Public Private Partnerships (PPPs), road tolling and highway infrastructure investment in Zimbabwe

Alouis Chilunjika (a)*

(a) PDRF, School of Public Management, Governance and Public Policy, University of Johannesburg, Johannesburg, South Africa/National University of Lesotho, Department of Political and Administrative Studies, Maseru, Lesotho

ABSTRACT

Over the last decade, developing countries have been promoting public-private partnerships (PPPs) as an alternative approach to developing infrastructure and services. This is done by utilising the efficiency and innovation of the private sector and enabling access to private-sector finance through public-private partnerships (PPP). Importantly, PPPs ensure more value for money than traditional financing options and highway and transportation infrastructure revenue sources. The study is qualitative, relied on the extensive review of written documents. In light of this, the study explores the utility and efficacy of PPPs in road tolling initiatives and highway infrastructure investment in Zimbabwe. Emphasis was placed on the PPP arrangement between the Zimbabwe National Roads Administration (ZINARA) and a South African company- Group Five, which saw road tolls being erected and operationalised to fund Zimbabwean highway infrastructure. The paper established that despite this PPP arrangement being a success, as seen by the faster completion of the trunk roads, lower project lifecycle costs, better risk allocation, faster implementation of public works and services, improved service quality and additional revenue streams a myriad of operational and administrative challenges equally dogged it. To this effect, the paper, therefore, recommends some strategies to strengthen and enhance the adoption, operationalization, and management of PPPs for road tolling and highway infrastructure investments in developing countries.

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Introduction

Many governments such as the Government of Zimbabwe (GoZ) are financially constrained to the extent that it is difficult for them to expand, maintain and operate their highway networks and other transport infrastructure. Accordingly, Queiroz, Uribe and Blumenfeld (2016:26) note that “many governments do not have all the financial resources required to expand and to maintain and operate their country’s highways”. Due to this inadequacy in financial resources and the rise in thoroughfare needs, it has become imperative to create and adopt other innovative and beneficial means to fund capital-intensive highway projects. The dramatic growth in highway needs, both for new facilities and for the maintenance and rehabilitation of existing facilities, has paved way for private players to participate in the provision of road infrastructure.

Accordingly, the GoZ showed the expanded role of the private sector in road construction and maintenance by establishing a forum for dialogue between public and private sector companies in the construction industry (Kunambura 2016:2). This forum, called the Zimbabwean Construction Industry Council (ZCIC), comprised government ministries, contractor associations and professional associations. In this forum, the Government and road authorities carry out the key functions including determining road standards, carrying out road classifications, formulating transport policy, overseeing road institutions and setting long-range planning goals (Road Transport Services and Infrastructure n.d:13). Since tollgates serve as instruments for financing highway infrastructure construction and rehabilitation, they have become policy instruments for raising additional revenue for the Government of Zimbabwe. The issue of toll roads was first discussed in 2000 after concerns were raised regarding the poor condition of the country’s roads.

* Corresponding author. ORCID ID: 0000-0001-9801-4803
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This problem was further aggravated by several incomplete road projects around the country (Chilunjika, Uwizeyimana and Auriacombe 2019; Zhou and Chilunjika 2013:199). However, the proposal to introduce the tolling systems was shelved until 2008. Two reasons for this was because the Government had embarked on the Land Reform Programme which attracted intense opposition from the West, as well as the emerging voice of the Movement for Democratic Change (MDC), the country’s main political opposition. According to Zhou and Chilunjika (2017:9), Zimbabwe’s economy shrank significantly during this period, as Western powers had imposed sanctions to show their opposition to the Land Reform Programme. Subsequently, Zimbabwe faced an increasingly severe economic crisis characterised by rapid hyperinflation and corresponding devaluation of the local currency. During this severe economic downturn, government coffers were so heavily depleted that there were no surplus funds to support road maintenance (Masiyakurima, Chilunjika and Muzvidziwa-Chilunjika 2020; Zhou and Chilunjika 2013:193).

Upon realising the backlog in highway infrastructure investment and the imminent failure by the country to access lines of credit from multilateral institutions and development partners due to the economic sanctions that were imposed by the West. The Government of Zimbabwe was faced with a daunting task to come up with innovative ways and strategies to raise funds to invest in road infrastructure since its highway networks and trunk roads have outlived their lifespans as seen by their dilapidated state. Such innovative ways include among others, the engagement of private players to partner with the Government in financing highway infrastructure investment initiatives in Zimbabwe.

Accordingly, it can be noted that the private sector is incentivised to participate in the financing of infrastructure only if the monetary benefits offset the monetary costs of a particular project regardless of any social costs or benefits (Chilunjika et al., 2019; Chilunjika 2018). In this vein, the GoZ engaged a South African private company Group Five (G5) to partner with the Zimbabwe National Roads Administration (ZINARA) to help construct, refurbish and maintain the trunk roads in Zimbabwe. This arrangement saw the major trunk roads being constructed, maintained and renovated. In this case, the sustained development of private sector involvement in road construction and rehabilitation, as well as in the maintenance of road infrastructure calls for increased emphasis on contractual arrangements. In this scenario, there must be clearly articulated contracts that are favourable to both parties.

To this effect, a contract was established which saw G5 and ZINARA erecting toll gates to collect the fees- an initiative that would serve as an innovative source of finance for highway infrastructure investment. Twenty-two tollgates on major highways and trunk roads across the country were introduced on August 2009 through Statutory Instrument 39 of 2009. This was meant to provide an on-going revenue source that is not tied to Government’s annual budgetary process (Zhou and Chilunjika 2013:199). For many years, the utility of PPPs in financing highway infrastructure by mobilising domestic revenue through road tolls was neglected, despite being a better long-term option.

Existing research on toll-revenue collection reflects many gaps (empirical, theoretical and methodological) that need to be filled and which this study attempts to fill. Limited research has been conducted on the efficacy of PPPs, road tolling and infrastructure investment in Zimbabwe.

**Literature Review**

**Theoretical and Conceptual Background**

This section constitutes the theoretical and conceptual background of the literature review section. The section will conceptualise the PPPs, the characteristics of PPPs, models of PPPs.

**Conceptualising Public Private Partnerships**

According to Jakutyte (2012:5), PPPs in general terms, could be defined as a long-term contractual relationship between public and private sector entities. They are usually characterised by features such as bundling structures, exchanging resources, sharing responsibility, risks and rewards and are arranged with the aim of providing a public service or asset. In line with this, “a PPP arrangement is seen where the public (government agency) and the private (private company) sector work together to finance public sector highway infrastructure projects” (Jakutyte 2012: 5). As such, the private sector joins forces with the public sector so that they can work together to complete transportation projects. In addition to this, Hannola (2013:23) contends that a PPP is a co-operative venture between the public and private sectors, built on the expertise of each partner that best meets clearly defined public needs through the appropriate allocation of resources, risks and rewards. In this scenario, Group Five, a South African construction company, merged with the Zimbabwe National Roads Administration (ZINARA) to form Intertoll in a bid to share the risks and benefits of such an amalgamation.

Through PPPs, a partnership between the government and private sector entities is forged, where there is the funding and operation of the highway facility and a service is provided. Hannola (2013:41) states that several PPP projects are based on the principle that a private sector representative obtains a building title and constructs the necessary infrastructure using his/her finances, while the public sector grants investment profitability by means of future user fees. This kind of an arrangement is widely used in transport and logistics infrastructure projects where such mutual partnerships are forged (Ittmann 2017:2). This partnership or agreement “facilitates greater participation by the private sector, as it takes on a greater share of the responsibilities and risks involved in the execution of projects” (Ittmann 2017:2). The shared relationship revolves around the need to share risks and to jointly achieve a common infrastructural goal.
According to Blank, Baidya and Dias (2009:23), PPPs are an important tool for financial engineering, as they serve as a mechanism for creating conditions to enable private sector participation in the construction and operation of public projects that initially appeared to be unfeasible. Additionally, Mbara, Nyariraningwe and Mukwashi (2010:155), assert that PPPs include the following benefits: associated acceleration of infrastructure provision, faster implementation, lower lifecycle costs, better risk allocation, better performance incentives, improved quality of services, generation of additional revenues and enhanced public management.

**Characteristics of Public Private Partnerships**

According to Alexander (2017:6), the main characteristics of PPPs include risk sharing between the public and private sector, a long-term relationship between the parties, but with the ultimate regulatory responsibility remaining with the public sector. Using private sector skills for public sector services means that public sector contracts for services (not procurement of assets), define the outputs required of the contractor (not inputs) and payments are made according to service delivery. According to Chilunjika (2018) this introduces a life-cycle approach to design, construction and operation of the asset. PPP is in accordance with the strategy of maximising tolling to recoup a part of the substantial investment involved and to alleviate pressure on the Zimbabwean Government’s budget. This releases financing for other socio-economic needs. In highlighting the different types of PPPs, it is important to look at contractually binding joint ventures. Here, governments use tax revenue to provide capital for investment, whilst the operations are jointly run with the private sector.

In other arrangements, notably in the UK, the Private Finance Initiative (PFI) allows the private sector to provide capital investment, while Government takes responsibility for the provision of the agreed services, which can be in kind. These in-kind arrangements take the form of the acquisition of land or transfer of existing assets. In other scenarios, Andreski, Pearce, Abedin and Odoki (2010:7) state that governments can render assistance to the project by providing revenue subsidies, which include tax breaks or providing guaranteed annual revenues for a fixed period. To substantiate this, Poole (2016:1) highlights that governments can make projects viable by offering guarantees and subsidies under certain conditions and offering tax incentives under other conditions.

Characteristically, bundling leads to the creation of a special company (special-purpose vehicle) by a private sector consortium that is made up of bank lenders, a maintenance company and a building contractor (Alexander 2017; Baxter 2017; Andreski et al. 2010; Blank et al. 2009). In defining the term “bundling”, Grimsey and Lewis (2004:4) note that it is the integration of functions such as design, construction, financing, operations and maintenance of the facility, often in the form of a special-purpose vehicle PPP. This special-purpose vehicle is a separate legal entity and can sign contracts with a government and subcontractors to build and maintain respective facility under given schemes.

**Models or schemes for PPPs**

Specific PPP schemes can be adopted, depending on the nature of the infrastructural project. These include the following:

i. **Build Own Operate (BOO)**, as noted by Grimsey and Lewis (2004:5), is an arrangement that involves the developer who is responsible for design, funding, construction, operation and maintenance of the facility during the concession period, with no provision for transfer of ownership to the government. To this end, this arrangement is centred on private sector participation, as the private consortium funds and manages the facility as the owner. To further reinforce the notion of BOO, a company funds and constructs an infrastructure, which it owns and operates for an indefinite period. At the end of the concession period, the original agreement may be renegotiated, a new agreement may be negotiated or the government may purchase the facility (Chilunjika 2018; Uwizeyimana 2006:24).

ii. **Build Own Operate Transfer (BOOT)**, as noted by Grimsey and Lewis (2004:5), is an arrangement whereby a facility is designed, financed, operated and maintained by the concession company. Ownership rests with the concessionaire until the end of the concession period, at which point ownership and operating rights are transferred to the government (normally without a charge) (Uwizeyimana 2006:24). According to Spencer (2007:13), a private consortium takes the responsibility of designing, financing and building the facility. It qualifies as the temporary owner and operates the facility charging user fees to cover the costs of its operations before transferring ownership to the government at no cost (Durdyev and Ismail 2017:195).

iii. **Build Operate Transfer (BOT)** is an agreement where a facility is designed, financed, operated and maintained by the concessionaire for the period of the concession (Chilunjika 2018; Virdi and Singh 2017:118). Legal ownership of the facility may or may not rest with the concession company (Uwizeyimana 2006:24). Under the generic BOT framework, a private consortium funds, constructs, owns and operates an infrastructure for a limited period (World Bank Group 2018:1). Hereafter, infrastructure is transferred to concession authorities at no cost (Chilunjika 2018; Grimsey and Lewis 2004:5).

iv. **Build Transfer Operate (BTO)** is an arrangement whereby a company funds and constructs infrastructure, but transfers ownership to the concession authority immediately after completion of the construction phase (Virdi and Singh 2017:118; Bousquet and Fayard 2001:5). The government puts infrastructure at the company’s disposal to operate for a limited period, where after all rights are restored to the concession authority (World Bank Group 2018:1). The private entity designs, finances and constructs the facility on behalf of the public sector (World Bank Group 2018:1). Upon completion, it transfers
the title to the government. The private sector operates the facility for a specified period until it has recovered the full project cost (Uwiziemana 2006:23-24).

v. Build Own Lease Transfer (BOLT), as described by Spencer (2007:15), implies a technique that involves private contractor financing, as well as designing and building the facility. The contractor signs an agreement with the government, so that the loan used for the development of the project can be repaid with interest by payments of lease rentals from the government (Shukla, Panchal and Shah 2014:135).

vi. Design Build Finance Operate (DBFO), as noted by Grimsey and Lewis (2004:5), is the main form of contract, whereby the service provider is responsible for the design, construction, financing and operation of an asset. When the asset or facility is in operation, provision is made for some or all of the services related to the asset’s use. According to Spencer (2007:12), the contract awardee has the task of designing, building and maintaining the facility within a specific period. Payment is based on the performance criteria concerning physical condition, capacity and congestion.

vii. Design Build Operate (DBO) is a form of PPP in which the public sector provides finance for a capital investment project, but the providers of the projects retain the design and construction and deliver some or all of the operational elements (World Bank Group 2018:1; Virdi and Singh 2017:117; Grimsey and Lewis 2004:5).

viii. Design Build Finance (DBF) is a form of PPP that involves the procurement of an asset using private finance without private sector operation and provision of the associated services (Grimsey and Lewis 2004:5).

**Empirical Review**

This section reviews and assesses empirical literature. This section explores concessions and their usage in PPPs, mechanisms for obtaining revenues under concessions, the pros and cons of concessions as PPP tools.

**Concessions and their usage in PPPs**

Concession-based approaches to finance highway infrastructure projects are tools used in PPPs. According to Wang and Juan (2016:1), concessions are well-known forms of partnerships between the public sector and mostly private companies that have demonstrated their usefulness in the development of infrastructure (Chilunjika, Chikova and Uwizeymana 2016; Juvin 2014:13). According to Bousquet and Fayard (2001:3), a concession is generally identified as a system whereby a public authority grants specific rights to an organisation (whether private or semi-public) to construct, overhaul, maintain and operate an infrastructure for a given period. This grant of land or property by a government may be in return for services or for a particular use, a right to undertake and profit by a specified activity, as well as a lease for a particular purpose. According to the European Association of Operators of Toll Road Infrastructures (ASECAP) (2014:14), the concessionaire is committed to using all utility assets on the basis of the agreement between a government or its entities and a private firm. Furthermore, concessionaire “is responsible for all operations and investments, while asset ownership remains with the authority and the assets revert to the authority at the end of the concession” (ASECAP 2014:14).

**Mechanisms for obtaining revenues under concessions**

In the context of a concession agreement, the concessionaire can use the following three mechanisms to obtain revenue:

i. Direct road tolling, as noted by ASECAP (2014:54), implies that the public authority delegates the construction, funding and management of a road to a managing company, which carries out the work at its expenses. This company collects tolls from the users in the form of distance-based charges to reimburse the investment and to cover maintenance costs. In light of this, the Group Five Construction Company is directly recouping its initial outlay as well as the maintenance fees from the toll fees that are being collected along the Harare-Plumtree-Mutare highway. In this scenario, it can be argued that direct road tolling is more economically viable on roads carrying relatively high volumes of traffic.

ii. Indirect road tolling, as highlighted by the ASECAP (2014:54), involves the public authority delegating the construction, funding and management of a road to a managing company, which carries out the work at its own expenses. Users pay a toll to the public authority, usually on the basis of a time-based charge or the distance travelled. The operator is remunerated by the public authority, typically on the basis of available payments.

iii. Shadow toll concession, as defined by Aizawa (2017:7), is where a government, rather than its road users makes the payment. The fee is based on vehicles using a kilometre of the project road, in accordance to the tolling structure. A shadow toll system enables the public authority to delegate the construction, funding and management of a road to a managing company. No toll is collected from users, but is rather remunerated directly by the awarding public authority. A shadow-tolling contract enables the public authority to delegate the construction and funding of an infrastructure to a concession company. The concession company, therefore, collects no toll from the users. Instead, the public authority remunerates the concession company, principally based on the degree of utilisation of the infrastructure (ASECAP 2014:71; Grimsey and Lewis 2004:5; Bousquet and Fayard 2001:13).
Under this concessional arrangement, infrastructure is optimised, with the concession company bearing the risk and interim funding. The advantages of shadow tolls, as noted by Fishbein and Babbar (n.d:27), are that infrastructure is paid over time and therefore may be less of a burden to a government than an up-front grant. Furthermore, they enhance the concessionaire’s incentive to attract users to the facility. Conversely, shadow tolls may not use government funds efficiently to protect investors from revenue risk; government contributions under a shadow toll arrangement are in line with traffic density. Thus, government support may not adequately protect investors when traffic levels fall.

**Pros and cons of concessions as PPP tools**

The major advantage of a concession is that it permits a private player to develop and maintain public resources, for which private ownership may be too economically inefficient and politically impractical. The private sector bears a significant share of the risks and there is a high level of private investment. There is a high potential for efficiency gains in all phases of project development and implementation and technological innovation (Uwizeyimana 2006:23).

Hogan (2014:6) argues that concessions allow “governments to improve the quality of services delivered to the public”. Through concession agreements, governments can specify the maintenance and operating standards to which private partners must comply (Jomo, Chowdhury, Sharma and Platz 2016:1). Governments often either require the private entity to make a certain amount of improvements to the asset or specify certain expansion projects that the private partner must undertake (Jomo, et al., 2016:3). Governments can also require private partners to implement technological upgrades like e-tolling, which would not have been possible “if the government was responsible for funding, operating and maintaining such assets” (Hogan 2014:6). In addition, concessions are particularly advantageous in this era of cash-strapped governments and declining infrastructure (Jomo, et al., 2016:8).

Looking at the financing gap in Zimbabwe, the State needs to raise considerable sums of money in order to build more tollgates, as well as upgrade and maintain the current tollgate infrastructure. This scope of expectations far outweighs the available financial resources. According to Gumbie and Kudenga (2009:23), a World Bank (WB) mission pointed out that, whereas the total road maintenance funding requirement in 2005 was about US$160 million, only US$10 million, (6% of the requirement) was provided. This shows a budget gap of US$150 million. Gumbie and Kudenga (2009:35) further note that in 2009, “the estimated funding requirement for road maintenance amounted to about US$225 million, compared to a budget provision of US$13 million (less than 6% of the total required amount)”. According to the World Bank (2010:45), “the road rehabilitation requirements were estimated at about $1.3 billion, compared to a budget allocation of $8 million (0.6% of the total requirement)”. This clearly demonstrates the “dangers of falling behind in infrastructure maintenance, a situation that could conceivably have negative consequences for both public safety and the economy” (World Bank 2010:45).

Juvin (2014:13) argues that concessions mobilise private capital and expertise to complement public resources and allow for new investment in public infrastructure and services without increasing public debt. Concessions, therefore, “allow governments to take advantage of private sector financing to fund their infrastructure needs resulting in immediate financial benefits to state and municipal governments” (Juvin 2014:13). Governments are paid handsomely, “generally in the form of a one-time, up-front, lump sum payment” (Juvin 2014:13). In addition, governments realise annual savings, as “they no longer have to pay the costs associated with the maintenance and operation of the tollgate facility” (Juvin 2014:13).

Unlike the fuel levy, vehicle license, overload, transit and road access and possibly toll fees, ZINARA does not have absolute control of budgetary allocations, concessions, loans and PPPs, which are controlled by Treasury, lenders and private concessionaires, respectively. On one hand, the Road Fund’s limited control over the budgetary allocations, loans and PPPs is advantageous. It limits the chance of abuse and diversion of funds, as resources are in most cases earmarked for specific purposes. On the other hand, this kind of arrangement where the autonomy of the Road Fund is limited makes it difficult for ZINARA to have absolute control over the operations, thereby making the concessionaires and lenders setting the conditionalities, parameters and terms that ZINARA should operate in which are in most cases unfavourable to her.

Concessions, although useful in funding the construction of tollgates and other types of highway infrastructure, are not immune to criticism. Major criticisms often revolve around issues of accountability and transparency (Poole 2016:2; Wang and Juan 2016:2). Wang and Juan (2016:2), argue that “when governments are responsible for providing services to their citizens, they must consider the interests of the public at all times”. Failure to do so affects the quality of the service and “citizens can hold public officials accountable for their actions by voting them out of office” (Wang and Juan 2016:2). However, when services are privatised, this accountability disappears. “Private partners are accountable only to the terms of the concession agreement and not to any greater notion of public interest” (Wang and Juan 2016:2), “Privatisation in the form of concessions also decreases transparency” (Wang and Juan 2016:2). “Governmental transparency is normally achieved by publishing regulations and procedures that guide government action” (Wang and Juan 2016:2). “The public can easily access information regarding proposed or actual government action. This allows for meaningful public participation in the workings of a democratic government” (Wang and Juan 2016:2). A concession transfers decision-making power over service delivery and facility operations to the private sector, which operates out of public view, thus decreasing transparency” (Hogan 2014:7).
Research and Methodology

This section examines the research methodologies that were employed in this study. The study is a qualitative research. The study relied on the extensive review of written records such as journal articles, books, book chapters, newspapers, government reports among others to gather data on the efficacy of PPPs, road tolling and highway infrastructure investment in Zimbabwe. The collected data was analysed using thematic and content analyses.

Findings and Discussions

This section presents and discusses the research findings on the dynamics and efficacy surrounding the PPPs, road tolling and highway infrastructure in Zimbabwe.

PPPs, Road Tolling and Highway Infrastructure Investment: The Zimbabwean Story

PPPs in the transport sector were first presented in Zimbabwe in 1994, when the government partnered private players in the construction of the Limpopo Toll Bridge under a 20 year Build-Operate and Transfer (BOT) arrangement, which had a total value of $18 million (Bhoroma 2018). Another PPP project that was successfully undertaken by the government is the Beitbridge Bulawayo Railway (BBR) line, which was implemented on a BOT basis by Beitbridge Bulawayo Railway (Private) limited in July 1999. According to Makanjera (2017:2), the GoZ introduced PPPs in 1998 to attract investors to become involved in infrastructure projects and state-owned enterprises (SOEs) that were widely seen as detrimental to the fiscus. There are some notable cases of PPPs in Zimbabwe’s road sector, such as Newlands Development Project in Harare and the Limpopo-Beitbridge projects in Harare and Beitbridge, respectively (Zinyama and Nhema 2015:42). The quality of Zimbabwe’s roads has been declining due to insufficient rehabilitation and maintenance. The introduction of tollgates was seen as an answer to the road infrastructure challenges. In addition to that, ZINARA commissioned the Royal Haskoning DHV (formerly SSI Engineers and Environmental Consultants) to conduct a feasibility study for the improvement of the Harare-Beitbridge Road in a bid to determine the viability of the construction and tolling of the road (Makanjera 2017:2; Zinyama and Nhema 2015:42).

Such an initiative heralded the adoption of PPP arrangements. The most noticeable PPP so far has been the Plumtree-Bulawayo-Mutare Highway rehabilitation project implemented by Group Five of South Africa with funding from Development Bank of South Africa (DBSA) in 2014. According to Chilunjika (2018) ZINARA partnered with a South African construction company Group Five in constructing the Harare-Plumtree Highway as well as the Harare-Plumtree-Mutare Road Network. This arrangement has culminated in sound road infrastructural investments. The GoZ received money from the South African Government-owned bank, the Development Bank of South Africa (DBSA), towards its highway infrastructure projects. According to Webb (n.d:1), the DBSA granted a R1.4 billion loan to a joint venture focusing on road rehabilitation and tolling initiatives in Zimbabwe. Despite the DBSA being a multilateral institution, it acted in a bilateral manner by providing a loan to a joint venture between ZINARA and Group Five International of South Africa. ZINARA (2012:6) postulates that, in 2011, the then “Minister of Transport, Communication and Infrastructure Development, Honourable Nicholas Goche, together with the then Finance Minister, Tendai Biti, signed a US$ 206.6 million loan agreement with the DBSA for the rehabilitation of the 820 km stretch between Plumtree and Mutare” (ZINARA 2012:6).

The bank noted that the Zimbabwean Ministries of Finance and Transport had sanctioned the introduction of project-specific tolling and other transport-related revenue for Infralink (a 70%:30% joint venture company between ZINARA and Group Five International of South Africa in which ZINARA is the major shareholder) to fund its debt obligations. Infralink is a conglomerate formed between Group Five and ZINARA, where ZINARA has a 70% shareholding, while Group Five has 30%. As noted above, the development loan for the Infralink Project or contract in Zimbabwe was provided by the DBSA and represents the largest single loan granted by the DBSA outside of South Africa (Chilunjika 2018; Property24 Online 2013). The contract forms part of a government initiative to upgrade logistics and networks to support anticipated growth in the economy. The initiative saw Group Five implementing its own systems and tolling solutions on contract, while ensuring substantive local Zimbabwean participation in the execution of the project. In addition, “the funding was structured as a three-way loan agreement with ZINARA, the Ministry of Transport, Communications and Infrastructural Development and the Ministry of Finance in Zimbabwe (Chilunjika 2018; Property24 Online 2013).

This arrangement highlights that partnerships can be shaped in such a way that private players can introduce capital and design aspect to the project. According to Cokayne (2013), a total of 220 Zimbabwean suppliers and 19 sub-contractors participated in the project, with US$50 million (R447 million) being spent on suppliers and sub-contractors by March 2012 (six months after its inception in

1The DBSA is a development finance institution wholly owned by the Government of South Africa that seeks to "accelerating sustainable socio-economic development and improve the quality of life of the people of SADC by driving financial and non-financial investments in the social and economic infrastructure sectors [http://en.wikipedia.org]."

2Plumtree is a small town located in Bulilimamangwe District, Matabeleland South Province, in south-western Zimbabwe, at the international border with Botswana. It is located about 100 km, by road, southwest of Bulawayo, the nearest large city. The town sits on the main road between Bulawayo in Zimbabwe and Francistown in Botswana, about 85 km, further southwest from Plumtree [http://en.wikipedia.org]

3Mutare (known as Umuali until 1983) is the fourth largest city in Zimbabwe, it is the capital of Manicaland Province [http://en.wikipedia.org].
October 2011). PPP arrangements can go a long way in empowering the local economy. The Infraclick project created employment for over 2 000 Zimbabweans with 13% being female. After Infraclick erected the tollbooths, ZINARA then entered into a partnership with Univern, a private company for the computerisation of the tolling system (Tendersinfo Online 2016:12). This was done in a bid to minimise revenue leakages and thereby enhancing toll collections.

After Infraclick erected the tollbooths, on the constructed Plumtree-Mutare highway ZINARA then entered into a partnership with Univern, a private company for the computerisation of the tolling system (Tendersinfo Online 2016:12). This was done in a bid to minimise revenue leakages and thereby enhancing toll collections. There is also a system in place, where ZINARA and a specialised entity called the Southern Region Trading Company (SRTC) jointly manage the toll plazas and the control centre. To support this, Musarurwa (2015:5) argues that seventeen of the tolling points are jointly managed by the ZINARA and SRTC, while the remainder (nine tolling points) are under the ambit of Intertoll. On one hand, Intertoll monitors the toll revenue that is collected to help DBSA and Group Five recoup their initial outlay invested towards the refurbishment of the Plumtree-Harare-Mutare Highway. On the other hand, SRTC is responsible for managing the control centre, the platform through which the toll equipment and computerised system is monitored and audited.

Such arrangements help eliminate any traces of revenue leakages and divergences by the investors. Furthermore, it cushions investors from any predatory and/or selfish practices by the host Government, since they are able to jointly reconcile and account for all the collected revenue. All the revenue-collection and management efforts and initiatives are done under the scrutiny and monitoring of ZINARA and Group Five through Intertoll. Likewise, the tolling points that fall outside the control of Intertoll are jointly managed by ZINARA and SRTC (Chilunjika 2018). SRTC, therefore, plays a pivotal role in enhancing transparency and accountability in the toll collection process by auditing the recorded vehicles that pass through the tolling points, reconciling them with the total toll revenues submitted by the toll collectors and ensuring that all the money has been remitted to the Road Fund without any leakages and divergences. Such an initiative helps in unearth and eliminate toll revenue leakages or pilferages, and subsequently leads to an ultimate increase in the toll revenue yield to ZINARA.

**Critiquing the Partnership between ZINARA and Group Five (Intertoll)**

Overall, Feito (2017:5) identified some benefits associated with this Intertoll PPP. These benefits include great asset utilisation, innovation, value-for-money, a platform for sector-wide cooperation, financing from the private sector, creating synergy and capacity building, increasing the value of business, higher risk allocation, attracting high efficiency and quality, as well as promoting competitiveness and fair competition. In addition, this Intertoll PPP does not affect government responsibility. In the face of an ever-increasing population, greater demands from society and budgetary constraints, the GoZ faces an increasing amount of pressure to deliver new and improved infrastructure projects from transport (road, railways, bridges), education (schools and universities), healthcare (hospitals, clinics and treatment centres), waste management (collection, disposal, waste to energy plants), water (collections, treatment, distribution), as well as government accommodation and defense (Chilunjika, Uwizeyimana and Chilunjika 2023; Chilunjika, Intauno, Uwizeyimana and Chilunjika 2022; Masiyakurima et al., 2020). The financing of such requirements needs far outweigh available resources (The African Development Bank. 2012:10).

Meeting these needs is critical in ensuring continued progress, development and economic growth. Budgetary constraints and an acknowledgement of private sector efficiencies and expertise are amongst the reasons why the Zimbabwean Government took this economic and political decision to accelerate the use of PPP models to deliver infrastructure projects that would have been built by the public sector (Chilunjika 2018). According to Harries (2003:6), infrastructure created through PPPs can improve the quality and quantity of basic infrastructure. With PPPs, the construction of tollgates is being completed to plan and to budget and repairs and maintenance are planned at the outset. Subsequently, assets and services are maintained at a pre-determined standard over the full length of the partnership (In this case, the ten year period). Early delivery of quality highway infrastructure and services has numerous social benefits. For example, PPPs help the public sector to develop a more disciplined and commercial approach to infrastructure development, whilst allowing them to retain strategic control of the overall project and services (Chilunjika 2018; Bothhal 2016:27).

Since the Group Five Construction Company does not receive payment until the facility is complete and fully operational, for instance (depending on the partnership conditions), the PPP structure encourages efficient, on-budget completion (Bothhal 2016:27). Furthermore, Poole (2016:2) argues that PPPs are characterised by better-quality design and construction, since it focuses on the entire life-cycle cost of a project and not simply on its initial construction cost. Expertise and experience introduced by the Group Five not only encourages innovation, resulting in shorter production or construction times, but also brings improvements to the construction and facility management processes. “The process helps to reduce government debt and free up public capital to spend on other government services” (Were 2017:1).

Despite these favourable benefits, the PPP arrangement is not immune to challenges, argued that the repayment arrangement has been affected by the current macro-economic arrangement whereby ZINARA pays the DBSA in foreign currency, and converting RTGS dollars to USD (United States dollars) is a challenge due to inflation. According to Zharare (2020) the DBSA loan agreement was backed by three revenue streams namely: fuel levy, abnormal and overload charges and transit fees. At the time of the agreement these inflows were all in US dollars and were enough to repay the loan. “However, when the economy shifted to local currency, it became difficult to find enough foreign currency to repay the loan, which then put the loan into arrears. This was worsened by tax garnishes on Infraclick of US$46.97 million emanating from the tax status of Infraclick; the Special Purpose Vehicle (Zharare 2020;
In order to salvage the situation, a loan restructure agreement was crafted and ZINARA has engaged a transactional advisor to carry out due diligence on the whole deal before the board approves the loan restructure.

Additionally, in the meantime the ZINARA is making monthly interest payments of US$1.45 million. The loan restructure deal will require quarterly payments of US$7.05 million which translates to US$2.35 million per month (ZINARA Report 2019). The current loan deal required quarterly payments of US$9 million (US$3 million per month). However, the loan that was supposed to be liquidated in the year 2022 might see Zimbabwe paying more in compounding interests due to defaults. To this effect, it can be argued that the Zimbabwean Government like most developing countries’ Governments is financially constrained thus as it enters into those arrangements it does so in a disadvantaged position whereby it does not have much say. This can be further supported by the issue of the South African businessman who brokered a deal for ZINARA to secure a loan from DBSA. According to Zharare (2020) the loan deal has also compelled ZINARA to pay a South African business tycoon Niko Shefer US$300 000 as facilitation fee for the $206 million loan from DBSA. The money that is being received by Mr Shefer is over and above the interest the ZINARA is paying to DBSA for the USD 206 million loan. In this vein, it can be argued that, the amortisation of the DBSA facility is proving to be heavy, as it is eroding the total revenues that ZINARA could have used for road infrastructure development and maintenance. Coupled with the high fixed charges, facilitation fees and exchange losses, it was revealed that collections were failing to cover all the monthly dues. The agreement is, after cash collections from tollgates, all the money is banked and shared 70 percent (ZINARA) and 30 percent (Intertoll). However, there are many cases especially around late 2019 when collections were so low and that after some expenses they ended up in the negative (Zharare 2020). The contract provides for cost plus model. Therefore, all the claims are cost driven and are pushed up by the black market rates of foreign currency and inflationary trends.

Additionally, PPPs are thought to be more expensive than open financing, as private segments incur more expenses and have high exchange costs (Wang and Juan 2016:2; Pereira 2014:14). PPPs are prone to deliver inadequate risk allocation, because of the absence of rivalry amid the bidding and being subject to renegotiations that may place the public sector in a weaker position. According to Hogan (2014:4), the most notable “concerns for governments entering PPPs are that the interests of the public and private sectors are not always aligned”. Hence, protecting the interests of the public is often not conducive to private profit. Once a facility or service is leased to a private partner, the private player has certain duties towards shareholders. Therefore, profitability is a crucial component of the duties in question. From the government’s perspective, the misalignment of private and public interests is cause for concern, as adopting a profit-driven model for the provision of certain services jeopardises public interest.

With a PPP partnership, risk is transferred to the private sector and it only realises its investment if the asset performs well. The project may be unjustifiable where the government postpones paying the private sector, which hampers the quality, nature and pace of the project. In this vein, the public sector should transform its role as an infrastructure provider to a manager of private players. Therefore, profitability is a crucial component of the duties in question. From the government’s perspective, the misalignment of private and public interests is cause for concern, as adopting a profit-driven model for the provision of certain services jeopardises public interest.

With a PPP partnership, risk is transferred to the private sector and it only realises its investment if the asset performs well. The project may be unjustifiable where the government postpones paying the private sector, which hampers the quality, nature and pace of the project. In this vein, the public sector should transform its role as an infrastructure provider to a manager of private players, thereby guaranteeing a level of service for the public (Andreski et al., 2010:9). According to The New Zealand Ministry of Transport (2018:35), “given the difficulty in estimating financial outcomes over long periods, there is a risk that the private sector may go bankrupt or make very large profits”. This can create problems for the government, necessitating it to intervene. In addition, given the length of the relationships created by PPPs, “it is difficult to anticipate all contingencies and some aspects of the contracts may have to be renegotiated at some stage” (The New Zealand Ministry of Transport 2018:35). As the private sector finances the projects, it is entitled to receive interest from debt repayments. This could lead to “uncertain future interest rate hikes that may negatively impact on the amount of debt to be repaid” (Chilunjika 2018). In Zimbabwe, PPPs have not been prominent due to institutional decay (flawed rule of law, respect for property rights and contracts), high country and credit risk, economic and financial instability, political interference for control and corruption, inadequate regulatory and inconsistent policy frameworks.

**Conclusions**

PPPs as a strategy between a public sector and a private organisation enhance speed, efficiency and cost effectiveness in the delivery of capital intensive projects, and are extremely suitable to road infrastructure projects. With regard to road tolling, highway infrastructure investment toll roads enable the public sector to contract the private sector for the construction, operation and maintenance of roads for a period of 10-30 years.

The construction of the Plumtree-Harare-Mutare highway in Zimbabwe attracted Group Five a South African company to help mobilise the required financial resources speedily for a ten-year highway infrastructure construction project. The study concludes that PPPs are a vehicle for undertaking highway infrastructure projects more effectively and with greater confidence than with the annual budget allocations, where there are always funding uncertainties about the outer-years of a multi-year project. Road tolling initiatives when done through PPPs are advantageous in that they propagate the efficiency effects of appropriately designed tollgate structures and improved equity from direct pricing as well as yield additional revenue to pay for the costs of such services. As such, toll road users have access to the advantages of a better road sooner than they would have had under a public sector-funded scenario. However it is needful for the contractual agreements between and among all the parties involved in the PPP arrangements to be clarified so that issues like high fixed charges, exorbitant facilitation fees and exchange losses as a result of the harsh macro-economic environment among other factors are dealt with.
Acknowledgement
This article is partly based on a doctoral study that was completed at the University of Johannesburg under the supervision of Prof D.E. Uwizeyimana and Prof C.J. Auriacombe: Chilunjika, A. 2018. The Performance of Automated Toll Revenue Mobilisation Systems in Zimbabwe. [Ph.D Thesis] Johannesburg: University of Johannesburg.

Author Contributions: Conceptualization, Methodology, Data Collection, Formal Analysis, Writing—Original Draft Preparation, Writing—Review And Editing by author. Author has read and agreed to the published the final version of the manuscript.

Institutional Review Board Statement: Ethical review and approval were obtained for this study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to privacy.

Conflicts of Interest: The author declares no conflict of interest.

References

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