

CRITICAL ASSESSMENT OF THE PUBLIC-PRIVATE PARTNERSHIP MODEL AS A SOLUTION TO INFRASTRUCTURE DELIVERY: THE CASE OF AN EMERGING COUNTRY

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Abstract

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Public-private partnerships (PPP) are likely to emerge as a new model for improved infrastructure development in developing countries. Scrutinizing the possibility of adopting the PPP model in addressing infrastructure challenges is the main objective of this paper. The study identifies the critical success factors for PPP project implementation based on the case of an emerging country. Qualitative research was used in this study. The target population in this study is a group of experts who are currently involved in infrastructure planning, development and policy making. The research concludes that lack of political will and government's failure to develop policies to support PPPs are a major problem for this issue in developing countries. The research indicates the relevance and immediate necessity for governments of developing countries to develop a transparent and consistent policy and legal structure on PPPs to attract and promote private sector involvement in infrastructure projects.

Keywords: Infrastructure Development, Public-Private Partnerships, Qualitative Research, Public Sector, Private Sector, Risk

1. INTRODUCTION

To avoid poor governance and control, it is the responsibility of the government to make sure that citizens have adequate public infrastructure and services. However, due to limited financial assets at the disposal of the public division, the public sector may not be in a position to address all the infrastructure challenges and hence the need for assistance from the private sector (Sedisa, 2012). The contribution of the private department through public-private partnerships (PPPs) in the delivering of public infrastructure has become a practice in developed and developing countries (World Bank, 2015:3). PPPs are likely to emerge as a new model for improved infrastructure development in developing countries (Sedisa, 2012). According to Sedisa (2012), PPPs have the perspective to promote the sustainable socio-economic development of a country through investment opportunities for the private sector whilst

offering better quality services to the public. PPPs are long-term contracts between the government and the private sector with the aim of delivering well-maintained and cost-effective infrastructure (National Treasury, 2015). PPPs are viewed as a vehicle for socio-economic development as they create employment opportunities as well as alleviate poverty (Sedisa, 2012). The role players in PPPs include the government, private investors, development banks, local banks, international banks, engineers, project managers and the community. The private sector brings funding and expertise, whilst the government plays a supervisory role (Sedisa, 2012). Other role players involved in PPP projects include environmental institutions, labour unions, legal experts and non-governmental organisations. The participation of these stakeholders brings about transparency and accountability in the implementation of PPP projects (Olabisi, Olagbemi, & Atere, 2013; National Treasury, 2015). This paper

seeks to examine the possibility of using PPPs in addressing infrastructure problems in Zimbabwe. The research has been necessitated by the need to address infrastructural challenges facing the Southern African country. The possibility of adopting a PPP model as a potential solution to infrastructure challenges facing Zimbabwe is a crucial issue. The outcome of the study will be used as a basis for decision constructing and PPP policy evaluation. This study is organised as follows: The problem statement and goals are clearly detailed, then, the literature review for each of the research constructs is reviewed and research questions of the study are put forward. The methodology, as well as a discussion on findings, follow. Then a presentation on the management implications, limitations and recommendations for forthcoming investigation will be provided.

2. PROBLEM STATEMENT

Zimbabwe is characterised by a deterioration of existing physical public infrastructure (News Day 2010; Mail & Guardian, 2012; Herald, 2014). According to Mutandwa and Zinyama (2015:20), infrastructure in Zimbabwe is a “ramshackle”. The country has experienced this challenge for more than a decade and this is attributed to the long “economic downturn” (World Bank, 2015:1). Although the government has taken a stance through its ZIMASSET, capacity for design, planning and implementation of infrastructure projects remains minimal (World Bank, 2015). Zimbabwe’s continual deterioration of the existing infrastructure is a situation that needs urgent attention. The government’s failure to allocate the substantial financial resources of the national fiscus towards infrastructure development has also contributed to the challenge (International Monetary Fund (IMF), 2004; World Bank, 2015). The government of Zimbabwe has failed to deliver basic public infrastructure to its citizens. In addition, the government does not seem to meet the needs and anticipations of the public on infrastructure delivery. According to the African Development Bank (2016), Zimbabwe’s dilapidated infrastructure is slackening economic growth in a country that is in dire need of reserves. The amount and quality of infrastructure play a pivotal role in determining the extent to which an economy can grow (African Development Bank, 2016). The continuous deterioration of infrastructure in Zimbabwe has been largely caused by low echelons of public expenditures for the upkeep of infrastructure networks in power, water and transport (African Development Bank, 2016). Poor road networks and power failures affect the country’s competitiveness negatively and discourage potential investors. According to the African Development Bank (2016), Zimbabwe is currently spending only 6.2 per cent of its gross domestic product (GDP) on its capital expenditure with most of it being in farming, whereas other acute areas such as energy and road infrastructure obtain little devotion from the fiscus.

The goal of the research is to inspect the possibility of adopting the PPP model in addressing infrastructure challenges facing Zimbabwe. The study also seeks to identify the key success factors for the PPP delivery model as a basis for decision creating and policy review. The key objective of this research is to examine the possibility of adopting the PPP model as a solution to infrastructure delivery in Zimbabwe. The specific goals of this research are: To detect key success factors for a PPP model in

infrastructure development and assess if Zimbabwe has these factors in place, to examine the benefits of the PPP model in infrastructure delivery under Zimbabwean conditions and to determine the obstacles and risks hindering the successful implementation of PPP infrastructure projects in Zimbabwe.

The research questions to be answered in this study are: Is the public-private partnership model a possible solution in addressing infrastructure challenges and is Zimbabwe ready to fully adopt this model? What are the key success factors for the PPP model in infrastructure development and does Zimbabwe has these factors in place? What are the benefits of delivering projects using a PPP model under Zimbabwean conditions? What are the obstacles and risks hindering adoption of PPPs as a solution to infrastructure challenges? What strategies can Zimbabwe adopt in order to successfully implement PPP arrangements in infrastructure development?

3. LITERATURE REVIEW

A conceptual framework was used in the analysis of the literature and provided the basis for the research methodology described in the next section. This literature is unique in that it focuses on the challenges and benefits of PPP projects in Zimbabwe, encompassing all stakeholders in Zimbabwe. The main areas of discussion in this literature are the benefits of PPP, the challenges of PPP and ways to improve PPP arrangements in Zimbabwe.

3.1. The human capital theory

Human capital theory was used in this study because it can best be applied to suit this study in the adoption of the PPP model in Zimbabwe. According to Olabisi and Olagbem (2012:33), human capital can be seen as critical and crucial to PPP expansion. Blaug (1976:827), showed that Theodore Schultz announced the delivery of the human capital theory in the 1960s emphasizing on putting more effort into investing in people.

Human capital theory stipulates that workers who invest more in education and training deserve to have higher earnings (Hwengwere, 2004; Hwamiridza, 2007; Jones, Macpherson, & Thorpe, 2010). The term human capital was originally used by Nobel economist Gary Becker to refer to the deposited value of information or skills of members of the employees (Kyalo & Kiganane 2014). Heckman (2000) saw it as the time, experience, knowledge and abilities of an individual household or a generation, which can be used to boost production in an organisation. Therefore, human capital theory recommends that education or training pushes workers to be highly productive, hence nurturing the workers’ future income and lifetime earnings (Olabisi & Olagbem 2012).

Chinomona, Lin, Wang and Chen (2010) saw education as a tool used for the formal acquisition of skills and credentials, however, Lynskey (2004) stresses that human capital has to do with the attainment of education and its benefits. Likewise, Lynskey (2004) is of the opinion that educational achievement is meaningfully and certainly associated with PPP attainment. Another important variable concerning the human capital theory is work experience and has an impact on PPP adoption.

Therefore, it can be deduced that human capital theory has a strong effect on PPP model and development of infrastructure in Zimbabwe

3.2. Infrastructural development and PPPs in Zimbabwe

According to the National Treasury (2014), changing from privatisation, contributed to the growth of interest in PPP arrangements in Zimbabwe. PPPs were first introduced in Zimbabwe in 1998 as a way of funding infrastructure and public services but to date, only a few successful projects have been delivered through this model (World Bank, 2015). According to Massimo (2014), PPPs were introduced with the aim of attracting investors into infrastructure projects. The government had realised that state-owned enterprises were crucial to the boosting of the GDP. The Zimbabwean plan for Sustainable Socio-Economic Transformation (ZimASSET), concentrated on four pillars of development which are food security and nutrition, social services and poverty, infrastructure and utilities and significance calculation and beneficiation has highlighted the need for the revitalisation of the local industry in Zimbabwe (National Treasury, 2014). ZimASSET also refers to engaging with PPPs as part of addressing the infrastructure backlog in the country. Zimbabwe needs a clearly defined legal and regulatory framework that takes into consideration all divisions of the economy if they are to succeed and enjoy the benefits of the PPP mechanism (Dube & Chigumira, 2015; Hall, 2015). According to the National Treasury (2014) and Chinomona (2012b), infrastructure delivery challenges in Zimbabwe require a substantial investment by private players. Approximately US\$4.6 billion is required to address the infrastructure challenges facing the Southern African country (National Treasury, 2014).

Table 1. Infrastructure indicators for Zimbabwe

<i>Sector</i>	<i>Indicator</i>
Access to electricity	40% of the total population
Access to clean water	76.9% of the total population
Access to sanitation facilities	36.8% of the total population
Access to educational facilities	60% of the total population

Source: World Bank, 2015.

Table 1 indicates that access to sanitation facilities has the lowest indicator of 36.8 per cent, followed by access to electricity (40%) and access to educational facilities (60%). The highest indicator is that of access to clean water (76.9%), which shows the importance of water. People cannot live without water; it is a necessity.

3.3. Public-private partnership legislation in Zimbabwe

PPPs in Zimbabwe are implemented and monitored through the Ministry of Finance and Economic Development as well as relevant line departments. Currently, there are limited PPP specific legal and institutional measures in place but the government is planning to develop guidelines aimed at expediting and supporting the economic reform process including the passing of a PPP bill (World Bank, 2015). The PPP law has not yet been passed by the Parliament of Zimbabwe. Dube and Chigumira (2015)

argue that it is crucial that a policy framework on PPP be developed in order to implement PPP projects successfully in Zimbabwe.

3.4. Public-private partnerships (PPPs)

PPP is a vowed agreement between the government and private investor(s) where mutual benefits are sought and the private sector provides operating services and/or finance to realise its benefits (Essia & Yusuf, 2013). However, PPP is seen as the amalgamation of resources and assets from both public and private sectors with an aim of establishing a more efficient means of infrastructure and service delivery representing better value to people than outdated direct public delivery (Nepal's National Planning Commission (2011) cited in Dantala (2014). PPP also enables the government to put more effort into assisting and giving directives. Turley and Semple (2013) on the other hand argues that PPP refers quite generally to private sector investment in public projects, whereby investors receive a return on their investment within a specific legal framework. In addition, World Economic Forum (2015) defines a PPP as a deliberate coalition between various actors from different sectors in which they agree to do their things together to accomplish the same objectives that include shared threats, duties, resources and capabilities.

According to Zinyama and Nhema (2015), in a PPP arrangement, the financial, technical and operational risk is retained by the private entity. PPPs are usually long-term contracts according to the World Bank (2015). Mutandwa and Zinyama (2015) highlight the aspect of risk and rewards sharing and PPP as a tool used for the sharing of risks and rewards for the preferred policy outcomes.

Nyagwachi (2008:9) argues that PPPs create a platform for unity between the public and private parties with the aim of creating a "long-term mutual benefit". He further suggests that these partnerships concentrate on making sure that service provision improves through the implementation of better infrastructure projects. In addition to that, PPPs create a platform for knowledge and technology transfer apart from providing better funding models (Dube & Chigumira, 2015).

PPP is a collective platform where both sectors collaborate for the delivering of public infrastructure successfully. PPPs create a conducive atmosphere for enhanced economic and social development by integrating the public sector, the private sector and the public. PPPs comprise "the investment of private risk capital to design, finance, construct, operate and maintain a project" for public use for a precise period during which a private investor is able to collect revenue from the users of the facility (World Bank, 2015:2). Once the contract period is up, the title of the infrastructure is transferred to the government for free.

3.5. Characteristics of public-private partnerships

PPP can be defined differently by different authors, however, PPPs have a number of common characteristics (Mutandwa & Zinyama, 2015). A PPP is complementary in nature; that is, drawing on the strength of each of the dominant partners, the public and private sectors. Operational PPPs are only possible through mutually intended, investigated and

established instruments of cooperation and collaboration (World Bank, 2015).

PPPs are defined as government amenities which are capitalised and functioned working together of the government and inclusion of one or more private sector companies (Zinyama & Nhema, 2015). According to the World Bank (2015), PPP arrangements provide assets and deliver services through apportioning duties and business risks among the different parties. In the project life cycle, the government remains an active component part (Zinyama & Nhema, 2015). The roles and responsibilities of the partners vary from one project to the other. The key consideration is the allocation of risk between the partners which have an emotional effect like rewards and investments. What it means in this regard is that the higher the risk, the higher the reward (World Bank, 2015).

The SADC technical report (2009) highlighted that a PPP does not stand for good governance and decision-making by government. The government, therefore, remains answerable and liable for delivering services and projects with the public interest in mind. The National Treasury (2014) provides ways in which the government can help to the success of a PPP project. The government provides investment through tax revenues, transfer assets, make guarantees, or provide in-kind contributions that ease the operation of the PPP arrangement. In addition, the government has a social obligation, environmentally friendly campaigns, local information and the capability to mobilise political backing.

3.6. Public private partnership (PPP) risks

Country risks relate to the changes in the political economy. These risks include sabotage of projects, demonstrations by labour forces and civil war. In addition to that, changes in monetary and fiscal policy, exchange controls and inflationary conditions fall under country risks (Comer, 2016). Credit rating agencies also pose a lot of country risks, for example, Standard and Poor, Moody's and Fitch Group can determine the extent of investor appetite depending on whether there is a downgrade or an upgrade (Comer, 2016); the higher the credit rating, the higher the investor appetite in terms of investing in a given economy. Most proposed and on-going PPP projects are vulnerable to country risks. It is crucial that a thorough risk assessment and analysis be done before embarking on a PPP project. Political risks have a negative influence on the promotion and development of PPP projects (Gono 2006, 2009). These risks relate to changes in the country's political landscape. Political risks include a change in political policies, change of administration and regulatory frameworks (Comer, 2016). Change in tax policies and environmental laws also fall under political risks, these have implications on the size and nature of PPP projects. In addition, political risks have a negative impact on the business environment in terms of promoting PPP projects. A negative political environment scares investors, according to Comer (2016). Comer (2016) claims that infrastructure projects face substantial political hazards "albeit in subtler forms" such as price regulations and restricted work permits for foreign investors. The current business environment is dynamic and

characterised by intense competition. It is all about survival of the fittest and struggles for existence (Chinomona & Pretorius, 2011). Competition forces pose risks to potential and on-going PPP projects as different players in the infrastructure industry try to find a competitive edge over their rivals (Comer, 2016). Comer (2016) suggests it is crucial that potential private sector investors analyse potential industry risks before making decisions with regard to participating in a PPP arrangement. In addition, Comer (2016) claims that other challenging projects within a country or in neighbouring regions have viable consequences on the potential proposed PPP projects. According to Comer (2016), project risks are connected with the appropriateness and reliability of the technology and the knowledge of the project management team. Comer (2016) suggests that proper selection of qualified and experienced contractors and project managers on PPP projects is crucial in mitigating project risks. Moreover, the appointment of independent consulting engineers could contribute to the mitigation of PPP project risks. Customers or users of infrastructure act a pivotal role in influencing the success of a project. According to Dube and Chigumira (2015), the risk associated with customers relates to demand for a certain infrastructure or service. Given that the high costs are associated with infrastructure projects, it is difficult to reduce costs to match the lower demand (Dube & Chigumira, 2015). According to Comer (2016), going for a contract which guarantees purchase or use of the infrastructure or service, will assist in mitigating customer risks. By adopting an offtake agreement, the PPP project will benefit from a reduction of the marketing risk. These risks relate to schedule delays and budget overruns. Chinomona (2012 a) and Dube and Chigumira (2015) suggest that by scrutinising the contractors based on experience and cash flow management, contractor risks could be eliminated. Introduction of performance bonuses and penalty clauses in the contracts could also ensure that the contractor complies with schedules and budgets (Comer, 2016). Moreover, the appointment of independent consulting engineers to monitor and certify completed work could reduce the chances of a PPP project failure. These relate to the efficient and consistent operation of the projects, for example, a toll road. The road has to be maintained continuously in order to continue collecting tolls. The sustainability of the project is heavily reliant on the collection of tolls. Product liability and design problems are examples of product risks (Comer, 2016). Unforeseen environmental damages also form part of product risks. Comer (2016) suggests that the use of tested designs in PPP infrastructure development will reduce product and construction risks as well as eliminate repairs due to poor design. These are related to industry risks; however, they are focused on possessions with which other competitors might be able to "circumvent the competitive barriers" (Comer, 2016). Efficient supply arrangements, exclusive agreements and offtake agreements will go a long way toward mitigating competitor risks. In the event that capital to commence with a PPP project is not available, funding risks arise. In most cases, this happens when equity participants fail to raise the required amount of capital to implement a project (Dube & Chigumira, 2015). According to Comer (2016:20), funding risks

can occur when there is a division between local and foreign currency funding. In the event that original capital does not match the length of the project, a backing risk arises. Having an experienced financial advisor during the initial phases of the PPP project might assist in addressing funding risks. According to Mutandwa and Zinyama (2015), there are two currency risks facing PPP projects, namely exchange rate fluctuation and exchange controls. Devaluation of a currency “erodes the value of a contract”.

Exchange controls restrict companies or projects from making foreign currency outside the country. Comer (2016) suggests that engaging in currency swap assists in mitigating currency risks associated with exchange controls. According to Comer (2016), fluctuations in interest rates pose a significant risk for “highly leveraged project financings”. Dube and Chigumira (2015) suggest that a long-term financing arrangement can assist to eliminate the risk associated with fluctuating interest rates.

Table 2. Main types of PPPs in developing countries

<i>Core PPPs</i>	<i>Types of models</i>	<i>Description</i>	<i>Level of risk assumed by the private sector</i>	<i>Length of contract (number of years)</i>	<i>Capital investment</i>	<i>Asset ownership</i>	<i>The most common sector in developing countries</i>
	Service contract	The contract for infrastructure support services such as billing	Low	1-3	Public	Public	-Water utilities; -Railway services
	Management contract	The contract for management of a part/Whole of the operations	Low/Medium	2-5	Public	Public	-Water utilities
	Lease contact	The contract for management of operation and specific renewals	Medium	10-15	Public	Public	-Water sector
	Build-operate-transfer contract	The contract for investment in and operation of a specific component of the infrastructure service	High	Varies	Private	Public/ Private	-Energy sector IPPs; -Highways; - -Sanitation/ desalination plants
	Concession	The contract for financing and operations and execution of specific investments	High	25-30	Private	Public/ Private	-Airports/ ports/rail; -Energy networks
	Divestiture/ privatization	The contract of transfer of ownership of public infrastructure to the private sector	Compete	Indefinite	Private	Private	-Telecoms

Source: Turley and Semple (2013).

Table 2 shows that the level of risk assumed is higher in private asset ownership than in public asset ownership.

3.7. Forms of financing for PPPs

Corporate financing. This is when the private sector company borrows money against or based on its proven credit profile and it invests it in a project. This form of financing has high-cost implications. The cost of borrowing in terms of interest rates may be cumbersome at times (National Treasury, 2014).

Project finance. In this type of financing, “non-recourse”, “limited recourse” loans are made straight to a “special purpose vehicle” produced specifically for the PPP project (World Bank, 2015:4). In this case, lenders depend on the cash flow of the project for the reimbursement of the debt. Project assets and future revenue stream provide security towards the debt. Private investors tend to use this form of financing as it substantially reduces their equity investment and exposure to project liability. According to the National Treasury (2014), the only disadvantage of project finance is that it necessitates a complex structure of contracts, guarantees, insurance and

financing agreements in order to offer peace of mind to the lender.

Table 3 shows the difference between corporate finance and project finance.

4. METHODOLOGY

4.1. Research approach applied

The research was qualitative or phenomenological in nature. The word qualitative, according to Bryman (2004), Babbie and Mouton (2005) and Wilson (2010), denotes the use of words and meanings are not scientifically experimentally examined or measured in terms of numbers and statistics. Using guides from Babbie and Mouton (2005), the characteristics of the research design was that it was naturalistic and exploratory, meaning that the researcher was open to whatever emerges and did not manipulate or control the responses and findings to meet predetermined expectations. The researcher avoided rigid designs that eliminate responsiveness and pursued new paths of discovery as they emerged. It was a purposeful study because the respondents selected were regarded as ‘information rich’ in the research area (Zikmund, Babin, Carr, & Griffin, 2010).

Table 3. Corporate finance vs. Project finance

<i>Dimension</i>	<i>Corporate finance</i>	<i>Project finance</i>
Financing vehicle	Multi-purpose organisation	Single purpose organisation
Type of capital	Permanent - an indefinite time horizon for equity	Finite time horizon matches the life of the project
Dividend policy and re-investment decisions	Corporate management makes decisions autonomous from investors and creditors	Fixed dividend policy - immediate payment. No reinvestment allowed
Capital investment decisions	Opaque to creditors	Highly transparent to creditors
Financial structures	Easily duplicated	Highly tailored structures which cannot be re-used
Transaction costs for financing	Low cost due to competition from providers, routinized mechanisms and short turnaround times	Relatively higher costs due to documentation and the longer gestation period
Size of financings	Flexible	Might require a critical mass to cover high transaction costs
Basis for credit valuation	The overall financial health of corporate entity, focus on cash flow and balance sheet	Technical and economic feasibility. Focus on the project's assets, cash flow and contractual arrangements
Cost of capital	Relatively lower	Relatively higher

Source: Comer (2016:6).

Bougie and Sekaran (2009) argue that a rigorous research design is crucial in achieving results that create a platform for effective decision making and hence organisational survival and sustainability or well-being of the public using the model. The researcher began the study by focusing on the research problem and reflecting on the problem and its relevance to the organisation. The question asked at this stage was: If the research was done, what significance would the findings have in addressing the problem? (Chinomona & Maziriri, 2015). Greater clarity on the complexity of the nature of the problem was achieved by undertaking the initial review of the literature (Kalombo, 2005; Bougie & Sekaran, 2009; Ragin & Amoroso, 2010). The reviewed literature enabled the researcher to find valuable information, which helped in the development of frames of reference for the research and crystallising the specific areas of the research. This was followed by an intensive literature review to gather ideas from prior researches and expert opinion on the critical success factors of PPPs.

The researcher used interviews to gather data. In this case, individuals were used as a unit of analysis. Data have been collected from each individual and each response has been treated as an individual data source.

4.2. Target population

Population refers to a group of people, events or things of interest that the researcher wishes to examine (Bradley 2007, Cooper & Schindler 2011). According to Bougie and Sekaran (2009), the target population must be defined in terms of elements or geographical boundaries. The population is defined as "the entire congregation of respondents or subjects" that meet the designated set of criteria (Saunders & Thornhill, 2012). In this study, the target population relates to all people with expertise or experience on PPP models. The target population in this study is a group of experts who are currently involved in infrastructure planning and development and policy making. A convenience sampling method was used in the study, which correlates with the method used in the study of women entrepreneurs done by Chinomona and Maziriri (2015).

4.3. Sample size

This relates to the number of units to be examined. According to Desselle (2005), a good qualitative sample is when the sample size is adequate to yield

insight into a phenomenon and answers the research questions. The aim here is not to generalise, therefore, it does not necessarily need to be representative. In this study, 10 key informants were selected for interviews:

- 1 Director from the Ministry of Finance and Economic Development;
- 2 Lecturers from the University of technology;
- 2 Engineers from the Ministry of Public Works;
- 2 Project Managers from the Zimbabwe National Roads Administration (ZINARA);
- 1 Professional from the banking sector;
- 1 Directors from a selected municipality (Project Management Unit);
- 1 Director from the Zimbabwe National Water Authority (ZINWA).

5. DATA COLLECTION METHODS

5.1. Interviews

Face-to-face interviews were used in this study. Data can be collected through face-to-face interviews, telephone interviews, computer-assisted interviews or interviews through electronic media. Telephone interviews are essential in circumstances where data are being gathered from respondents spread over a wide geographical area. Bougie and Sekaran (2009:13) argue that interviews offer the advantage of "adapting, adopting and changing the questions as the researcher proceeds with the interview session".

In order to obtain information on the issues of interest, a researcher can interview respondents or research participants. Interviewing is a crucial data collection method and is instrumental in the exploratory stage of research (Cooper & Schindler, 2011). Proper training on interview tips and tactics is crucial as this reduces bias and increases the reliability of the data collected.

Interviews can be structured or unstructured. In addition, interviews can be conducted by telephone, online through Skype or face-to-face. Telephone interviews are useful in cases where respondents are in different locations. In addition, they eliminate uneasiness and discomfort as well as nervousness of respondents. However, telephone interviews might be affected by network challenges and they do not capture non-verbal communication as with face-to-face interviews. The interviews were carried out with the management of the private and public players who have been engaged in PPPs. The researcher managed to obtain an 83.3 per cent response rate. Some of the targeted respondents were unable to complete the survey in the allotted time during the

period of data collection. The demographic section indicates the participants' occupation, the area of expertise, level of education, experience and gender.

The participants in this study were mainly senior managers, engineers and project managers. Through their work experience, the participants had an understanding and hands-on experience of projects that are being implemented under PPPs. The majority of the respondents have degrees and Masters with a few with PhDs. The level of education has an impact on the ability to provide sound responses, hence increased reasoning capacity.

6. DATA PRESENTATION AND ANALYSIS

PPP as a panacea to infrastructure challenges and Zimbabwe's preparedness to adopt the model. The question pursues to investigate whether the research participants were of the opinion that PPP arrangements can be of assistance in addressing infrastructural challenges facing the Southern African country. All the respondents concurred that PPP arrangements are a solution to the current infrastructure challenges facing Zimbabwe.

A further examination of the question around the readiness of the country to adopt the PPP model, all respondents indicated that Zimbabwe was not yet ready to adopt the PPP arrangements. Although the country has already implemented a couple of infrastructure projects through the PPP model, the respondents feel that implementation was not smooth. 50 per cent of the respondents cited the absence of clearly defined legal and institutional frameworks to support the PPPs. Corruption is rife in Zimbabwe and this is a stumbling block to adopting PPPs (Gono, 2009). The absence of a clear and consistent legal framework promotes corruption resulting in the failure of PPP projects.

One participant from the Ministry of Finance and Economic Development highlighted that the Zimbabwean business climate was not favourable and this has resulted in the decline in investor appetite. Subsequently, the respondent highlighted that laws such as the newly introduced Indigenization and Empowerment Law that speaks to transfer of 51 per cent ownership to black indigenous people contribute to hindrance in the uptake of PPP projects. The respondent further indicated that under this law, investors are reluctant to commit to huge investments.

Two participants from the Ministry of Public Works showed that emigration of qualified and experienced engineers and project managers to greener pastures outside the country contributed to the lack of readiness by Zimbabwe to adopt the PPP model. One respondent from the Commercial Bank of Zimbabwe (CBZ) ascribed that Zimbabwe is not ready to adopt PPP arrangements because of strict exchange controls and currency fluctuations. Subsequently, the respondent highlighted that the multi-currency system currently being used in the country created an unfavourable business climate for potential investors. The banker argued that the political and economic environment seems not conducive for investors to commit resources to partner with government. Zimbabwe's policy on PPPs is vague and investors fear that their financial injection might be a victim of policy changes.

Two participants from the University of Zimbabwe prove that the sanctions imposed on Zimbabwe by the Western countries are the reason why Zimbabwe is not ready to adopt PPPs in infrastructure development. In addition, the respondents indicated that the current unsatisfactory succession and factional challenges within the ruling ZANU PF party have diverted the focus of the government. This lack of focus and support from politicians is a cause for concern. The respondents from the University of Zimbabwe concurred with the respondent from the Ministry of Finance and they both agree that the indigenisation law has created an unfavourable platform for private players to participate in infrastructure development.

Two respondents from the Zimbabwe National Roads Administration (ZINARA) feel that Zimbabwe is not ready for PPPs because there are no clear policy guidelines to promote the successful implementation of projects. Moreover, the respondents highlighted the absence of a monitoring and evaluation plan, which could be used to provide lessons learnt from previous PPP projects.

One respondent from the Zimbabwe National Water Authority (ZINWA) indicated that Zimbabwe is not prepared for PPPs because there are no bilateral agreements in place to support PPP projects. The respondent gave reference to Zimbabwe's exit from Commercial Market for Eastern and Southern Africa (COMESA). One respondent from Bindura Local Municipality attributed that Zimbabwe was not prepared to adopt PPPs because there is a lack of technical and financial capacity within the public sector.

Specific legislation that speaks specifically to PPPs is crucial in creating a favourable playground for private sector investors. Currently, PPPs are housed beneath the Ministry of Finance and Economic Development and the proposal is that a dedicated unit is set to administer the initiation, implement and evaluate all the phases of the PPP projects.

There is concurrence between data collected from interviews and information gathered from the literature. A report by UNDP in 2009 highlighted a deficiency of clear legislative and regulatory framework for PPPs in Zimbabwe. The National Treasury (2014) argues that no legislation, policy or institutional framework exists that explains precisely to PPPs. The government of Zimbabwe does not have the capacity to conduct due diligence and feasibility studies on proposed PPP projects (National Treasury, 2014). There is a lack of financial resources and technical capacity to conduct feasibility studies. In addition, the procurement plans in the government are disorderly. According to Dube and Chigumira (2012), Zimbabwe is viewed as a high political risk country. This perception has resulted in investors becoming reluctant to invest in Zimbabwe. The lack of political commitment by the government has also created a negative business climate resulting in poor investment appetite by potential investors.

From the data collected from interviews and information gathered from the literature, it is clear that Zimbabwe is not prepared for successful execution of PPP projects. There is a lack of technical and financial capacity, the absence of legislation and lack of legal and institutional frameworks. Above all, Zimbabwe's preparedness to adopt PPPs remains on a low note and the future looks bleak.

However, all key informants agree that PPP units play a pivotal role in addressing all challenges related to PPP projects. Data from the interviews and information from the literature review lay bare the fact that legal and policy frameworks are crucial in the successful execution of PPP projects in Zimbabwe. Clearly defined legislation and sound regulatory frameworks for implementation of PPP projects, both at local and national levels are crucial in the successful implementation of PPP projects (Zinyama & Nhema, 2015). As discussed earlier, Zimbabwe is engulfed with many challenges ranging from political instability, lack of financial and technical capacity and absence of PPP legislation. It is clear that Zimbabwe is in shortfall when it comes to key success factors for PPP projects. All respondents agree that favourable operating and business environments need to be improved. They all indicated a political will and commitment by government is crucial. In addition, all respondents agreed that PPP units need to be set up and the PPP legislation needs to be revised.

7. CONCLUSION

The objective of the study was to explore the possibility of adopting the PPP arrangements as a solution to infrastructure challenges and for a strong and effective governance and control. The research has managed to achieve the aim and the objectives of the study, which mainly were to determine the key success factors for a PPP model in infrastructure development, to determine the benefits of PPP arrangements in infrastructure delivery under Zimbabwean conditions and to determine obstacles and risks associated with PPP arrangements in delivering infrastructure projects. The findings from the interviews were gathered on each objective ensuring that answers were provided on each research question.

The research was aimed at assessing the possibility of adopting the PPP model as a solution to infrastructural challenges facing Zimbabwe. The study revealed that Zimbabwe is not prepared to adopt PPP arrangements in addressing infrastructure challenges. The level of preparedness is still low and this is attributed to the myriad of challenges facing

the country ranging from political instability, economic meltdown, the absence of PPP legislation and political sanctions.

The research established that the nation does not have necessary pre-requisite for the prosperous adoption of PPP arrangements in infrastructure development. In addition, the country does not have a clearly defined PPP policy. Moreover, the country lacks political backing to support PPP arrangements. The absence of a legal and institutional framework is a cause for concern. The study explored the benefits associated with PPP arrangements.

8. LIMITATIONS, RECOMMENDATIONS AND IDEAS FOR FUTURE STUDY

In this research, a purely qualitative research method was used to get the results. It would be more meaningful and different results would have been obtained if the triangulation method was used in this research.

Zimbabwe was used as a case study and future research might try to use other countries like South Africa or Malawi for comparison reasons. PPP needs the right economic, political, legal and financial framework to be put in place to make it attractive for the private sector to put more money in infrastructural development. The government need to make sure that policies are articulated and applied in a transparent and unquestionable way in order to attract investors in Zimbabwe. It is also necessary for the government to mobilise and incentivise the private sector to participate in the process. The government needs to set up a PPP unit to initiate, implement and evaluate PPP projects. Banks need to offer favourable interest rates so that potential players can borrow and invest in PPP projects. The indigenisation law needs to be revised so that it can accommodate foreign investors. The government needs to improve the operating and business environment in order to attract private investors into participating in PPP projects. An anti-corruption unit needs to be set up and this will be responsible for fighting corruption, which is rife in the country. The current PPP procurement act needs to be revised so that transparency can prevail.

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