Bullion

Volume 35 | Number 2 Article 1

6-2011

Exploiting public private partnership as a tool for infrastructure development in Nigeria.

Sani F. Mohammed
Central Bank of Nigeria

Follow this and additional works at: https://dc.cbn.gov.ng/bullion

Part of the Economics Commons

Recommended Citation
Mohammed, S. L. (2011). Exploiting public private partnership as a tool for infrastructure development in Nigeria. CBN Bullion, 35(2), 3-10.

This Article is brought to you for free and open access by CBN Institutional Repository. It has been accepted for inclusion in Bullion by an authorized editor of CBN Institutional Repository. For more information, please contact dc@cbn.gov.ng.

EXPLOITING PUBLIC-PRIVATE PARTNERSHIP AS A TOOL FOR INFRASTRUCTURE DEVELOPMENT IN NIGERIA*

AUTHORS

SANI F. MOHAMMED

Assistant Director,
Development Finance Department
Central Bank Of Nigeria

1.0 Introduction

Infrastructure is generally defined to encompass those physical structures that facilitate the production of goods and services, without themselves being part of the production process (Yoshino & Nakahigashi 2000). It includes those components of the internal architecture of an economy, which enables it to consistently grow and provide increasing improvement to the quality of life of the citizenry (Ahmed 2011). It is often referred to as the 'stock of capital goods' and include highways, airports, harbors, utility production and distributive systems, water and sewer systems, communication and energy networks. Infrastructure plays a central role in improving competitiveness, facilitating domestic and international trade, and enhancing the continent's integration into the global economy (AfDB, 2010).

Infrastructure projects are lumpy, immobile, space specific and long lasting, often with life span measured in decades and centuries, and construction often running into years. The implication for financing is that the initial capital outlay tends to be quite large.

Lack of infrastructure development has huge negative impact on a country's economy and quality of life. It basically stunts growth in every sector through its knock-on effect. Agriculture; manufacturing and energy are just a few of the areas identified. It has been noted that the provision of infrastructure is a condition for higher rates of economic growth (Akinyosoye, 2010).

In many developing countries, including Nigeria, rapid economic growth is outstripping infrastructure supply (Gupta and Sravat, 1998). Governments in these countries are unable to fund vital infrastructure development and rehabilitation, so they are increasingly turning to large international firms as a source of funding through concession contracts such as Build-Own-Transfer (BOT) (McCowan and Mohammed, 2003).

The paper highlights the importance of infrastructure development to economic growth and the need for government to take a more strategic approach to tackling its dearth in Nigeria stressing the need to consider the Public-Private Partnership (PPP) as the preferred public infrastructure procurement option. This was in the light of the fact that the traditional procurement methods have proved ineffective due to the growing competition for limited state funds, and the citizens' higher expectations for efficient services in critical sectors such as power, transportation, waste management, etc. The paper also reviewed the literature on PPP, its models, benefits and examples in Nigeria and some other jurisdictions.

2.0 Economic Costs of Poor Infrastructure

Several studies have shown that there is a clear correlation between the quality of a country's infrastructure and its potential economic growth (Calderon and Serven, 2004). The World Bank has estimated that poor infrastructure across Africa reduces economic growth by 2% per annum (World Bank, 2009).

*The views expressed in the paper are those of the author and do not in any way represent the official position or thinking of the Central Bank of Nigeria. The author acknowledges the comments and criticisms of anonymous reviewer.

Some of the economic costs of poor infrastructure in Nigeria are summarized below:

- The indirect costs of doing business in Nigeria have been estimated at 16% of sales compared to 2% for South Africa and 5% in China (Business Monitor International, 2010);
- Nigeria scores zero out of 10 in the Business Monitor International assessment of the business environment because of the severe lack of investment in infrastructure by government. (Business Monitor International, 2010);
- Low GDP per capita as the country was ranked as the 127th in the world, compared to Ghana 114th and Malaysia 21st (World Economic Forum, 2011);
- Relocation of manufacturing giants such as Cadbury and Michelin to other countries;
- Huge capital requirements ranging between USD 25 and USD 30 billion employed to expand energy generation capacity to 30 000 MW alone (Anyawu, 2009); etc.

The Asian Development Bank noted that a country's infrastructure development should amount to a minimum of 6% of GDP to attain a reasonable level of sustainable development. Nigeria's infrastructure spending contributed a meager 1.9% / annum to GDP over the last decade (Akinyosoye, 2010). Using simple regression analysis, for Nigeria to bridge the gap and reach average levels of annual growths recorded amongst Asian countries, infrastructure spending (as a percentage of GDP) must increase to 18% to bridge the gap (with Asia) in 15 years and 24% in 10 years (Akinyosoye, 2010).

From the foregoing, Nigeria has an up-hill battle towards the development and need to embark upon some major strategic reform programs which puts infrastructure development top on its list of sectors that need urgent attention.

3.0 The Case for Exploiting the Public – Private Partnership (PPP) in Nigeria

The term PPP does not have a legal meaning and can be used to describe a wide variety of arrangements involving the public and private sector working together in some way (Farquharson, 2011).

The International Monetary Fund (IMF) defined it as "arrangements where the private sector supplies infrastructure assets and services that traditionally have been provided by the government" The PPP Unit of Mauritius provided a comprehensive definition of PPP, as "a contractual agreement between a public entity and private entity, whereby the private entity performs part of a government organisation's service delivery functions, and assumes the associated risks for a significant period of time. In return, the private entity receives a benefit/ financial remuneration according to predefined performance criteria, which may be derived entirely from government budgets, service tariffs or user charges, or from a combination of the two" (International Law Institute, 2006).

PPPs can therefore be described as contractual arrangements of varied nature where two parties share rights and responsibilities during the duration of the contract. Different forms of PPP involve different combinations of public and private sector finance and exposure to project risk (Farquharson, 2011). PPP was said to have been initiated in Australia in the late 1980s and found its way to the UK in the 1990s (Uff, 2005).

The changing living styles occasioned by rapid urbanization and the quest for technical development combined to make the demand for better and improved infrastructure more pressing every passing day. Clearly, the traditional budgetary allocation for infrastructure development has proved wholly inadequate in meeting the infrastructure needs of the country. In addition, the public sector and other parastatals/agencies charged with the responsibilities of producing and distributing infrastructural facilities have

Table 1: Comparative Stock of Infrastructure

Nation	Population	Area	Stock of Infrastructure				
			Telecom (millions)	Electricity (MW)	Rail (km)	Roads (km)	*Airports
Netherlands	16.72	41,543	27.23	9,170	2,811	135,470	22
Brazil	179.10	8,514,877	191.78	86,020	28,857	1,751,868	718
Turkey	96.81	783,562	83.32	18,900	8,697	426,951	90
India	1,166.08	3287,263	464.84	76,170	63,327	3,316,425	251
Nigeria	140.00	923,768	65.27	3,000	4,500	193,200	22

*Source: CIA World Facts Book 2008 * Paved civil/commercial airports*

proved to be inefficient, lack of cost effectiveness and continued reliance on grants for sustenance (Akinyosoye, 2010).

The typical options for infrastructure finance are:

- Direct budgetary allocations,
- borrowing from financial institutions and development banks,
- accessing the capital markets, or
- soliciting private sector participation through contracts, leases and concessions.

3.1 PPP Models

The PPP models vary from short-term simple management contracts (with or without investment requirements) to long-term and very complex concessions. These models vary mainly by:

- Ownership of capital assets
- Responsibility for investment
- Assumption of risks, and
- Duration of contract.

Based on the above, the PPP models can be classified into three broad categories. They are:

- Service and Management contracts;
- Leases; and
- Concessions.

Table 2 below (adapted from the Economic and Scientific Policy Directorate of the European Union Parliament) summarises the different models of PPP ***(Renda and Schrefler, 2006)***

Table 2

Scheme	Modality
Service contracts	The private party procures, oper ates and maintains an asset for a short period of time. The public sector bears financial and management risks.
Operation and management contracts	The private sector operates and manages a public owned asset. Revenues for the private party are linked to performance targets. The public sector bears financial and investment risks
Leasing-type contracts • Buy-build-operate (BBO); • Lease-develop-operate (LDO); • Wrap-around addition (WAA).	The private sector buys or leases an existing asset from the government, renovates, modernizes, and/or expands it, and then operates the asset, again with no obligation to transfer ownership back to the government
Build-operate-transfer (BOT) • Build-own-operate-transfer (BOOT); • Build-rent-own-transfer (BROT); • Build-lease-operate-transfer (BLOT); • Build-transfer-operate (BTO).	The private sector designs and builds an asset, operates it, and then transfers it to the government when the operating contract ends, or at some other pre-specified time. The private partner may subsequently rent or lease the asset from the government
Design-Build-Finance-Operate (DBFO) • Build-own-operate (BOO); • Build-develop-operate (BDO); • Design-construct-manage-finance (DCMF).	The private sector designs, builds, owns, develops, operates and manages an asse t with no obligation to transfer ownership to the government. These are variants of design -build-finance operate (DBFO) schemes.

Source: Elaboration on IMF (2004) and European Commission (2003)

3.2 Benefits of PPPs

- Public-Private Partnerships (PPP) arrangements are mainly driven by limitations in public funds for investments and the desire to increase efficiency of spending and the quality of public services.

- PPP could be a tool for reforming procurement and public service delivery (Farquharson, 2011).

- PPPs have been explored to provide infrastructure such as roads, ports, airports water and sewer systems, telecommunications, gas and electricity, schools, hospitals, prisons and even military bases (International Law Institute, 2011).

- PPPs in social sectors such as the education has the potential to improve the learning environment and upgrade the country's tertiary institutions to world class status while such arrangements for the health sector could improve patient care and increased access/ attendance at public healthcare facilities.

- PPPs maximizes use of private sector finance and skills; and

- helps alleviate the chronic underinvestment in capital intensive projects and allows off balance sheet borrowing

3.3 The Legal Framework for PPP in Nigeria

The Infrastructure Concession Regulatory Commission (Establishment, etc) Act of 2005 provides for the participation of private sector in financing the construction, development, operation, or maintenance of infrastructure or development projects of the Federal Government through concession or contractual arrangements; and the establishment of the infrastructure Concession Regulatory Commission to regulate, monitor and supervise the contracts on infrastructure or development projects.

The National Policy on Public Private Partnership is the working document of the ICRC that specifies the policy objectives, principles, institutional framework, and the roles of stakeholders in the PPP in the country. The document describes the processes by which the private sector will be invited to bid for the creation of new infrastructure, and the institutional framework within which new projects will be developed and procured. The Policy also sets out an approval process for PPP projects which is designed to ensure that only financially viable projects are brought to the market. A PPP Resource Centre within Infrastructure Goncession Regulatory Commission (ICRC) has been set up to provide support to Ministries, Departments, and Agencies (MDAs) of the Federal Government in the preparation and procurement of these projects (Ahmed, 2010).

3.4 The role of the Public Sector

Governments have traditionally been the dominant providers of infrastructure in most economies of the world. However, state-owned enterprises, often charged with the responsibility of supplying such services were found to be inefficient, overstaffed and required subsidies to maintain operations. The World Bank reported that mispricing and technical inefficiency in state utilities resulted in annual loss of $180 billion (Kessides, 2004).

Under the PPP arrangements, the government retains control through the provision of basic policies and laws to facilitate the granting and monitoring of the concession or other agreements. Other responsibilities of the government are consumer protection and the provision of some form of financial support to projects that are socially desirable but economically/commercially unviable.

3.5 The role of the Private Sector

The four principal roles for the private sector in PPP schemes as specified in the Guidelines for Successful PPP, published by the European Commission in 2003 (page 4) are:

- to provide additional capital;
- to provide alternative management and implementation skills;
- to provide value added to the consumer and the public at large;
- to provide better identification of needs and optimal use of resources.

3.6 The advantages of using PPP arrangements are summed up as follows:

As stated in the EU Guidelines for Successful PPP (pages 14-16), the advantages of using PPP are summarized as follows:

- *Acceleration of infrastructure provision* - PPPs often allow the government to implement development projects without necessarily using its resources. This enables projects to proceed when the availability of public capital may be constrained (either by public spending caps or annual budgeting cycles), thus bringing forward much needed investment.

- *Faster implementation* - the efficiency of the private sector, coupled with its less bureaucratic setup usually lead to faster implementation of projects

- *Reduced whole life costs* - PPP projects which require operational and maintenance service provision provide the private

sector with strong incentives to minimise costs over the whole life of a project, a feature inherently difficult to achieve within the traditional public sector budgeting.

- *Better risk allocation* - a core principle of any PPP is the allocation of risk to the party best able to manage it at least cost. The aim is to optimise rather then maximise risk transfer, to ensure that best value is achieved.

- *Better incentives to perform* – the allocation of project risk should incentivise a private sector contractor to improve its management and performance on any given project. Under most PPP projects, full payment to the private sector contractor will only occur if the required service standards are being met on an ongoing basis.

- *Improved quality of service* - international experience suggests that the quality of service achieved under a PPP is often better than that achieved by traditional procurement methods. This may reflect the better integration of services with supporting assets, improved economies of scale, the introduction of innovation in service delivery, or the performance incentives and penalties typically included within a PPP contract.

- *Generation of additional revenues* – the private sector may be able to generate additional revenues from third parties, thereby reducing the cost of any public sector subvention required. Additional revenue may be generated through the use of spare capacity or the disposal of surplus assets.

- *Enhanced public management* – by transferring responsibility for providing public services, government officials will act as regulators and will focus upon service planning and performance monitoring instead of the management of the day to day delivery of public services. In addition, by exposing public services to competition, PPPs enable the cost of public services to be benchmarked against market standards to ensure that the very best value for money is being achieved.

4.0 Examples of International PPP Projects

Listed below are some PPP projects that were being operated in different sectors and in different countries of the world.

- The Drax Power Station (AES Drax) – 3,960 MW coal fired power plant in Yorkshire, England that provides 7% of UK's electricity supply.

- Petrozuarta Project, Venezuela: 120,000 barrels/day Petroleum Refinery.

- The Chad – Cameroun Petroleum Development and Pipeline Project (Chad) – a 1,070 pipeline to transport crude from Southern Chad to Cameroun.

- Euro Disney (Disneyland Paris) Project, France – a holiday and recreation resort;

- The A4 Motorway, Poland – 670 km road which runs from west to east Poland.

- Dabhol Power Plant, India - 2,185 MW power plant built by Enron and General Electric.

4.1 Private Finance Initiative in the United Kingdom (UK)

The Private Finance Initiative (PFI) was initiated and popularised in the United Kingdom (UK) in the early 1990s. It represents a form of PPP that has become a key element of the UK government's strategy for improving and modernising public services. PFI schemes differ in their details, but typically involve investment by a private consortium – the 'PFI provider'– in new, rebuilt or refurbished infrastructure such as highway or port.

In the PFI model, the public sector purchases the services from the private sector through a long-term agreement. PFI projects therefore, bear direct financial obligations to government. In addition, explicit and implicit contingent liabilities may also arise due to loan guarantees provided to lenders for possible default of a public or private entity on non-guaranteed loans. Apart from building economic infrastructure, the PFI model has been used also for developing social infrastructure such as school and hospital buildings, which do not generate direct "revenues". In essence, the PFI provides a way of funding major capital investments, without immediate recourse to the public purse.

The U.K.'s Private Finance Initiative (PFI) program has played an important role in the procurement and delivery of public services since the early 90's. By 2007, more than 870 projects worth £65.5bn had been procured as PFIs (The UK Treasury Infrastructure Unit, 2010).

4.2 Example of Successful PPP in Nigeria: Murtala Muhammed Airport Terminal 2 (MMA2)

The Federal Government of Nigeria awarded 36 year concession to develop, finance, manage and operate the local wing of Murtala Muhammed Airport (MMA2) and ancillary assets under the Built-Operate and Transfer (BOT) arrangement in 2003. It was the first major BOT project in Nigeria (Babalakin, 2008). The project comprised the Airport Terminal building, a multi -

storey car park and an apron. It is presently the best Airport terminal with the capacity to hold up to 4,000 passengers in the country.

4.3 The Lagos State Example:

Lagos State projected that it requires about $50bn for infrastructure renewal/development to support our desired growth over a ten year period (Fashola, 2010).

The Lagos State Government enacted the Lagos State Roads, Bridges and Highway Infrastructure (Private Sector Participation) Development Board Law to provide a legal framework for private sector financing of certain infrastructure. It was the first time in Nigeria that any sub-national government has enacted a law specifically to regulate private sector financing for infrastructure development and maintenance (Okara and Atekebo, 2006).

Through PPP, Lagos State has recorded major strides starting with the AES 270 MW Independent Power Plant (IPP) to the first Bus Rapid Transit (BRT) system and the first major concessioned road - the Lekki/Epe Highway (Fashola, 2010).

5.0 Conclusion

Infrastructure projects procured via concession contracts are increasingly becoming the preferred option in developing countries (McCowan and Mohammed, 2003). It has also been observed that if procured properly, the BOT option presents a win-win-win solution for governments, private sector firms, and the community at large. From the government's perspective, private sector participation offers off balance-sheet funding whilst bringing an added advantage of cost and resource efficiency to the project. From the private sector's perspective, BOT projects present great opportunities to expand market share and earn higher returns. Finally, through user pay system, only the users of the infrastructure facility pays for the services rendered, thus freeing taxpayers' money for other competing demands (McCowan and Mohammed, 2003).

It must be acknowledged that the Federal Government of Nigeria and few state governments such as Lagos and Rivers States have started exploring opportunities for tapping into private financing that resulted in operational concessions in some critical sectors that include transportation and power. This strategic shift has come about on the realization that scaling up financing from traditional sources alone would not be adequate to close the massive infrastructure gap in the country.

The scope of potential benefit of a PPP project will depend on the type of project being undertaken and the exact terms of the contract governing the PPP. It is important to note that public bodies have a critical role to play in the management and regulation of PPP during their design, construction and operation. PPPs also require effective contract monitoring procedures to ensure that contractual obligations continue to be met in terms of both quality and timing.

Although PPPs can present a number of advantages, it has to be approached with caution as according to the European Commission report:

"it must be remembered that these schemes are also complex to design, implement and manage. They are by no means the only or the preferred option and should only be considered if it can be demonstrated that they will achieve additional value compared with other approaches, if there is an effective implementation structure and if the objectives of all parties can be met within the partnership."

Indeed, PPP allows for the finance and operational burden to be transferred from the public to the private sector. In return government is able to focus on strategic areas like policy making, planning and demand risk. This is important as governments have better leverage on demand through attractive policies (Akinyosoye, 2010). The key learning point is that for PPP to flourish as a preferred procurement and development option in Nigeria, they need to be based on firm policy foundations, a long-term political commitment, and sound and predictable legal and regulatory environment.

Africa Development Bank (2010) "Infrastructure Deficit and Opportunities in Africa" *Economic Brief* Vo.1, Issue ...September, 2010.

Ahmed, M. (2011) "Addressing Infrastructure Deficit in Northern Nigeria" Paper presented at the *Northern Economic Summit Kaduna, March provide year*

Ahmed, M. (2010) "An Overview of Infrastructure Finance in Nigeria: Current Situation, Challenges, and Way Forward" A presentation at the Central Bank of Nigeria Infrastructure Conference held at Sheraton Hotel and Tower, Abuja on December, 2010.

Akintola, A. (2003) "Public-Private Partnerships: Managing Risks and Opportunities" Oxford [etc.], edited by Beck, M. Blackwell Science.

Akinyosoye, M. (2010) "Infrastructure Development in Nigeria – Road Map to Sustainable Development" URL: http://greenhillts.com/yahoo_site_admin/assets/docs/Nigeria_Infrastructure_Development_in_Nigeri [illegible] 317154506.pdf Accessed 04/10/2011

[illegible] Merger and Acquisitions, and Capital [illegible] Science Publishers New York.

[illegible] B. 2008) Developing & Improving Air Traffic into Africa: The Role of Private Sector Investment in Aviation Infrastructure, being a paper delivered at 2008 US-Africa Infrastructure Conference. Grand Hyatt, Washington, DC.

Business Monitor International (2010) "Global Competitiveness Report 2010-11, Nigeria Infrastructure Report Q3 2011" World Bank's Assessment of the Investment Climate in Nigeria 2009.

Calderon, C and Serven, L. (2004) "The Effects of Infrastructure Development on Growth and Income Distribution" WPS 3400, World Bank.

Delmon, J. (2009) "Private Sector Investment in Infrastructure" In Project Finance, PPP and Risk (2nd Ed). Kluwer Law International, 2400 AH Alpena an den Rijn. The Netherlands.

Lissauer, R. and Robinson, P. A. (2000) "Learning Process. public private partnerships in education" Institute for Public Policy Research, London, 2000.

Farquharson, E. and Encinas, J. (2010) "Supporting PPP Financing during the Global Liquidity Crisis" The U.K. Treasury Infrastructure Finance Unit. WBI's Program for PPP.

Farquharson, E. et al must state all authors (2011)· How to Engage with the Private Sector in Public-Private Partnership in Emerging Markets. The International Bank for Reconstruction/World Bank, Washington DC 20433.

European Commission (2003) "Guidelines for Successful Public-Private Partnerships" Directorate-General Regional Policy Brussels.

Fasnola, R. B. (2010) "Challenges and Prospects of [illegible] at Sub-national Level: The Lagos State Experience" A presentation at the Central Bank of Nigeria Infrastructure Conference held at Sheraton Hotel and Tower, Abuja December, 2010

Foster, V. and Briceno-Garmendia C. (2010) "Africa's Infrastructure a time for transformation" The World Bank, Washington, D.C. 2010.

Gupta, J. P. and Sravat, A. K. (1998) "Development and project financing of private power projects in developing countries: a case study of India." *International Journal of Project Management*, 16(2): 99-105.

International Law Institute (2006) "Public-Private Partnerships for Infrastructure from the Host Government Perspective: An Introduction and Overview" Washington DC.

Kessides, I. N. (2004) "Reforming Infrastructure: Privatization, Regulation and Competition" A World Bank Policy Research Report.

McCowan, A. K. and Mohamed, S. (2003) "Evaluation of Build-Operate and Transfer Project Opportunities in Developing Countries" Griffith University, Gold Coast Campus, QLD 9726, Australia.

Okara, K. and Atekebo, T. (2006) "Private Sector Participation in Developing Public infrastructure in Nigeria: The Legal Framework" Streamsowers and Kohn, 2006.

Oteh, A. (2010) "Capital Market as a Long Term Option for Financing Infrastructure Development" A Paper Delivered at the "Central Bank of Nigeria Infrastructure Finance Conference" Held at the Sheraton Hotel and Towers, Abuja, December 6 – 7, 2010.

Renda, A and Schrefler, L. (2006) "Public-Private Partnerships: Models and Trends in the European Union" European Union Parliament Committee on Internal Market and Consumer Protection - IP/A/IMCO/PWC/2005-33.

The UK Treasury Infrastructure Unit (2010) "Supporting PPP Financing During the Global Liquidity Crisis" Ed by Farquharson E. D and Encinas, J - World Bank Institute PPP program.

Uff, J. (2005) "Construction Law" 9th Ed, Swiss Cottage, London: Sweet & Maxwell Limited, 2005.

World Bank (2009) "Africa's Infrastructure: A Time for Transformation" World Bank Institute, November, 2009.

World Economic Forum (2011) "The Global Competitiveness Index 2011-2012 Rankings" URL: http://www3.weforum.org/docs/WEF_GCR_CompetitivenessIndexRanking_2011-12.pdf

Yoshino, N & N. Nakahigashi (2000): The Role of Infrastructure in Economic Development. Centre for Excellence, Keio University. [Online] http://depot.gdnet.org/gdnshare/pdf/919_Dr._Yoshino.PDF