71	$2^{\text{nd}}$
Solves the problem of public sector project restraints	121	3.45	0.69	$3^{\rm rd}$
Reduces public sector administrative cost	120	3.42	0.68	$4^{ ext{th}}$
Benefits to local economic development	117	3.34	0.67	5 <sup>th</sup>
Non limited public funding	117	3.34	0.67	5 <sup>th</sup>
Reduces public money tied up in capital investment	117	3.34	0.67	5 <sup>th</sup>



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Facilitates creative and innovative approach	116	3.31	0.66	6 <sup>th</sup>
Improves buildability	113	3.22	0.65	6 <sup>th</sup>
Improves maintainability	114	3.25	0.65	6 <sup>th</sup>
Reduces total project cost	111	3.17	0.63	$7^{\text{th}}$
Transfer technology to local enterprise	110	3.14	0.62	8 <sup>th</sup>
Saves time in project delivery	110	3.14	0.62	8 <sup>th</sup>
Much management in contract transaction	106	3.02	0.61	9 <sup>th</sup>
Lengthy delays in negotiation	107	3.05	0.61	9 <sup>th</sup>
High participation cost	105	3.00	0.60	$10^{\text{th}}$
High project cost	105	3.00	0.60	$10^{\text{th}}$
Lack of experience and appropriate skills	104	2.97	0.59	11 <sup>th</sup>
Higher direct charges to users	100	2.85	0.57	$12^{th}$
High risk relying on private sector	100	2.85	0.57	12 <sup>th</sup>
Few scheme reach contract stage	100	2.85	0.57	12 <sup>th</sup>
Reduces project accountability	97	2.77	0.55	13 <sup>th</sup>

Source: Field Survey 2018

Table III above shows the evaluation/ranking of all the factors influencing the attractiveness of PPP/PFI procurement. Results from analysis reveals the most of the factors that are positive are are accelerates project development (0.72), transfer of risk to the private sector (0.71), solves the problem of public sector project restraints (0.69), reduce public sector administrative cost (0.68) and benefits the local community (0.67) with the ranks of 1st, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>

and 5<sup>th</sup> respectively as compared with much management in contract transaction, lengthy delay in management all with 0.61 as RII with the rank of 9<sup>th</sup> each. This is followed with high participation cost and high project cost with RII of 0.60 and with the rank of 10<sup>th</sup> each. This implies that the positive factors are the factors that influence the attractiveness of PPP/PFI procurement in the study area.

Table IV: Ranking of the positive factors influencing PPP/PFI procurement

Factor(s)	RII	Total rank	Group rank
Accelerates project development	0.72	1 <sup>st</sup>	1 <sup>st</sup>
Transfer of risk to the private sector	0.71	$2^{\text{nd}}$	$2^{\text{nd}}$
Solves the problem of public sector project restraints	0.69	$3^{\rm rd}$	$3^{\text{rd}}$
Reduces public sector administrative cost	0.68	$4^{\text{th}}$	$4^{th}$
Benefits to local economic development	0.67	5 <sup>th</sup>	5 <sup>th</sup>
Non limited public funding	0.67	5 <sup>th</sup>	5 <sup>th</sup>
Reduces public money tied up in capital investment	0.67	5 <sup>th</sup>	5 <sup>th</sup>
Facilitates creative and innovative approach	0.66	$6^{th}$	$6^{th}$
Improves buildability	0.65	6 <sup>th</sup>	6 <sup>th</sup>
Improves maintainability	0.65	6 <sup>th</sup>	$6^{th}$
Reduces total project cost	0.63	$7^{\mathrm{th}}$	$7^{\text{th}}$
Transfer technology to local enterprise	0.62	8 <sup>th</sup>	8 <sup>th</sup>
Saves time in project delivery	0.62	8 <sup>th</sup>	8 <sup>th</sup>

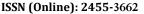
Source: Field Survey 2018

Table IV above shows the ranking of the positive factors influencing the attractiveness of PPP/PFI procurement and can be deduces that all the factors in this group have the same ranking and group

ranking in this category. This implies that the positive factors are the factors that influence PPP/PFI procurement based on respondent perceptions.

Table V: Ranking of the negative factors influencing PPP/PFI procurement

Factor(s)	RII	Total rank	Group rank
Much management in contract transaction	0.61	9 <sup>th</sup>	1 <sup>st</sup>
Lengthy delays in negotiation	0.61	9 <sup>th</sup>	1 <sup>st</sup>
High participation cost	0.60	$10^{\text{th}}$	$2^{\text{nd}}$
High project cost	0.60	$10^{\rm th}$	$2^{\text{nd}}$
Lack of experience and appropriate skills	0.59	11 <sup>th</sup>	$3^{rd}$
Higher direct charges to users	0.57	$12^{th}$	$4^{th}$





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High risk relying on private sector	0.57	12 <sup>th</sup>	$4^{th}$
Few scheme reach contract stage	0.57	$12^{\rm th}$	$4^{\text{th}}$
Reduces project accountability	0.55	13 <sup>th</sup>	5 <sup>th</sup>

Source: Field Survey 2018

Table V above shows the ranking of the negative factors influencing the attractiveness of PPP/PFI procurement and can be seen that all the factors in this group reveals that their total ranks differs from the group rank. As can bee seen, much management time and lengthy delays in negotiation have the same total and group ranks of 9<sup>th</sup> with a group rank of 1st each, while high participation cost and high project cost also share the same total and group ranks of 10<sup>th</sup> and 2<sup>nd</sup> respectively. Lack of experience and appropriate skills has a total rank of 11<sup>th</sup> with a group rank of 3<sup>rd</sup>. This implies that all the factors in this group does not influence the attractiveness of PPP/PFI procurement construction projects.

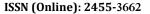
#### **CONCLUSION**

The relative importance of PPP/PFI positive attractiveness factors was investigated through an opinion survey conducted within the study area. The results, in order of importance show that projects procured under PPP/PFI arrangements exhibit positive attractiveness because of their ability to; Accelerates project development, Transfer of risk to private sector, Reduces public administrative cost, Solves the problem of public sector project restraints, Benefits to local economic development. However, PPP/PFIs are not a panacea for all public projects. Among the potentially negative factors, which might cause potential participants to reconsider their involvement, the top were; Much management in contract transaction, High participation cost and Lack of experience and appropriate skills. These factor groupings, representing the positive and negative characteristics exhibited in PPP/PFI procurement, should be considered by public sector clients, and by potential private sector business case developers, in the process of selecting PPP/PFI options for construction projects.

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