

AN ANALYSIS OF PUBLIC PRIVATE PARTNERSHIP IN EMERGING ECONOMIES

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Abstract

This article examines the significance of Public Private Partnership (PPP) in emerging economies. The major focus of the paper is the African continent. The article briefly discusses the origin and implementation PPPs in different continents across the globe. A qualitative research paradigm is adopted to analyse public private partnerships in Sub-Saharan Africa (SSA). Qualitative research is exploratory and is frequently used to investigate a subject area in which there is limited information. This method of investigation sheds light on the different PPP projects. A case study strategy adopted in this study was used create understanding of the different process emanating from the implementation of PPPs in Africa continent. A comprehensive understanding of PPP implementation in SSA is essential. PPPs should be considered in sectors where there is a need to improve infrastructure and service delivery. Every government should have legislation in place as well as a regulatory framework on PPPs to facilitate local and foreign investors to implement new projects. The absence of a legal and regulatory framework on PPPs hinders close collaboration between the public and private sector in certain countries in Sub-Saharan Africa. Anecdotal evidence from interviews with public officials indicates the need for government to focus on a specific project where it (government) perceives a need for a private company to participate. This article argues that the Build-Operate-Transfer (BOT) project is an excellent model for governments in SSA where there is a deficit infrastructure, required to provide improved service delivery. Most BOT projects require sizeable financial investment. Most governments prefer to use BOT to construct specific infrastructure such as new electricity power plants, toll roads, prisons, dams and water plants. Experience has revealed that BOT agreements tend to reduce market and credit risk for the private sector because in most instances government is the only customer, thus reducing the risk associated with insufficient demand and the inability to pay.

Keywords: Public Private Partnerships, Infrastructure, Build-Operate-Transfer, Service Delivery

1. INTRODUCTION

Most countries in Sub-Saharan Africa (SSA) still face difficulties in terms of service delivery. The lack of service delivery differs from one country to another. This is evident in sectors such as water, electricity, housing, prison, public hospital, waste management, sanitation and roads. As stated by the World Bank experts, PPPs enhance the reach and quality of basic service provision (World Bank, 2016:188). According to Farlam (2005:3), the SSA faces a lack of infrastructure with startling evidence of service backlogs. Consequently, countries in different sub-regions of Africa south of the Sahara, struggle to invest in infrastructure development. Compared to Asia, Africa still lags behind in most sectors of economic development. The World Bank (2016:189) argues that annual infrastructure needs in Sub-Saharan Africa are estimated at \$93 billion over a period of ten years, or 15% of Africa's Growth Domestic Product (GDP).

In the same region, almost over 400 million people in the region lack access to electricity; 300 million have no clean water while there are only eight telephones on average per 100 inhabitants (Farlam, 2005:3). Given the scarce public resources to finance the development of infrastructure,

governments continue to seek innovative ways of financing projects and building infrastructure. To bridge the gap between available resources and the cost of urgently needed infrastructure and services as well as ensure that these are delivered as efficiently and cost effectively as possible, public authorities are now turning to PPPs (Emirullah & Azam, 2014:69; Partnerships Kosovo, 2009:3).

In SSA, Governments have opted for the implementation of PPPs in an effort to improve the provision of infrastructure and the delivery of services. The aim is to generate greater efficiency and synergy; increase financial revenues and reduce deficits. Quicker market development, faster foreign investments and increased competition are also on the development agenda. According to the World Bank (2010), there is a huge gap in the SSA in terms of infrastructure development with an infrastructure financing gap of almost US\$ 34 billion. The estimated cost of infrastructure in different SSA regions increased on annually because the amount changes each year.

Origin of Public Private Partnerships

Participation of the private sector in infrastructure sector development began well over two centuries in

Europe and North America. In United Kingdom (UK), the utilization of tollgates was authorised by law in 1364. The first turnpike model was established in 1664 (Grimsey and Lewis: 2004). The justices of Herfordshire, Huntingdon and Cambridge that requested parliament to pass of an Act allowing them to raise funds for the repair and upgrading of the section of the Great Northern Road crossing through the three counties. During this particular period, the legislation gave justices the authority to implement three tollgates to collect at a specific rate on vehicles and livestock passing on the particular section of the road over a period of 21 years (Cossons: 1934). The 21 years was therefore, adequate for the contracted company to recover its debt and turn the road back to government without any charge. As observed by Grimsey and Lewis (2004:4) "it was not until early in the eighteenth century, however, that the customary formula vesting the administration of roads in ad hoc local bodies, and of transferring the cost of maintenance from the public to the users, was firmly established". The experience shows each country in Europe did have its own history on PPPs as seen in UK, Holland (Netherlands).

An analysis of the French national experience on PPP illustrates that the concept however much older than that of other European nations (World Bank, 2009c: 34; Grimsey and Lewis (2004). The French are said to have used PPPs for more than hundred years. The French PPP concession model called "Societe d'Economie Mixtes and Concession", remains one of the most popular modes of constructing and managing commercial public services and public infrastructure. To date, the country has been using PPPs to distribute 75% of its water for more than two decades. The two major operators for water distribution are Lyonnaise des Eaux and Vivendi (currently called Veolia Environment) controlled 62% of water distribution across the France (Prasad, 2006:23). These two companies are involved in many sectors such as sewerage disposal, urban central heating waste collection where PPP are well established in France. It can be concluded therefore that PPPs are more established in France as compared to other EU countries as they have been used in France since seventeenth century (Grimsey and Lewis, 2004: 47).

The French national experience on PPP has had a positive influence on the implementation of PPPs in the Francophone countries (especially in West and Central Africa) (World Bank, 2009a:4). French companies are often contracted to implement PPPs in the water sector in these countries. The companies brought with them the required technology and skills transfer to the region.

Given the foregoing, this paper provides a comprehensive discussion on the origin of PPPs. The paper then explores the definition of PPPs taking into consideration the various regional and international contexts of the concept. Third is the research methods followed in study are also described. The fourth section discusses international experience of PPPs while the fifth addresses PPPs in SSA. The suggested model of preference namely the BOT is discussed in the sixth section followed by lessons learnt and last is the conclusion.

2. DEFINITION OF PUBLIC PRIVATE PARTNERSHIP

There is no definitive consensus of the definition of public private partnership.. According to the World Bank (2016:188), in general, "PPP refers to arrangements, typically medium to long term, between the public and the private sector whereby some of the services that fall under the responsibility of the government are delivered by the private sector". The signed contract clearly specifies the duties for each party and how risk will be allocated. Furthermore, a PPP implies the participation of a private sector in a project on behalf of a government. The contract between the host country and the private investor usually takes between 10 and 30 years and thereafter the government can take over the asset from the private investors (Seader, 2004:10-15). There is also the possibility of the private investor negotiating with government to continue managing the asset.

In this context it remains the exclusive authority of the government or local authority to decide whether it wishes to retain its links with the same company.

Another definition by the Asian Infrastructure in collaboration with the United Nations (2011:8) states that "PPP is a relationship or collaboration built on the expertise of each partner that meets clearly defined public needs through the appropriate allocation: Resources, Risks, Responsibilities, and Rewards". According to the report, a PPP cannot be considered as a solution to an infrastructure service problem for a country but a PPP model can be considered as a viable solution for the implementation of an infrastructure project. Nevertheless, there are special cases in certain countries, where some sectors of the economy cannot be considered part of PPPs.

A case in point as recognised by the World Bank (2016:139), are sectors which are regulated or where there is extensive private sector initiative this could be telecommunication. In addition, other types of contracts such as management contracts have been removed from the list of PPP definitions by some governments". One of the reasons is that management contracts should fall within the traditional procurement process of government. What the researchers observed is that in the last two decades, there has been an increase of PPP in different sectors of the economy in Africa.

In various literature, the terms PPP and privatization are often used interchangeably. Of critical importance is the dichotomy between the two. Under PPPs, the government still has control over the assets managed by the private sector. On the contrary, privatization refers to the sale of government property to the private sector (Shirley, 1992:59-60). In other words, under PPPs, government exercises control over the private sector. The table below presents a PPP project cycle structure.

The table 1 explains steps taken by PPPs before a project is implemented. First, the government must propose a concrete project which will require the participation of a private partner. Presently in Africa, the involvement of PPPs can be seen in sectors such as energy, road, hospital, seaport and water. When the government calls for a PPP tender, the cycle above or the steps (see table 1) must be

adhered to by the Ministry or the provincial government. The application of this process is meant to prohibit corruption of any kind before the project can be awarded to the successful bidder.

Table 1. PPP Project Cycle Structure

Phases	Stages	Steps
1. Project Identification	1.1 Selection of project	<ul style="list-style-type: none"> • Identification • Output specification
	1.2. Evaluation of the PPP choice	<ul style="list-style-type: none"> • Affordability • Risk allocation • Value for money
2. Detailed Preparation	2.1 Organisation	<ul style="list-style-type: none"> • Project team • Time frame • Advisory experts
	2.2. Tender process	<ul style="list-style-type: none"> • Detailed PPP design • Procurement method • Evaluation criteria • Draft PPP contract
3. Procurement	3.1. Bidding process	<ul style="list-style-type: none"> • Prequalification • Invitation to tender • Interaction to bidders • Award
	3.2.PPP contract	<ul style="list-style-type: none"> • Final PPP contract • Financial agreement
4. Project Implementation	4.1. Contract Management	<ul style="list-style-type: none"> • Monitoring of the PPP project • Dispute resolution • PPP contract termination
	4.2. Evaluation	<ul style="list-style-type: none"> • Institutional framework • Analytical framework

Source: Update from the Word Bank (2009)

3. METHODOLOGY

This paper adopted the qualitative research paradigm. A qualitative research method provides a comprehensive interpretation of concepts, constructs and opportunities which brings the research closer to “social reality” (Claire, Higson-Smith & Kagee, 2006). Further to this, qualitative research is exploratory and is frequently used in an investigation of a subject area in which there is only limited information. This method of investigation sheds light on the different PPP projects. The study also adopted the case study strategy chiefly to create an understanding of the different process emanating from the implementation of PPPs in the African continent.

According to Yin (1984:34) a case study is an empirical inquiry, which investigates a contemporary phenomenon within a real-life context when the boundaries between phenomenon and context are unclear and during which multiple sources of evidence are used. The rationale for using a case study method in the research is that it provides additional information on PPP around the globe and more specifically in emerging economy. The strategy therefore, enabled us to conduct a critical analysis of PPPs in the selected countries in the SSA.

Literature was used extensively to gain theoretical knowledge of the subject matter in this study. In Yin’s (2003:87), view, , because of their value, documents play an explicit role in any data collection when considering case studies and a systematic search for relevant documents as essential to any data collection plan. As a result, the case study method provided an opportunity to verify the data collected from various sources. Access to files and reports from the relevant organisations under scrutiny was also sought.

Whilst this research focused primarily on primary and secondary data, views on PPP from senior government officials from Botswana, Democratic Republic of Congo, South Africa and Zimbabwe were included in the analysis of the paper.

Data collected was analyzed to demonstrate the practicability of using BOT in PPPs in various parts of the world. At the international level, data was utilised from the UK, Australia, and Asia. Regionally, this study reviewed data from Sub-Saharan Africa. The countries included Algeria, Botswana, DRC, Gabon, Ghana, Lesotho, Mozambique, South Africa, Tanzania and Zimbabwe.

4. INTERNATIONAL EXPERIENCE ON PPPs MODELS

In the United Kingdom (UK), PPPs were introduced again in 1992 during the recession. One of the reasons was the “off-balance sheet” public accounting treatment. Thereafter the UK economy recovered and the implementation of PPPs became a matter of searching for value for money (VFM) which became the primary reason for the adoption of PPPs in the UK (Vicker, 2004). The poor infrastructure was also a contributing factor, particularly after a decade-long ‘under-investment’ period when the Conservative government was in power. The UK government was about to sign the Maastricht Treaty to restrict public sector borrowing (Clark & Root, 1999: 341-365). Between 1992 and 2004, the financial figure on PPPs in the UK was approximately £GB50 billion. More than 600 PPP projects were signed with private companies.

At the time, the Conservative government explained that PPPs (or private financial initiatives, PFIs) were introduced for several reasons. The first was improved VFM for government through

economic efficiency. The second was to reduce public sector borrowing and to increase investment in public services (Her Majesty's Treasury, 1993). However, not all PPP and PFI projects in the UK were successful. Challenges were experienced with certain projects. According to the World Bank (2010), it was difficult to raise finance for PPPs and PFI schemes in 2008 and 2009. The number of active lenders in the market was significantly reduced, and those that remained, toughened their positions. A number of projects had difficulty in achieving financial closure and those that did so, soon discovered that previously offered terms were no longer available. This was due to the financial crunch which affected most financial institutions worldwide (World Bank, 2010).

According to the World Bank Institute (2010), in March 2009, the British Treasury established the Infrastructure Finance Unit (TIFU) with the objective of lending funds to PFI projects on the same terms as commercial banks in the event of inadequate private sector loans. Moreover, the banks were encouraged to continue their loans if they were in a position to do so, thereby helping companies to complete projects and reach financial closure. For example, the British government used PPP projects to build schools, hospitals, airports, bridges and prisons. Importantly, they also improved waste management services and water provision facilities. Indeed, as shown by Li & Akintoye (2003), private sector investment in the UK has always been active in the transport, health, defence and education sectors.

The Australian experience shows that PPPs are divided into two generations. The first generation principally involved the Build-Own-Operate (BOO) Build-Own Operate-Transfer (BOOT) or Build-Operate-Transfer (BOT) (Duffield, 2004: 1). The Sydney Harbour Tunnel was the first of these projects and was completed in 1988 (Muhammad & Low 2006:10). The first generation of PPPs in Australia also gave access to private capital and the transfer of full risk to the private sector. This so-called Victoria policy has now been implemented across Australia (Yates & Sashegyi, 2001:10). In the post-2000 period, Australia witnessed a more structured approach towards PPP development and implementation with, for example, specific policies, procedures, guidelines, the establishment of government bodies and steering mechanisms (Taseska, 2008: 80).

As substantiated by Partnerships Kosovo (2009:4), all PPPs involve some form of risk-sharing between the public and private sector. The allocation of risk to the private partner is the key determinant in distinguishing between PPP and the more traditional public sector model of public service delivery.

Li & Akintoye (2003) maintain that PPPs are particularly beneficial in infrastructure development and public service delivery in developing economies. The improved infrastructure can support economic growth and make development environmentally sustainable World Bank (1995). An increasing number of countries are now demanding alternative solutions, especially options involving the private sector.

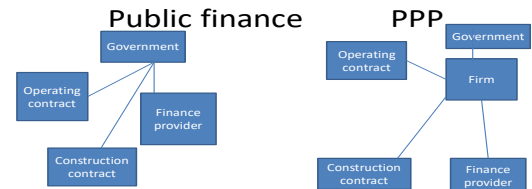
Looking at the Asian experience on PPPs, China introduced the model two decades ago. Prior to this,

most projects were undertaken by Chinese public enterprise companies. According to Xie & Stough (2002:16), the rapid growth of private and non-private sectors in China is well suited to the application of the PPP model. Fiscal decentralization provides strong incentives for local governments to seek cooperation with private and other non-state sectors in urban economic development.

Budina, Brixi & Irwin (2007:10) posit that when a private company takes the risk, project costs will be lower and this reduces the cost to government. However, they claim that the "advantages of contracting out construction, operations and maintenance do not immediately create an argument for private financing of a project". The state can also contract out these functions in publicly financed investment. PPPs should only be used when the cost of construction is less when compared to government investment.

Figure 1 below shows the structure of public finance and PPPs in terms of long term contracts with government.

Figure 1. Public finance to PPPs



comparing public finance to a PPP with a long-term purchase contract

Source: Update from the World Bank (2007)

As illustrated in figure 1 above, the public finance project is controlled by the government budget in accordance with the national budget programme. The project can be financed directly by the national treasury in terms of budget allocation. In addition, under public finance, the money can come from the institutional finance which could be the World Bank, Africa Development Bank, or International Monetary Fund. Therefore, the government will put out a call for a tender where the best company will be allocated the project with specific dates to complete the project. Grimsey and Lewis (2004:85) illustrate that "with traditional procurement of infrastructure the detailed design work is normally completed in advance of calling for tenders, thereby removing scope for innovative new technology or cost devices".

With regards to a PPP under this particular model, there are two major players in place, that is, the government and the private sector. For any project to become a PPP, it first needs to be a bankable project. If a project is not bankable, there is no need to classify it as a PPP project. Every project must first demonstrate VFM.

The government can have a project which requires finance. To complete this project, a private partner will provide funding. The government should discuss the modalities of payment concerning the financial investment with the private partner. In addition, the two partners (Government and private sector) should specify and agree the

terms of risk allocation. Additional players on a PPP project include project financiers. It should be noted that PPPs are not always a panacea to infrastructure development and service provision. However, PPPs can be considered as some of the most viable mechanisms to implement major projects in SSA.

5. PUBLIC PRIVATE PARTNERSHIPS IN SUB-SAHARAN AFRICA

In Sub-Saharan Africa, PPPs is still in a developmental phase although there are indications that their use is increasing. It is evident that the majority of the countries in the region need technical expertise in this regard. Amony (2015:4) however presents a contrasting view arguing that the PPP mechanism on the Africa continent is deeper. The author proclaims that the reform of public sector organisations is merely the front of a deep moulding of the state that traces back independence. The implementation of PPP in Sub-Saharan Africa was introduced by the international investors in consultation with government authorities. Although a survey of PPP implementation on the continent is beyond the scope of this study, examples of different regions in Africa are provided below.

According to Panteleo, Rwelamila, Chege, Tjiamogale & Manchidi (2003:313), PPPs were introduced in the construction industry in South Africa, such as the construction of major national roadways, the N1, and N2; and building a prison in the Free State Province. PPP projects have also been initiated to facilitate water distribution and waste collection in the Eastern Cape and Kwazulu-Natal.

In Botswana, three construction projects namely: the Ombudsman and Land Tribunal Office (OLTO), the SADC Headquarters building and the rehabilitation and maintenance of roads are notable PPP projects to date. Farlam (2005:ii) adds that in cases where partnerships have been able to best deliver desired outcomes such as in Botswana, Gabon, Mozambique, South Africa, Tanzania and Uganda, thorough planning, good communication, strong commitment from both parties and effective monitoring, regulation and enforcement by government was prevalent. This validates the World Bank's (2009a:3) argument that successful PPPs have been part of well-designed sector reforms with clear policies and strict adherence to governments policy commitments. The above examples demonstrate the feasibility of implementing PPPs in SSA. However, certain problems were encountered in these projects.

Today, a number of governments in Africa struggle to deliver services such as water, telecommunication and electricity. Private companies, on the other hand, have successfully delivered such services on behalf of the state. PPPs appear to be much more than a simple budget tool. In fact, they have become an instrument for co-operation and are making an operational contribution to socio-economic growth. In the view of Rao & Voldolkova (2006: 2, 3), PPPs in Africa, if implemented properly, would accelerate implementation of projects with new approaches and improved management techniques.

When a PPP project is first conceived, it optimizes the satisfaction of the three fundamental actors involved, namely: the state, citizens and private operators (SEFI, 2001:4). A notable case in point is a PPP project in the Eastern Cape province of RSA where the local authority was unable to deliver water to the community. The local authority signed a contract with a private company to supply water to its residents.

According to Niekerk, Ruiters, Mcwabeni, Kruger & Gringer (1999:55), the successful application of a PPP "demands a relatively high level of administrative capacity from the structure which assumes overall contractual control of the process". They also argue that "partnerships that have been most successful in Africa have been characterized by thorough planning, good communication, clear policies, strong commitment from parties and effective monitoring, regulation and enforcement by government" (Farlam, 2005:2).

In addition, a PPP project in the electricity sector in Tanzania proved to be one of the most unsuccessful PPP projects in the SSA. In 1995 the state-owned public enterprise called Tanesco signed a power purchasing agreement with Independent Power Tanzania Limited (IPTL). This company was a joint venture between local investors and a Malaysian company. The contract was to supply 100 MW to Tanesco for 20 years. The entire process was flawed and became a massive burden for the Tanzanian government because only three officials signed the contract. The project was riddled with corruption by senior government representatives (Farlam, 2005:28) and this demonstrated a clear lack of transparency since due process was not followed.

In the Central African region in 1997, more specifically in Gabon, a French international company called Vivendi Water signed a concession contract for 20 years with the Gabonese government for the provision of water and electricity in Libreville and Port-Gentil (Farlam, 2005:25). This initiative can be classified as a success because of the strong political commitment by the Gabonese government.

Assessment of the West African region, notably Ghana, revealed that a PPP project in the water sector met with many difficulties and ended in failure. Haffner & Fuest (2007:183) reveal that civil society and non-governmental organizations (NGOs) levelled criticism against the Ghanaian Government (GoG) because the stakeholder participation process and the role of the regulator were flawed; and shortcomings in the design of the policy.

They argued that the implementation of the Ghana Water Sector Restructuring project launched in 1995 would negatively affect the indigent population and other stakeholders. Furthermore, the government was severely criticised because the consultation process did not include the Public Utilities Workers' Union or the Trade Union Congress of Ghana. An analysis of the contract revealed that there was no umbrella legislation in terms of PPPs in Ghana. Consequently, the implementation of a PPP remained an administrative document without legislative support (Brocke, 2008:4). Another PPP project which is under construction in Ghana is the BOT trunk road development in Accra and Kumasi.

In its successes and failures, the Western and Central African experience offers lessons for other developing countries on how to improve the quality of urban water supply services; increase the efficiency of operations; and establish the financial credibility of the sector. The regions have experimented with a range of contractual arrangements:

- Long-term concessions transfer the technical, operational, commercial and financing risks and responsibilities to private operators and are primarily for combined power and water supply utilities.
- Medium-term concessions combine private operation of the service with shared commercial risk and public financing for developing infrastructure, notably for water supply services.
- Short-term contracts are most often for combined power and water supply.

- Performance-based service contracts aim to improve the commercial and financial operations of a public water supply utility (World Bank, 2009a:1).

Furthermore, an analysis of PPPs in SSA by Izaguire (2000:2) revealed that SSA was the only region where private activity increased “Investment flows rose from \$3.4 billion in 2000 to 4.6 billion in 2001, almost reaching the all-time high of 4.8 billion in 1997”. Most of this activity was in the energy sector. Izaguire (2002:3) points out that in SSA investment flows fell, but only to \$3.5 billion, becoming the third highest level for SSA between 1990 and 2001. Most of this investment was on the gas pipeline between Mozambique and South Africa by Sasol (SA). The exploitation of gas in Mozambique by Sasol has a life expectancy of 25 years.

Table 2 illustrates the number of projects completed on the African continent. These projects were spread across five countries on the continent and include management or lease contracts, concessions, Greenfield projects and divestures.

Table 2. Example of Completed Five PPPs Project on African continent

Countries	Capital Value	Financial closure	Consortium	Type of project	Financier
Gabon	US\$ 135 million	July 1997	SEEG, Vivendi & local partners	20 years of concession	49% of share sold through public offer
Lesotho	US\$ 107 million	December 2007	Netcare consortium	18 year concession	IFC, & DBSA
Algeria	US\$ 110.6 million	July 2005	GEIDA consortium,	25 year contract to finance, DBOO finance	Banque National d;Algerie
Mozambique	US\$ 70 million	April 2003	Maputo Port Development Company	15 year concession	DBSA, & 17 International Banques
Tanzania	US\$ 32 million	November 2004	Globaleq, TAPDC, TANESCO, etc.	BOO	IDA, and European Bank

Source: Update from the World Bank: 2009b.

Table 2 above reveals that PPPs projects were completed in SSA and in North-Africa. These projects serve as examples in the text of this article. The projects were undertaken in the Water sector in Gabon, followed by the construction of a hospital in Lesotho, seawater desalination in Algeria, the construction of a port in Maputo and Matola, Mozambique and lastly, construction of a gas fire power plant in Songo Songo Island, Tanzania - Indian Ocean. Other PPPs projects, for example, the Gautrain project in South Africa completed in 2010 before the soccer World Cup could not be illustrated.

The views revealed by the public officials of PPPs projects during the interviews conducted in DRC, Zimbabwe and South Africa are imperative for the respective government’s consideration. They hold that PPPs need to focus on specific projects where the state perceives a need for a private company to participate. According to the Zimbabwean government officials, new mechanisms had been implemented to build the nationwide electricity infrastructure. This implied that the Zimbabwean officials could boost the government coffers through this mechanism. The Zimbabwean Government policy is to protect the private investors. This was the best opportunity for the private companies to recover their investment.

Whereas in the DRC, the Ministry of Energy had already begun to sign other PPP contract with local partners to refurbish certain hydropower plants around the country. The Congolese power utility (SNEL) required PPP because the national utility needed to partner to refurbish their hydropower. In South Africa, the government supports the PPP programme in different sectors. There are no specific models which the government requires the private sector to apply. The two parties agree on a model. Table 3 below illustrates the different types of PPP models.

There are different PPP models for which governments can apply. A distinction must be drawn between PPPs and privatization. According to Hughes (1998:116), privatization is largely seen as involving liberalizing the market and the sale of state assets. Initiatives such as denationalization, contracting out, self-management and de-regulation, form part of privatization (Turner and Hulme 1997: 190-191). A similar definition is one by Cartledge (2006:31) that “privatization is the partial sale or complete sale or transfer of existing enterprises, assets or rights from public ownership to the private sector”. On the other hand, Seader (2004:4) maintains that “partnership refers to an entire spectrum of relationships where private sector resources are used in the delivery of services or facilities for public use”.

Table 3. PPP models

Types of model	Modality
Service contracts	The private company procures, operates 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 publicly owned asset. Revenues for the private party are linked to performance targets. The public sector bears financial and investment risks.
Leasing-type contracts <ul style="list-style-type: none"> • 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 assets. Where the asset is bought by the private party, usually there is no obligation to transfer ownership back to government
Build-operate-transfer (BOT) <ul style="list-style-type: none"> • 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) <ul style="list-style-type: none"> • Build-own-operate (BOO) • Build-develop-operate (BDO) • Design-construct-manage-finance (DCMF) 	The private company designs, builds, owns, develops, operates and manages an asset with no obligation (in some cases) to transfer ownership to the government.

Source: Update from International Monetary Fund (IMF): 2004

Seader (2004:4) notes that the private sector contractor or a consortium of contractors finances a project, accomplishes the construction and operates the new facility for a specified period of time, after which it is expected to transfer ownership to the government - often at no cost. The prospective transfer to the host government takes place at the end of the contract. For example, African countries could use the BOT model to build roads and other infrastructure. The BOT model is suitable because it provides the host country with:

- Capacity to reduce capital costs while still implementing a project at a time when it cannot meet the requisite funds, or could use its funds for other projects and;
- A chance to encourage outside investment and to introduce new or improved technology (Seader, 2004:18).

This article discusses the BOT model as being ideal for PPP implementation by African governments.

6. BUILD-OPERATE-TRANSFER

Financing is one of the most significant issues in the build-operate-transfer (BOT) contract delivery system (Chang & Chen, 2001:214). Only with sufficient capital can a BOT project be carried out successfully (Tiong 1995: 304-311). The private sector “finances, builds and operates a new infrastructure facility or system according to performance standards set by the government”

(Bennett, Peter & Brad, 1999:2). Shalakany (1996:174) notes that when a host government grants a concession to a private company, the company is referred to as the concessionaire and is responsible for financing, construction, operation and maintenance of the facility over the concession period before transferring the fully operational facility to the government at no cost.

The private company’s control of operations typically spans 10 to 25 years. When the contract expires, the government takes ownership of the infrastructure facilities and regulator of the services (World Bank, 2001). A government often uses BOT for large projects such as new electricity power plants, prison facilities or water purification plants. There are other views coming from Grimsey and Lewis (2004:225) the application of BOT in emerging economy such as African countries provide several advantages. “They are administratively simple and usually do not involve major sectorial restructuring, so that new facilities can be added to the existing infrastructure”. According to the authors, the applicability of BOT in less developed countries with poor regulatory framework can be easily implemented. The main reason could be many BOT schemes act as useful introduction to private sector discipline, bringing substantial efficiencies in construction costs as well as plant and labour management. Table 2 highlights the different agreements in BOT projects for power supply contracts.

Table 4. Different BOT agreements for power plant projects

Number	Parties of agreement	Agreement description
1	Host government	Concession agreement
2	Project company	Investment agreement
3	Construction contractors	Construction contract
4	Bank and lending institutions	Financing agreement
5	Equipment manufacturer	Supply agreement
6	Operator	Operating agreement
7	Developer	Power supply contract

Source: Askar & Gab-Allah (2002:174)

Experience has revealed that BOT agreements reduce private sector market and credit risk because government is usually the only customer, thus reducing the risk of the inability to pay. Some private sector partners avoid BOT arrangements if a government is unwilling to provide assurances that private sector investment will be paid back (Bennett, Peter & Brad, 1999:3). This model has been used in developing countries in SSA and has revealed great success in Francophone regions.

A number of Asian countries have benefited from infrastructure development through implementation of BOT schemes. An example is Hong Kong where it has been used since the late 1960s. The first was in September 1969 (Mak and Mo, 2005). The Cross Harbour Tunnel (CHT) is a two-lane tunnel in each direction. It took only 36 months to complete and was eleven months ahead of schedule. The CHT was an instant success when it came into operation in August 1972. In a mere three years the tunnel paid back its construction cost and is probably the most successful BOT project undertaken in Hong Kong (Cheung, Chan & Kajewski, 2009: 81-95).

BOT projects in ports, power stations and roads in India, Pakistan, and Sri Lanka, among others, have increasingly attracted the attention of investors (Kumaraswamy & Morris, 2002:97). Comparable studies illustrate that Asian governments have had difficulty in financing infrastructure projects and have encouraged private investment in their countries. In the Asian electricity sector, the typical cost of building a new power plant is approximately \$1 million per megawatt, making it virtually prohibitive to finance a new 1000 MW power station, especially in instances where the public sector is subject to tight credit constraints such as in Vietnam or Pakistan (Robert & Anderson: 2003:226). The same is true of countries such as Thailand, Indonesia and the Philippines. Most PPPs in Asian countries were financed on a build-own-operate; build-own-transfer or an operating concession for a fixed period.

6.1. Benefits and Shortcomings of BOT

Like any model, BOT has advantages and disadvantages which vary in scope and magnitude. Advantages of BOT include:

- Technology transfer, training of local personnel and the development of national capital markets;
- The utilization of private financing provides new sources of capital, reduces loans from the World Bank and IMF and improves the host government's credit rating;
- Project risk and the financial burden are transferred to the private sector;
- In contrast to privatization, the government keeps its strategic control over the project (Askar & Gab-Allah, 2002:174);
- Long term income stream for private consortia;
- Project design can be tailored to construction equipment and materials; and
- Tailored maintenance, attention to whole life costs and smoother operations (Cartlidge, 2006:31).

BOT also has a number of disadvantages. Tiong (1996:207) contends that projects face both problems and risk. The following difficulties encountered in BOT projects include:

- lack of consistency and poor governmental management;
- unclear government criteria for project award;
- legal constraints in applying evaluation criteria; and
- problems of contract drafting.

Most of these disadvantages occur when a government does not have experience in managing a BOT project. In developing countries, especially in SSA, governments do not have strong managerial experience and these call for the need to hire consulting experts when implementing projects.

6.2. The Role of Government in Build Operate and Transfer

The lack of government funds to finance new projects and the rehabilitation of existing facilities, coupled with the increased demand for capital from traditional alternative sources (World Bank, IMF, Club de Paris, etc.) prompted the need for alternative forms of financing and many governments now resort to private finance (Zayed & Chang, 2002:7). The role of government in private financing of public projects under the BOT arrangement has become that of a "facilitator for the private sector-led economic development and growth" (Ngowi, 2006:3, 4). Under PPPs, resources, skills benefits and risks are shared between both the public and private partners. The aim is "improved delivery of publicly funded goods and services" (Dutz & Harris, 2006:1).

6.3. Legal and Regulatory Framework

It is critical for the success of any PPP project that a government has adequate legal and regulatory frameworks. The existence of a legal, financial and regulatory framework provides an environment that is conducive for private companies to participate in PPPs (Zhang & Kumaraswamy (2001:356). A strong legislative framework provides a sound foundation upon which developers can structure a contractual vehicle compatible with the country's laws. Many countries now have PPP legislation, or at least an official guideline. For example, the South African government has a set of guidelines on PPPs such as the National Treasury PPP Practice Note Number 02 of 2004 and the Public Private Partnerships Manual which are implemented by the National Treasury (Republic of South Africa, 2014) while Botswana has the Public Private Partnerships Policy and Implementation Framework introduced in 2009 (Republic of Botswana, 2009).

6.4. Political Stability

Political stability is a key element that attracts private investors and in SSA political instability is often a deterrent. Stability gives the host government an opportunity to develop a sound platform for investment across its different sectors. It is also crucial that governments implement a policy acceptable to both parties involved. A comprehensive policy coupled with strong

institutional capacity should bring positive results. As the World Bank (1997:19) puts it, "where policy and programs are implemented more efficiently, citizens and investors have greater certainty about government's future actions. Thus, good policies such as those pursued more recently by many countries in Latin America and Africa increase growth in income per capita by around 4% a year". It is, therefore, a prerogative of governments in SSA to maintain disciplined policies geared at attaining political and economic stability, as this will attract investors. Some Southern Africa Development Community (SADC) nations have already proved this to be true (World Bank, 1997:19).

6.5. Risks of BOT

PFI and PPPs are predicated on the principle that significant risk should be transferred from the public sector to the private sector. Indeed this transfer of risk is one of the key PFI criteria. Appropriate allocation of risk between the parties in accordance with ability to manage them, and thereby minimise cost, is one of the primary approaches to achieve value for money (Arrowsmith, 2000: 7). Zayed & Chang (2002:8) argue that the classification of possible sources of risk is an essential area in the risk management process because it allows project parties to identify the risk factor in the project and analyse its potential impact. They can then also consider an appropriate strategy to alleviate its effect.

When governments undertake BOT projects, they do so to transfer the risk to the private partner, but occasionally governments and the private sector share the risk. A variety of risks may be associated with the implementation of BOT but this study will only discuss a few of these and focuses on the SSA sub-region. The following risks will be discussed:

- political risk; and
- regulatory risk.

6.5.1. Political Risk

Farlam (2005:41) views political risk as "unforeseeable conduct by a government institution that materially and adversely affects the expected return on equity, debt service or costs of the project". This includes expropriation and nationalization. Politically speaking, most governments should avoid placing any project at risk. However, according to Askar & Gab-Allah (2002:176) the average relative weight of BOT political risk factors are:

- Termination of concession by government:

In this situation there is no positive collaboration with the host government. There is a possibility that a government can end a project or take over from the investors. Political change in the country can also impact negatively, perhaps resulting in a new government to terminate a contract. This situation can arise when there is evidence of corruption, particularly at the tendering stage of the project.

- Increase in taxation

According to Shen, Lee & Zhang (1996:320), the Chinese government enforced comprehensive taxation reform in 1996. New taxes were introduced, including value added tax, business tax, enterprise

income tax, individual income tax and land value-added tax. These various taxes bring investment into the country. However, this could result in an investor to withdraw from the project during its negotiation. If the government does not specify the increase in taxes during project negotiations, other parties might not accept the changes.

- Changes in the law

If there is a change in government, the new dispensation may bring a change or amendment to the law. This is important because the host government should ensure that a private partner is protected. In the case of Brazil, according to Grilo, Hardcastle, Akintoye, Silva, Meldho & Edwards (2005:9) there is need for a legal framework to provide judicial security for investors.

6.5.2. Regulatory Risk

Regulatory risk refers to consents required from government authorities or an independent regulatory agency. According to Zhang and Kumaraswamy (2001:356), government should establish a regulatory board to protect private investors. The absence of strong regulations often leads to high risk for investors. Regulation frameworks should offer protection for long-term investors and local consumers.

7. LESSONS LEARNT

A full understanding of the implications of PPP projects in SSA is essential, particularly for senior officials in government who are charged with designing and negotiating PPP projects. PPPs should be implemented in sectors where there is demand and VFM can be demonstrated. It is crucial for every government to have legislation and a regulatory framework on PPPs. These will encourage and facilitate local and foreign investors to enter into PPP agreements with relative ease. Government officials must also understand the need for close collaboration between the public and private sector. When government does have the finance and expertise to provide new infrastructure, then there no real need for the implementation of PPPs.

One of the key elements that need to be understood by government officials is that PPPs cannot be implemented in the same manner for every project. For example, a set of key deliverables leading to the success of a PPP project in South Africa may not necessarily be the same for a project in the Democratic Republic of Congo. The political, socio-economic and institutional context must be taken into consideration when analysing and implementing PPPs in SSA.

The BOT model comes forth as a viable means through which governments can provide infrastructure without necessarily funding projects. This will place great relief on SSA governments as private parties will in most instances finance the project and carry the larger part of the risk.

CONCLUSION

The implementation of PPPs on service delivery and infrastructure projects in SSA remains essential. It is even more crucial for Government officials in charge of implementing projects to realise the significance

of PPPs. Risk allocation should be in the most suitable way to both the public and private partner. It is also important to ascertain that a particular project has VFM.

Government officials should realise that the choice of a PPP model will rely solely on its (government) ability to make a determination on the most suitable model. A particular PPP model should not be prescriptive based on its success elsewhere.

As illustrated in this study, there are currently many PPP projects in SSA. This is due to growing demand for improved infrastructure in the sub-region and to address inadequate service delivery. The increase of infrastructure in any country contributes significantly to economic growth and sustainable development. It is without surprise that governments are now seeking alternative solutions to infrastructure provision, especially by way of involving the private sector. As a result they are resorting to PPPs.

The findings of this study indicate that the implementation of projects through PPPs has been critical for the DRC, Zimbabwe and South African governments. Interviewed public officials from these countries hold that PPPs need to focus on a specific project where the state sees a need for a private company to participate. The study also revealed that the application of BOT is a suitable model for many African countries. By facilitating infrastructure development when there is lack of funding to implement the projects, the BOT model relieves pressure from the governments' development budgets. In most cases, the private party finances the project and carry the larger part of the risk.

The subject of PPPs remains critical particularly for top government officials. Governments should therefore, ensure that there is comprehensive legislation as well as institutional and regulatory framework to facilitate the participation of local and foreign investors in PPP projects.

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