



UNIVERSITY
of
LUSAKA

SCHOOL OF POSTGRADUATE STUDIES

**COMPARING PUBLIC PRIVATE PARTNERSHIP MODALITIES OF
CHINGOLA SOLWEZI ROAD AND LUSAKA DUAL CARRIAGE WAY**

**A DISSERTATION SUBMITTED TO THE SCHOOL OF
POSTGRADUATE STUDIES, UNIVERSITY OF LUSAKA IN PARTIAL
FULFILLMENT OF THE AWARD OF THE**

MASTER OF SCIENCE IN PROJECT MANAGEMENT

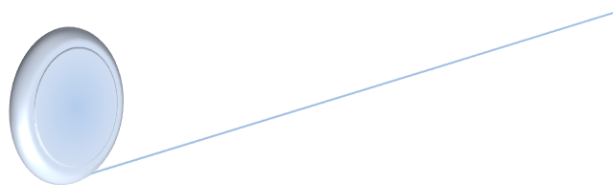
BY

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DECLARATION



I, William M. Mwansa, do hereby dully declare that this is my own work and that to the best of my knowledge, it has never been produced previously or presented at this University or any other institution or organization for any academic awards. I further declare that all works of other people have honorably been acknowledged.

26th February, 2024

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Mr. Lackson Zulu



DEDICATION

I dedicate this wonderful timely academic work to my later mother (Grace Lungu) and my late elder Sister (Ireen M. Mwansa) who recently passed away on 31st January 2024. I would also like to dedicate this academic work to my elder Sister, the first born, for been our second mother and unifier of the family after the demise of our Mother.



ACKNOWLEDGMENTS

The completion of this academic work would have not been possible without friends, family and institutions Jehovah God Almighty used.

I give thanks to the supervisor of this academic work and the University Leadership at large for all the visible and invisible support. It all comes down to Unit of purpose.

To my friend, Winstone Muleba, thank you very much for continued efforts whenever and wherever I called for your help. This work would have not been easy without you my friend. Indeed you believed in me like you always do. God bless you friend!

To my beloved friend Chama Mwale, thank you for pushing me and giving me reasons to further my education. You came in my life at the exact right time. May God bless you!

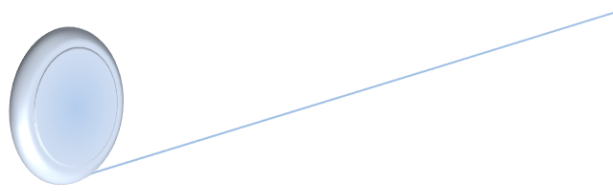


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LIST OF ACRONYMS

PPP	Private Public Partnership
RDA	Road Development Agency
NRFA	National Road Fund Agency
ZDA	Zambian Development Agency
SBE	School of the Built Environment
GDP	Gross Domestic Product
PCI	Productive Capacities Index
MOFNP	Ministry of financing and National Planning
PFI	Private Finance Initiative
PPIAF	Public-Private Infrastructure Advisory Facility
BOOT	Build Own Operate Transfer
BT	Build Transfer
BOT	Build Operate Transfer
ROOT	Rehabilitate Own Operate Transfer
DBFO	Design Build Finance Operate
OECD	The Organization for Economic Cooperation and Development
ADB	African Development Bank
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
NPSA	National Pension Scheme Authority



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ABSTRACT

The main aim of the project was to compare Private Public Partnership modalities of Chingola Solwezi road and Lusaka Dual Carriage way and to achieve this, the study adopted the following objectives: to ascertain the economic effect of PPP modalities on Chingola Solwezi road and Lusaka Ndola Dual Carriage way; to establish risks of PPP modalities during the construction on Chingola Solwezi road and Lusaka Ndola carriage way and to evaluate procurement processes of PPP modalities during the construction on Chingola Solwezi road and Lusaka Ndola carriage way. The study adopted mixed-methods study using an observational and descriptive survey approach and the stakeholders that were in the best position to give data on the two highways under study population included the National Road Fund Agency (NRFA), Ministry of Housing and Infrastructure Development, Road Development Agency (RDA), and road users as the main stakeholders for the construction of both mentioned roads. 70 people were selected for the purpose of sample size determination and 60 was the determined sample size using taro yamene formula. Questionnaires were the study tool used to gather data and the data were analyzed using regression modeling as well as descriptive statistics like frequency counts and percentages and thematic analysis was used for qualitative data. The conclusion of the study was that the comparison of the economic effect of PPP modalities on both Chingola solwezi road and Lusaka Dual Carriage way showed the aiding of reduction in poverty by increasing per capita GDP growth and reducing income inequality; both roads helps stimulate economic development, particularly for captured districts. There was significant effect on risks of PPP modalities during the construction and the biggest risks in a PPP contract on both roads was mostly found to do with weak project bankability, unstable economic policies, inadequate funds, technical, and managerial capabilities of concessionaires are the main factors preventing PPPs from reaching financial objectives are risks for both banks and furthermore, the comparison of the procurement process of PPP modalities during the construction on both roads showed the long-term PPP contracts further hold complications in terms of addressing conflicts between the stakeholders, technological advancements, and population changes.



CHAPTER ONE

INTRODUCTION


This chapter focuses on the background of the study; problem statement; objectives; research questions; hypothesis; scope of the study and significance of the study on the comparison of Public Private Partnership (PPP) modalities of Chingola Solwezi road and Lusaka Ndola Dual Carriage way. The study is set to significantly contribute to the literature on PPP studies within the country and beyond. The study would also be of use to policy makers as most of the outcome is of high beneficial to the government of the day particularly the Ministry of Local Government and Rural Development and also the Ministry of Infrastructure Development.

1.2 Background of the study

In most developing nations, Public Private Partnership (PPPs) in the delivery of Road infrastructure development and investment is a relatively new concept such as a consortium of National Pension Scheme Authority, Government of China, Road development Agency and National Road Fund Agency who have come together to develop Lusaka Ndola Dual carriage way. Although many governments have examined different measures to encourage PPPs in their nations, a lack of public sector capability continues to be one of the biggest challenges in putting PPP initiatives into action. In order to promote PPP, only few nations have so far created institutional structure, frameworks, manuals, and resource materials. Public authorities struggle to plan and execute projects without these well-established institutional frameworks and support materials, while the general public may have misconceptions regarding PPPs.


In Zambian context, the term PPP is defined in the Public Private Partnership Act No. 14, of 2009 as a contract made between an authority like government and a concessionaire such as a company or any other private institution or organization in order to:

- Undertake or perform any infrastructure project or infrastructure facility as specified in the Act or according to the contractual agreement or obligations between the two contracting bodies that have entered into an agreement with each other.
- Undertake or provides Social Sector Services according to the contractual agreements or contact.

- 
- Take up substantial financial requirements of the project and Risks such as technical and operational challenges in connection with the performance of the organizational obligations.
 - Receives proceeds or profits for performing a public duty or using state property by way of:
 - a) Fees paid to any public or private project;
 - b) User levies collected by the contractual body from users or customers for a service provided by it.

A Public-Private Partnership (PPP) can also be defined as contractual agreement made between the Public and Private Institutions or organizations for a common goal, mission, objective or unity of purpose. It comprises of a well-defined understanding of common goals for the private sector to undertake a public project such as road infrastructure and its related services that would have been provided using the traditional public sector procurement system approach. A benefit or financial compensation is given to the private business in exchange, based on predetermined performance criteria. This compensation may come from government budgets, service tariffs, user fees, or a mix of the three. The definition PPP in Zambian context is very long and broad in trying to explain the fact that project risks and finances can be well dealt by the private sector for effective delivery of the project. For example, Macro Oceans Investment Consortium will finance and design the Lusaka Ndola Dual carriage way at a cost of US\$650 million. The Consortium will take up all the risks until completion and handing over of the project. The Consortium then will be collecting toll fees as consideration or proceeds for a period of 25 years as compensation.


Zambia has advanced rather quickly in adopting a PPP Policy in 2008 and implementing it in 2009, despite the fact that PPPs may still be seen as a relatively novel idea in the nation. The government decided to strengthen its Private Public Partnership approach and mechanism with a more unique and clear legal framework in 2009 which saw the enacting of the PPP Act. Thus, the PPP became strengthened as a tool and legal framework for infrastructure development and service delivery. This facilitated the creation of a special Unit under the Ministry of Finance and the National Planning for accelerating reform in mobilizing investment in Infrastructure. Thus, relying upon a specialized legal framework such as PPP has a sustainable strategy of increasing public services delivery to the Zambian Government as a basic tool for economic modernization.



The government developed infrastructure investment objectives in response to these measures in collaboration with regional and local governments. Numerous PPP initiatives have already been put into action in a variety of industries, including energy, health, and agriculture. Public and private sectors have collaborated on PPP projects overall (The Zambian Development Agency, 2013). More initiatives in the fields of communication, transportation, and agriculture are being suggested. Projects in the energy sector include those pertaining to petroleum, biofuels, hydroelectricity power generation, transmission, and distribution, renewable energy, coal, and uranium. Private Public Partnership projects in the transport sector that includes railway and road network, water transportation, or international airports.

Many industrialized and developing countries have used public-private partnerships (PPPs) as a strategy for social and economic development, according to ONG (2003). For instance, PPP contracts were first granted by James I of England in the 16th century in the United Kingdom (Li, 2003), while they were not available in France until the 1940s (ACCA, 2012). The efforts of African nations, particularly those in the Western, Central, and Southern areas, to source funding outside for the purpose of implementing infrastructure development have garnered significant attention. For example, the Ivory Coast, a country in Western and Central Africa, has been involved in successful partnerships since 1959, hence many Countries have seen the positive impact of PPP's for the delivery of Road infrastructure (Fall et al, 2009).

PPPs are currently required in many countries across the world due to the need for efficiency and effectiveness in the planning, implementation, and management of public infrastructure. These Countries can be found in many different countries due to factors such as globalization, financial constraints, and shifting economic, social, and political landscapes (School of Built and Natural Resources, 2011). Private Public Partnership has become more common in many countries as a result of the public sector's adoption of them as a significant project financing instrument. The importance of PPP in the development of capital infrastructure is increasingly recognized by the public sector. This justification explains why Private Public Partnerships are currently gaining more support in both developed and developing nations to build and maintain infrastructure. PPPs are more regularly implemented to improve good governance through excellent service delivery including building of roads (School of Built & Natural Environment, 2011).




As a developing country, Zambia is not an exception when it comes to its inability to offer the required road infrastructure expansion, such as the Lusaka dual carriageway, because of its low GDP and PCI. Zambia may thus ask for help in providing the infrastructure required to enhance the delivery of public services in a manner that is both efficient and effective.

Working with the business sector, the Republic of Zambia government must follow the cooperation way. This strategy's benefit is that private funding may fill up the budgetary gaps left by the government on transportation infrastructure and related fields such related technologies and skills. A sign that additional outside funding is required to complete infrastructure development is the yearly budgetary financing deficits that the Ministry of financing and National Planning usually anticipates (MOFNP, 2008).

Infrastructure projects and related services are now more often financed privately rather than governmental sources worldwide. Governments in many countries have become aware of the importance of PPP's and its impacts in infrastructure development, hence, there is increasingly demand and support for partnerships with the private sponsors or sectors as a sustainable financing approach and strategy because of the problems and restrictions associated with public finance in delivering infrastructure development (ONG, 2003). In order to draw in private investment, the Private Finance Initiative (PFI) therefore is able to unite the Public and Private Sectors to solve a variety of developmental challenges facing many developing nations across the world. The provision of infrastructure facilities under public administration, according to ONG in 2003, has resulted in a significant and inefficient allocation of resources, impeding performance and failing to fulfill demand in many countries. Consequently, increased risk sharing, accountability, monitoring, and management as well as a reduction in the government's financial burden are all facilitated by private sector engagement. Therefore, it is more sustainable for the private sector is involved in providing infrastructure development (Ghobadian et al., 2004; Nisar, 2007).

In 2009, PPIAF report reviewed that there are many more potential ways of amalgamation between Public Institutions and Commercial Business bodies than are often known. In reality, there is just a limited number of methods used such as Build Own Operate Transfer (BOOT), Build Transfer (BT), Build Operate Transfer (BOT), and Build Own Operate (BOO) are a few examples of PPP models or sorts that meet the need to encourage significant private sector



involvement. Rehabilitate Own Operate Transfer (ROOT) is a popular and equally provides mechanism for upgrading an existing major Road into a toll road. Build Operate Transfer (BOT) and Build Own Operate Transfer (BOOT) have a subtle but important difference that is often overlooked. A government organization often finances and manages BOT projects; BOOT refers to initiatives with private sector funding. It is obvious that a service or operation and maintenance (O&M) contract given to a private business under the general BOT might expand PPP further. BOO gives the private corporation perpetual ownership of the building. In the same way that ROO is a variation of BOO, ROOT refers to the rehabilitation of an existing facility.

These methods are analogous in United Kingdom under private finance initiative (PFI) but go under distinct names, notably DBFO (Design Build Finance Operate). The three main distinctions among PPP approaches are (i) the transfer of risk to the private sector, (ii) the respective investments made by each partner, and (iii) the ownership and management of the assets including whether this happens throughout the concession period or at the end after handover.

1.3 Problem Statement

The claim that the private sector is more effective, will complete projects more quickly, and will maintain assets better over the concession period is predicated on a number of presumptions, including competitive markets, effective identification, pricing, and risk transfer of project risks, and the capacity to draft comprehensive contracts (OECD, 2010). An exhaustive literature review revealed four key complex issues that affect the modalities and efficiency of PPPs in transportation projects: Economic, Procurement, Risk, and Governance. However, there is gap in the knowledge on this particular topic in Zambia and other countries especially in sub Saharan African on the four key complex issues that affect the modalities and efficiency of PPPs in road infrastructure projects: Economic, Procurement, Risk, and Governance (Shane et al., 2010). As a result, the goal of this research is to contrast the PPP modalities adopted during the construction of the Chingola Solwezi Road with the Lusaka Ndola Dual Carriageway.



1.4 Objectives

1.4.1 Overall Objective

Comparing PPP modalities of Chingola solwezi road and Lusaka Ndola Dual Carriage way

1.4.2 Specific objectives

- I. To ascertain the economic effect of PPP modalities on Chingola Solwezi road and Lusaka Ndola Dual Carriage way
- II. To establish risks of PPP modalities during the construction on Chingola Solwezi road and Lusaka Ndola carriage way
- III. To evaluate procurement processes of PPP modalities during the construction on Chingola Solwezi road and Lusaka Ndola carriage way

1.5 Research questions

- I. What is the economic effect of PPP modalities on Chingola Solwezi road and Lusaka Ndola Dual Carriage way?
- II. What are the risks of PPP modalities during the construction on Chingola Solwezi road and Lusaka Ndola carriage way?
- III. What is the procurement process of PPP modalities during the construction on Chingola Solwezi road and Lusaka Ndola carriage way?


1.6 Hypothesis

H₀: There is an economic effect of PPP modalities on Chingola solwezi road and Lusaka Dual Carriage way.

H₁: There is no economic effect of PPP modalities on Chingola solwezi road and Lusaka Dual Carriage way.

H₀: There are risks of PPP modalities during the construction on Chingola Solwezi road and Lusaka Ndola carriage way.

H₂: There are no risks of PPP modalities during the construction on Chingola Solwezi road and Lusaka Ndola carriage way.



H₀: There are procurement processes of PPP modalities during the construction on Chingola Solwezi road and Lusaka Ndola carriage way.

H₃: There are no procurement processes of PPP modalities during the construction on Chingola Solwezi road and Lusaka Ndola carriage way.

1.7 Scope of the study

Comparing Lusaka Ndola dual carriageway and the Chingola Solwezi road PPP modalities was the main scope of the study. As such, the two roads were selected for this study because of their near proximity and ease of access. Although there may be real drawbacks related to time constraints, budgetary constraints, and difficult data accessibility, the researcher will nevertheless restrict the scope by choosing two roads because of convenience reasons during when it comes to data collection.

1.8 Significance of the study

The study would significantly contribute to the literature on PPP studies within the country and across and above all, it would be of use to policy makers as most of the outcome is of high beneficial to the government of the day. Among other stakeholders that would leverage on the findings realized from this study include but not limited to Local Authorities, National Road Fund Agency, National Pension Scheme Authority, Road Development agency to mention but a few.



CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter focuses on the economic effect of PPP modalities on infrastructure development; Risks of PPP modalities on infrastructure development and Procurement processes of PPP modalities on infrastructure development.


2.1 Empirical Review

2.1.1 Economic effect of PPP Modalities on Infrastructure Development

Presumably, the PPP will have the most impact on the availability of public infrastructure. It is widely accepted that Public Infrastructure is one of the most important factors that influence socio-economic development of a Country. Infrastructure such as power supply, internet access, and transportation networks boost competitiveness and productivity. They also prevent obstruction and remove trade barriers, thus, facilitating the movement of people and goods, thereby, improving communication channels and improving the economy and all other related aspects that depend on good road infrastructure for their survival (Canning and Pedroni, 2008).

In 1990, Barro, Futagami, Morita, and Shibata developed an Endogenous growth model that was used to develop and examine the relationship between infrastructure development, production and income level of a country. Empirical research also reviewed and demonstrated the positive interdependence between infrastructure investment and economic growth. Aschauer in the year 1989 looked more closely at the relationship between infrastructure and growth by using sophisticated empirical methods by adding more variables, and inputting a number of infrastructure indicators.

Canning and Pedroni in the year 2008 discovered the optimal infrastructure level that that is able to enhance long-term economic growth. In a research conducted by Calderón Benito, and Servén in the year 2015, it estimated a long-term output elasticity of infrastructure in the range of 0.07 to 0.10 employing an infrastructure oriented production function for output per worker to the physical capital, human capital, and a synthetic measure of infrastructure. Calderón and Servén in the year 2010 discovered more evidence that greater infrastructure network and good infrastructure services have a positive effect on long-term economic growth of a Country and



reduces the gap between the rich and the poor in terms of income. In a research study conducted between 2000 and 2011, Kodongo and Ojah in 2016, it was discovered that investing in infrastructure development such as roads and enhancing its accessibility has a significant impact on economic development triggering a positive multiplier on low income countries in the region to benefit.

Seethepalli, Bramati, and Veredas in the year 2008, discovered a notable positive correlation between infrastructure development and economic growth in East Asia. Straub and Terada-Hagiwara in the year 2010 asserted that the development of infrastructure network such as roads has a notable and positive impact on the economic advancement of Countries in East and South Asia, as well as the Pacific. Ismail and Mahyideen in the year 2015 discovered that improvement in the transportation, information and communication technology infrastructure leads to improved efficient trade flows and economic growth among the Asian Countries. Empirical research indicated that infrastructure development reduces income inequality and increases per capital Gross Domestic Product (GDP), both of which are aimed in reducing of poverty (Calderón and Servén 2004). In the period 1960 to 2010, Han and Wei in 2017 highlighted that infrastructure development promotes economic growth, especially for low income Countries. According to Setboonsarng in the year 2010, it was discovered that economic growth leads to poverty reduction indirectly through improved road infrastructure network. Kwon in 2005 provided evidence that good roads reduce poverty and promote regional economic growth.


According to research on how the development of infrastructure influence distribution of goods and services, income inequality decreases as road infrastructure network becomes better and more prevalent, according to Calderón and Chong in 2004 and Calderón and Servén in 2004. Infrastructure development has a huge unavoidable great impact on income generation and, provisionally, distributive equality, according to Calderón and Servén in 2014. Mendoza also in the year 2017 pointed out that specific forms of infrastructure, such as road infrastructure network, and energy are connected with decreases in income disparity for metropolitan regions in China.



2.1.2 Risks of PPP Modalities on Infrastructure Development

According to African Development Bank ADB (2018), a bad financial road map is a risk that discourages private investors since PPPs often depends on the availability of funds from the government, or clear contingent payment system. Broadly speaking, the risk encompasses national or political instabilities such as civil war, expropriation, civil unrest, and breach of contract by one of the parties to the contract. In conclusion, the largest risks associated with a PPP contract have to do with the sovereign counterparty rather than business issues.

According to Hammami, Ruhashyankiko, and Yehoue (2006), there is more evidence that the sustainability and efficient management of PPP projects is influenced by macro-economic circumstances. Based on the information from the World Bank's Private Participation in infrastructure database concluded that higher project commitment is associated with macroeconomic stability which is reached through price stability and good market conditions. Foreign investors concentrate on critical risks rather than the many issues in the general risk category since general risk accounted for nine of the ten biggest threats that 41 foreign private partners faced. After accounting for the top 20 major hazards associated with a foreign private partner, 17 threats were determined as the overall risk. Apparently, foreign investors were less interested in Vietnam's BOT infrastructure projects. For PPP building projects in China, Xu et al. (2010) found 17 important risk factors. These were grouped into six groups: (1) macroeconomic, (2) construction and operation, (3) government maturity, (4) market environment, (5) economic viability, and (6) government intervention. These issues, in order of importance, were: government intervention; inadequate public decision-making processes; government corruption; financing risks; inadequate laws; and a weak supervision framework. The study found that corruption and government intervention are the two main barriers to the success of PPP road projects in China. These might be the result of inadequate laws and supervision procedures in addition to poor decision-making in the public sector. In addition, Ongipattanakul (1999) looked at significant risks that arose throughout the PPP projects' operating phase in Thailand. An unresolved dispute over user fees was the main reason for the primary stakeholders' withdrawal from the project. Because of the government's resistance to an increase in tolls, revenue was decreased owing to insufficient cash flow, which caused debt payments to be postponed.



The underlying links between risk variables and the investment environment and project execution may be broken down into risk categories such as commerce, politics, legislation, design and procurement, construction, and operation.


Many studies have identified the significant risks associated with PPP road projects, as well as their consequences and the development of risk management tools for different countries (Xu et al., 2010; Chung et al., 2010; Singh and Kalidindi, 2006; Thomas et al., 2003). A list of risks related to PPP road projects was prepared by Wang et al. (2000) within the context of China. Force majeure risks are considered the most significant risk factors affecting BOT projects in China. Other political risk factors include changes to laws and regulations, permission delays, corrupt practices within the government, and the government's trustworthiness and creditworthiness.

Thomas et al. (2003) recognized and classified the primary project dangers into four phases for Indian BOT toll road projects. Risks associated with permission or approval, land acquisition, and delays in financial closing are present in the initial stage, which is referred to as development.

The risks connected to technology, design, project delays, and cost overruns are the next set of risks linked to the building phase. The risks connected to operations, traffic revenue, debt payment, and demand are those related to the operational phase. Lastly, there is force majeure, political, legal, partnership, regulatory, and environmental hazards related to the project life cycle.

Furthermore, the financial success of PPP toll road projects in India is impacted by traffic revenue risk, also known as demand risk, as highlighted by Singh and Kalidindi (2006). According to a 2005 study by Wibowo and Kochendorfer on PPP toll road projects in Indonesia, the primary risks to the success of these projects include construction cost overruns, delays in acquiring land and completing the project, toll rate pricing, estimating future traffic volume, regulatory changes, and certain macroeconomic factors like interest rates and inflation.

Ogunlana and Abednego (2009) conducted a case study analysis of the Cipularang Toll-way Project in Indonesia and created a list of risk indicators for PPP road ways in order to identify the project's primary risk aspects. According to the investigation, money, a lack of support from the



government, delays in decisions and approvals, challenges in acquiring land, and design changes were the main variables influencing the project's success.

According to Babatunde and Perera (2016), the main obstacles and challenges preventing projects from reaching financial obligations or targets are weak project investment, economic policies, managerial and technical capabilities of concessionaires. This is according to a survey that was conducted on the implementation on PPP infrastructure projects in Nigeria.

A quest to Reduce risk profiles associated with a particular project and improving credit ratings may attract more private investment since such strategies are able to influence investment decision. Sovereign and national risks have a major impact on the proportion of PPPs that reach financial close as well as the size of private investments.


2.1.3 Procurement processes of PPP modalities on infrastructure development

The World Bank in the year 2019 stated that PPP procurement would start only when the Municipality or National Government entity gives approval to the feasibility study which will act as guide on whether the project can be undertaken or not. Any advice or directives from this reviewing and approval procedure should be included into the purchase process.

The PPP procurement strategy, comprising of processes to be carried out and financial and human resources that the municipality will need in order to accomplish the PPP will be identified through the feasibility study process.


The PPP procurement strategy should include realistic timeframes, necessary capabilities for PPP transaction assistance, and support for the municipality's ability to make fast and accurate PPP decisions. PPP bids with insufficient time and funding are more likely to face huge problems and can take a longer period of time to be executed and eventually fail to meet project objectives. Project feasibility study may indicate or review certain tasks which must be carried out before even inviting bids, such the following:

- To make the PPP economically and financially feasible, it could be necessary to boost end user fees for services provided to reflect efficiency sustainable cost of doing business.

- 
- Before PPP tender, it could be necessary to formally purchase land, buildings, offices, or other existing assets required for the project.
 - A resolution of who is legally the owner of the PPP project's equipment and assets. In other instances, the current property, machinery, and public infrastructure such as Lusaka Dual carriage way and Chinngola Solwezi road are to be transferred to private operation under the PPP. The Contract may be jointly be held by several other partners or other groups.
 - In some cases, PPP may involve multiple Partners such as combination of Municipalities, regional or provincial local governments, National public contracting bodies or ministries, a single new joint public contracting body can be legally established and incorporated. Joint venture vehicle may need to be established in order to represent other various Authorities.
 - A municipal public corporation's debts, such as long-standing accounts receivable due from other public bodies that have used its services but have not yet paid for them, may need to be settled in full or restructured.
 - Modifications to local ordinances, decrees, regulations, or directives may be required to permit the structure of the PPP.
 - Any additional project specific adjustments needed to move the PPP agreement's award, awarding, and signing processes forward. The period of time it takes to complete these processes will differ depending on the problems discovered in the feasibility study, the provided industry, complexity, size and degree of risk for the particular Municipal PPP project.

According to United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) report in 2011, PPP procurement process must be unbiased and transparent, based on widely accepted good set of principles, policies and strategies. The process must be transparent to encourage fair competition and maintain balance between the need to cut down on the overall procurement process's cost and duration. The major goal and objective of government is to find the best proposal that meets required needs and able to offer the value for money. The main features of such a procurement process are as follows:


- The process must be impartial and open that offers equal opportunity to all potential bidders.

- 
- The process must be flexible and not a one way.
 - The schedule of requirements is finalized through a two way communication and is based on what best possible solution the private sector can provide.
 - The bidding process must ensure a wide participation of the private bidders by removing expensive design mechanism before the procurement process start.
 - Expensive retendering must be avoided at all cost.

2.1.4 PPP Policy in Zambia

In order to help the various stakeholders better understand, implement, and promote PPPs, proper PPP policies address not only the government's program objectives but also clarify the intended PPP scope and the fundamental guiding principles behind the rationale for adopting PPPs. The government of Zambia reaffirmed its goals and commitment by starting a policy-making process on PPPs and creating a framework for private sector involvement in infrastructure. A review of industry best practices and an evaluation of the private sector's ability to fund infrastructure projects backed this up. As a result, a policy was created that would balance the goals of the public and private sectors (The 'Significant Other': A Case Study of PPPs in Zambia, Lessons Learned in the Infrastructure Reform Process, Monde M. Mukela, National Council for Construction, Zambia). The fact that the Zambian government initiated the PPP reform process by actively participating in discussion with the private sector is a significant feature of the process of developing PPP policies in Zambia. The private sector was permitted to lead the process via involvement in Policy and Regulatory changes. The private sector reform initiative was accelerated by the donor community. At each step of the process, the agreement needed to proceed was given by the stakeholders and the general public.

Throughout the 2009 PPP Policy, which outlines the Framework for PPP implementation throughout the nation, the Government of Zambia lays forth the justification for its PPP program. The government acknowledges the fact that: "a number of economic sectors require resources that are relatively limited." Therefore, by involving the private sector, which will supply the necessary funding and expertise for such an investment, PPPs would give the government an alternate method of supplying new infrastructure as well as the rehabilitation and maintenance of existing infrastructure (Ministry of Finance and National Planning, PPP Policy and Act, 2009). The PPP Policy explicitly states the operational and strategic policy goals, and the PPP Act of




2009 reiterates these goals. PPP policy objectives include achieving value for money from infrastructure investment, providing infrastructure and services based on international standards, promoting sustainable socio-economic infrastructure development, and efficiently using resources in infrastructure development and management. A number of other objectives may be seen in the following chart. The Zambian government considers PPPs to be appropriate ways to provide local governments the chance to suitably handle their infrastructure needs. In terms of strategic goals, the government of Zambia wants to make its nation a center for regional economic growth. To that end, it has to make infrastructural improvements. With PPPs, the government hopes to include the private sector in these advances. The Zambian government will keep up its facilitation role in the industry, boosting and supporting private investment. To further boost private sector engagement, the majority of infrastructure maintenance and restoration is farmed out. Zambia's strategic and physical position as a center of socioeconomic activity in the sub region will be enhanced by the development of socioeconomic infrastructure via PPPs. An overview of the government's objectives as stated in the PPP Act and Policy is shown in the following chart.

2.1.5 Zambia's PPP framework

Zambia has had a distinct legislative framework for PPPs since establishing the Public Private Partnership (PPP) Act in 2009. The PPP Unit, which was in charge of the PPP process was later integrated into the Zambia Development Agency, under the Ministry of Finance. With respect to the building, administration, and supply of infrastructure or public services, PPPs are defined as “any form of partnership between public authorities and the private sector in Zambia.” This leaves room for wide variations. In Zambia, Public-Private Partnership (PPP) contracts prioritize the provision of services above assets or building specifics. Given that they meet the contractually stipulated service outputs, the private sector may thereby exercise considerable freedom in terms of design, building, delivery, and administration (ZDA, 2014).

2.2 Theoretical framework

The theoretical framework is the foundation from which all knowledge is constructed (metaphorically and literally) for a research study. It serves as the structure and support for the rationale for the study, problem statement, purpose, significance, and research questions. The theoretical framework provides a grounding base, or an anchor, for the literature review, and



most importantly, the methods and analysis. Lysaght (2011) highlighted the necessity of identifying one's theoretical framework for a dissertation study. The key theories adopted in this study are multiple viewpoint theory and stakeholder theory.


2.2.1 Multiple viewpoint theory

Multiple perspectives are a notion that refers to multiple unique representations, positions, and views which are utilized both in non-collaborative and collaborative contexts (Linstone, 2010). This theory aids system practitioners in bridging knowledge gaps within the actual world and between theory and practice (Linstone, 2010). This theory states that a complicated, operational real-world object serves as the practitioner's starting point; such a system is deemed ill-structured or problematic, and thus requires correction (Hall & Davis, 2007). As a result, the objectives of practitioners are to manage the operating system, carry out the decision making process, and execute the decisions (Hall & Davis, 2007). Building a conceptual model, or an idealized representation of the system, comes next after the real system has been analyzed (Gregory et al., 2012).

2.2.2 Stakeholder theory

Stakeholder theory aims to co-produce knowledge by bringing together the perspectives of stakeholders, according to Roth (2017). Thus, it is justified that this study makes use of multiple perspective theory since knowledge that is, the various perspectives of stakeholders in PPP housing sector projects has led to the development of technical solutions, like how to create an integrated system by incorporating CSFs in line with stakeholders' perceptions to improve the execution of PPP projects in Kuwait (Ismail, 2017). The application of multi-perspective theory to enhance the implementation of PPP housing sector projects has also been confirmed by Muhammad & Johar (2019) and Osei-kyei & Chan (2017). This allows for the top-down development of PPP projects by government officials and their network of experts, which includes private sector representatives, via dialogue enabled by the involvement of many stakeholders.

Thus, from the perspectives of the many stakeholders, deregulation, creative thinking, and fair risk sharing are all urged all of which are critical CSFs to improve the caliber and effectiveness of PPP housing sector projects. These arguments support the study's usage of multiple viewpoint theory (Almarri, 2019).



Since PPP housing sector projects create economic value for stakeholders as well as value the assessment of critical stakeholders' perspectives in creating stakeholders' discourses in form of shared, structured or unstructured ways of speaking, thinking, interpreting, and signifying ideas, multiple perspective theory is therefore more appropriately justified for this research (Yin, 2017). Thus, whereas stakeholder theory is predicated on the idea of limited rationality, multiple perspective theory is grounded on the concept of plural rationality. This hypothesis states that it is hard to improve the system's thinking without considering the many points of view held by an actor which includes government and private sectors (Scolobig & Lilliestam, 2016). Since the main focus of this study's research is on examining plural rationality based on the numerous stakeholder viewpoints, the application of multiple perspective theory versus stakeholder theory is warranted. Additionally, the use of multiple perspective theory is more justified for this research than it is for the stakeholder theory because it aims to deliver results by identifying the solution that increases the value to stakeholders and the financial returns on investment (PPP housing sector projects) by taking into account stakeholders' perspectives about critical CSFs (Demirel et al., 2017). Multiple viewpoint theory holds that rather than agreeing on a single optimal choice, a solution is reached by carefully considering stakeholders' perspectives about the nature of the issue, its origin, and its resolution (Lilliestam & Hanger, 2016). Multiple viewpoint theory emphasizes the importance of integrating both the social contract and economic value conceptions, whereas stakeholder theory solely takes into account the social contract notion and ignores the economic value concept (Demirel et al., 2017). Additionally, the use of multiple viewpoint theory promotes the co-production of knowledge and results in the realization of a compromise solution by translating the viewpoints of many stakeholders into technological realities (Lilliestam & Hanger, 2016).

2.3 Conceptual framework

Independent Variables

Dependent Variables

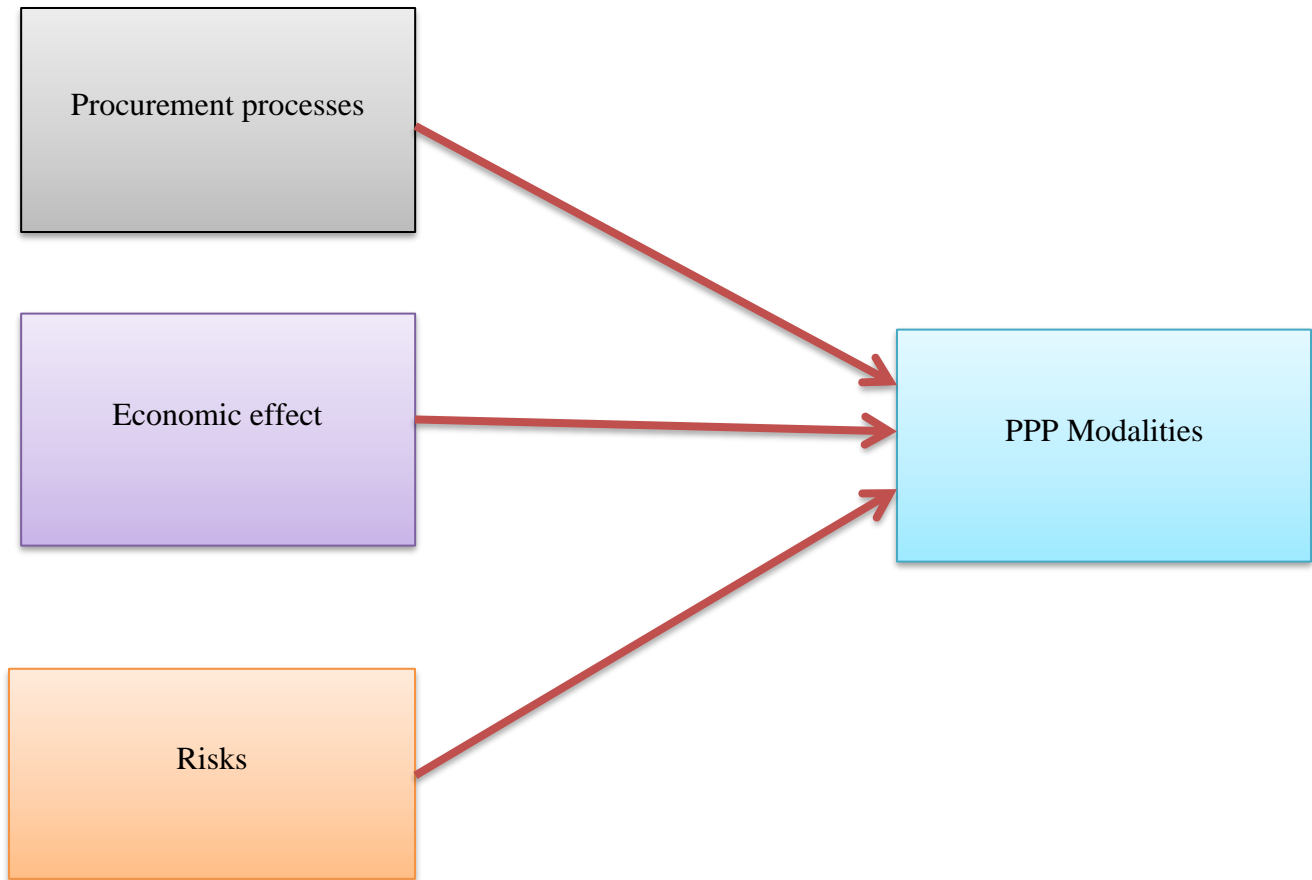



Fig 1: Comparison of public private partnership modalities of Chingola Solwezi road and Lusaka dual carriage way

Economic effect: The primary reasons of financial limits are ambiguous user fee policies and public budgetary constraints, which need to be addressed in order to provide a solid financial foundation for all project phases. A proper mix of risk-reducing measures, equitable contributions, or backstopping conditions should be put into place in order to help particular projects achieve their economic benefit objectives for society as a whole (Menendez, 1998).

Risks: Though commonly understood, risk is a difficult term to describe (Coyle, 2002). It might have to do with taking a risk where the result could be positive or negative, or it can be something to do with the potential that something negative could happen if things go wrong. Risk is also associated with the possibility that an event's actual result may vary from



expectations or plans. Consequently, risk may be linked to the unpredictability of future actions' results (Shen, Wu, and Ng, 2001). Thus, there may be a connection between hazards and PPP modalities.

Procurement process: The administrative procurement process is described in the Zambian PPP Act; however no project ideas or anticipated results from the PPP process are included. Furthermore, the legislation creates a risk that the planned PPP outcomes won't be realized, jeopardizing project delivery, since it places administration and supervision of PPP projects under a governmental authority (the Ministry of Finance and National Planning). This is so because changes in political leadership and inclination are not shielded from concessions by the statute.

In general, procurement process, risks, and economic effect are independent variables and directly affect and influence the PPP modalities during project planning, implementation and monitoring. Therefore, PPP modalities depends on the risks, procurement processes and economic effects surrounding a project like Lusaka Dual carriage way and Chingola Solwezi road project during planning and implementation stage. Any changes in the independent variables (Risks, Economic effect and Procurement processes) will directly affect the dependent variable (PPP modalities)



CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter describes the methodology that was used in conducting the study. The chapter is organized under the following sections: research design, study population, sample size, sample strategy, data collection, data analysis, data management and ethical consideration.

3.1 Research design

This study adopted mixed-methods study using an observational and descriptive survey approach. Gathering data for descriptive research is a procedure that helps characterize what is known and may reveal new information and significance. It is used to test hypotheses and respond to inquiries about the status of statistics in the study. According to Mugenda et al. (2003), it has the benefit of being inexpensive and simple to handle. The purpose of the descriptive research is to evaluate, analyze, and explain the PPP frameworks that were used to construct the Lusaka dual carriageway and Chingola Solweezi road. As such, the study was preceded by the quantitative approach followed by the qualitative side.


3.2 Study Population

By definition, the group to whom the researcher intends to generalize the study's findings is known as the study population. In order to obtain more information on the modalities used, the stakeholders that were in the best position to give data on the two highways under study population included the National Road Fund Agency (NRFA), Ministry of Housing and Infrastructure Development, Road Development Agency (RDA), private stakeholders and road users as the main stakeholders for the construction of both mentioned roads.

3.3 Sample determination and size

70 people were selected for the purpose of sample size determination and it was drawn from a study population of 80 people, approximately. The sample size was calculated using the Taro yamene sampling formula. The formula is represented as follows;

$$n = \frac{N}{1 + Ne^2}$$



Where 'n' is the sample size, 'N' is the population size, and 'e' is the level of precision. When this formula is applied to the above sample, we get: An assumption 95% confidence level and 5% precision (alpha) level was made.

$$n = \frac{70}{1 + 70(0.05)^2}$$

$$n = \frac{70}{1 + 70(0.0025)}$$

$$n = \frac{70}{1 + 0.175}$$

$$n = 59.57$$

Approximately 60, however only 55 respondents were available for study; the other 5 could not respond to the questionnaires.

3.4 Sampling Strategy

The simple random was employed as sampling process so that every participant or respondent had an equal chance to be in the sample. Using a random selection process, the sixty responders were given questionnaires to find out the value of PPP and the best modality to use moving forward in the effort to promote the development of road infrastructure, about sixty road users which comprised of citizens and non-governmental organizations were asked to share their opinions about the modalities employed for each specific road. So, 56 questionnaires were distributed to road users and private sectors, the remaining four were given to the National Road Fund Agency (NRFA), the Ministry of Housing and Infrastructure Development, the Road Development Agency (RDA), and the National Pension Scheme Authority (NPSA).

3.5 Data Collection

Questionnaires were the study tool used to gather data. Because questionnaires may gather data from rigidity versus biasness, they were employed. Another argument for the study's relevance of a questionnaire is that it would ensure respondents' anonymity and save time in terms of gathering and analyzing data.



3.6 Data Analysis

The Statistical Package for Social Sciences (SPSS 2018 version) and Microsoft Excel were used for the data input. The data was presented as tables to save space, make error detection easier, and reduce the number of explanatory and descriptive statements. As a result, the study's data were analyzed using regression modeling as well as descriptive statistics like frequency counts and percentages and thematic analysis was used for qualitative data.

3.7 Data Management and Quality

November 2023 was the month when the data was gathered. It was permitted for each respondent to finish the questionnaire in no more than twenty minutes. Every project included the random sampling of at least thirty traffic users along Lusaka Dual Carriageway and Chingola traffic. In order to determine the validity and trustworthiness of the questions in generating the intended 22 findings, pretesting was conducted on road users at random along Chingola Road and in along the Lusaka dual carriage. Four questionnaires were used for this purpose. This assisted in pointing out any unclear areas so that they may be corrected prior to the primary data gathering. In order to improve the validity of the results, the researcher conducted a pilot study to test the instrument's dependability. Respondent validation was used to confirm the accuracy of the data that was obtained.

3.8 Ethical Considerations

The research study adhered to ethical consideration such as obtaining informed consents from the respondents before the questionnaire is administered as such the following were abide to:- Respondents were granted unrestricted participation; their identities were kept confidential; and disparaging remarks that would cause them damage were refrained from.



**CHAPTER FOUR:
PRESENTATION OF THE RESULTS**

4. Introduction

This chapter focuses on the demographic profile; Results of the economic effect of PPP modalities on Chingola Solwezi road and Lusaka Dual Carriage way; risks of PPP modalities during the construction on Chingola Solwezi road and Lusaka Ndola carriage way and procurement processes of PPP modalities during the construction on Chingola Solwezi road and Lusaka Ndola carriage way.

4.1 Demographics

1. Gender

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	38	69.1	69.1	69.1
Female	17	30.9	30.9	100.0
Total	55	100.0	100.0	

Table 1

Table 1 above indicates that 69.1% of the respondents were males and 30.9% were females. The study therefore shows that it was dominated by males from all the sampling points.

2. Age

Age	Frequency	Percent	Valid Percent	Cumulative Percent
19 – 25	9	16.4	16.4	16.4
26 – 35	33	60.0	60.0	76.4
Above 36	13	23.6	23.6	100.0
Total	55	100.0	100.0	

Table 2

Table 2 above indicates that 16.4% of the respondents were in the age range of 19-25years, 60% were in the age range of 26-35 years and 23.6% were in the age range above 36 years. The age

range that dominated the study was 26-35 years suggesting that majority of the respondents were youths.

3. Marital status

Marital Status	Frequency	Percent	Valid Percent	Cumulative Percent
Single	8	14.5	14.5	14.5
Married	40	72.7	72.7	87.3
Divorced	4	7.3	7.3	94.5
Widowed	3	5.5	5.5	100.0
Total	55	100.0	100.0	

Table 3

Table 3 indicates 14.5% of the respondents were singles, 72.7% were married, 7.3% were divorced, 5.5% were widowed. The study was therefore dominated by the married people.

4. Education level

Education Level	Frequency	Percent	Valid Percent	Cumulative Percent
None or primary	13	23.6	23.6	23.6
Secondary 'O' level	27	49.1	49.1	72.7
Certificate	4	7.3	7.3	80.0
Diploma	6	10.9	10.9	90.9
Degree	5	9.1	9.1	100.0
Total	55	100.0	100.0	

Table 4

Table 4 above indicates that 23.6% of the respondents had gone to school up to primary and others had not attended school, 49.1% had gone to school up to secondary school level, 7.3% had obtained tertiary certificates, 10.9% held diplomas from different colleges and 9.1% held degrees from different universities. The study was therefore dominated by those that held school or general certificate of education.

5. Respondent travelling on both PPP Chingola Solwezi road and Lusaka Dual Carriage way

Road Users	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	42	76.4	76.4	76.4
No	13	23.6	23.6	100.0
Total	55	100.0	100.0	

Table 5

Table 5 indicates that 76.4% of the respondents had travelled on both PPP Chingola Solwezi road and Lusaka Dual Carriage way and 23.6% had not travelled on both PPP Chingola Solwezi road and Lusaka Dual Carriage way. The study was dominated by those that had already travelled on both PPP Chingola Solwezi road and Lusaka Dual Carriage way.

6. Increase productivity and competitiveness

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	42	76.4	76.4	76.4
No	13	23.6	23.6	100.0
Total	55	100.0	100.0	

Table 6

Table 6 indicates that 76.4% of the respondents stated that PPP Chingola Solwezi road and Lusaka Dual Carriage way increase productivity and competitiveness for a country by avoiding bottlenecks and eliminate obstacles, thus, enabling the flow of people and commodities that leads to positive economic performance of the country and 23.6% had that PPP Chingola Solwezi road and Lusaka Dual Carriage way would not increase productivity and competitiveness for a country by avoiding bottlenecks and eliminate obstacles, thus, enabling the flow of people and commodities that leads to positive economic performance of the country.

4.2 Economic effect of PPP modalities on Chingola Solwezi road and Lusaka Ndola dual carriage way

7. Aiding in reducing poverty

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	1	1.8	1.8	1.8
Strongly disagree	1	1.8	1.8	3.6
Neutral	14	25.5	25.5	29.1
Agree	39	70.9	70.9	100.0
Total	55	100.0	100.0	

Table 7

Table 7 indicates 1.8 respondents disagreed that Chingola Solwezi road and Lusaka Ndola dual carriage way development, as empirical research suggests, aids in reducing poverty by increasing per capita GDP growth and reducing income inequality, 1.8% strongly disagreed, 25.5% were neutral meaning they didn't agree or disagree and 70.9% of the respondents agreed.

8. Stimulating economic development, particularly for low-income nations

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	6	10.9	10.9	10.9
Neutral	2	3.6	3.6	14.5
Agree	13	23.6	23.6	38.2
Strongly agree	34	61.8	61.8	100.0
Total	55	100.0	100.0	

Table 8

Table 8 indicates that 10.9% strongly disagreed that Chingola Solwezi road and Lusaka dual carriage way such as roads helps stimulate economic development, particularly for low-income nations, 3.6% couldn't agree nor disagree, 23.6% agreed and 61.8% strongly agreed.

9. Dealing with administrative, legal and policy areas

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	9	16.4	16.4	16.4
Strongly disagree	1	1.8	1.8	18.2
Neutral	13	23.6	23.6	41.8
Agree	32	58.2	58.2	100.0
Total	55	100.0	100.0	

Table 9

Table 9 indicates that 16.4% of the respondents disagreed that a successful PPP highly depends on a functional regulatory framework, which refers to government institutions dealing with administrative, legal, and policy areas, 1.8% strongly disagreed, 23.6% couldn't agree nor disagree and 58.2% agreed.

10. Success and failure of PPPs

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	5	9.1	9.1	9.1
Neutral	6	10.9	10.9	20.0
Agree	15	27.3	27.3	47.3
Strongly agree	29	52.7	52.7	100.0
Total	55	100.0	100.0	

Table 10

Table 10 indicates that 9.1% of the respondents strongly disagreed that the success and failure of PPPs depend on multiple factors in different social, political, and economic settings, 10.9% couldn't agree nor disagree, 27.3% agreed and 52.7% strongly agreed.

11. Generating foreign exchange and business activity

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	5	9.1	9.1	9.1
Strongly disagree	11	20.0	20.0	29.1
Neutral	6	10.9	10.9	40.0
Agree	5	9.1	9.1	49.1
Strongly agree	28	50.9	50.9	100.0
Total	55	100.0	100.0	

Table 11

Table 11 indicates that 9.1% of the respondents strongly disagreed that The governments also use PPP (Chingola Solwezi road and Lusaka Ndola dual carriage way) to bring foreign investment in the country, which helps to generate foreign exchange and business activity in the economy, 20% strongly disagreed, 10.9% couldn't agree nor disagree, 9.1% agreed and 50.9% strongly agreed.

12. Optimizing the value for money and maintain

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	3	5.5	5.5	5.5
Strongly disagree	9	16.4	16.4	21.8
Neutral	10	18.2	18.2	40.0
Agree	13	23.6	23.6	63.6
Strongly agree	20	36.4	36.4	100.0
Total	55	100.0	100.0	

Table 12

Table 12 indicates that 5.5% of the respondents disagreed that the government's aim from PPP is to optimize the value for money and maintain uninterrupted service to the users; the efficiency-

oriented private sector practices help to ensure these goals, 16.4% strongly disagreed, 18.2% couldn't agree nor disagree, 23.6% agreed and 36.4% strongly agreed.

4.3 Risks of PPP modalities during the construction on Chingola Solwezi road and Lusaka Ndola carriage way

13. Direct payment requirements from governments

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	8	14.5	14.5	14.5
Strongly disagree	3	5.5	5.5	20.0
Neutral	8	14.5	14.5	34.5
Agree	28	50.9	50.9	85.5
Strongly agree	8	14.5	14.5	100.0
Total	55	100.0	100.0	

Table 13

Table 13 indicates that 14.5% of the respondents disagreed that PPPs often include either direct payment requirements from governments, such as availability payments, or contingent payment responsibilities, a negative image of payment risk from the government is one of the draw backs to private investors, 5.5% strongly disagreed, 14.5% couldn't agree nor disagree, 50.9% agreed and 14.5% strongly agreed.

14. Biggest risks in a PPP contract

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	15	27.3	27.3	27.3
Strongly disagree	12	21.8	21.8	49.1
Neutral	7	12.7	12.7	61.8
Agree	21	38.2	38.2	100.0
Total	55	100.0	100.0	

Table 14

Table 14 indicates that 27.3% of the respondents disagreed that rather than commercial concerns, the biggest risks in a PPP contract are mostly to do with the sovereign counterparty, 21.8% strongly disagreed, 12.7% couldn't agree nor disagree, 38.2% agreed and 38.2% strongly agreed.

15. Factors preventing PPPs from reaching financial objectives

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	5	9.1	9.1	9.1
Strongly disagree	6	10.9	10.9	20.0
Neutral	6	10.9	10.9	30.9
Agree	13	23.6	23.6	54.5
Strongly agree	25	45.5	45.5	100.0
Total	55	100.0	100.0	

Table 15

Table 15 indicates that 9.1% of the respondents disagreed that Weak project bankability, unstable economic policies, inadequate funds, technical, and managerial capabilities of concessionaires are the main factors preventing PPPs from reaching financial objectives, 10.9% strongly disagreed, 10.9% couldn't agree nor disagree, 23.6% agreed and 45.5% strongly agreed.

16. The percentage of PPPs that achieve financial objectives

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	1	1.8	1.8	1.8
Strongly disagree	1	1.8	1.8	3.6
Neutral	20	36.4	36.4	40.0
Agree	29	52.7	52.7	92.7
Strongly agree	4	7.3	7.3	100.0
Total	55	100.0	100.0	

Table 16

Table 16 indicates that 1.8% of the respondents disagreed that the percentage of PPPs that achieve financial objectives and the magnitude of private investments are significantly determined by sovereign and national risks, 1.8% strongly disagreed, 36.4% couldn't agree nor disagree, 52.7% agreed and 7.3% strongly agreed.

17. PPP investments in developing nation

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	7	12.7	12.7	12.7
Strongly disagree	9	16.4	16.4	29.1
Neutral	7	12.7	12.7	41.8
Agree	3	5.5	5.5	47.3
Strongly agree	29	52.7	52.7	100.0
Total	55	100.0	100.0	

Table 17

Table 17 indicates that 1.8% of the respondents disagreed that the percentage of PPPs that achieve financial objectives and the magnitude of private investments are significantly determined by sovereign and national risks, 1.8% strongly disagreed, 36.4% couldn't agree nor disagree, 52.7% agreed and 7.3% strongly agreed.

18. Prone to political victimization

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	21	38.2	38.2	38.2
Strongly disagree	22	40.0	40.0	78.2
Neutral	5	9.1	9.1	87.3
Agree	4	7.3	7.3	94.5
Strongly agree	3	5.5	5.5	100.0
Total	55	100.0	100.0	

Table 18

Table 18 indicates that 38.2% of the respondents disagreed that the PPP projects are also prone to political victimization; many political changes may occur during the contract period, and the incoming regime may scrutinize the whole project, which can halt the continuity of revenues to the private party and service to the public, 40% strongly disagreed, 9.1% couldn't agree nor disagree, 7.3% agreed and 5.5% strongly agreed.

19. The long-term PPP contracts

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	4	7.3	7.3	7.3
Strongly disagree	10	18.2	18.2	25.5
Neutral	14	25.5	25.5	50.9
Agree	17	30.9	30.9	81.8
Strongly agree	10	18.2	18.2	100.0
Total	55	100.0	100.0	

Table 19

Table 19 indicates that 7.3% of the respondents disagreed that The long-term PPP contracts further hold complications in terms of addressing conflicts between the stakeholders, technological advancements, and population changes, 18.2% strongly disagreed, 25.5% couldn't agree nor disagree, 30.9% agreed and 18.2% strongly agreed.

4.4 Procurement process of PPP modalities during the construction on Chingola-Solwezi road and Ndola-Lusaka Dual Carriage way

20. PPP procurement as one of the modalities

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	3	5.5	5.5	5.5
Strongly disagree	12	21.8	21.8	27.3
Neutral	8	14.5	14.5	41.8
Agree	8	14.5	14.5	56.4
Strongly agree	24	43.6	43.6	100.0
Total	55	100.0	100.0	

Table 20

Table 20 indicates that 5.5% of the respondents disagreed that PPP procurement as one of the modalities starts when the municipality or government must be included into the purchase process, 21.8% strongly disagreed, 14.5% couldn't agree nor disagree, 14.5% agreed and 43.6% strongly agreed.

21. biased and but transparent

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	23	41.8	41.8	41.8
Strongly disagree	15	27.3	27.3	69.1
Agree	12	21.8	21.8	90.9
Strongly agree	5	9.1	9.1	100.0
Total	55	100.0	100.0	

Table 21

Table 21 indicates that 41.8% of the respondents disagreed that The PPP procurement process must be not be biased and but transparent, based on widely accepted legal frame work and standards, 27.3% strongly disagreed, 21.8% agreed and 9.1% strongly agreed.

22. Established through conducting feasibility study

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	5	9.1	9.1	9.1
Strongly disagree	6	10.9	10.9	20.0
Neutral	6	10.9	10.9	30.9
Agree	8	14.5	14.5	45.5
Strongly agree	30	54.5	54.5	100.0
Total	55	100.0	100.0	

Table 22

Table 22 indicates that 5.5% of the respondents disagreed that the PPP procurement strategy as part of many modalities which comprises of many processes to be carried can be established through conducting feasibility study, 10.9% strongly disagreed, 10.9% couldn't agree nor disagree, 14.5% agreed and 54.5% strongly agreed.

23. Support for government ability to make timely and sound PPP decisions

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	16	29.1	29.1	29.1
Strongly disagree	10	18.2	18.2	47.3
Agree	22	40.0	40.0	87.3
Strongly agree	7	12.7	12.7	100.0
Total	55	100.0	100.0	

Table 23

Table 23 indicates that 29.1% of the respondents disagreed that the PPP procurement strategy includes realistic timeframes, availability of finances, and support for government ability to make timely and sound PPP decisions, 18.2% strongly disagreed, 40% agreed and 12.7% strongly agreed.

24. Lot of time to implement, and eventually fail

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	1	1.8	1.8	1.8
Strongly disagree	5	9.1	9.1	10.9
Neutral	11	20.0	20.0	30.9
Agree	29	52.7	52.7	83.6
Strongly agree	9	16.4	16.4	100.0
Total	55	100.0	100.0	

Table 24

Table 24 indicates that 1.8% of the respondents disagreed that PPP arrangements with inadequate time and funding are more likely to have problems, takes a lot of time to implement, and eventually fail, 9.1% strongly disagreed, 20% couldn't agree nor disagree, 52.7% agreed and 16.4% strongly agreed.

25. Thinking procurement process

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	26	47.3	47.3	47.3
No	29	52.7	52.7	100.0
Total	55	100.0	100.0	

Table 25

Table 25 indicates that 47.3% of the respondent thought procurement process was/is being followed during the construction of Chingola Solwezi road and Lusaka dual carriage way and 52.7% thought the opposite.



CHAPTER FIVE: DISCUSSION OF THE FINDINGS

5.0 Introduction


This chapter focuses on the discussion of the findings.

5.1 Economic effect of PPP modalities on Chingola-Solwezi road and Ndola-Lusaka Dual Carriage way

H₀: There is an economic effect of PPP modalities on Chingola solwezi road and Lusaka Dual Carriage way.

H₁: There is no economic effect of PPP modalities on Chingola solwezi road and Lusaka Dual Carriage way

Using the regression model the findings were not statistically significant at 0.170 with a standard error of 0.045 this was because the level of significance was specified as 5% and the p-value of the findings was 0.170 proved to be more than 0.05, therefore the alternative hypothesis was rejected; meaning that, at a 5% significance level, there was sufficient evidence that there was no significant effect on the economic effect of PPP modalities on Chingola solwezi road and Lusaka Dual Carriage way. This is so because 70.9% of the respondents agreed that Chingola Solwezi road and Lusaka dual carriage way development, as empirical research suggests, aids in reducing poverty by increasing per capita GDP growth and reducing income inequality. About 61.8% strongly agreed that Chingola Solwezi road and Lusaka dual carriage way such as roads helps stimulate economic development, particularly for low-income nations. 58.2% agreed that a successful PPP highly depends on a functional regulatory framework, which refers to government institutions dealing with administrative, legal, and policy areas. 52.7% of the respondents agreed that the success and failure of PPPs depend on multiple factors in different social, political, and economic settings. 50.9% strongly agreed that the governments also use PPP (Chingola Solwezi road and Lusaka dual carriage way) to bring foreign investment in the country, which helps to generate foreign exchange and business activity in the economy and 36.4% strongly agreed that the government's aim from PPP is to optimize the value for money and maintain uninterrupted service to the users; the efficiency-oriented private sector practices help to ensure these goals.



The findings from the two roads show that financial and economic requirements, however, seem to have been disregarded when project began for the Ndola-Lusaka dual carriageway. Consequently, the road projects would probably endure delays and overspending, and in the worst case scenario, they may be shelved because of poor planning and procurement decisions. Findings further suggests that the Chingola Solwezi road hasn't yet given the government access to a range of advantages, such as more dependable, affordable, and efficient public facilities; enhanced infrastructure service quality and efficiency; or increased employment and local economic growth. Another issue identified with both roads is the potential for shortcuts to remain concealed during construction for many years, posing a risk to the government's future finances and perhaps requiring expensive renegotiation. The hallmark of a typical PPP, the combination of asset development and operation, is compellingly justified by no contractible construction quality. This is because the quality of an asset affects the ability to provide a service effectively and efficiently, and the private operator is clearly interested in quality.


5.2 Risks of PPP modalities during the construction on Chingola Solwezi road and Ndola-Lusaka Dual Carriage way

H₀: There are risks of PPP modalities during the construction on Chingola Solwezi road and Lusaka Ndola carriage way.

H₂: There are no risks of PPP modalities during the construction on Chingola Solwezi road and Lusaka Ndola carriage way.

Using the regression model, the null hypothesis was rejected because, at a 5% significance level, there was sufficient evidence that there was a significant effect on the risks of PPP modalities during the construction of the Chingola Solwezi road and Lusaka Ndola carriage way. The model was statistically significant at 0.009 with a standard error of 0.046 because the level of significance was specified as 5% and the p-value of the findings was 0.009 proved to be less than 0.05. This is because 50.9% of the respondents thought that one of the drawbacks for private investors in PPPs is the government's adverse opinion of payment risk. Governmental direct payment responsibilities, such availability payments or contingent payment duties, are frequent.


The sovereign counterparty bears the biggest risk in a PPP contract, according to 38.2% of respondents, not commercial concerns. The biggest challenges stopping PPPs from attaining their financial objectives are concessionaires' technical and managerial abilities, inadequate



money, uncertain economic policies, and restricted project bankability, according to 45.5% of respondents who strongly agreed with this statement. 52.7% agreed that national and sovereign risks have a significant influence on the percentage of PPPs that achieve financial objectives and the amount of private investments. The percentage of PPPs that meet financial goals and the amount of private investments are highly impacted by sovereign and national risks, as agreed with by 52.7% of respondents, but 40% strongly disputed that PPP projects are also susceptible to political persecution.

The findings shows that there might be a lot of political shifts throughout the duration of the contract, and the UPND administration could analyse the project as a whole, which could stop the flow of funds to the private party and public services. Since PPP projects sometimes include several parties, large quantities of money, lengthy concession periods, and other variables that raise risk, the main concern when comparing the two roads is still risk management. Instead of being borne by a single party, these risks need to be distributed among the public and private entities that are most equipped to manage them. As the Ndola-Lusaka Dual Carriage Way and the Chingola Solwezi Road are being built, the study's findings have shown that the biggest risks related to PPP modalities are both inside and external to the project. One of the revenue risks that develop during the Operation phase of the Ndola-Lusaka dual highway is the demand/usage risk. This risk is particularly significant because of its high potential for occurrence and significant impact. Experts agree that income distribution and sharing schemes are the most effective means of distributing the risk fairly between the two sides in order to reduce the possibility of a catastrophic event. An additional endogenous primary risk that falls under the undesired and unacceptable categories is the risk of financial closure. The risks are not as serious as the previous one. For the former, risk allocation may occur many times throughout the building period, with the private party being the preferred receiver due to its nature. To effectively lower this risk, a variety of strategies may be used. The latter occurs throughout the project development phase and, as it has to do with project funds, it is advisable to allocate it to a private business. Experts have concluded that the best risk reduction strategy is to provide for a backup promoter or lender.

On the other hand, for causes outside the project parties' control, the main external hazards connected to the Chingola Solwezi Dual Carriageway may materialize during the PPP project.




The bulk of them depend on the institutional, financial, and economic contexts in which the project is developed; just one addresses instances involving force majeure. The private sector is most adapted to handle financial risks among them, and there are many strategies that may be used to effectively lower them. Since the panel was unable to identify a suitable method for mitigating force majeure risks, government indemnities were deemed neutral; nevertheless, regulatory risks might be controlled by a variety of strategies.

Other empirical studies that were done by other scholars show that global risks and issues affecting PPP infrastructure projects have an influence on the project's environment, organization, and performance, among other aspects. Further analysis of the risks in PPP infrastructure development can be done by looking at the risks associated with investment in new infrastructure, like building new facilities, renovating existing ones, or expanding existing networks, as well as the risks associated with operation and maintenance services according to Merna and Smith (1996).

Many other researches have examined different facets of PPP project implementation and participant behavior. A key component of risk management is the act of identifying and categorizing risk variables. Systematic and non-systematic risk groups are the two primary categories into which Merna and Smith (1996) categorized risks in PPP projects. The former includes political, legal, commercial, and environmental risk, while the latter encompasses components unique to PPP project phases, such as construction, design, and operation, finance, and income hazards. Project-specific and generic risk factors are the two main categories into which Toan and Ozawa (2008) have divided risk variables. General risk was kept distinct from economic, legal, and political considerations. The phases of the project life cycle—development, construction, and operation—were used to identify and investigate project-specific risk, which the stakeholders may be able to control. Toan and Ozawa [6] attributed the increased risks in the BOT projects in Vietnam on the private partner.


5.3 Procurement process of PPP modalities during the construction on Chingola-Solwezi road and Ndola-Lusaka Dual Carriage way

H₀: There are procurement processes of PPP modalities during the construction on Chingola Solwezi road and Lusaka Ndola carriage way.



H₃: There are no procurement processes of PPP modalities during the construction on Chingola Solwezi road and Lusaka Ndola carriage way.

Using the regression model, at 0.119 and a standard error of 0.065, the model was not statistically significant. The alternative hypothesis was rejected because, at a 5% significance level, there was sufficient evidence that there was no significant effect on the procurement processes of PPP modalities during the construction of Chingola Solwezi road and Lusaka Ndola carriage way. The model was not statistically significant at 0.119 with a standard error of 0.065 because the level of significance was specified as 5% and the p-value of the findings was 0.119 proved to be more than 0.05. This is because 30.9% of respondents agreed that handling stakeholder disputes, technology developments, and demographic shifts would be made more difficult by long-term PPP contracts. Furthermore, 43% strongly agreed that one of the aspects of PPP procurement is the need for the municipality or government to be involved in the purchasing process from the outset. Of the respondents, 41.8% disagreed that the PPP procurement process should follow generally recognized legal frameworks and standards and be open and free from prejudice. 54.5% strongly agreed that the PPP procurement strategy as part of various modalities which consists of many procedures to be undertaken may be formed by 44 performing feasibility study. A majority of 40% concurred that the PPP procurement method incorporates practical timelines, financial accessibility, and backing for the government's capacity to make prompt and wise PPP determinations. 52.7% agreed and 52.7% disagreed that the procurement process was or is being followed during the construction of the Chingola Solwezi road and the Lusaka dual carriageway. The findings suggests that the PPP arrangements with insufficient time and funding are more likely to have issues, take a long time to implement, and eventually fail that's why governments in developed and developing countries are persuading private investors to join in PPP procurement for the delivery of public buildings and services because of the benefits that PPP models offer over traditional methods of procurement and Zambia is not exceptional. On the other hand, the findings shows that the Ndola-Lusaka dual carriageway PPP procurement did not include a convoluted procedure, little to no participation from several stakeholders, a substantial capital outlay, and an extended concession term. Due to the unstable economic environment, these concerns could have discouraged private contractors from investing. When public sector funding is inadequate to build infrastructure, PPP has been used in a number of countries. For the development of its road sector projects, the Zambian government may thus discover that the PPP



procurement approach is a practical option. The government's burden associated with large-scale public sector financing, the need for foreign loans, the timely completion of road projects, attracting both local and foreign investors, and other challenges may be lessened as a result.

The findings also suggest that the Zambian government is looking at PPP opportunities in the road industry by promoting involvement from both native and international businesses. However, there is evidence that the Ndola-Lusaka carriageway's road improvements have poor implementation success rates. PPP approaches are still being used in project procurement throughout the country; two PPP projects under study are among the handful that is just getting started. The procurement of PPP road projects is pushed for the client organizations. Policy makers, public sector clients, private investors, and lenders, however, are ignorant of the possible risks and how they may impact the acquisition of road projects under PPP agreements.

On the other hand, the findings also suggests that few private investors are indicating interest in competing for PPP projects, such as the Chingola Solwezi road and the Ndola-Lusaka highway, because of the risks related to the procurement system, such as uncertainty regarding their return on investment. As for the Chingola-Solwezi road, findings also suggest that, considering the project's current state, the process of initiating procurement, conducting bidding procedures, negotiating with the most qualified bidders, and then signing contracts with the most capable private sector partners who could give the government the desired value for money has not seemed to have been fully exhausted. For the Ndola-Lusaka dual carriageway, however, complete feasibility studies had to be approved before any actual procurement processes were initiated, and extensive preparation capacity had to be built in order to handle the whole procurement process effectively.




CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The main aim of the project was to compare PPP modalities of Chingola Solwezi road and Lusaka Dual Carriage way and findings show that the modalities employed in the two roads include economic effect, procurement process and risks; these are the three modalities that the study opted to compare. As such, the study reveals that at a 5% significance level, there was sufficient evidence that there was no significant effect on the economic effect of PPP modalities on both Chingola solwezi road and Lusaka Dual Carriage way and the comparison of the economic effect of PPP modalities on both Chingola solwezi road and Lusaka Dual Carriage way shows the aiding of reduction in poverty by increasing per capita GDP growth and reducing income inequality; both roads helps stimulate economic development, particularly for the captured Districts. The economic effects also manifests in governments using PPP (Chingola Solwezi road and Lusaka dual carriage way) to bring foreign investment in the country, which would help to generate foreign exchange and business activity in the economy and both roads would optimize the value for money and maintain uninterrupted service to the users; the efficiency-oriented private sector practices help to ensure these goal and the comparison of the risks of PPP modalities during the construction of Chingola Solwezi road and Lusaka Ndola carriage way show that a negative image of payment risk from the government is one of the drawbacks to private investors.

In addition, at a 5% significance level, there was sufficient evidence that there was significant effect on risks of PPP modalities during the construction on Chingola-Solwezi road and Lusaka Ndola carriage way and the biggest risks in a PPP contract on both roads are mostly to do with the sovereign counterparty. Weak project bankability, unstable economic policies, inadequate funds, technical, and managerial capabilities of concessionaires are the main factors preventing PPPs from reaching financial objectives are risks for both banks and both roads are also prone to political victimization; many political changes may occur during the contract period, and the incoming regime may scrutinize the whole project, which can halt the continuity of revenues to the private party and service to the public.



Furthermore, the comparison of the procurement process of PPP modalities during the construction on both Chingola Solwezi road and Lusaka Ndola carriage way show that there was no significant effect on the procurement processes of PPP modalities during the construction on Chingola Solwezi road and Lusaka Ndola carriage way. However, the findings show that the long-term PPP contracts further hold complications in terms of addressing conflicts between the stakeholders, technological advancements, and population changes. In addition, procurement as one of the modalities starts when the municipality or government must be included into the purchase process and PPP procurement strategy as part of many modalities which comprises of many processes to be carried can be established through conducting feasibility study.

5.2 Recommendation

- The researcher of the study recommends the Government of the day to embrace a robust and solid PPP channel, stakeholder communication, commitment, and many other variables as they are crucial in respect of economic effects, risks and procurement processes involved in the development of PPPs in other roads projects that may be embarked on in the near future.
- The researcher also recommends that every succeeding government to foster viable PPP that the previous government started so as to avoid minimize political victimization thereby reducing possible risks, resources and time.

5.3 Recommendation for Future Study

The researcher of the study further recommends that the other researchers adopts this study and further looks at the comparisons of the time and cost overrun of the Chingola Solwezi road and Lusaka Ndola Dual Carriage way.

WORK PLAN

The following is the schedule for conducting this research:

Activity	Months									
	July - September		October				November		December	
Submission of proposal	✓	✓								
Data collection			✓	✓						
Data analysis and writing of report					✓	✓				
Revision of final report							✓	✓		
Submission of final research report									✓	✓



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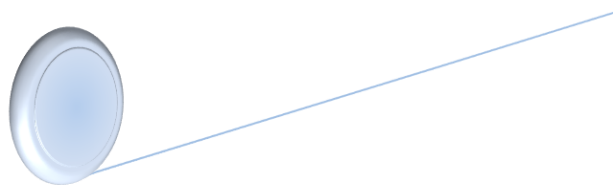
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APPENDICES

Appendix I: Data Collection Request



UNIVERSITY
of
LUSAKA

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Website: www.unilus.ac.zm

All correspondence should be addressed to the Vice Chancellor

26th October, 2023

TO WHOM IT CONCERN

Dear Sir/Madam,




RE: DATA COLLECTION REQUEST: COMPARING PUBLIC PARTNERSHIP MODALITIES BETWEEN LUSAKA DUAL CARRIAGE WAY AND CHINGOLA SOLWEZI ROAD

This letter serves to introduce WILLIAM MWANSA MWESA Identity Number MSCPM212198 as a bona fide student of the University of Lusaka pursuing Master of Science in Project Management.

WILLIAM MWANSA MWESA is required to submit a Dissertation as part of the requirements for the award of a Master of Science in Project Management Studies and therefore seeks to collect data from your institution. His Dissertation title is stated above. The data will be used solely for Academic purposes and a copy of the final document can be availed to you upon request.

Any assistance given to him will be greatly appreciated.

Yours faithfully,


Mwamba Chanda (Mr.)

DEPUTY REGISTRAR



Passion for Quality Education! Our Driving Force

Appendix II: Questionnaire



UNIVERSITY
of
LUSAKA

SCHOOL OF POSTGRADUATE STUDIES

The purpose of this research is to “comparing public private partnership modalities of Chingola Solwezi road and Lusaka dual carriage way”. This research is for academic purposes only to fulfil the requirements for the award of the Master of Project Management degree. You have been selected to participate in the survey. You are encouraged to give your views freely and accurately.

Please note that all information provided in this questionnaire will remain confidential; no names of firms or individuals will be mentioned in any report to ensure no one is harmed. Thank you very much for your cooperation and participation.

Kindly direct any queries to:

William Mwansa+260 962 454538



SECTION 1

PART 1: DEMOGRAPHICS

1. What is your Gender? Female Male
2. What is your age? Below 18 19 – 25 26 – 35 Above 36
3. Marital status: Single Married Divorced Widowed
4. Education level: None or primary Secondary 'O' level Certificate
Diploma Degree Other please specify
5. Have you travelled on both PPP Chingola-Solwezi road and Lusaka Dual Carriage way? Yes
No
6. If yes, has or will PPP Chingola-Solwezi road and Lusaka Dual Carriage way increase productivity and competitiveness for a country by avoiding bottlenecks and eliminate obstacles, thus, enabling the flow of people and commodities that leads to positive economic performance of the country? Yes No
- 7.



SECTION B

PART 1: ECONOMIC EFFECT OF PPP MODALITIES ON CHINGOLA SOLWEZI ROAD AND LUSAKA DUAL CARRIAGE WAY

TICK \checkmark as appropriate in right column out of the following 5 options: *1. Disagree* *2. Strongly disagree* *3. Neutral* *4. Agree* *5. Strongly agree*

	QUESTION	1.	2	3	4	5
1	Chingola Solwezi road and Lusaka dual carriage way development, as empirical research suggests, aids in reducing poverty by increasing per capita GDP growth and reducing income inequality.					
2	Chingola Solwezi road and Lusaka dual carriage way such as roads helps stimulate economic development, particularly for low-income nations.					
3	A successful PPP highly depends on a functional regulatory framework, which refers to government institutions dealing with administrative, legal, and policy areas.					
4	The success and failure of PPPs depend on multiple factors in different social, political, and economic settings.					
5	The governments also use PPP (Chingola Solwezi road and Lusaka dual carriage way) to bring foreign investment in the country, which helps to generate foreign exchange and business activity in the economy					
6	The government's aim from PPP is to optimize the value for money and maintain uninterrupted service to the users; the efficiency-oriented private sector practices help to ensure these goals					

7. What are the major lessons learned from the use of the PPP on Chingola Solwezi road and Lusaka dual carriage way?



8. Are there some people or groups that were against the use of PPP on Chingola Solwezi road and Lusaka dual carriage way?

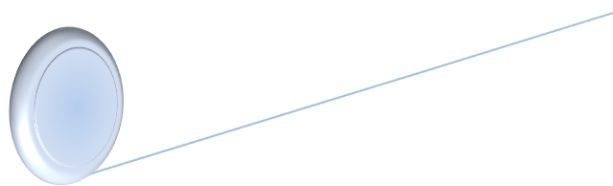
9. If yes in (8), what was there concern?

10. What do you think is the economic effect of PPP modalities on Chingola Solwezi road and Ndola-Lusaka Dual Carriage way?

PART 2: RISKS OF PPP MODALITIES DURING THE CONSTRUCTION ON CHINGOLA SOLWEZI ROAD AND LUSAKA NDOLA CARRIAGE WAY

TICK \checkmark as appropriate in right column out of the following 5 options: **1. Disagree** **2. Strongly disagree** **3. Neutral** **4. Agree** **5. Strongly agree**

	QUESTION	1.	2	3	4	5
11	PPPs often include either direct payment requirements from governments, such as availability payments, or contingent payment responsibilities, a negative image of payment risk from the government is one of the draw backs to private investors					
12	Rather than commercial concerns, the biggest risks in a PPP contract are mostly to do with the sovereign counterparty					
13	Weak project bankability, unstable economic policies, inadequate funds, technical, and managerial capabilities of concessionaires are the main factors preventing PPPs from reaching financial objectives					
14	Risk ratings are a generally reliable predictor of PPP investments in developing nations.					
15	The percentage of PPPs that achieve financial objectives and the magnitude of private investments are significantly determined by					



	sovereign and national risks.					
16	The PPP projects are also prone to political victimization; many political changes may occur during the contract period, and the incoming regime may scrutinize the whole project, which can halt the continuity of revenues to the private party and service to the public					
17	The long-term PPP contracts further hold complications in terms of addressing conflicts between the stakeholders, technological advancements, and population changes.					

18. What do you think are the possible risks of PPP modalities during the construction on Chingola Solwezi road and Lusaka Ndola carriage way?

PART 3: PROCUREMENT PROCESS OF PPP MODALITIES DURING THE CONSTRUCTION ON CHINGOLA SOLWEZI ROAD AND LUSAKA NDOLA CARRIAGE WAY

TICK \checkmark as appropriate in right column out of the following 5 options: **1. Disagree** **2. Strongly disagree** **3. Neutral** **4. Agree** **5. Strongly agree**

	QUESTION	1.	2	3	4	5
19	PPP procurement as one of the modalities starts when the municipality or government must be included into the purchase process.					
20	The PPP procurement process must be not be biased and but transparent, based on widely accepted legal frame work and standards					
21	The PPP procurement strategy as part of many modalities which comprises of many processes to be carried can be established through conducting feasibility study.					
22	The PPP procurement strategy includes realistic timeframes, availability of finances, and support for government ability to make timely and sound PPP decisions.					
23	PPP arrangements with inadequate time and funding are more likely to have problems, takes a lot of time to implement, and eventually fail.					

24. Do you think procurement process was/is being followed during the construction of Chingola Solwezi road and Lusaka dual carriage way?

25. Elaborate your answer in (22)

26. What do you think is the procurement process of PPP modalities during the construction on Chingola Solwezi road and Lusaka Ndola carriage way?

Appendix III: Images of the roads



*Figure 1: Newly built Lusaka Ndola carriage way in Ndola
Researcher (2023)*

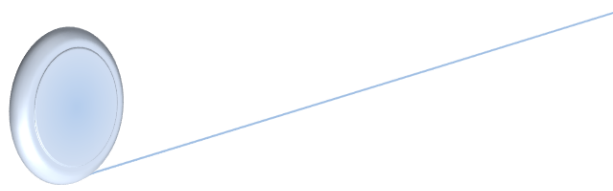
Image credit:



*Figure 2: Lusaka Ndola carriage way
(2023)*

Image credit: Researcher





*Figure 3: Lusaka Ndola carriage way
(2023)*

Image credit: Researcher



*Figure 4: Lusaka Ndola carriage way
(2023)*

Image credit: Researcher



*Figure 5: Lusaka Ndola carriage way
(2023)*

Image credit: Researcher





*Figure 6: Newly built Lusaka Ndola carriage way in Ndola
Researcher (2023)*

Image credit:



Figure 6: Newly built Chingola Solwezi road

Image credit: Researcher (2023)



Figure 7: Chingola Solwezi road

Image credit: Researcher (2023)

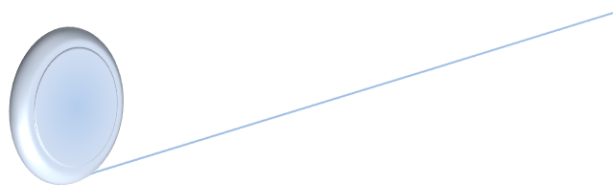


Figure 8: Chingola Solwezi road

Image credit: Researcher (2023)