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Public Private Partnership And Infrastructural Development In Nigeria Polytechnics: The Federal Polytechnic, Idah Experience

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Abstract

In recent times Public Private Partnership (PPP) has become a viable initiative in the development of infrastructural facilities and provision of quality services. In order to develop its Information and Communication Technology (ICT) facilities and provide opportunities for e-commerce service delivery, the Federal Polytechnic, Idah (FPI) employed the PPP initiative in 2006. It is against this background that the study was embarked upon to evaluate the performance of the initiative. Data necessary to carry out the investigation were derived from both primary and secondary sources. The primary sources were majorly questionnaire, interview and observations. Hypothesis was formulated and Chi-Square was employed in data analysis. From the analysis, it was discovered that the PPP initiative at FPI has not improved ICT service delivery. The design of the PPP arrangement, imposition by the supervising authority, and lack of previous experience among others were responsible for this development. It is recommended that there should be in place an enabling legal framework that would allow institutions of higher learning to freely engage in PPP base on need and conviction, and not imposition by one authority or the other. Managers of institutions of higher learning should be equipped with basic training in PPP to eliminate or minimize the risk of venturing into PPP arrangements that would be a failure.

Key Words: Public Private Partnership, Infrastructure, Risk Analysis, Contract Agreement, Public Private Partnership Models

There is no gainsaying the fact that Polytechnic education is crucial to the technological development of the Nigerian nation. That is why Kupoluyi (2012) contended that no country can develop beyond the level of education of its citizens. However, over time the developments in the educational sector in Nigeria leave much to be desired. Nigerian Polytechnics lack the needed infrastructure that would guarantee global competitiveness. It is on this premise that Public Private Partnership (PPP) is considered a viable option in infrastructure development. Though PPP is novel in Nigeria, PPSB Brief (2008) observed that governments throughout the World have been using PPP over the past twenty years. From the number of PPP arrangement existing in the country it is clear that Nigeria has joined the other countries of the World with the intent of using the initiative to speed up her economic development (Inekwe, 2011).

It is against this backdrop that this paper seeks to assess the experience of Federal Polytechnic, Idah (FPI) in the use of PPP in Information and Communication Technology (ICT) infrastructure development with a view to drawing lessons there from.

Statement of the Problem

In order to develop its ICT infrastructure and improve the quality and efficiency of its education and services, the Federal Polytechnic, Idah entered into a PPP arrangement with SocketWorks Ltd for a period of seven years beginning from 2006/2007 Academic Session. After three year of the contract agreement there were unanswered questions. Thus, this study put forward the following questions for investigation:

i. What are the PPP models available for consideration?
ii. What are the risks associated with PPP arrangements?
iii. What are the key provisions of FPI PPP contract
iv. How successful is the Performance of PPP Contract at FPI?

Objective of the Study

The objective of this study is to appraise the use of PPP in ICT service delivery at the Federal Polytechnic, Idah.

Formulation of Hypotheses

The study is designed to verify the hypothesis that there is no significant improvement in ICT services delivery for e-education and e-commerce at FPI.

Literature Review and Conceptual Framework

Definitional and Conceptual Issues

According to Frischmann and also Pendse (as cited in Akinwale, 2010:207), infrastructure refers to resource systems that have been harnessed for the development of society. Such systems include telecommunication, energy, transportation, governance and other public utilities. The contribution of infrastructure to economic development and qualitative education is well documented in literature. However, there is acute shortage of infrastructure in Nigeria institutions of higher learning. As is the case with most countries in the world, Capital (2010) maintained that it has become evident that the government alone cannot muster the resources (finance and expertise) to meet the infrastructural need and therefore the involvement of the private sector is not just desirous but necessary. In the same vein, Hammami, Ruhashyankiko, and

Yehoue (2006) were of the opinion that PPPs help fill the infrastructure gap between what the governments can afford and what the people need.

PPP on the other hand, has been defined variously by writers and proponents. For instance, to PPSP Brief (2008) PPPs are agreements between the public and private sectors for the provision of assets and/or services such as power, water, transportation, education, and health. PPP is a sustainable effort between the public and private sector, in which each contributes to planning and resources needed to accomplish a mutual shared objective (Capital, 2010). An important aspect of this definition is sustainability. Therefore, a PPP that is not sustainable may not realize the intended benefits. The World Bank on its part gave a detailed definition of PPP thus:

PPPs is an innovative methods used by the public sector to contract with the private sector who bring their capital and their ability to deliver projects on time and to budget, while the public sector retains the responsibility to provide these services to the public in a way that benefits the public and delivers economic development and improvement in the quality of life. (Comptroller & Auditor General of India, 2009: 4)

There are three critical issues in the World Bank definition that is worth noting. First, in PPP substantial private Capital is involved. Second, the private partner must try as much as possible to deliver the project on time and in line with the proposed budget for it. Third, PPP should lead to improvement in the quality of life of the public. It is therefore obvious that where these elements are lacking in a PPP there is bound to be problem.

On the whole, however defined the central issue is that PPP involve an arrangement between the public sector and the private sector such that the private sector provides the infrastructure and/or service that ought to be provided by the public sector.

The Need for PPP

A number of reasons have been advanced for the attraction of PPP in recent times. PPSP Brief (2008) gave three key reasons. First, PPPs have been effective in helping government respond to the increasing demand for infrastructure-related services. Second, by shifting the burden of capital spending to the private sector, PPPs can help government to do less. Third, PPPs contribute to enhanced efficiency in services delivery. The reasons given for Nigeria keying-in to this initiative are in line with the above. However, one will not be totally wrong if the level of corruption in our country is taken as one of the factors, if not the major one, responsible for the move to adopt PPPs in Nigeria. In addition to the above, the use of PPP is equally beneficial to the private sector. On this, Obozuwa (2010) asserted that PPPs give the private sector access to secure long-term investment opportunities. This assertion is founded on the premise that payment is provided through a contracted fee for service or through the collection from users – and the revenue stream may be secured for as long as 50 years or more. Another benefit is that the private sector partners can profit from PPPs by achieving efficiencies based on their managerial, technical, financial, and innovation capabilities. They can also expand their PPPs capacity and expertise. From the foregoing if PPP is properly managed in this country the economy will be better for it.

Types of PPP

PPPs are in a variety of forms and no two PPP projects are exactly alike. Multitudes of PPP structures are identified in literature but this section of the paper principally adopt the conceptualization of variants of PPP by the Asian Development Bank (2008). Thus, PPP models may take any of the following forms:

Service Contract: Under a service contract the government contract out the right to provide a specific service. In most cases the government is responsible for the capital investments, and the contract is usually for a period of 1- 3 years. In this type of PPP the private partner must perform the service at the agreed cost and must meet performance standards set by the public sector. It was further stated that its potential weakness is that the public sector remains in charge of tariff setting and assets, both of which are politically vulnerable and critical to sustain the system.

Management Contracts: Here a private entity contracts to manage a government owned entity and manages the marketing and provision of service (Obozuwa, 2010). It is generally agreed that this type of contract is limited to 3 – 5 years. In most cases, the private partner provides working capital but not financing for investment. To provide an incentive for performance improvement, the management contractor can be paid a share of profits. Where this is the case, safeguards are required because there is the risk of window dressing to increase profits.

Lease Contracts: The Canadian Institute of Chartered Accountants (as cited by the Canadian Council for PPP, 2008) defines a lease as the conveyance by a lessor to a lessee of the right to use a tangible asset, usually for a specified period of time in return for rent. UNESCAP (n.d.) has it that under the lease structure, the government finances and constructs the infrastructure asset. On completion, the government maintains the ownership of the infrastructure, but contracts out to the private sector the operation, management and maintenance of the infrastructure assets. The private operator pays a lease fee and generates income from the use of the infrastructure asset. The contract periods are typically 8-15 years. It is equally possible to have a model where the private sector finances and builds a new facility, which it then leases to a public agency. The public agency makes scheduled lease payments to the private party.

Concessions: A service concession arrangement is an arrangement whereby a government or other public sector body contracts with a private operator to develop (or upgrade), operate and maintain the grantor's infrastructure assets such as roads, bridges, tunnels, airports, energy distribution networks, prisons or hospitals (Deloitte, 2011). The private partner in return is given the right to receive a stream of revenue from operating the infrastructure. The grantor controls or regulates what services the operator must provide using the assets, to whom, and at what price, and also controls any significant residual interest in the assets at the end of the term of the arrangement. Although, the private operator is responsible for providing the assets such assets are publicly owned even during the concession period. A concession is typically valid for 25-30 years. The government may contribute to the capital investment cost by means of subsidy to achieve commercial viability of the concession.

Build-Operate-Transfer (BOT) and Similar Arrangements: These are kind of specialized concession. The distinguishing features of these arrangements is that the private operator own the assets for the period set by the contract- sufficient to allow the developer to recover investment costs through user charges. Secondly, the agreement may compel the government to purchase a minimum level of output. A difficulty emerges if the demand had been overestimated. In such an arrangement a 'take-or-pay' situation arise, when the demand does not exist.

Joint Venture: Joint ventures are alternatives to full privatization in which the infrastructure is co-owned and operated by the public sector and private operator(s). According to Comptroller & Auditor General of India (2009), the public sector partner's contribution will be by way of fixed assets at a pre-determined value, whether it is land, buildings or facilities and/or it may contribute to the shareholding capital.

Despite these variants and there potential advantages, the Concession arrangement seems the most favoured in Nigeria. The Niger State Government (2007) confirms this fact. Their Policy and Operational Guidelines for PPP has it that Nigeria use Concessionary and Landlord Models.

Risks Associated with PPP

PPPs are not devoid of risks. To the International Road Federation (2008), risk analysis and risk management is critical to a PPP contract. The International Federation of Accountants (2008) summarizes risks in PPPs contracts as follows:

Construction risk: This encompasses the many issues that may be encountered during the construction phase of a project, such as cost overruns, building material defects,

construction delays, planning regulation, structural integrity issues with existing infrastructure, technical deficiencies, health risks, and worksite accidents.
Availability risk: This is the risk that the infrastructure or public facility will not provide sufficient services, for example, because of insufficient management or not meeting the required quality standards.

Demand risk: This risk relates to variability in the amount of service required or consumed by users of the infrastructure or public facility. Users can be the public sector entity itself, third- party users such as citizens, or both.

Operational and Maintenance risk: This risk encompasses a broad range of risks that exist after the infrastructure or public facility becomes operational. Examples include price increases or shortages of materials, increases in labour costs, damage as a result of natural disasters, costs related to deferring maintenance, and obsolescence. Demand and availability risk may also be considered specific components of operational and maintenance risk.

Residual value risk: This risk relates to the possible difference between the market price of the infrastructure or public facility at the end of the PPP arrangement and the original market price expectation.

Financing risk: This describes the risk that the full funding required for the project will not be obtained, or will be obtained at interest rates that would prevent the project from achieving its expected benefits. This might be due to the circumstances of the specific parties to the arrangement (for example, their credit status or debt limitations), or investor perceptions of the risks of a project.

In addition to the above risks, the Comptroller & Auditor General of India (2009) acknowledged two other cardinal risks in PPP contract that is worth mentioning. These are:

Feasibility/Organizational Risk: This may relate to the selection of the right type of PPP arrangement suitable for the project. Unless the government takes time to consider different alternatives for implementing the project before selecting the most appropriate, the project may not succeed in the long run. The risk associated with this aspect is borne by the public sector partner.

Termination Risk: This risk will arise if the private sector partner fails in the project because of its management failure, bankruptcy, dismal performance, indebtedness, etc. This risk is borne by the promoting public sector partner.

The general principle of risk sharing in PPP contract is that a risk is allocated to the party who can control it better. However, the above analysis shows that major risks in a PPP contract are borne by the public.

Methodology

This study is a survey research. It is equally an evaluation research. An evaluation is a formal objective measurement and appraisal of the extent to which a given activity project or programme has achieved its objective (Zikmond 2000: 9). The Federal Polytechnic, Idah was selected for this study because of its recent experience which is directly relevant to the study. 2011/2012 Session was sampled. The sample size was determined by means of Yamane's formula. According to Avwokeni (2003) the formula is given as:

$$n = \frac{N}{1 + \alpha^2 N}$$

Where: n = The sample size
N = Population size
α = Level of Significance

The students' population for the sampled Session was 9,477. The staff strength for the said Session was 866. However, only the senior staff which totaled 645 was sampled. At 5% level of Significance, sample size was determined as follows:

$$\text{Students} = \frac{9{,}477}{1 + (0.05)^2\, 9477}$$

$$= 384$$

$$\text{Staff} = \frac{645}{1 + (0.05)^2\, 645}$$

$$= 247$$

Of the 384 questionnaire distributed to students and 247 to staff, 322 and 196 were returned by the students and staff respectively and considered useable. Chi-Square is the test statistics used for data analysis and it is given as follows:

$$\chi^2 = \frac{\sum (fo - fe)^2}{fe}$$

To ensure the reliability of the data the questionnaire was adequately designed to provide the needed information, the research was conducted five (5) year after the commencement of the contract and the questionnaire was administered at the end of second semester to ensure that the students that complete the questionnaire were conversant with the FPI environment. Only senior staff were sampled because it is believe that they have more understanding of the issue at hand.

Results and Discussion

Key Provisions of the Contract Agreement between FPI and Socket Works Ltd

Some major provisions in the agreement between FPI and Socket Works Ltd that gave rise to PPP are summarized below:

Socket Works Ltd was appointed by the Federal Ministry of Education to provide Enterprise Portal-Based Education Management Software and Banking Solutions with the requisite functionalities and ICT infrastructure to all Federal Polytechnic in Nigeria. It equally provided that as regulatory body of all the Federal Polytechnic, the National board of Technical Education (NBTE) is to co-ordinate the project in the Federal Polytechnic concerned.

In consideration of the agreed amount payable per student every year over a period of seven (7) years, Socket Works Ltd is to provide Enterprise Portal-Based Education Management Software and Banking Solutions with the requisite functionalities and ICT infrastructure as summarized below:

a) Student Online Registration
b) Online Students Results Checking
c) Online Library Services
d) Online Document Management
e) Online Fees Payable and other e-commerce application
f) Online Complaints Management
g) Online Examinations and grading system
h) Online Internal and External Collaboration System
i) Online Hostel Accommodation System

Furthermore, by the contract agreement, FPI was at liberty to review periodically the performance of any of the services and personnel supplied by Socket Works Ltd pursuant to the Agreement in order to assess the level of performance based on agreed tasks and targets. These tasks and targets include among others:

- The acquisition of a robust modern ICT infrastructure at startup.
- Provision of automation of the institution’s operations and processes as provided by the College portal platform.
- Provision of affordable and regular 24/7 access to the internet at full implementation.
- Better student-college relationship arising from improved information flow and transparency.
- Reduction of cash based transactions within the campus and improved cash flow due to better fees collection process.
- Work towards ensuring that the UNESCO student to computer minimum ratio of between 1:20 and 1:30 within the agreed number of years stated in the agreement.

- Provision of training commensurate with the levels of involvement/usage of every segment of the Polytechnic Community

Either party may terminate the Agreement at any time by giving to the other party six months written notice of such termination. The notice aforesaid shall be dispensed with if any of the personnel of either party is convicted of an offence involving dishonesty in relation to the Agreement, or is found guilty of serious misconduct in connection with the performance of the Agreement or in any particular breaches of the provisions of the Agreement, such that the performance of the Agreement can no longer be achieved by such conviction, misconduct, or breach.

Finally, the Agreement provided that all infrastructures and facilities used in the project shall become the property of the Polytechnic after the Seven-year contract period. All proprietary software will continue to be licensed to the Polytechnic thereafter.

Results

To guide the analysis in this study, the research hypothesis is re-stated thus: There is no significant improvement in ICT services delivery for e-education and e-commerce at FPI.

The responses of the students and staff to question 1to 9 on the questionnaire are presented on the table below.

Table 1: Response Frequencies of Students and Staff on ICT Service Delivery by SocketWorks

Operationalization	**Scale Category**	**Students**	**Staff**
Online Registration	Yes No	43 279	12 184
Online Results Checking	Yes No	25 297	7 189
Online Library Services	Yes No	96 226	61 135
Online Fees Payment	Yes No	34 288	19 177
Online Complaint Services	Yes No	8 314	15 181
Online Document Management	Yes No	21 301	3 193
Online Examination & Grading System	Yes No	5 317	0 196

Online Internal & External Collaboration System	Yes No	18 304	27 169
Online Hotel Accommodation System	Yes No	2 320	0 196

Source: Field Survey, 2012

Table 2: Summary of Response Frequencies

Conditions of Service	**Students**	**Staff**	**Total**
Yes No	252(8.70%) 2646 (91.30%)	144(8.16%) 1620 (91.84%)	396(8.49%) 4266(91.51%)
Total	2898(100%)	1764 (100%)	4662 (100%)

Source: Researcher's computation

Table 3: Observed and Expected response Frequencies

Cell	**fo**	**fe**	**$(fo-fe)^2/fe$**
a	252	246	0.15
b	144	150	0.24
c	2646	2652	0.01
d	1620	1614	0.02
Total			0.42

Source: Researcher's computation

With a degree of freedom of 8 [i.e (9-1)(2-1)] and at 5% level of significance the χ^2 tabulated is 15.507. Since the calculated value 0.42 is less than the tabulated value 15.507 the null hypothesis is accepted. It is therefore concluded that there is a general agreement among staff and students that ICT service delivery for e-education and e-commerce has not improved in FPI. From the responses from the respondents and the realities on ground SocketWorks has not achieved any of the objectives for which the agreement was reached. This could be attributed to a number of factors. First, the Consultant (SocketWorks Ltd) was imposed on the Polytechnic by Ministry of Education/NBTE. From the onset there was an interest. This could be seen in the cost recovery aspect of the contract. The students were charged ₦3,000 each per Session even without SocketWorks Ltd providing any of the agreed services except generation of course registration form and admission letter. The sharing formula of 30% to FPI, 8% to NBTE, 2% to Organized Students Associations of FPI, and 60% to SocketWorks is an indication that nobody was likely going to complain of non performance of the contract. Apart from the foregoing SocketWorks charges ₦250 per new student per session as admission -checking fee. Secondly, FPI for three years did not use a technically competent officer as its internal co-coordinator of the contract. As a result the aspect of the contract that gave FPI power to review periodically the performance of the contract was never utilized until the appointment of a technically competent officer in the fourth-year of the contract. Thirdly, the management of FPI does not have prior experience in PPP Agreement. Thus, they entered into a risky contract that tends to shift all burden to the Polytechnic. The lack of experience kept FPI in a contract that was not performing for a period of five years.

Conclusion

The analysis in this paper as drawn from the experience of FPI has shown that though PPP is a viable option in infrastructural development in institutions of higher learning, and other public sector institutions it could as well be a bitter pill in the mouth of the managers of public sector organizations. If not properly designed and executed, PPP arrangements could result in fraud and/or waste of scarce public resources as the risk inherent in the contract is borne by the public sector entity. Public sector institutions in Nigeria should learn from the pitfalls of FPI to avoid bitter experiences

Recommendations

In order to reap the full benefit of PPP and minimize the risk of failure regulatory authority should avoid imposing PPP agreement on institutions of higher learning and other public sector institutions. Management should engage in PPP based on conviction. This will enable the system to identify who to hold responsible for any default without fear or favour.

The management also needs to undergo basic training in PPP. This will broaden management knowledge on the various models of PPP available for consideration, the risk involved and timely appraisal of contract performance.

Public sector organizations that engage in PPP agreement should always constitute expert team that would continuously appraise the project throughout its life time to ensure its performance is in accordance with the terms of the contract such that a non – performing PPP can be stop before the beneficiaries are short -changed or defrauded.

Above all, any Consultant or contractor that does not provide value for money received should be prosecuted to serve as deterrent to others.

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