

CY-ICER 2014

^a*Building infrastructure through Public Private Partnerships in sub-Saharan Africa: Lessons from South Africa

Afeez Olalekan Sanni ^a *, Maizon Hashim ^a

^a Department of Quantity Surveying, Universiti Teknologi Malaysia, Johor Bahru, 81310 Malaysia

Abstract

The increase in the development of public infrastructure in sub-Saharan Africa would improve the standard of living of the citizens and the socio-economic development of those countries. This study is aimed at identifying the challenges in the delivery of social and economic infrastructures in the region through public private partnership procurement arrangements. The method adopted is the review of current practices of public private partnerships in sub-Saharan Africa while using South Africa implementation process as case study for the region. The review was carried out through the review of past studies, reports and relevant policy documents. The lack of capacity and policy direction, high participation costs, delays in negotiation and poor performance are among the challenges identified. It is advised that the governments across sub-Saharan African countries should be committed to the processes and the political leadership should support and create good environment for the implementation of infrastructural projects under PPP arrangement.

© 2014 Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/3.0/>).

Peer-review under responsibility of the Organizing Committee of CY-ICER 2014.

Keywords: Infrastructure, public private partnership, sub-Saharan Africa, regional development;

1. Introduction

The social and economic development of any nation is facilitated by the provision of adequate and functional infrastructures. It is estimated that the cost of maintaining and expanding existing infrastructures in developing countries is about USD 600billion which represented 7 percent of their GDP (Kateja, 2012). The public spending in

* Corresponding name: Afeez Olalekan Sanni. Tel.: +60-197-484-926
E-mail address: afeezsanni@yahoo.com

developing countries to deliver infrastructural facilities is about 3 percent (Kateja, 2012). Therefore, this is clear indication that the sub-Saharan African countries need to increase their budgeting on infrastructure so that those economies could improve and remove most of the countries in the region from the list of poorest nations of the world. The population of sub-Saharan Africa was 683.8 million in 2004 and with the current annual growth rate of 2.6%, the population would increase to 2.5 billion in 2050 (Afmeasur, 2013). The Gross National Product (GNP) per capita of sub-Saharan Africa was in the average of USD 1,540 while the average per capita in OECD countries was USD 33,470 and the Lower Middle Income countries' per capita was USD 1,816 in 2012 ((Afmeasur, 2013, Kateja, 2012). The per capita income of the sub-Saharan African countries is below the Lower Middle Income countries and twenty-seven sub-Saharan Africa countries are among the forty poorest countries in the world (Afdev, 2013). Despite the fact that 30 percent of the population live in the urban settlements, about 69 percent of the sub-Saharan Africa people are without electricity (TE, 2013, Afmeasur, 2013).

Africa, which is about 10 percent of the world's population, receives only 2 percent of the world's direct private investment (Afdev, 2013). There is no doubt that the private investment in Sub-Saharan Africa needs to be increased especially in the provision of infrastructure so that there would be multiple effects on the economy of the region. It was stated that some of the hindrances to the development of the region are population growth without considerable increase in infrastructure, political instability, dual economies and the physical environment (Afdev, 2013). Despite the backdrop of a sluggish world economy, the economic conditions in sub-Saharan Africa have remained generally robust and growth was projected at 5.25 percent a year in 2012-13 (IMF, 2012). In order to address these developmental challenges, the governments in sub-Saharan Africa are now recognizing that public private partnership (PPP) is probably the most effective way for them to go forward. Most developed countries are utilizing the PPPs to some degree to deliver public services and infrastructure while the developing countries are concentrating on the PPP contracts particularly in Latin America and South East Asia. Whereas the sub-Saharan Africa is considered the region with least PPP and those PPP projects are usually on a small scale (Li and Akintoye, 2003). This objective of this study is to identify the challenges affecting the development of infrastructure in sub-Saharan Africa through private investments.

2. Public Private Partnership

Public agencies in construction and neighbouring sectors face the twin challenges of increasing budgetary constraints and higher expectations in terms of efficiency and effectiveness of their service delivery (Hartmann et al, 2010) and they are required to produce more public value with fewer resources. The public sector typically defines the services required, while the private sector supplier undertakes the design, building, financing and operation of the facility, which at the end of the concessional period becomes public sector asset (Akintoye *et al*, 2001). The public sector embraced PPP due to the growth in the demand for infrastructure, limited public funds to meet current and future needs and acceptance of a greater role for the private sector in the provision of infrastructure, alternative methods of financing public facilities and services (Li *et al*, 2001). In spite of the recent global expansion in partnership based procurement, public private partnerships remain a comparatively small percentage of total public investments in infrastructure (RICS, 2011).

Public-private partnerships (PPP) are rapidly growing means of procuring infrastructure assets and their associated services, signaling a fundamental shift in the relationship between the state and industry (Ahadzi and Bowles, 2004). According to Gidado (2010), the PFI/PPP is unique in the sense that the private sector provides the government with a complete scheme or project that the government would be interested in. According to Li et al (2001), the overall objectives of PPP are to achieve value for money (VFM) for the taxpayer while keeping the attraction of some profit to the private sector. It was reported in RICSRESEARCH Report 2011, that more than 40 countries have implemented PPP model across a diverse range of infrastructure provision and service delivery arrangements. The government of Spain was expected to fund roughly 40% of future transportation investments from non-budgetary sources in 2010 (Garvin et al, 2009 cited in Garvin, 2009).

2.1. PPP in Sub-Saharan Africa

The private investments in public infrastructure in developing countries particularly the sub-Saharan Africa have been implemented since 1970s with the process witnessing reformations. It started with the idea of privatization before the present public private partnership procurement system. Tables 1 and 2 showed the numbers and volume of investments respectively of the private projects in sub-Saharan Africa since 1990 to 2011. The tables showed clearly that the investments in infrastructure by the private investors are very low in sub-Saharan Africa compared to other regions of developing countries. There were 436 projects that represented 8 percent of the total projects in developing regions from 1990 to 2011. The increase in population and public awareness couple with the coming up of elected governments across the sub-Saharan Africa countries had resulted in the increase in demand for public services (Awodele et al, 2010 and Gidado, 2010). The provision of these services by governments, especially in the developing countries, has been very difficult due to the limited fund. The sub-Saharan African countries had adopted the PPP as procurement method to address the infrastructural deficit in the region. They followed the systems being used by the advanced economies. The PPP was adopted as an alternative to the inadequate funding to deliver public works and services.

Table 1. Number of private projects in developing countries, 1990 - 2011

Region	Project Count	Percentage
Latin America and the Caribbean	1,586	30
East Asia and Pacific	1,564	30
South Asia	771	15
Europe and Central Asia	742	14
Sub-Saharan Africa	436	8
Middle East and North Africa	139	3

Source: World Bank PPI Database, 2013

Table 2. Investment in private projects in developing countries, 1990 - 2011

Region	Project Investment (US Dollars million)	Percentage
Latin America and the Caribbean	1,586	30
East Asia and Pacific	1,564	30
South Asia	771	15
Europe and Central Asia	742	14
Sub-Saharan Africa	436	8
Middle East and North Africa	139	3

Source: World Bank PPI Database, 2013

2.2. PPP in South Africa

PPP commenced in South Africa in 1999. South Africa is the largest economies in sub-Saharan Africa and it influences on the economies and trading of other countries in the Southern Africa region (IMF, 2012). South African economy including that of Nigeria accounts for half of the sub-Saharan Africa's GDP and they are potentially major

drivers for the growth of the region as a whole. It is very important that the countries could serve as the representation of the economic activities of the entire region. South Africa is the largest economy in sub-Saharan Africa and among the twenty developed economies in the world. PPP started in South Africa in 1999 when the National Treasury published a manual on PPP and as at 2007 eighteen PPP projects were already in operation. A dedicated PPP Unit was soon established by South Africa National Treasury to supervise the implementation of the provisions in the Manual and also issued a PPP Manual and Standardized PPP Provisions (Minnie, 2011). The government of South Africa is being faced with demand from the citizens to increase in the provision of public infrastructure and social services. Many citizens are living without access to basic amenities like potable water, transportation, sanitation systems and electricity. Inadequate funding and limited capacity for the development of infrastructure and delivery of services in South Africa brought about financial and capacity gap. South Africa public agencies could direct their attention to the provision of core services and then use the available resources to improve and expand other essential services like health, security and social infrastructure (Nyagwachi, 2008).

2.3. Challenges of PPP in South Africa

In South Africa, there are constraints in the delivery of PPP projects by the public and private sectors; and the competition in PPP market is low especially with the funding of projects by financial institutions (PPP Unit, 2007). There is a lack of policy direction among the political leaders and also there is lack of clarity in the minds of the implementing agencies and the private sector in the delivery of PPP projects in South Africa. The inconsistent in the commitment of the government agencies affect the implementation of PPP projects since they require longer time for the projects to be delivered. There is also lack of capacity among the public officers to originate and implement PPP projects as a result of no technical know-how, lack of resources and authority (SPAID, 2007). The resources in the PPP Unit are not capable of promoting the PPPs and help in supporting the implementing agencies in developing and using PPP to deliver public works and services in South Africa. Generally, there is policy bias toward traditional public procurement system while they are not keen in using PPP to deliver public projects. The different market and legal environment for PPPs in the municipalities create problems that affect the implementation in those areas (SPAID, 2007).

3. Discussion

The development of world class infrastructure that will meet the increase in demand by the citizens and also to maintain and upgrade the existing infrastructure facilities is very big tasks that governments in sub-Saharan Africa could not afford. This is due to fiscal constraints and other liabilities. The PPP procurement methods as emerged and should be allow to work so that the private investors could fund the public infrastructure and relieve the government. The review showed clearly that the implementation of PPP projects had not achieve a reasonable progress to deliver public works and services whereas the system could attract more private investors both from within and outside the region. There is no doubt that the private sector involvement is needed at present to assist the governments in delivery public facilities through mobilization of funds, expert management and bring out innovation in the system.

The experiences from those countries that have used the PPP procurement method as vehicle to deliver social and economic infrastructure should be a good opportunity for the sub-Saharan Africa countries to learn from. The developed countries like United Kingdom, Australia, Hong Kong, Canada and Singapore and some developing economies like Malaysia and India are some of the countries that have used PPP to deliver infrastructures in their respective countries. The sub-Saharan Africa countries should learn from their experiences in order to replicate their successes in the region. Table 3 shows the numbers of PPP projects that were awarded and in the pipeline in some OECD countries compared to the countries in sub-Saharan Africa as at 2009. Coincidentally, South Africa is also among the OECD countries. The PPP projects in Victoria State from Australia were only considered for this analysis. The information from the table showed that the delivery of PPP projects in sub-Saharan Africa is far below the expectation.

Table 3. Volume of PPP projects as at 2009

Countries	Awarded	Pipeline
United Kingdom	668	117
Korea	415	154
Germany	123	153
Australia (Victoria)	18	3
South Africa	19	44
Nigeria*	3	7

Source: OECD (2010:p49) *NPPR (2012)

3.1. Lessons from South Africa

South Africa started the use of PPP for the development of infrastructure early before other countries in the region and there are lot to benefit from the system. Some of the lessons learnt from the implementation of PPP procurement system in South Africa are listed below:

- There is a dedicated PPP Unit which was set early enough to guide the participants in PPP projects and this is responsible for the successes recorded in the implementation of most PPP projects in the country since there are available resources for the public participants to deliver as expected.
- The good legal environment assisted the implementation of contracts under PPP arrangement to be successful whereas this is one the major obstacles to the implementation of PPP contracts in most of the sub-Saharan African countries.
- There is strong political will to address the challenges of infrastructure through PPP arrangement and this is necessary to provide leadership in pursuing social and economic development for the development of the region.

4. Conclusion

This paper reviewed the implementation of PPP projects in sub-Saharan Africa while South Africa was used as case study with focus on the public infrastructure to determine the critical challenges in the management of the PPP contract. It was revealed that lack of capacity and policy direction, inconsistency in policy, mistrust among government implementing agencies, policy bias against PPP, high participation costs, low technology, socio-cultural and macro-economic issues, delay in negotiation, and poor performance are among the challenges identified as being affecting the smooth management and implementation of the PPP projects in sub-Saharan Africa. Therefore, it is recommended that there should be commitment by both public and private participants and there should be better communication between the parties involved in the PPP implementation processes across the region. It is believed that there would be appreciable improvement in the development of social and economic infrastructures in the region if some of the legacies of PPP implementation in South Africa are adopted by other countries in the region. The provision of dedicated PPP unit will provide support for government agencies implementing PPP projects with a good legal environment. Then, the political leadership should support and create good environment for the implementation of infrastructural projects under PPP arrangements.

References

- Ahadzi, M. & Bowles, G. (2004) Public-private partnerships and contract negotiations: an empirical study. *Construction Management and Economics*, 22:9, 967-978
- Afdev, (2013) www.harpercollege.edu/mhealy/g101ilec/ssa/Afe/afdevel/afdevfr.htm accessed on 7 May, 2013
- Afmeasur. (2013) www.harpercollege.edu/mhealy/g101ilec/ssa/afmeas/afmeasur.htm accessed on 7 May, 2013
- Akintoye, A, Beck, M, Hardcastle, C, Chinyio, E A & Asenova, D. (2001) The financial structure of private finance initiative projects. In: Akintoye, A (Ed.), *17th Annual ARCOM Conference*, 5-7 September 2001, University of Salford. Association of Researchers in Construction Management, Vol. 1, 361-9
- Awodele, O. A., Ogunlana, O. S. & Motawa, I. (2010) Understanding and Managing Risks-Necessary Condition for Success and Sustainability of Privately Financed Market Projects in Nigeria. *ARCOM Doctoral Workshop University of Wolverhampton, UK*, 25th June, 2010

- Awodele, O. A., Ogunsemi, D. R. & Adeniyi, O. O. (2012) An Appraisal of Private Sector Participation in Infrastructure Development in the Nigerian Construction Industry: Lagos State as a Case Study. *The Quantity Surveyor*, 1(1) 20-32
- Cartlidge, D. (2006) *Public Private Partnerships in Construction*. First Edition. Taylor and Francis Group. London
- Garvin, M. J. (2009) Governance of PPP projects through contract provisions. In *Conference of Leadership and Management of Construction*.
- Gidado, K. (2010) PFI Implementation and Evaluation Model for Developing Economics: Example of Nigeria. *Proceedings of the 2010 International Conference on Engineering, Project and Production Management*, 181-192
- Hartmann, A., Davies, A. & Frederiksen, L. (2010) Learning to deliver service-enhanced public infrastructure: balancing contractual and relational capabilities. *Construction Management and Economics*, 28(11), 1165-1175
- IMF, (2012) Sub-Saharan Africa: Maintaining growth in uncertain world. Regional Economic Outlook, Washington, DC
- IMF, (2013) Sub-Saharan Africa Region. www.imf.org/external/pubs/ft/reo/2012/afr/eng/sreo0412.htm accessed on 7th May, 2013
- Kateja, A. (2012) Building Infrastructure: Private participation in emerging economies. *Procedia-Social and Behavioral Sciences* 37, 368-378
- Leiringer, R. (2006) Technology innovation in PPPs: incentives, opportunities and actions. *Construction Management and Economics*, 24(3), 301-308
- Li, B. & Akintoye, A. (2003) An Overview of public-private partnership. In A. Akintoye, M. Beck & C. Hardcastle (eds), *Public-Private Partnerships: Managing risks and opportunities*: 3-30. Blackwell: Oxford
- Li, B., Akintoye, A & Hardcastle, C. (2001) Risk analysis and allocation in public private partnership projects. In: Akintoye, A. (Ed.), *17th Annual ARCOM Conference*, 5-7 September 2001, University of Salford. Association of Researchers in Construction Management, Vol. 1, 895-904
- Mezui, C. A. M. (2012) Accessing Local Market for Infrastructure: Lessons for Africa. *African Development Bank Group Working Paper Series*, October, 2012
- Minnie, J. A. (2011) *Critical Success Factors for Public-Private Partnerships in South Africa*. Stellenbosch University, South Africa. PhD Thesis
- NPPPR (2012) *Nigeria PPP Review*, July 2012, 1(1) www.detailsolicitors.com/media/archive2/articles/PPPReview.pdf accessed 26 Nov., 2012
- Nyagwachi, J. N. (2008) *South Africa Public Private Partnership (PPP) Projects*. Nelson Mandela Metropolitan University, South Africa. PhD Thesis
- OECD, (2010) Dedicated PPP Units. A Survey of Institutional and Governance Structure. Organization for Economic Co-operation and Development. http://www.infrastructureaustralia.gov.au/publications/files/Dedicated_PPP_Units_OECD_2010.pdf accessed on 7 May, 2013
- Ohia, U. (2011) Infrastructure concession in Nigeria: challenges and opportunities. *5th National Diaspora Conference*, Abuja, 25-27 July, 2011
- PPP Unit. (2007) *Introducing Public Private Partnerships in South Africa*. National Treasury of South Africa.
- RICS. (2011) The future of Private Finance Initiative and Public Private Partnership. *RICS RESEARCH*, Research Report, June, 2011
- SPAID. (2007) Key challenges in Public Private Partnerships in South Africa: Summary of Interview Findings. South Africa Support Programme for Accelerated Infrastructure Development, April, 2007.
- The Economist, (2013) The Economist. www.economist.com/node/17101076?zid=304&ah=e5690753dc78ce91909083042ad12e30 accessed on 7 May, 2013
- Tieva, A. & Junnonen, J. (2009) Proactive contracting in Finnish PPP projects. *International Journal of Strategic Property Management*, 13, 219-228
- World Bank PPI Data Base, (2013) Private Participation in Infrastructure Database. ppi.worldbank.org/explore/ppi_exploreRakings.aspx accessed on 7th May, 2013