

**CRITICAL SUCCESS FACTORS INFLUENCING THE IMPLEMENTATION OF
PUBLIC PRIVATE PARTNERSHIPS IN THE ROADS SECTOR:
A CASE OF UGANDA**

BY

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DECLARATION

I, **Ajwang Patricia** hereby declare that this dissertation is my original piece of work and that it has never been submitted to any University or Higher Institution of learning for any academic award.

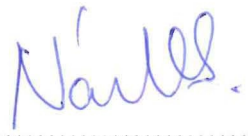
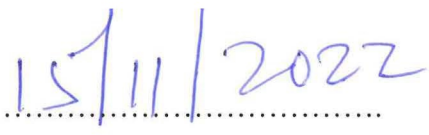
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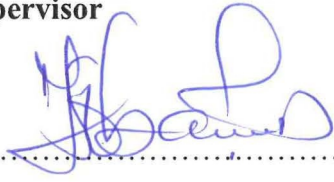
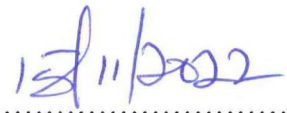
APPROVAL

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DEDICATION

I dedicate this piece of work to my beautiful daughter who endured my absence to make my studies a success.

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A word of appreciation goes to all people who contributed in distinctive measures to see to it that this piece of work sees the light of day. Special appreciation goes my supervisors, Dr. Charles Ndandiko and Dr. Peter W. Obanda for their professional guidance throughout the preparation of this dissertation.

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LIST OF ACROYMNS

CSF	Critical Success Factors
CVI	Content Validity Index
MoFPED	Ministry of Finance Planning and Economic Development
MoWT	Ministry of Works and Transport
PAT	Principal Agent Theory
PPPs	Public Private Partnerships
ROI	Return on Investment
SC	Success Criteria
SPSS	Statistical Package for Social Scientist
VFM	Value for Money
IFC	International Finance Corporation
WTP	Willingness to Pay

ABSTRACT

The study sought to establish critical success factors influencing the implementation of PPPs in the roads sector in Uganda. The objectives of the study were to determine CSFs influencing the implementation of PPP road projects in Uganda, to establish a success criterion for PPP road projects that provide a mechanism for determining extent of success of a PPP road project and to examine the extent of influence of PPP CSF to the successful implementation of PPP road projects in Uganda. A cross-sectional survey design with a quantitative approach was adopted in this study. A sample size of 140 respondents out of a population of 226 respondents. 140 questionnaires were administered to collect quantitative data. 132 questionnaires were filled and returned constituting a response rate of 94%. Data was collected from the public and private sector; specially selected from institutions with PPP exposure in varied capacities. Tests for normality, validity and reliability of data were carried out. The findings of the study revealed that there is a moderate positive relationship (0.512^{**}) between political factors and PPP success criteria and the relationship was statistically significant at 0.01 level of significance P-Value (0.000) < 0.01 . This finding was also reinforced by the interviews conducted in which all respondents echoed political factors as being crucial to the success of PPP road projects. On the other hand, the study also revealed that there is a moderate positive (0.620^{**}) relationship between managerial factors and PPP success criteria. Verbatim interviews also stressed managerial factors as being critical for PPP implementation with regard to project identification, skills and competence of PPP practitioners as well as contract management and control. The findings further revealed that the relationship was statistically significant at 0.01 level of significance P-Value (0.000) < 0.01 . Lastly, there is a moderate positive relationship (0.556^{**}) between economic factors and PPP implementation and the relationship was statistically significant at 0.01 level of significance P-Value (0.000) < 0.01 . The study recommends that to ensure the successful implementation of PPPs in the roads sector, the procurement process should result into selection of a strong private consortium with strong technical strength. Similarly, strong contract management and control should be undertaken throughout the PPP project implementation. However, strong contract management and control can only be effective if the organization staff and transaction adviser are competent in their understanding of PPP mechanisms.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

The inability of the public sector to independently meet the ever increasing need for infrastructure and services by use of traditional procurement predominantly financed through fiscal budgets has prompted governments especially in developing economies to venture into Public Private Partnership as an alternate method for delivery of the much needed infrastructure and services (Ndandiko, 2006; Muhammad, Sik, Johar & Sabri, 2016). Infrastructure such as roads, are considered to be a pre-requisite of any country's social-economic development (Ivanová & Masárová, 2013). Like it is with any infrastructural sector in Uganda's economy, the roads sector is faced with an infrastructural deficit estimated at USD 2,212.23m; which is further exacerbated by inadequate budgetary allocations (Mawejje & Munyambonera, 2017; National Planning Authority, 2012; UNRA, 2019). Since Uganda intends to undertake PPPs, it is crucial to understand the factors that are critical for the successful implementation of PPPs in the roads sector and have a criterion against which the PPP project success will be measured. This research henceforth, set out to investigate critical success factors influencing the implementation of PPPs and establish a criterion against which PPP project success will be measured in the roads sector; using Uganda as the case study. Therefore, chapter one focused on the background of the study, research problem, objectives of the study, significance of the study, its justification, theoretical and conceptual framework, scope of the study and operational definition of key concepts.

1.1 Background of the Study

1.1.1 Historical Background

PPPs can be traced way back in the 14th century where concessions were granted to the private sector who exclusively operates, maintains and carries out development of infrastructure or provides service of general economic interest (Jomo, Chowdhury, Sharma & Platz, 2016). For example; concessions served as legal instruments for road construction during the time of the Roman Empire (Jomo et al., 2016). In the mid17th century, PPPs were under taken in France where a company founded by the Perrier brothers was licensed to supply piped water in Paris area for a 15 year period (Eaton & Akbiyikli, 2009).

In the USA, the late 17th century saw the use of PPPs to implement infrastructure projects such as the Lancaster Turnpike road; the Erie Canal – opened in 1823 and the Transcontinental Railroad that was completed in 1869 (Smith, 2009). In Asia, the 1870s saw the construction of the Princess Docks in India by the Bombay Port Authority, through a public bond issued by the government, and competitively tendered and built by a private sector contractor (Siemiatycki, 2011).

The modern PPP focus began taking shape in the 1990s in Australia and UK when the latter launched its Private Finance Initiative (PFI) scheme in bid to attract private finance for construction of new infrastructure (Hodge & Boardman, 2017). This initiative marked a turning point from a century of practice where concessions were predominantly used for construction of infrastructure to a situation where such arrangements were a public policy preference. The late 20th century saw an increase in the use of PPPs; for example, Australia (that is now a leader in PPP policy), Canada and France (with demonstrated successful PPP results). PPP projects began to spread around the globe from being only a concern of Western countries to many developing

economies in African, Asia, Middle-East, and Latin American economies.

In 2013, a total of US\$ 150.3 billion worth of investments in PPPs in developing economies was reported, with total investments being largely dominated by India and Brazil (World Bank, 2013 as cited in Osei-kyei & Chan, 2018). In 2019, private investment commitments stood at US\$96.7 billion in middle and lower income countries, with China largely dominating investments in infrastructure at 39% (World Bank, 2019). The transport sector with investments in road infrastructure continued to dominate as the largest PPP sector in 2019, accounting for half of global investment commitments at 47.8% of PPI project investments.

PPP infrastructure development is on a steady increase in Africa with South Africa dominating the PPP market with landmark projects like the N4 toll road, Gautrain rail, etc. (Maseko, 2014). The development of PPPs in Sub-Saharan Africa (SSA) have been relatively slow as compared to other parts of the developing economies, though it is now gathering pace (Yescombe, 2017).

The Case of Uganda

The World Bank Private Participation in Infrastructure (PPI) Database reported that Uganda has since 1990 to 2019 implemented 30 contractual investments arrangements in which private parties assume operating risks; representing an aggregated investment value of USD 2,036 million. The Government of Uganda (GOU) in 2010 adopted a national PPP Policy Framework; backed by the PPP Act 2015 with its main objective being encouraging private sector investment and participation in public infrastructure development where excellent value for money can be clearly exhibited (Davis et al., 2016; World Bank, 2017). As per the new policy, the provision of public services and infrastructure will remain with the government department(s) or state enterprise(s) in question, charged with the responsibility of identifying, developing and

determining any expected outcome of the PPP project(s). The government expects that the policy will result in an even more efficient development of public infrastructure and a simultaneous growth in economic and foreign direct investments (Public Private Partnership Framework Policy 2010).

Due to budget constraints, Government of Uganda (GOU) through Uganda National Roads Authority (UNRA) expressed the desire to use the PPP mechanism to utilize private financing resources and ensure a sustainable maintenance of the road network (Broek, 2013). In 2013 therefore, IFC was requested to provide recommendations for prioritizing and outlining a roadmap for PPP implementation in the roads sector, in view of five selected road projects namely; Kampala-Jinja Road (77km), Kampala-Southern Bypass (17km), Kampala-Mpigi Road (50km), Kampala-Bombo Road (35km) and Kampala-Entebbe Express way (51.4km); (Broek, 2013).

1.1.2 Theoretical Background

The study based on the Principal Agency Theory (PAT), a theory developed by Michael Jensen of Harvard Business School (HBS) and William Meckling of the University of Rochester (UR) in the 1970s. The PAT is premised on the relationship between principles and agents who administer authority for and on behalf of organizations (Fama, 1980). The theory contends that principals should solve two basic assignments in selecting and managing their agents. First, they are required to select the best agents (contractors or employees) and create inducements for them to behave as expected. Secondly, they should monitor the behaviour of their agents to ensure that they are performing as agreed upon (Baysinger, Kosnik & Turk.1991). However, there are risks involved when there are conflicting goals of both parties involved or when it is cumbersome and

or expensive for the principal to ascertain exactly what the agent is in fact doing. The prevalence of asymmetric information in such circumstances results into a detrimental selection and a moral hazard problems (Baysinger et al., 1991).

PPPs involves relationships that are in the PAT; whereby the public entity is the principle while the private party is the agent. These relationships need to be well articulated, lest problems associated with the PAT arises from the information asymmetry: adverse selection and moral hazard given the specific nature of risks associated with PPPs; by modelling the relation between an informed party (the Agent) and an uninformed one (the Principal) (Ong'olo & Spellman & Walker Co. Ltd, 2006).

1.1.3 Conceptual Background

The study is denoted by two main variables, namely; Critical Success Factors and PPP Implementation. Critical Success Factors (CSF) being the independent variable, are the conditions within a PPP project environment that has an influence on the successful implementation (dependent variable) of a PPP project. By this therefore, each condition of success has a relationship with the other. The successful implementation of a PPP project is thus dependent on the project level (political and economic) and program level (managerial) within which it operates. PPP implementation denotes the success criteria against which a PPP project is measured.

PPP is a long-term contractual arrangement between a private party and a government entity, for provision of a public facility or service, in which the private party bears substantial risk and management responsibility, and remuneration is linked to performance (World Bank Group, 2017). The PPP Framework Policy 2010 defines PPP as a medium to long term contract between

the public and private sector to construct/renovate, develop, finance, manage or maintain a public infrastructure or the provision of public service involving risks and rewards' sharing, to deliver desired policy outcomes that are in public interest (Public Private Partnership Framework Policy, 2010). As a result, government attempted to tap into private resources and other benefits of PPP. This saw the PPP Policy 2010 and the PPP Act 2015 enacted as well as a dedicated PPP unit being established (in the MoFPED) to ready the country for PPP infrastructural undertakings (Public Private Partnership Framework Policy - September 2010). World economies are consistently faced with chronic infrastructure gaps; and have sought sustainable alternatives in PPPs to deliver this infrastructure while addressing budgetary constraints (World Bank, 2018).

Critical Success Factors for PPPs in the Roads Sector

Important contributions to the development of the CSF concept was brought by John F. Rockart's works in 1979 and the Sloan School of Management; who defined CSF as few indispensable areas of activity for a manager's action in which desirable results are absolutely necessary to accomplish the established goals (Rockart, 1982). It also facilitates continuous scrutiny of such crucial factors by management, so that they are explicitly handled. Osei-kyei & Chan (2018) contend that CSFs signify conditions and circumstances necessary for achieving project success.

Li et al., (2005) argues that the PPP project procurement stage is very vital to the general success of PPP projects. Tang, Shen, Skitmore & Cheng (2013) concur with Li et al., (2005) that all construction projects' briefing stages are the most important as they determine the projects' success. However, Osei-kyei & Chan (2018) indicate that PPP projects success is largely influenced by the PPP project environment – at program level, and at the parent organization – at project level. This explains why a six-factor grouping of PPP CSFs was adduced as a suitable

representation for both the PPP project environment and internal organization. The six categories acronymised as “PETSOM,” represented Political, Economic, Technological, Social, Organizational and Managerial conditions. This research study zeroed on the political, economic and managerial aspects as these are deemed relational to the Ugandan context.

PPP Implementation in the Roads Sector

Due to the multi-variate nature of PPPs, evaluating their successful implementation requires more rigor as the complexity in establishing the success or failure of the project is reliant on project objectives and criteria as set out/perceived by the varied stakeholders involved in the PPP project lifecycle such as the project owners, designers, consultants, contractors and end users (Muhammad & Johar, 2017).

According to Osei-kyei & Chan, (2018), success criteria are a set of concepts/parameters against which success is quantified or evaluated.” It denotes a set of principles on which a project can be considered as successful (Węgrzyn, 2016). The anticipated results of PPP projects could be influenced by various factors and their interaction during the PPP project’s lifecycle (Węgrzyn, 2016). These factors could thus be classified according to the project implementation phases identified as construction, operational and transfer phase (Ahmadabadi & Heravi, 2019).

PPP Success Criteria (SC) has been explored by various authors. From normative literature, Muhammad & Johar (2017) established that success in PPPs has been denoted by Value for Money (VFM), adequate financial return to the private investor, costs savings, meeting client’s requirements and satisfying stakeholder requirements, maintenance of high quality service levels, and reduction in construction time.

From comparative studies on PPP project success criteria conducted in Hongkong and Ghana,

Osei-kyei & Chan (2017 b) established that profitability, meeting output specifications, budget consistency, time adherence and effectual risk management, were the dominant PPP success criteria.

1.1.4 Contextual Background

Overview of the Road Sector in Uganda

The road sector in Uganda comprises of both paved and unpaved roads to ease transport. Road transport is the most dominant mode carrying over 95% of passenger and freight traffic (MoWorks & Transport, 2017). The country has a total road network of 144,785 km of which 20,856 km of national roads managed by UNRA - consists of paved and unpaved roads, with the paved roads at 23.8% (4,971 km) while the unpaved road is at 76.2% (15,885 km) (UNRA Annual Report, 2019).

UNRA is a body entrenched by Act of Parliament, the UNRA Act, 2006 and became operational in 2008, as a body mandated to manage the provision and maintenance of the national road network, rendering advisory services to the government on roads' policy matters and assisting the coordination and implementation of roads' policy (UNRA Corporate Strategic Plan, 2017).

According to Broek (2013), "the road sector in Uganda is in need of rehabilitation and further expansion as a result of significant road maintenance backlogs and increasing traffic levels."

This has seen government commit financial resources for road infrastructure development and maintenance by consecutive budget increases for the last twelve years (MoWT, 2017) channeled to UNRA.

Public Private Partnerships (PPPs) in Uganda's Roads sector

GOU indicated a desire to undertake PPPs for road infrastructure development; and through UNRA, engaged the World Bank's – IFC division in 2013 to undertake studies for five selected road projects to establish their suitability/potential for PPP application; as well as find out the adequacy of the legal, regulatory and institutional frameworks for PPPs in Uganda (Broek, 2013; I F C Advisory, 2013). Their findings indicated that Uganda's investment climate is not the best and that the local market is not capable of delivering PPP schemes on its own i.e., there is a need to attract international investors. Further, neither of the selected road projects are financially viable and hence a viability gap financing (VGF) would be required or toll rates significantly higher than international practices taking into account purchase power parity, which may lead to social resistance(Broek, 2013).

Significant deficiencies were also noted in the PPP legal, regulatory and institutional frameworks. It was established that although the PPP Policy 2010 outlines in detail the process, purpose and need for PPPs in Uganda, it does not provide an indication of key infrastructural focus sectors (Broek, 2013). Secondly, whereas the PPP Bill appears to be in line with international best practices, some provisions are inappropriate; like the requirement that parliament has to approve any future financial commitments or any contingent liability that arises from a PPP arrangement. This implies that every PPP arrangement has to be approved by parliament which might be cumbersome and delay the process or lead to unrealistic request for contract amendments, as it cannot be expected that parliamentarians understand in detail the mechanisms of PPP (Broek, 2013). Similarly, whereas the PPP Act 2015 outlines a clear PPP institutional design for preparation, implementation and monitoring, the provision for cabinet

approval of a PPP project value above a certain threshold is inappropriate and it is not clear how this requirement fits into the PPP project proceedings (Broek, 2013).

The absence of financial instruments for long-term financing was also identified as an impediment to PPP implementation in Uganda's road sector (Broek, 2013; IFC Advisory, 2013). Uganda is faced with limited access to long-term debt facilities by the available commercial banks although these banks are backed by large international banks like Barclays, Standard Chartered and Stanbic bank, that are capable of providing global commercial project finance (IFC Advisory, 2013). Uganda is also exposed to political and economic risks, in addition to absence of risk insurance instruments which makes the project financiers unwilling to provide any lending that is exposed to political and market (economic) risk (I F C Advisory, 2013). Further, it was established that Uganda is faced with limited institutional capacity as highlighted in the knowledge and skills gap deficiency in PPP mechanisms both at the implementing ministry (i.e. MoFPED) and agency (namely UNRA) (Broek, 2013).

1.2 Statement of the problem

National Development Plan 2 (NDP II) 2015 - 2020 and Uganda Vision 2040 recognizes the roads sector as one of the key sectors fundamental for the development of Uganda's economy (National Planning Authority, 2015 & National Planning Authority, 2013). Uganda intends to develop her road infrastructure to improve connectivity, effectiveness and efficiency to comparable levels of the developed countries. The construction of multi-lane paved national roads, expressways and improvement of road infrastructure; for connecting major cities, exit ports and economic zones will require whooping capital investments estimated at USD 2,212.23million to finance (National Planning Authority, 2012).

Government hopes to tap into private finance and expertise by use of PPPs to implement these complex road infrastructure projects. With PPP Policy 2010 and the PPP Act 2015 already in place; a Road tolling policy, 2017 was enacted in bid to prepare the country for road PPPs (Public Private Partnership Manual, 1999; Ministry of Works & Transport, 2017). The enactment of these legal and institutional frameworks for implementation of PPPs provides a basis for the country's readiness to undertake PPP road projects.

However, despite having a PPP legal and institutional framework in place, PPPs implementation in the roads sector have stalled. A case in point is the most feasibly expected PPP road project – the Kampala-Jinja Expressway (dubbed the PPP 'pathfinder' in the roads sector), that stalled after its procurement and financing proposals were halted due to suspicion and hostility from the executive and legislature (parliament) respectively, attributed to lack of understanding of PPP mechanisms (Ref. Daily Monitor Article Sept, 25th 2019 & Feb, 20th 2020).

Notwithstanding, in the energy sector where PPPs have been undertaken, critical audit findings on PPP projects unearthed improper licensing agreements, none audit cooperation from PPP partners and failure to meet government objectives like increased efficiencies, reduction of loses, reduction of tariffs and reduced subsidies, among others (Broek, 2013).

Following such glaring shortfalls, it is imperative to understand CSF that influence the successful implementation of road sector PPPs; a study this research intended to fill. Furthermore, since the introduction of PPP in Uganda, factors contributing to its successful implementation have not been fully explored. In other words, there had been a paucity of research studies on PPP CSF in the roads sector within the Ugandan context. Most research studies on CSF covered the general construction industry especially in regard to developed economies, affordable housing projects, water projects and others (Bing, Li, Hardcastle, Akintoye, & Edwards, 2005; Zhang, 2005; Li et

al., 2007; Osei-kyei & Chan, 2018;) yet PPP success is country and sector specific. This study therefore sought to contribute to the body-of-knowledge on CFS in regard to road sector PPPs in developing economies especially in sub-Saharan Africa.

1.3 General objectives of the study

The study sought to establish critical success factors influencing the implementation of PPPs in Uganda's road sector.

1.3.1 Specific Objectives

- i. To determine CSFs influencing the implementation of PPP road projects in Uganda.
- ii. To establish a Success Criterion for PPP road projects that provides a mechanism for determining extent of success of a PPP road project.
- iii. To examine the extent of influence of PPP CSF to the successful implementation of PPP road projects in Uganda.

1.4 Research Hypothesis

p Ho: Political factors have no influence on the successful implementation of PPPs.

p H1: Political factors have an influence on the successful implementation of PPPs.

e Ho: Economic factors have no influence on the successful implementation of PPPs.

e H2: Economic factors have an influence on the successful implementation of PPPs.

m Ho: Managerial factors have no influence on the successful implementation of PPPs.

m H3: Managerial factors have an influence on the successful implementation of PPPs.

1.5 Significance of the study

To Stakeholders: The study will draw attention to key PPP stakeholder critical areas that necessitate stakeholders' attention so as to achieve the success of a PPP road project. This in turn

provides key information aimed at improving the success chance of PPP road projects.

PPP Practitioners: The findings can be used as a roadmap for successful implementation of PPPs. The PPP success factors will inform PPP practitioners on fundamental PPP elements which need to be controlled and carefully managed, as well as standards to adopt in order to achieve the envisaged PPP success level. It will also help in the evaluation of the success of the PPP project road project in Uganda and other developing countries at large.

To Academic Field: The study sought to contribute to the body-of-knowledge on critical success factors and success criteria for implementation of PPP road projects.

1.6 Justification of the study

Justification for the study was driven by GOU's recent move to undertake the construction of the 77 km Kampala-Jinja-Expressway (KJE) by a PPP arrangement; as well as seeking to pay the \$476m loan obtained from China's EXIM bank for the construction of the Kampala-Entebbe expressway (KEE) using a PPP financing mechanisms - road tolls, following the enactment of the Road Tolling policy in 2017 (MOW&T - Road Tolling Policy, 2017; World Bank Group, 2019b) in lieu of the country's first experience with road PPPs.

1.7 Scope of the Study

The research study was limited to the Critical success factors influencing PPP implementation in the roads sector.

1.7.1 Geographical Scope

The studies were conducted in Uganda.

1.7.2 Content Scope

The studies were limited to PPP Critical Success Factors at the program and project level within a PPP project environment: specifically, factors influencing the implementation of PPPs in the Road sector. Thus, the study looked at how political, economic and managerial factors influence the successful implementation of PPPs in the road infrastructural sector. The study also looked at PPP success criteria in the implementation of successful PPP road projects.

1.7.3 Time Scope

The study utilized relevant literature and information for the period 2000 – 2020, given the fact that PPPs are a new phenomenon in public procurement.

1.8 Operational Definition of Key Terms

Public Private Partnerships (PPP): is a long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance (World Bank Group, 2017).

Critical Success factors (SCF): Those few key areas of activity for the manager's action, in which favourable results are absolutely necessary to achieve the desired goals (Rockart, 1982).

Success Criteria (SC): A set of parameters on which a project can be deemed/judged as successful (Węgrzyn, 2016).

PPP Road Project Implementation: The development or maintenance of a road project under PPP.

1.9 Conceptual framework

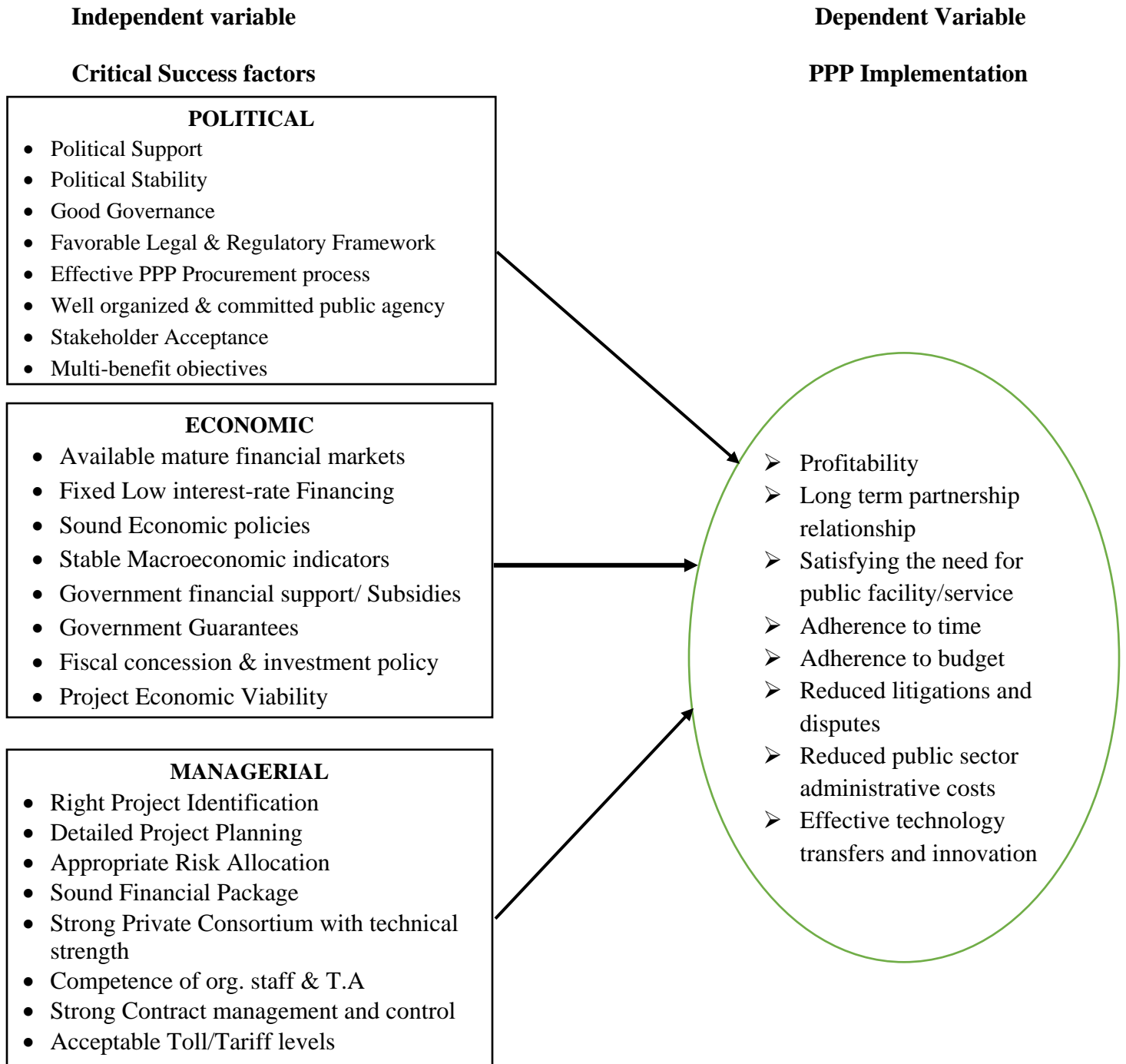


Figure 1.1: Conceptual framework for PPP Implementation

Source: Adopted from Osei-Kyei & Chan 2018; modified by researcher

The above conceptual framework is indicative of Critical Success Factors (CSF) as the independent variable being constructs within a PPP project environment that have an influence on the successful implementation (dependent variable) of a PPP project. In essence, each condition of success is inter-related with another; i.e., political constructs directly influence economic circumstances of a PPP project success and vice-versa. Successful implementation of a PPP infrastructure project is thus dependent on the project level (political and economic) and program level (managerial) within which it operates.

PPP implementation (dependent variable) denotes the success criteria against which a PPP project is measured i.e., the outcomes of a successful project. The outcomes of a successful PPP project differ from the traditional bid-build projects due to the uniqueness of PPP projects as the latter involves complex contractual and stakeholder management, lengthy arrangements, risk sharing and rewards management (Osei-kyei & Chan, 2018). The success criteria are thus characterized by private consortia profitability, long-term partnership relationship, meeting the need for public facility/service, timely project delivery, project budget adherence, minimal disputes and litigations, reduction in public sector administrative costs.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The chapter reviewed the existent body of literature in Critical Success Factors (CSF) influencing the implementation of PPPs in the roads sector in an effort to identify gaps in knowledge and practice that need to be filled. It therefore covered the theoretical review, conceptual review and empirical review in regard to the study objectives.

2.1 Theoretical Review

The theoretical framework of the study was anchored on the Principal Agency theory. This theory relates to the CSF influencing the implementation of PPPs in road projects. The theory underpins the concept of PPPs and what needs to be done to ensure its success.

2.1.1 Principal Agency Theory (PAT)

The PAT was evolved in the 1970s by Michael Jensen of HBS and William Meckling of the UR. The PAT is premised on the disposition of property rights and information in regard to drafting contracts that define the organization. It is focused on the relationship between principals and agents who exercise authority for and on behalf of organizations (Fama, 1980). The theory contends that principals should solve two basic assignments in selecting and managing their agents. First, they are required to select the best agents (contractors or employees) and create inducements for them to behave as expected. Secondly, they should monitor the behaviour of their agents to ensure that they are performing as contractually expected (Baysinger, Kosnik &

Turk.1991); by instituting an effective incentivized system for the private party to act in accordance with public interest (Kehl & Arnold, n.d.).

Realistically, PPPs involve the use of professional and experienced general contractor (private partner); as well as an external consultant hired on behalf of the public partner – for expert support in regard to contractual risk and profit allocation (Kehl & Arnold, n.d.). Hence, PPPs can be considered successful when there is a general “fit” in the partnership. However, there are risks involved when there are conflicting goals of both parties involved or when it is cumbersome and or expensive for the principal to ascertain exactly what the agent is doing. The prevalence of asymmetric information in such circumstances results into a detrimental selection and a moral hazard drawback (Baysinger et al., 1991). Information asymmetries are existent especially in the absence of balance in expertise (Kehl & Arnold, n.d.).

According to Eaton & Akbiyikli (2009), PPP is a procurement approach involving project execution reinforced with an extensive span of contractual relationships between the public and private sector to provide an asset and a service over a long-term period of time. PPPs involves relationships that are in the PAT; whereby the public entity is the principle while the private party is the agent. These relationships need to be well articulated, lest problems associated with the PAT arises from the information asymmetry, adverse selection and moral hazard given the specific nature of risks associated with PPPs; by modelling the relation between an informed party (the Agent) and an uninformed one (the Principal) (Ong’olo & Spellman & Walker Co. Ltd, 2006).

Asymmetric power relationships and dynamic interdependent stakeholder networks found in the PAT aid in defining government’s role in the organization and maintenance of third party networks; enabling private partners solve public issues and upholding collectively held

objectives in complex policy environments (Casady et al., 2017). Therefore, to avoid opportunistic behaviour by the private partner, the public partner (principal) has an incentive in the selection of instruments and contractual clauses which involve risk transfer and the possibility to fine (punish) or reward the private party for its performance (Firmino, 2018). Therefore, well-articulated government arrangements are required to be in place to deal with agency problems involving various players and in varied forms throughout the project lifecycle (World Bank Group, 2017).

2.2 Conceptual Review

2.2.1 The Concept of PPP

The PPP concept is arches on government's desire to resolve endemic financial constraints associated with the delivery of public infrastructure and services by engaging private sector management skills and expertise to increase the efficiency, effectiveness and quality of service delivery and facilities (HM Treasury, 2000 as cited in Li, Akintoye, Edwards & Hardcastle, 2007). This notion is supported by Jefferies (2006) who asserts that the adoption of PPPs is viewed as a cost effective mechanism of overcoming infrastructure delivery and maintenance costs. A number of scholars have advanced various definitions of PPP – but with key distinct features. First, public and private sector arrangement to deliver an infrastructure of mutual interest and or benefit. Secondly, lengthy contractual periods involving design, construction, financing, operations & maintenance, thus, bundling up all stages of investment and service provision; and thirdly, risk sharing and rewards between the private and public sectors (Akintoye & Beck, 2009; Yescombe & Farquharson, 2018; World Bank, 2018).

Yescombe (2017), defined PPP as a long-term contractual undertaking between the public sector entity (the 'public authority') and the private-sector entity (the 'project company'), involving

significant transfer of risk to the private party. He further explains that under a PPP contract, the project company is responsible for design, building/upgrade of the infrastructure, financial, operational and maintenance of the public sector infrastructure. Smith (2009) defined PPP as a long-term contractual agreement between a public and a private sector entity through which the expertise, skills and assets of each party are shared in delivering an infrastructural facility or service for public use. Additionally, project potential risks and rewards are shared in the delivery of the project (National Council for Public Private Partnerships, 2007).

Mudi et al., (2015) opined that PPP road infrastructure developments require long-term investments (between 10 to 30 years) to achieve the project objectives. The tenure of such projects covers the economic life cycle of the road infrastructural project. According to (Roehrich et al., 2014 as cited in Sehgal, Dubey & Tiwari, 2015), PPPs aggregate the strengths of private players in terms of technical and expertise knowledge and skills, managerial acumen and entrepreneurship, as well as the role of public accountability and local content leverage, to create an enabling environment for the delivery of high quality infrastructure.

2.2.2 Critical Success Factors Influencing the Implementation of PPPs in the Roads Sector

Important contributions to the development of the CSF concept was brought by John F. Rockart's works in 1979 and the Sloan School of Management (Jefferies, 2006); who defined CSF as few indispensable areas of activity for a manager's action in which desirable results are absolutely necessary to accomplish the ultimately established goals (Rockart, 1982). Such significant factors are highlighted so that they receive careful and consistent management attention. According to Hardcastle, Akintoye & Edwards (2005), CSF is defined as those key

activity areas in which favourable results are absolutely necessary for a particular manager to reach his/her goals. Similarly, Rowhinson (1999) agrees that critical success factors are those key issues inherent in a project which must be upheld for team working to take place in an efficient and effective manner.

Campos et al., (2018) maintains that CSFs (in regard to PPPs) are elements that determine how well PPPs function. Chua et al. (1999 as cited in Zhang, 2005) maintains that a construction project's success is hinged by four features, identified as: project characteristics, contractual arrangements, project participants, and interactive processes. PPP road projects constitute construction to a greater extent and hence, falls within the confines of infrastructure development; on which this research study is based.

Political Factors

Political factors have been found to have a profound influence on PPP projects as political will and leadership are key in terms of establishing an overall PPP policy framework (Turley & Semple 2013). Political factors are an embodiment of political support, stability and good governance that are enablers of favorable legal, regulatory and institutional frameworks. In their study on PPP enabling factors in Germany, Kehl & Arnold (n.d.) established that government political support and commitment accounted for the increased use of PPP for more projects. Political will coupled with astute public management, are needed in third party settings as private sector alone cannot be given monopoly over public welfare in lieu of their private interests (Casady et al., 2017).

Political factors are mirrored by a sound public policy characterized by good governance, to avoid opposition on the part of citizens and political parties (Firmino, 2018). Carter et al., (2017)

revealed that PPPs are a tool for public infrastructure provision requiring rigorous stakeholder management, engagement and performance monitoring. Prior to PPP implementation, an iterative and multi-stakeholder process is essential to determine cost of service provision, users' ability and WTP, tariff required to achieve Return on Investment (ROI) as well as government goals (Turley & Semple, 2013). The successful implementation of PPPs necessitates a stable socio-political environment which is in turn highly dependent on the capability and stability of the government (Sehgal et al., 2015).

Economic Factors

According to Li et al.,(2005a), the successful implementation of PPPs require favourable economic conditions, policies and government support. The use of favourable economic policies oftenly fosters a stable and growing economic environment which allows for private sector participation with confidence. Additionally, stable economic environments often leads to reasonable market certainty which reduces private sector risk (Li et al., 2005b). Stable economic environments are characterised by the presence of mature financial markets with low interest rates associated with lower financing benefits. Availability of diversified range of financing that incentivizes private sector investment in PPP projects as project financing is a key component for private sector investment in public infrastructure projects (Ghazali, Rashid & Sadullah, 2017; Li et al., 2007; Sehgal et al., 2015).

Further, stable economic environments are characterized by the ability to curtail fluctuations in exchange and interest rates and are able to predict currency exchange risk, thereby fostering favorable economic systems (Ahmadabadi & Heravi 2019). Economic policies driven towards private sector participation in infrastructural development inform of government guarantees, revenue guarantee, tax reductions and holidays (Ismail, 2013) as well as government financial

subsidies and flexible concession tenure (Yescombe & Farquharson, 2018).

It is imperative to note that private participation in PPPs is largely influenced by the presence of bankable projects (Sharma, 2012). The bankability of projects is characterized by long-term demand for the products/ services offered by the project; limited competition from other projects; sufficient profitability of the project to attract investors; long-term cash flow that is attractive to the lender; and long-term availability of suppliers needed for the normal operation of the project (Zhang, 2005b).

Managerial Factors

Managerial factors denote conditions which influence the success of a PPP project at a project level (Osei-kyei & Chan, 2018). These include right project identification, detailed project planning, appropriate risk allocation, sound financial package, strong private consortium with technical strength, competence of organization staff and Transaction advisor (T.A), strong contract management and control and acceptable toll/tariff levels (Ghazali et al., 2017; Li et al., 2007; Maseko, 2014; Sehgal et al., 2015; Zhang, 2005b).

2.2.3 PPP Implementation (Success Criteria for PPP Projects)

Success criteria focuses on the parameters on which a project can be deemed or judged as successful (Osei-kyei & Chan, 2018). The relative success or failure of any project is usually measured in terms of cost, time and quality parameters usually linked to meeting these contractual parameters as specified in the contractual framework (Nallathiga, Ramakrishna ; Farhan, Sheik ; Haris, 2017). According to Osei-Kyei & Chan (2017), “there has been a gradual shift from the traditional approach of measuring project success in terms of cost, time and quality towards a mix of objective and subjective measures.” Ahmadabadi & Heravi (2019), reiterate

similar opinions that the SC in PPPs is different from that in traditional contracts due to the long-term nature of these projects, the importance of the operation stage, and the presence of a private sector consortium in infrastructure projects. The success of a PPP project depends on “reaching the predetermined objectives set by project stakeholders.” Furthermore, PPP SC is best exploited during the construction, operation and final transfer stages of a PPP project (Ahmadabadi & Heravi, 2019).

Osei-kyei & Chan (2018) evaluated fifteen success criteria derived upon the basis of the satisfaction of the main stakeholders of PPP projects in Ghana (i.e., public, private and users). These were: profitability, long term partnership relationship, satisfying the need for public facility/service, adherence to time, adherence to budget, reduced litigations and disputes, reduced public administration costs, and effective technology transfer and innovation. Others include; local economic development, environmental performance, reduced project lifecycle costs, reliable and quality service operation, meeting output specifications, effective risk management and reduced public and political protests (Osei-kyei & Chan, 2018).

2.3 Empirical Review

2.3.1 Political Factors as a critical success factor for PPP implementation in the roads sector

Since PPPs involve lengthy time frames / contractual agreements, the existence of a stable and favourable political environment establishes the private sectors’ confidence in the PPP project despite changes in subsequent governments (Firmino, 2018). Dairu & Muhammad (2016) opine that inherent political instability perpetuates policy discontinuity and may result in project abandonment, insecurity, weak governance and absence of both transparency and accountability.

Casady et al., (2017) asserts that effective PPP delivery is dependent on institutional maturity (in

terms of legal, normative and cultural-cognitive rules and processes) exhibited by robust standardized judicial practices as well as normative rules and procedures governing public and private actors' interaction. Furthermore, the principle of accountability which is a hall mark of good governance, determines the degree of successful collaboration conditioned by a network of actors and institutions within a PPPs framework (Casady et al., 2017).

As a political construct, the existence of an enabling PPP legal and regulatory framework/policy is considered both as a legislative and political factor, empowering the public sector to enable the private sector undertake investments in a PPP project by creating an enabling PPP environment (Debela, 2019). According to Ndandiko (2006), “ appropriate legal and regulatory frameworks streamline PPP set up, implementation and outcome.” Suitable legislation provides a solid foundation for PPPs against which developers can structure a contractual vehicle that is in tandem with the country's laws (Zhang & Kumaraswamy, 2001). Further, the specificity in enabling laws for a specific PPP road project (as being practiced in Hong Kong for example) largely eliminates private sector risks and concerns regarding politically derived risks, for example expropriation, nationalization as well as changes in law. Sharma (2012) in his study on PPP determinants in developing countries established that regulatory environment are important considerations.

As Hammami et al., (2006) notes, the sustainability of PPP arrangements are critically dependent on the regulatory environment harnessed by institutional independence and maturity. Hence, weak institutions foster uncertainties about legal and regulatory instruments. A well-organized public agency is therefore important in providing essential public management systems (Casady et al., 2017), as private firms cannot be exclusively relied upon to independently construct and deliver public structures (Hammami et al., 2006). Campos et al., (2018) opines that a stable

regulatory policy contributes to the consecution of rights and guarantees to partnerships which curtails political meddling from government agencies/bodies (Pongsiri, 2002 as cited in Ndandiko, 2006).

It is imperative to note that political factors are an enabler for an effective procurement process. Hardcastle et al., (2005) opines that an effective procurement process is cognizant of transparency and competitiveness throughout the procurement process. Furthermore, transparency and competitiveness in a procurement process enhances project value for money. Li et al., (2007) contends that a transparent and competitive procurement process is critical for the public entity in the procurement a PPP project. Transparency is endeared between the public and private entity, as well as their advisers; a phenomenon implying that three features are crucial for transparency: good communication between the public entity and private contractor and their advisers; the private sector openly consulting with the public sector and its adviser, while keeping responsibility for all decisions; and the private sector establishing a clear basis for making decisions (Li et al., 2007).

The public sector should institute a framework that provides an overview of the procurement process and clarify what appraisal needs to be done and what decisions should be taken at each stage of the procurement process (Zhang & Kumaraswamy, 2001). Further, competitive tendering processes should be adhered to till PPP contract award (Zhang, 2005). Tender evaluation criteria and methods should be transparent enough to ensure fair competition and to avoid criticism of sponsor selection or political favoritism which are greatly known to hinder public interest. PPPs are a tool for public infrastructure provision requiring rigorous stakeholder engagement and management as well performance monitoring (Carter et al., 2017). Prior to PPP implementation, an iterative and multi-stakeholder process is essential to determine cost of

service provision, users' ability and WTP, tariff required to achieve ROI as well as government goals (Turley & Semple, 2013). Based from the reviewed literature it can be concluded;

H1 the political factors have an influence in the implementation of PPPs.

2.3.2 Economic Factors as a critical success factor for PPP implementation in the roads sector

PPPs are intended to ease government budgetary constraints by having the private sector finance the PPP project through debt and equity financing – this explains why the availability of flexible, adequate and long-term financial markets is a CSF (Zhang, 2005b). An accessible financial market is associated with lower financing benefits and diversified range of financing that incentivizes private sector investment in PPP projects (Ghazali, Rashid & Sadullah, 2017 & Li et al., 2007).

Li et al., (2005) submits that a stable and growing economic environment brought about by the adoption of appropriate economic policies is an enabler of private sector participation with confidence. Further, a stable economic environment can also lead to reasonable market certainty which in turn reduces private sector risk. Ahmadabadi & Heravi (2019) contend that sound economic policies are characterized by the ability to deal with fluctuations in exchange/interest rates and are also able to predict currency exchange risk, thereby fostering favourable economic systems. According to Hammami et al., (2006), majority of infrastructure projects in developing countries are financed using a significant amount of foreign capital in form of loans and equity; however, debt and dividend risks devaluation. This explains why sound macroeconomic policies can substantially reduce commercial project risks and increase the private firms' profitability prospects (Sharma, 2012).

Economic factors also embody the presence of government guarantee / financial support

especially as perceived by the private sector (Ismail, 2013). Li et al., (2005) identified government guarantee as an important success factor in the early PPP stages in the UK construction industry; comprising of government involvement through provision of guarantees and multi-benefit objectives. Hence, revenue guarantees or firm committed policies from government should be in place to ensure protection of private sector investments as well as protect revenue streams.

There are a various ways in which the public sector (government) can support the private sector in PPP contracts, provided this support is justifiable on grounds of affordability, VFM and does not create public sector balance sheet problems (Yescombe & Farquharson, 2018). Such support can be in form of a robust flexible concession time frame, revenue guarantees and subsidies, partial project construction, capital grants, debt financing, pro-rata debt guarantee, debt underpinning, credit guarantee finance and equity investment (Yescombe & Farquharson, 2018).

For financially unviable projects that are otherwise economically/politically significant, the government can provide project-specific support and guarantees to make them financially viable (Zhang 2005b). Such guarantees may be in form of foreign exchange, high inflation and interest rates, tax reduction and exemptions, government equity, concession tenure extension in case of force majeure, property development rights and the use of existing facilities, and a suitable payment adjustment mechanism (Zhang, 2005b).

From the economic perspective, economic viability of a project is of paramount influence, concerned with project bankability; thus, the project's ability to generate a sustainably sufficient cashflow and yield optimal results. The bankability of infrastructure projects attracts private sector financing and is dependent on the demand for the services or products offered by the project for a long term period; minimal or no competition from other projects; project

profitability to attract investors; sustainable long-term cash flow which is attractive enough to the lender; and long-term availability of suppliers needed for normal project operations (Zhang, 2005). It can be concluded that;

H2 Economic factors have an influence on PPP implementation in the road sector.

2.3.3 Managerial Factors as a critical success factor for PPP implementation in the roads sector

Managerial factors are considered to affect PPPs at project levels as they are concerned with the project execution and management of all actual intrinsic details of the project during construction and eventual transfer of ownership (Osei-kyei & Chan, 2018). Qiao et al., (2001) established that project identification as the most influential CSF in BOT projects in China. A project suitably identified to be executed through a PPP mechanism implies that it has both a strong technical and economic rationale (PPIAF, 2009). Following his analysis on South African PPP CSF, Maseko (2014) recommended an adequate feasibility analysis on technical capability and funds availability before any PPP project implementation. A clearly structured and established national infrastructure plan enables right project selection by public authorities - that is characterized by demonstrated and accepted need for the project/facility by the public and the project being a near-monopoly in providing the public facility (Osei-kyei & Chan, 2018).

In the selection of suitable projects for delivery using the PPP scheme, the PPIAF (2009) highlighted factors such as project aims/objectives, practicality and VFM. These factors can be used to give guidance to public authorities in developing countries when selecting projects for PPP schemes. Project objectives are hinged on pertinent issues such as economic value of the facility, risks inherent the facility and environmental impact imposed due to development of the

facility. On the other hand, practicality is related to the political, legal and social issues of the facility while VFM looks at financial sustainability of the facility.

As a managerial construct, detailed project planning is pivotal in the implementation of PPP projects as it involves undertaking thorough cost-benefit analyses, clear project briefs and understanding about client requirements, and output specifications (Ghazali et al.,2017). Cost-benefit analyses defines correct expenditure parallel to profits gained while a clear project brief details client requirements and provides clear understanding on the aims and goals of the project (Ghazali et al., 2017). Output specifications on the other hand detail technical data and project design details.

According to Li et al., (2007), a strong private consortium is a CSF for PPP/PFI projects' success as established in their study on success factors for the UK construction industry. They therefore suggested that during the PFI projects' development stage, sponsors ought to strategically pay attention to the private consortia. Shi et al., (2016) provides attributes of a strong private consortium as firm's capabilities of fulfilling the contract, their financial abilities and PPP project experience. This collaborates with (Zhang, 2005a) who noted that the concessionaire should also possess strong managerial capabilities, including leading role by a key enterprise or entrepreneur, workable project organization structure, good relationship with host government, partnering skills, solid experience in international PPP project management, multidisciplinary participants, and a strong project team. Maseko (2014) also emphasized that the selection criteria for the private partner should prioritize experience and capability to deliver PPP projects.

According to Zhang (2005a), whereas government is better placed to create a favorable political and socio-economic environment for private sector participation in development of public infrastructure, the private consortia is fundamental in the successful implementation of PPP

projects. Further, significant risk realignment among multiple project participants is a key PPP attribute, in which the concessionaire undertakes more commitments and assumes much broader and deeper risks than a mere contractor. Selection of the right concessionaire is therefore critical to the success of the project, and can be achieved through a competitive tendering process (Zhang, 2005a).

Key aspects such as technical and financial strength are key critical success factors in competitive tendering for a PPP project (Tiong 1996). Technical assessment involves project design evaluation of and planned facilities in a life cycle scenario including environmental, safety and health considerations. The financial strength of the private consortia largely affects their capability to meet investments required for implementing the PPP project (Campos et al., 2018).

As a managerial factor, competence of organization staff and Transaction Advisor (T.A) is a key success factor for any PPP project. The impact of experience by key project personnel towards successful project delivery has been widely acknowledged. Węgrzyn (2016), adopted Pinto and Slevin's 1987 success factor list that emphasized the significance of recruitment, selection and training of competent personnel for PPP projects. Similar studies by Kahwajian et al., (2014) established that the lack of skilled/experienced private and public consulting organizations in Syria specializing in technical, legal and financial aspects of PPP projects were among the main problems being encountered in PPP projects in Syria.

The implementation of a successful PPP project is hinged on highly experienced professional external consulting with sensible fee agreements and reliable business conduct in regard to the public party (Kehl & Arnold n.d.). A Transaction Advisor is a person or group of persons appointed contractually by an accounting officer/authority of an institution, who has or have

appropriate skills and expertise to assist and advise the institution in regard with a PPP, including the preparation and conclusion of a PPP agreement (Public Private Partnership Manual, S.A 1999). The Transaction Advisor is a very important player in the success of a PPP undertaking and should possess professional skills and experience in areas spanning commercial project finance, project management, contract (commercial) and administrative law, insurance, PPP procurement management, as well as all technical disciplines relevant to the particular project sector.

In PPPs, a key distinct feature is the concept of risk transfer from the public sector to the private sector in circumstances in which the private party is in best position to manage the risk (Alinaitwe & Ayesiga, 2013). In PPP contractual arrangements, risk identification and allocation are key pertinent issues critical for a project success (Zhang, 2005). Explicit contractual arrangements of importance in PPP projects entail a clear statement of the contract objectives, obligations and rights of contracting parties, adequacy and clarity of plans; technical specifications, a formal dispute resolution process; motivation and incentives to the contracting parties (Chua et al. 1999).

According to Zhang (2005a), strong representation benefits all parties involved in PPP transactions. He contends that the inability to resolve legal issues had led to a number of projects' failure to reach closures. Strong and effective legal input at the beginning of the project cycle would have ameliorated partner-agency problems, and in addition, various risks can be effectively managed by allocating them to parties best able to manage them through appropriate contractual arrangements, including a concession agreement between the government and the concessionaire, and shareholder agreement, design and build contract, loan agreement, insurance agreement, supply agreement and operation agreement among others. From the review, it can be

concluded that;

H3 Managerial factors have an influence on PPP implementation.

2.4 Summary of Literature review

Studies conducted by various PPP researchers such as Li et al., (2005), Kahwajian et al., (2014); Li et al., (2007); Shi et al., (2016), Zhang (2005a) and others, centered on CSF for PPP project success in the construction industry; mainly in developed economies. Even Osei-kyei & Chan (2018), who conducted their studies in Ghana - a developing country, were focused on the general construction industry. It should be noted that the use of PPPs in road infrastructure have increased exponentially with the transport sector being the type of infrastructure with the highest number of projects delivered through PPPs (Siemiatycki, 2011); although studies against them are scanty (Cui, Liu & Hope, 2018; Ma, Li, Jin & Ke 2019). Normative literature hence forth suggests that PPPs in the road infrastructure sector have largely escaped academic research in both theory and practice, save for the few specific studies done by Ahmadabadi & Heravi (2019); Debela (2019); Shrivastava & Rao, (2011) in Iran, Ethiopia and India respectively. Sector specific PPP CSF has not been thoroughly undertaken; particularly in regard to the road construction industry. There is therefore no doubt that CSF influencing PPPs in the roads sector of a developing country (like Uganda), has not been explored; a phenomenon this research intends to explore so as to fill this knowledge gap.

Despite the significant success of the PFI projects in UK, it has also been criticized on grounds of abnormally high tendering costs, complexity in negotiation, cost restraints on innovation, and differing objectives among the project stakeholders (Hardcastle, Edwards, Akintoye & Li, 2002). Li et al., (2007) also argues that “the opportunity to adopt strategic measures to address project

success is best exploited in the early stages of a project.” However, the success of PPP projects transcends the early project phases. PPPs bundle up various project stages into a single contract that need to be explicitly managed up to the end of the project lifecycle to ensure successful project/service delivery. Similarly, there a number of CSF such as the political environment, country’s investment climate, legal and institutional frameworks, that need to be considered as they always play out throughout the project lifecycle of the PPP project.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presented the research methodology that was used during the study. It entails the research design, study population, sample size determination, sampling design and procedures, sources of data, data collection methods, data collection instruments, validity and reliability of research instruments, data collection procedure, data processing and analysis, measurement of variables, ethical consideration, and anticipated limitations of the study.

3.2 Research design

A research design details the research strategy, data collection and analysis procedure and the time frame within which the research was undertaken (Saunders, Lewis & Thornhill, 2009). A cross-sectional survey design with a mixed research approach using both quantitative and qualitative approach was adopted in this study. With a cross-sectional survey design relating to the study variables are collected from the selected sample at one specific point in time (Creswell, 2014). Kumar (2011) affirmed that the cross-sectional design is best suited to studies focusing at ascertaining the prevalence of a phenomenon, situation, attitude or issue at a specific point in time by taking a cross-section of the population. A cross-sectional survey was preferred for this study as it was relatively affordable, easier to conduct, enabled collection of data from many selected respondents within a limited time frame, and laid the groundwork for decisions about follow-up studies (Sekarana, 2000). A cross-sectional survey design helps in testing a theory, hypothesis and/or research questions on a large sample of people, and to generalize the findings where a large study sample is drawn (Tharenon, Donohue, & Coopers, 2007).

The quantitative approach was used to quantify findings on the study variables using the measures of central tendency, Pearson correlation and multiple regression analysis. Quantitative analysis techniques, particularly statistics allow for the exploration, presentation, description and examines relationships and trends with data (Saunders, 2009). Further, quantitative research was used to confirm the hypothesis from the sample of the population to the entire population. A correlation approach was employed to establish the relationship amongst the study variables. A mixed method of data collection techniques was used where both quantitative and qualitative data were collected using a survey questionnaire and structured interviews conducted to validate findings.

3.3 Study population

The study population consisted of 226 respondents who worked at specially selected institutions with PPP exposure in different capacities and sectors. The respondents were employees at either strategic or tactical levels, with specific emphasis on those employees or respondents who had been exposed to PPP projects and mechanisms in the past five years (or more years) or those who were knowledgeable about PPP projects in Uganda. The study population included; Public and private sectors, development partners, consultants and academicians on PPPs. This population category was preferred because of their exposure, knowledge and or experience with regards to PPPs. The unit of analysis were selected institutions with PPP exposure in different capacities and sectors and unit of inquiry were selected institutions with PPP exposure in different capacities and sectors.

3.4 Sample size determination

The study considered a sample size of 140 respondents based on Krejcie and Morgan (1970) sampling guidelines as detailed in table 1 below.

Table 1: Population Category and sample size

Category	Population	Sample	Sampling technique
Senior/mid-level Managers in Public sector Institutions	185	35	Stratified sampling
Owners/Directors in Private sector Companies	160	80	Stratified sampling
Development partners	10	10	Purposive sampling
Consultants	10	10	Purposive sampling
Academicians	5	5	Purposive sampling
Total	226	140	

Source: *Primary data, 2021.*

3.5 Sampling design and procedures

Non-probability sampling techniques including proportionate stratified sampling and purposive sampling were used for this study. Stratified sampling was used for dividing respondents into categories or stratus according to their specific characteristics. In this study, there were three stratum namely; Public sector, private sector and Development partners exposed to PPPs. Secondly stratified sampling was used to group managers in public sector institutions who are directly involved in the sectors where PPP implementation is currently undertaken as well as the owners or directors of private companies that tender to provide financial support toward delivery of public services. The use of stratified sampling in this study was preferred as the population from which the sample was to be drawn did not constitute a homogenous group. Therefore, as

recommended by Kothari (2004), there was need to use stratified sampling technique to obtain a representative sample by diving the population into a number of non-overlapping subpopulations or strata so that sample items can be selected from each stratum.

The study used purposive sampling that involves the researcher using own judgment or common sense regarding the participants from whom the information was collected. Thus the selection of the respondents was based on the researcher's experience with the respondents' possession of the required information on critical success factors and PPP implementation in the road sector of Uganda based on Amin (2005) guidance on purposive sampling. Purposive sampling was used for respondents such as development partners, academicians and consultants actively involved in shaping PPP policy and implementation frameworks.

3.6 Sources of data

3.6.1 Primary data

Primary data relating to the study variables were obtained using self-administered questionnaires. Primary data was used because it is accurate, reliable and gives up-to-date information about the variables being studied.

3.6.2 Secondary data

Secondary data relating to the study variables were obtained from textbooks, files, reports and journals to reinforce the results from primary data sources. Secondary data from journals were reviewed about the concept of PPP, CSF and SC.

3.7 Data Collection Methods

The study used a survey approach where both quantitative and qualitative data was collected using questionnaire and interview.

3.7.1. Questionnaire Survey Method

The questionnaire was used to collect quantifiable primary data from the selected respondents by personally delivering them to the respondents. The questionnaire was issued to all the 140 respondents in their different categories where the respondents recorded their answers within closely defined alternatives. The choice of the questionnaire was on the basis that it could collect vast amounts of data in short time with less resources (Hair, Black, Babin & Anderson, 2010). The questionnaire was also useful in collecting information on perceptions since the variables of critical success factors and intent to implement PPPs in the road sector of Uganda cannot be observed or reliably reviewed from secondary data (Amin, 2005). The question method is associated with the following benefits; absence of bias where it is used to obtain information, it is an economical method of data collection, respondent is at ease to select or fill their responses, respondents are likely to cooperate in questions that are confidential in nature, and absence of interview bias (Osang, Udaimuk, Etta, Ushie, & Offiong, 2013).

3.7.2. Interview method

An interview guide was used to enable gaining of in-depth information from the targeted respondents through forms of face to face conversations and probing of the respondent's responses to gain detailed explanations on the critical success factors that influence PPP implementation in the road sector of Uganda as suggested by Sekeran (2009). The researcher interviewed key informants from the field of consultants, academicians and development partners.

3.8 Data Collection Instruments

3.8.1 Self-administered Questionnaire

The study used a self-administered questionnaire to elicit responses. A questionnaire is an instrument comprising of written list of questions, the answers to which are recorded by respondents (Kumar, 2011). The questionnaires were closed-ended as they are much easier to statistically analyze as compared to open-ended questionnaires (Sudman & Bradburn, 1982). With a questionnaire, there is less likelihood of researcher bias in summarizing the responses. As commended by Hurmerinta-Peltomaki & Nummela (1998), the measurement items for all the study constructs were tested for validity and reliability and then edited through a pilot test process before the final survey. As part of the pilot study, the instrument was first administered to 10 purposively selected experienced PPP experts in Uganda. This was done for the purpose of guiding the study in ascertaining the direction of the responses and the degree of intensity with which the views would be held.

These were channeled into observable and measureable elements to enable the development of an index of the concept. The questionnaire sought the respondent's perception on PPP CSF and SC in the roads sector. All the measurement items in the instrument were anchored on a five-point Likert scale, ranging from 1 – 5 where '1' is perceived as 'not important' '2' is perceived as 'less important' '3' is perceived as 'some importance' 4 is perceived as 'important' and '5' is perceived as 'very important. The instrument was pretested for reliability and the Cronbach alpha values of 0.7 or above for all the study variables were acceptable as this indicated that the instrument was reliable (Nunnally, 1978).

The use of a questionnaire as an instrument of data collection was preferred in this study because it was cost effective, free from interviewer bias, and respondents had adequate time to give well

thought out responses. Besides, it was convenient for reaching out respondents who were not easily approachable (Tharenon et al., 2007; Kothari, 2004). Since they are highly structured, questionnaires are suitable for generating quantitative data from a large sample for the purpose of testing research questions (Tharenon et al., 2007).

3.8.2. Interview Guide

The interview schedule used semi structured questions focusing on areas of critical success factors and PPP implementation in the road sector (See Appendix III).

3.9 Validity and Reliability of research instruments

The measurement items were subjected to both validity and reliability tests.

3.9.1 Validity

Validity is the ability of the research instrument to measure what it is intended to measure (Kumar, 2011). The validity of the instrument was determined using content validity, criterion-related validity, and construct validity (Kothari, 2004). This is consistent with Sekaran (2000) who reiterated that a data collection instrument should be valid and able to yield similar results at all time.

Content validity was performed to establish the degree to which the measures accurately represent what they are supposed to measure (Hair et al., 2010). An exploratory factor analysis was then run and the study ensured that the items correlated and that they loaded well with each other. Factor analysis was done for questions of all variables so as to test their factor loadings. In the analysis, Varimax Rotation was run to achieve a more meaningful factor structure. The factor analysis technique facilitated the itemization of success factors into major categories. In carrying

out factor analysis, certain questions that were not explained by more than one factor (or discriminant items) were dropped from the scales and not included in subsequent analysis.

Content validity is the extent to which a measuring instrument provides adequate coverage of the study variables under study. Content validity was determined with the help of the two research supervisors who were regarded as subject experts. Content validity was also guaranteed by giving the instruments to 4 respondents who were experts and practitioners in the field of PPPs. The researcher pre-tested the instrument among a section of the intended respondents (4 experts and practitioners) and inappropriate questions that were detected were subsequently revised or removed. The Content Validity Index (CVI) was used to test for the validity of the instrument to ensure that the scale items were meaningful to the sample and that the issues that were captured were measurable. The instrument was valid since the coefficients for all the study variables exceeded the minimum acceptance value of 0.70 as recommended by Nunnally (1978). The formula for computing the CVI was as follows;

$$\text{CVI} = \frac{\text{Number of items declared valid}}{\text{Total number of items}}$$

3.9.2 Reliability

Reliability relates to the degree at which the research instrument gives consistent results a number of times when it is administered more than once at different time intervals (Sekaran, 2009). The researcher tested the internal consistency reliability of the research instrument in order to ascertain whether it consistently measured the study variables on the scales used (Nunnally, 1978). The Cronbach alpha coefficients (measures of internal consistency) of study variables (Field, 2009) were computed using SPSS version 25. The instrument was reliable since all the coefficients for the study variables were above 0.7 (Nunnally & Bernstein, 1994).

During the study, the internal consistency reliability of the research instrument was tested in order to ascertain whether it consistently measures the study variables on the scales used. Findings in table 2 revealed a Cronbach alpha coefficients of political factor variables as 0.729 which is greater than 0.7. It can therefore be concluded that the collected data for these variables is reliable. For the economic factors, the Cronbach alpha coefficients (0.712) were found to be greater than 0.7 and also the Cronbach alpha coefficients (0.805) were found to be greater than 0.7. Overall, the Cronbach alpha coefficients for all the variables were found to be 0.874 greater than 0.7 implying that there was good consistency and reliability of the data used in this study.

Table 2: Reliability of the data instruments

Critical success factors	Cronbach's Alpha	No. of Items
<i>Political factors</i>	0.729	8
<i>Economic factors</i>	0.712	8
<i>Managerial factors</i>	0.805	8
<i>Overall reliability.</i>	0.874	24

Source: Primary data

In order to determine the critical success factors of PPP projects in the roads sector, an exploratory factor analysis (EFA) was conducted. An exploratory factor analysis was preferred in this study because it allows common items to hang on a common factor.

This analysis included conducting a Kaiser-Meyer-Olkin (KMO) test for reliability assurance. The researcher tested whether the collected data was suitable to conduct factor analysis. Findings in table 3 below revealed that the resulting value of 0.760 significantly exceeded the recommended threshold of 0.5, thus indicating the justification for implementation of this

method. The realized value for Bartlett's test also showed that all conditions were met ($\chi^2 = 1058.912$; $df = 276$; $Sig. = 0.000$), which means that a certain degree of correlation that exists between the variables will enable their grouping and forming of the factors.

Table 3: Showing KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.760
Bartlett's Test of Sphericity	Approx. Chi-Square	1058.912
	df	276
	Sig.	.000

Source: Primary data

The analysis in table 4 shows the rotated factor matrix with factor loadings. The factor loadings indicate the relative importance of each statement in forming a particular factor. In other words, it is the correlation coefficient between each statement with the factor itself. For a higher correlation coefficient implies that the given statement better fits the factor. This analysis was conducted in order for the researcher to easily interpret the factors.

The first factor contained a total of four statements (Sound Financial package, Strong Private Consortium with Strong technical strength, Competence of Organization staff and Transaction Advisor (T.A) and Strong Contract Management and Control). The highest loading factor 0.705 had the statement strong contract management and control. This was closely followed by 0.607 with the statement that competence of organization staff and transaction advisor (T.A). other factor loadings were 0.556 and 0.546 with statement that strong private consortium with strong technical strength and sound financial packages respectively.

A total of three statements loaded on factor 2. These included (multi-benefit objectives, stable macro-economic indicators and fiscal concession and investment policy). The highest loading

factor 0.679 had the statement fiscal concession and investment policy. This was followed by multi-benefit objectives and stable macro-economic indicators with factor loadings of 0.611 and 0.513 respectively

The third factor contained only one factor with a 0.557 factor loading. This loading factor had the statement acceptable toll/tariff levels.

Table 4: Showing the rotated factor matrix

	Rotated Factor Matrix ^a		
	1	2	3
Political Support	.258	.286	.336
Political Stability	.384	.220	.469
Good Governance	.296	.413	-.103
Favourable Legal & Regulatory Framework	.416	.426	-.204
Effective PPP Procurement Process	.319	.297	.025
Well Organized & Committed Public agency	.171	.385	.369
Stakeholder acceptance/support	.314	.272	.127
Multi-benefit objectives	.219	.513	.270
Available Mature Financial Markets	.355	.370	.242
Fixed Low interest-rate Financing	.344	.258	.086
Sound Economic Policies	.126	.429	.241
Stable macro-economic indicators	-.009	.611	.190
Government Financial Support/Subsidies	-.030	.116	.404
Government Guarantees	.015	.059	.453
Project Economic Viability	.129	.277	.224
Fiscal Concession and Investment policy	.107	.679	.130
Right Project Identification	.392	.278	.252
Detailed project Planning	.491	.393	-.059
Appropriate Risk Allocation	.465	-.001	.476
Sound Financial package	.546	.276	.307
Strong Private Consortium with Strong technical strength	.556	.006	.305
Competence of Organization staff and Transaction Advisor (T.A)	.607	.283	.259
Strong Contract Management and Control	.705	.022	.043
Acceptable Toll/Tariff Levels	.238	.069	.557

Extraction Method: Principal Axis Factoring. Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 20 iterations.

3.10 Data Collection Procedure

The researcher obtained an introductory letter from the Kyambogo University which introduced the researcher to the respondents and the purpose of carrying out the study. The introductory letter was used to seek for permission from relevant authorities to carry out the study in their organizations/companies. Upon getting permission from relevant authorities to conduct the study, questionnaires were uploaded on a data collection software and sent to the respondents via a link on the internet which allowed for data response and online submission for preceding data analysis. Primary data obtained from the field using questionnaires were sorted, edited, summarized, coded and analyzed in order to draw conclusions and recommendations about the study variables.

3.11 Data Processing and Analysis

Quantitative data analysis

The data collected from the field were sorted, and coded. Data were then tabulated and input in the Statistical Package for Social Scientists (SPSS) version 25. Thereafter, data were checked for entry errors, missing values, presence of outliers and normality prior to the multivariate analysis. Negatively worded scale items were reverse-coded. Simple frequency runs were done so as to screen the data to identify and replace missing values using series of means value replacement method (Field 2006).

Quantitative data analysis techniques including descriptive statistics and inferential statistics were then used for analyzing the research findings. Descriptive statistics like the measures of central tendency were run so as to establish the demographic characteristics of the respondents.

The Pearson' correlation coefficient was used to establish the relationship between independent variables and the dependent variable. Inferential statistics (like multiple regression analysis) were conducted to determine variance in the dependent variable, which is explained by the independent variables. Reliability and factor analysis were performed in order to test the research data. An Exploratory Factor Analysis (EFA) was conducted to detect the factor dimensions of success of PPP projects. EFA was preferred in this study because it allowed common items to hang on a common factor and it also made it possible for the researcher to reduce items to fewer constructs which were then used for further analysis.

Qualitative Analysis

Key themes were developed from the key issues raised by the key informants and later analyzed to draw conclusions and recommendations. These were used to back up the quantitative analysis and findings.

3.12 Measurement of Variables

The variables in this study were measured based on previous scholarly works. This is in line with Okafor & Osuagwu (2006) who recommend adapting item scales from previous studies due to their wide item scale reliability and validity. Critical success factors which were the independent variable, were conceptualized as political, economic and managerial factors (Ahmadabadi & Heravi, 2019). For all the constructs in the study, the item scales were anchored on a five-point Likert scale, ranging from "5" = Strongly agree to "1" = strongly disagree. On the other hand, PPP implementation being the dependent variable were conceptualized as profitability, long term partnership relationship, satisfying the need for public facility/service, adherence to time, adherence to budget, reduced litigations and disputes, reduced public sector administrative costs,

effective technology transfers and innovation (Casady et al., 2017). Responses were anchored on a five-point Likert scale ranging from 5=very important to 1=not important.

3.13 Ethical Considerations

Ethical principles that were upheld in this study include; confidentiality, seeking consent, avoiding plagiarism, and privacy of research participants.

The researcher protected the identity and information provided by respondents so as to avoid possible victimization of respondents for disclosure of certain information which would be regarded as confidential.

The researcher avoided plagiarism by acknowledging scholarly works done by other researchers using American Psychology Association (APA) Referencing Style in an appropriate format, as required by Kyambogo University.

CHAPTER FOUR
PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

4.0 Introduction

This chapter presents and interprets findings from the data collected by use of a questionnaire (Appendix II). The chapter was presented in relation to the study objectives, literature, methodology and questionnaires.

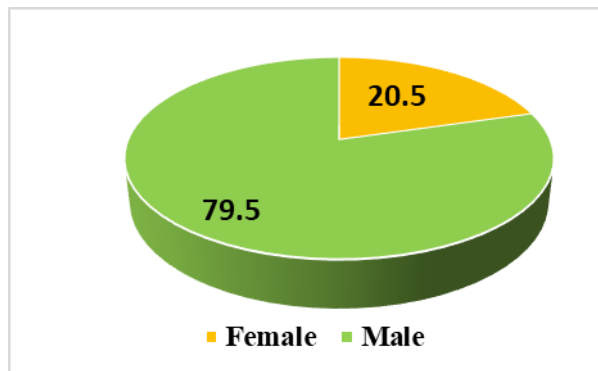
4.1. Background information.

This section consists of information that describes basic demographic characteristics of the respondents that include; gender, age category, position in entity, highest education level attained, sector and number of years of exposure to PPP projects.

4.1.1. Gender of the respondents.

During the study, a total of 132 respondents responded to the questionnaire. Figure 4.1 below revealed that of the 132 respondents, majority 79.5% (n=105) were males and only 20.5% (n=27) of the respondents were females. This implies that most employees in the companies/ sectors with exposure to PPPs projects are males.

Figure 4. 1: Showing gender of respondents



Source: Primary data

4.1.2. Age categories of respondents.

The study also revealed that majority 71.2% (n=94) of the respondents were between 25-45 years of age. Only 28.8% (n=38) of the respondents were above 45 years. This implies that companies/entities with exposure to PPPs projects embrace generational leadership.

Table 5: Showing the respondent's age categories

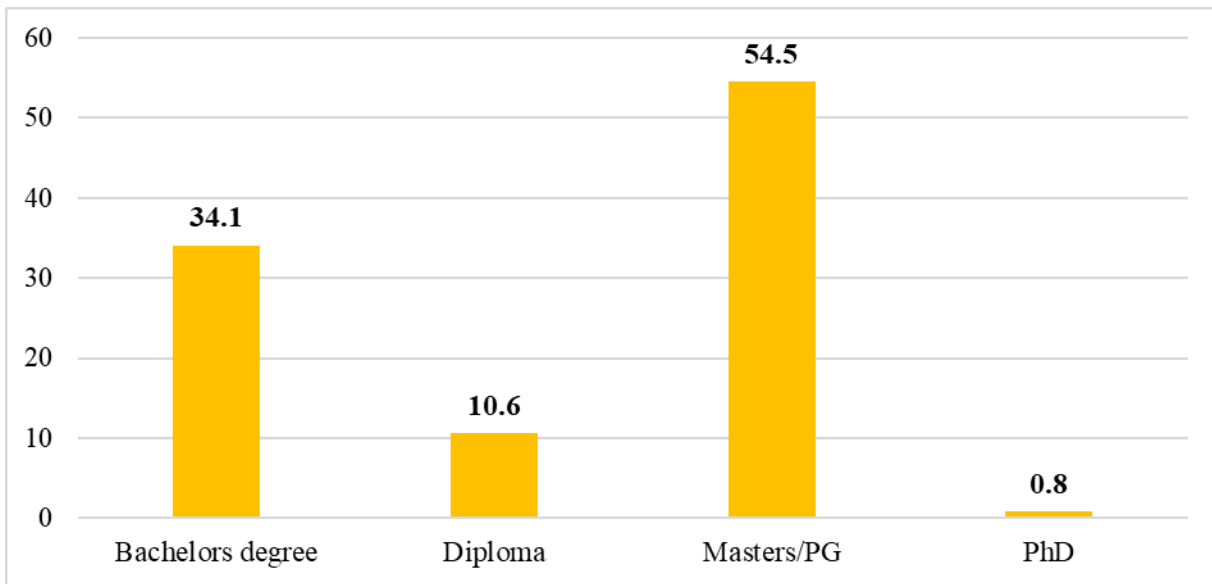
Age categories of respondents	Frequency	Percent
<i>25-35</i>	38	28.8
<i>36-45</i>	56	42.4
<i>46-50</i>	15	11.4
<i>51+</i>	23	17.4
Total	132	100.0

Source: Primary data

4.1.3. Respondent's highest level of education.

During the study, respondents were asked their highest level of education. Figure 4.2 below revealed that majority 54.5% (n=72) of the respondents had attained master's degree followed by 34.1% (n=45) of the respondents who had attained Bachelor's degree. About 10.6% (n=14) of respondents reported that they had attained diploma as their highest level of education. Only 1 person reported having attained PhD.

Figure 4. 2: Showing respondent's highest level of education



Source: Primary data

4.1.4. Respondents' position in the entity/company.

During the study, respondents were asked their positions held in their institutions or entities. From table 6, it was revealed that majority 27.3% (n=36) of the respondents held managerial positions. This was closely followed by 25.8% (n=34) of the respondents who reported that they were officers. About 20.4% (n=27) of the respondents reported that they held senior officer positions in their entities. Other positions held by the respondents in their respective entities included head of departments and directors as reported by 19.7% and 6.8% respectively as shown in table 6 below.

Table 6: Showing respondent’s positions held in their entities/ companies

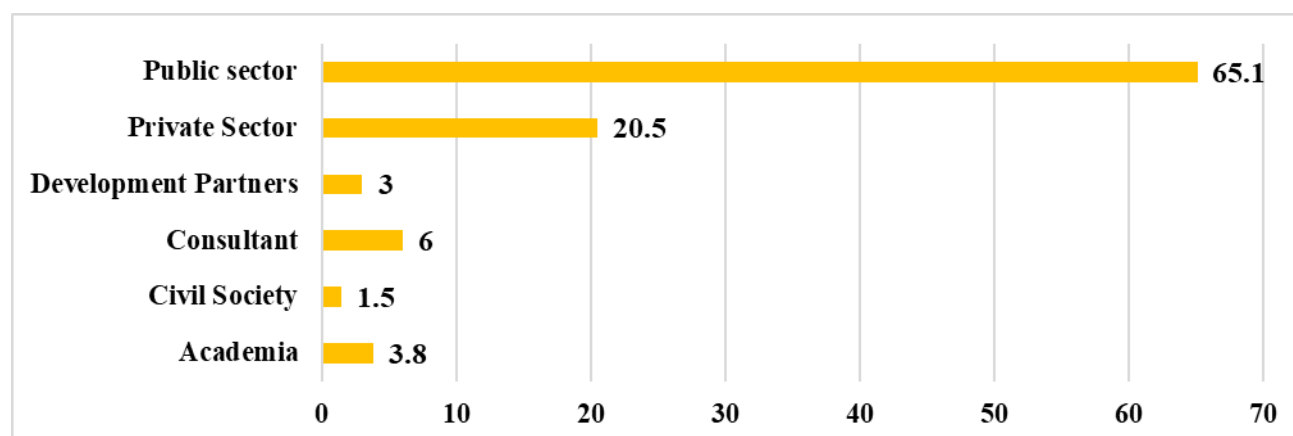
Managerial positions	Frequency	Percent
<i>Director</i>	9	6.8
<i>Head of department</i>	26	19.7
<i>Manager</i>	36	27.3
<i>Officer</i>	34	25.8
<i>Senior officer</i>	27	20.4
<i>Total</i>	132	100.0

Source: Primary data

4.1.5. Sector under which the respondents belong

During the study, the researcher wanted to know under which sector the respondents’ entity/company exposed to PPPs projects in the roads sector in Uganda belonged. From figure 4.3 below, it was established that majority 65.1% (n=86) of the respondents reported that they belong to public sector. This was followed by 20.5% (n=27) of the respondents reported that they were from the private sector. Other respondents of the study were from the academia, civil society organizations, development partners and consultants with exposure to PPPs projects.

Figure 4. 3: Showing sector under which the respondents belong



Source: Primary data

4.1.6. Number of years of exposure to PPP projects.

During the study, it was established that majority 58.3% (n=77) of the sampled respondents had less than 5 years of exposure to PPP projects. About 26.5% (n=35) of the respondents reported that they had completed 6-10 years of exposure to PPP projects and only 15.1% (n=20) of the respondents reported that they had completed more than 10 years of exposure to PPP projects. This implies that majority of the respondents did not have much experience in PPP projects in the roads sector although they had encountered PPPs in other spheres. This is attributed to the fact that PPPs are a relatively new phenomenon in Uganda and particularly in the roads sector.

Table 7: Showing number of years of exposure to PPP projects

Number of years of exposure to PPP projects	Frequency	Percent
0-5	77	58.3
6-10	35	26.5
11-15	4	3
16+	16	12.1
Total	132	100.0

Source: Primary data

4.2. Critical Success Factors

This section presents and discusses the findings on influence of critical success factors on the successful implementation of the PPP project. The section focuses on the influence of political, economic and managerial factors on the successful implementation of a road project.

4.2.1. Political factors

Political factors are an embodiment of political support, stability and good governance that are enablers of favorable legal, regulatory and institutional frameworks. During this study, the researcher sought the respondent's perception of political factors (political support, political stability, good governance, favorable legal & regulatory framework, effective PPP procurement process, well organized & committed public agency, stakeholder acceptance/support and multi-benefit objectives) on the successful implementation of PPP projects in the roads sector in Uganda. The instrument used was anchored on a five-point Likert scale, ranging from 1 – 5 where '1' was perceived as 'not important' '2' was perceived as 'less important' '3' was perceived as 'some importance' 4 was perceived as 'important' and '5' was perceived as 'very important' as shown in table 8 below. A mean result below 4.2 suggests low Political factors' influence on PPP implementation while a mean result of ≥ 4.2 suggests a high political factor's influence on PPP implementation on a particular item of the variable.

Table 8: Showing respondent’s perception on political factors on the successful implementation of PPP projects in the roads sector

Political factors		Very important	Important	Some importance	Less important	Mean
<i>Political support</i>	Freq.	64	38	25	5	4.22
	Percent	48.5	28.8	18.9	3.8	
<i>Political Stability</i>	Freq.	73	42	13	4	4.39
	Percent	55.3	31.8	9.8	3.0	
<i>Good Governance</i>	Freq.	62	57	10	3	4.35
	Percent	47.0	43.2	7.6	2.3	
<i>Favorable Legal & Regulatory Framework</i>	Freq.	54	53	20	5	4.18
	Percent	40.9	40.2	15.2	3.8	
<i>Effective PPP Procurement Process</i>	Freq.	61	43	22	6	4.20
	Percent	46.2	32.6	16.7	4.5	
<i>Well Organized & Committed Public agency.</i>	Freq.	38	59	29	6	3.98
	Percent	28.8	44.7	22.0	4.5	
<i>Stakeholder acceptance/support</i>	Freq.	55	55	17	5	4.21
	Percent	41.7	41.7	12.9	3.8	
<i>Multi-benefit objectives</i>	Freq.	29	73	25	5	3.95
	Percent	22.0	55.3	18.9		
Average mean:						4.2

Source: Primary data

Political support: During the study, respondents were asked their perception of political support on the successful implementation of PPP projects in the roads sector in Uganda. Table 8 revealed that majority 48.5% (n=64) of the respondents reported that political support is a very important factor in determining the successful implementation of PPP projects in the roads sector. In this case political support meant an increment in inclinations towards PPPs and effective address of barriers faced in the roads sectors by leaders in the executive and legislature (Parliament). Only 3.8% (n=5) of the respondents reported that political support is not an important factor in determining the successful implementation of PPP projects in the roads sector.

Political Stability: Political stability is defined as “...the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism” (Kaufmann et al., 2010; p.4). A stable political environment largely affects factors such as regulatory and macro-economic environments. Political instability may result in PPP project termination, poor governance, insecurity and lack of transparency and accountability on the part of government. During the study, respondents were asked the extent to which political stability influences the successful implementation of PPP projects in the roads sector. From table 4.4 above, it was revealed that majority 55.3% (n=73) of the respondents reported that political stability is a very important factor that influences successful implementation of PPP projects in the roads sector. This was followed by 31.8% (n=42) of the respondents who reported that political stability is an important factor in determining the success of the implementation of PPP projects in the roads sector. Only 3.0% (n=4) of the respondents reported that political stability is less important in determining the success of a PPP project in the roads sector.

Good Governance: The study revealed that 47.0% of the respondents reported that good governance is a very important factor in determining the successful implementation of a PPP project in the roads sectors. This was followed by 43.2% of the respondents who ranked good governance an important factor in the success of a PPP project in the roads sector. About 9.9% of the respondents reported that good governance is not important in the successful implementation of a PPP project in the roads sectors.

Favorable Legal & Regulatory Framework: The study further revealed that majority 81.0% of the respondents reported that favorable legal & regulatory framework is an important factor in determining the success of a PPP project in the roads sector. Only 19.0% of the respondents reported that favorable legal & regulatory framework is not an important factor in the success of a PPP project in the roads sector.

In conclusion, political stability was the most rated political factors with an influence on the successful implementation of PPP projects in the roads sector with a mean value of 4.39. This was closely followed by good Governance with mean value of 4.35, Political support with a mean value of 4.22 and Stakeholder acceptance/support with a mean value of 4.21. Political factors reported to have a less influence on the successful implementation of PPP projects in the roads sector were well organized & committed public agency with a mean value of 3.98, effective PPP procurement process with a mean of 4.20, Favorable legal and Regulatory framework with a mean of 4.18 and multi-benefit objectives with a mean value of 3.95. Items with mean scores above or equal to 4.2 implies that the respondents accorded much importance to the factors and agreed that they have an influence in PPP implementation while items that were below 4.2 implies that the respondents did not accord them much importance.

4.2.2. Influence of Political factors on the successful implementation of PPPs.

To establish the influence of political factors on the successful implementation of PPPs projects in the roads sector, a Pearson' correlation coefficient was conducted. From table 9 below, it was established that there is a moderate positive (0.512) relationship between political factors and PPP Success Criteria. The results further revealed that this relationship was statistically significant at 0.01 level of significance since the p-value (0.000) < 0.01. Thus, political factors have an influence on the on the successful implementation of PPPs projects in the roads sector implying that if the political factors are favorable, then PPP implementation would progressively be achieved.

Table 9: Showing the influence of political factors on the successful implementations of PPP projects in the roads sector

		Political factors	Successful Implementation of a PPP road project
	Pearson Correlation	.512**	.512**
Political factors	Sig. (2-tailed)	.000	.000
	N	132	132
Successful implementation of a PPP road project	Pearson Correlation		1
	Sig. (2-tailed)		
	N	132	132

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary data

4.2.3. Economic Factors.

In this study economic factors for the successful implementation of PPP projects in the roads sector included available mature financial markets, fixed low interest-rate financing, sound economic policies, stable macro-economic indicators, government financial support/Subsidies,

government guarantees, project economic viability and fiscal concession and investment policy. During the study, the researcher sought the respondent's perception of economic factors on the successful implementation of PPP projects in the roads sector in Uganda. The researcher applied descriptive statistical analysis to the sample and frequencies, percentages and arithmetic mean for each economic factor were calculated as shown in table 9 below. A mean result below 3.93 suggests low economic factors' influence on PPP implementation while a mean result of ≥ 3.93 suggests a high economic factor's influence on PPP implementation on a particular item of the variable.

Regarding the available mature financial markets, majority of the respondents 40.9% (n=54) reported that it is a very important factor in determining the successful implementation of the PPP projects in the road projects. This was followed by 32.6% (n=43) of the respondents who reported that availability of a mature financial markets is an important factor in the successful implementation of the PPP projects in the road projects. Only 3.0% (n=4) reported that availability of a mature financial markets has less importance on the successful implementation of the PPP projects in the road projects.

For fixed low interest-rate financing, about 35.6% (n=47) of the respondents reported that it is a very important factor in the successful implementation of the PPP road projects. This was closely followed by 31.1% (n=41) of the respondents who reported that it is an important factor in the successful implementation of the PPP projects in the roads. Only 3.8% of the respondents reported that fixed low interest-rate financing has less importance in the successful implementation of the PPP projects in the roads.

Table 10: Showing respondents of economic factors on the successful implementation of PPP projects in the roads sector

Economic Factors		Very important	Important	Some importance	Less important	Mean
<i>Available Mature</i>	Freq.	54	43	31	4	4.11
<i>Financial Markets</i>	Percent	40.9	32.6	23.5	3.0	
<i>Fixed Low interest-rate</i>	Freq.	47	41	39	5	3.98
<i>Financing</i>	Percent	35.6	31.1	29.5	3.8	
<i>Sound Economic</i>	Freq.	39	64	28	1	4.07
<i>Policies</i>	Percent	29.5	48.5	21.2	0.8	
<i>Stable macro-economic</i>	Freq.	26	52	37	17	3.66
<i>indicators</i>	Percent	19.7	39.4	28.0	12.9	
<i>Government Financial</i>	Freq.	41	60	29	2	4.06
<i>Support/Subsidies</i>	Percent	31.1	45.5	22.0	1.5	
<i>Government</i>	Freq.	45	54	28	5	3.71
<i>Guarantees</i>	Percent	34.1	40.9	21.2	3.8	
<i>Project Economic</i>	Freq.	43	59	24	6	4.05
<i>Viability</i>	Percent	32.6	44.7	18.2	4.5	
<i>Fiscal Concession and</i>	Freq.	18	78	31	5	3.83
<i>Investment policy</i>	Percent				3.8	
		13.6	59.1	23.5		
	Average mean				3.93	

Source: Primary data

In conclusion, availability of mature financial markets was the most rated economic factor with an influence on the successful implementation of PPP projects in the roads sector with a mean value of 4.11. This was closely followed by sound economic policies with mean value of 4.07, government financial support/subsidies with a mean value of 4.06 and project economic viability

with a mean value of 4.05. Economic factors reported to have a less influence on the successful implementation of PPP projects in the roads sector were stable macro-economic indicators with a mean value of 3.66, government guarantees and fiscal concession and investment policy with mean values of 3.71 and 3.83 respectively. Fixed low interest rate financing had a mean of 3.98 implying that items whose mean was above the average mean of 3.93 were accorded much importance as economic factors influencing PPP implementation while those items whose mean was below 3.93, the respondents did not accord them much importance as economic factors influencing PPP implementation.

4.2.4. Influence of Economic factors on the successful implementation of PPPs.

For the researcher to establish the influence of economic factors on the successful implementation of PPPs projects in the roads sector, the researcher conducted a bivariate analysis where a Pearson' correlation coefficient was conducted. The results of the Pearson' correlation coefficients are shown in table 11 below. The study findings in table 4.7, revealed that there is a strong positive (0.556) relationship between economic factors and PPP Success Criteria. The results further revealed that this relationship was statistically significant at 0.01 level of significance since the p-value (0.000) < 0.01. Thus, economic factors have an influence on the on the successful implementation of PPPs projects in the roads sector.

Table 11: Showing the influence of economic factors on the successful implementation of PPP projects in the roads sector

		Economic factors	Successful implementation of a PPP road project
Economic factors	Pearson Correlation	1	.556**
	Sig. (2-tailed)		.000
	N	132	132
Successful implementations of a PPP road project	Pearson Correlation	.556**	1
	Sig. (2-tailed)	.000	
	N	132	132

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary data

4.2.5. Managerial Factors.

In this study, managerial factors that influence the successful implementation of PPP projects in the roads sector in Uganda are an embodiment of right project identification, detailed project planning, appropriate risk allocation, sound financial package, strong private consortium with strong technical strength, competence of organization staff and transaction advisor (T.A), strong contract management and control and acceptable toll/tariff levels. The instrument was used to understand the respondents' perception on the influence of managerial factors on the successful implementation of PPP projects in the roads sector was anchored on a five-point Likert scale, ranging from 1 – 5 where '1' was perceived as 'not important' '2' was perceived as 'less important' '3' was perceived as 'some importance' 4 was perceived as 'important' and '5' was perceived as 'very important as shown in table 12 below. The researcher applied descriptive statistical analysis to the sample and frequencies, percentages and arithmetic mean for each managerial factor were calculated as shown in table 4.8 below. A mean result below 4.22 suggests low managerial factors' influence on PPP implementation while a mean result of ≥ 4.22 suggests a high managerial factor's influence on PPP implementation on a particular item of the variable.

Table 12: Showing respondent's perception of managerial factors on the successful implementation of PPP projects in the roads sector

Managerial Factors		Very important	Important	Some importance	Less important	Mean
<i>Right project identification</i>	Freq.	75	46	10	1	4.48
	Percent	56.8	34.8	7.6	0.8	
<i>Detailed project Planning</i>	Freq.	62	54	16	0	4.35
	Percent	47.0	40.9	12.1	0.0	
<i>Appropriate Risk Allocation</i>	Freq.	54	54	21	3	4.20
	Percent	40.9	40.9	15.9	2.3	
<i>Sound Financial package</i>	Freq.	51	49	25	7	4.09
	Percent	38.6	37.1	18.9	5.3	
<i>Strong Private Consortium with Strong technical strength</i>	Freq.	57	58	13	4	4.27
	Percent	43.2	43.9	9.8	3.0	
<i>Competence of Organization staff and Transaction Advisor (T.A)</i>	Freq.	48	61	21	2	4.17
	Percent	36.4	46.2	15.9	1.5	
<i>Strong Contract Management and Control</i>	Freq.	55	60	13	4	4.26
	Percent	41.7	45.5	9.8	3.0	
<i>Acceptable Toll/Tariff Levels</i>	Freq.	39	63	19	11	3.98
	Percent	29.5	47.7	14.4	8.3	
Average mean					4.22	

Source: Primary data

From the study findings in table 12 above, majority 56.8% (n=75) of the respondents reported that right project identification as a very important managerial factor in influencing the successful implementation of PPP projects in the roads sector in Uganda. This was closely followed by detailed project planning reported by 47.0% (n=62) of the respondents, strong private consortium with strong technical strength 43.2% (n=57). Further analysis revealed that important managerial factors to influence the successful implementation of PPP projects in the

roads sector included acceptable toll/tariff levels 47.7% (n=63) followed by competence of organization staff and transaction advisor (T.A) 46.2% (n=61) and strong contract management and control 45.5% (n=60). On the other hand, acceptable toll/tariff levels, at 8.3% were reported to be the least important managerial factor in determining the successful implementation of PPP projects in the roads sector.

In conclusion, right project identification was the most rated managerial factor in determining the successful implementation of PPP projects in the roads sector with a mean value of 4.48. This was closely followed by detailed project planning with mean value of 4.35, strong private consortium with strong technical strength with a mean value of 4.27 and strong contract management and control with a mean value of 4.26. Managerial factors reported to have a less influence on the successful implementation of PPP projects in the roads sector were acceptable toll/tariff with a mean value of 3.98 and sound financial package with mean values of 4.09. Appropriate risk allocation had a mean of 4.20 implying that items whose mean was above the average mean of 4.22 were according much importance compared to those below 4.22 as managerial factors influencing PPP implementation in road sector.

4.2.6. Influence of Managerial factors on the successful implementation of PPPs.

To establish the influence of managerial factors on the successful implementation of PPPs projects in the roads sector, the researcher conducted a bivariate analysis where a Pearson' correlation coefficient. The results of the Pearson' correlation coefficients are shown in table 13 below. The study findings in table 13, revealed that there is a strong positive (0.620) relationship between managerial factors and PPP implementation. The findings further revealed that this relationship was statistically significant at 0.01 level of significance since the p-value (0.000) <

0.01. Thus, managerial factors have an influence on the on the successful implementation of PPPs projects in the roads sector.

Table 13: Showing the influence of managerial factors on the successful implementation of PPP projects in the roads sector

		Managerial factors	Successful Implementations of a PPP road project
Managerial factors	Pearson Correlation	1	.620**
	Sig. (2-tailed)		.000
	N	132	132
Successful implementation of a PPP road project	Pearson Correlation	.620**	1
	Sig. (2-tailed)	.000	
	N	132	132

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary data

4.2.7. Public Private Partnership (PPP) Success Criteria.

According to Węgrzyn (2016), Success Criteria in PPP project implementation is a set of parameters on which a project can be deemed/judged as successful. In this study, Public Private Partnership (PPP) Success Criteria in the roads sector in Uganda were profitability, long term partnership relationship, satisfying the need for public facility, adherence to time, adherence to budget, reduced litigation and disputes, reduced public administration costs and effective technology. A mean result below 4.01 suggests low success criteria for PPP projects in the road sector while a mean result of ≥ 4.22 suggests a high success criterion for PPP projects in the road sector on a particular item of the variable.

Table 14: Showing success criteria for PPP projects in the roads sector

Success Criteria		Very important	Important	Some importance	Less important	Not important	Mean
<i>Profitability</i>	Freq.	40	54	23	14	1	3.89
	Percent	30.3	40.9	17.4	10.6	0.8	
<i>Long Term Partnership Relationship</i>	Freq.	41	57	27	6	1	3.99
	Percent	31.1	43.2	20.5	4.5	0.8	
<i>Satisfying the need for public facility</i>	Freq.	50	52	25	5	0	4.11
	Percent	37.9	39.4	18.9	3.8	0.0	
<i>Adherence to Time</i>	Freq.	47	52	20	13	0	4.01
	Percent	35.6	39.4	15.2	9.8	0.0	
<i>Adherence to Budget</i>	Freq.	55	49	18	8	2	4.11
	Percent	41.7	37.1	13.6	6.1	1.5	
<i>Reduced Litigation and Disputes</i>	Freq.	43	56	26	7	0	4.02
	Percent	32.6	42.4	19.7	5.3	0.0	
<i>Reduced Public Administration Costs</i>	Freq.	42	57	18	15	0	3.95
	Percent	31.8	43.2	13.6	11.4	0.0	
<i>Effective Technology</i>	Freq.	48	49	26	7	2	4.02
	Percent	36.4				1.5	
			37.1	19.7	5.3		
Average mean							4.01

Source: Primary data

From table 14 above, satisfying the need for public facility (4.11) and adherence to budget (4.11) were ranked highly by the study respondents as the success criteria for PPP projects in the roads sector. This was closely followed by reduced litigation and disputes and effective technology. The least ranked success criteria for PPP projects in the roads sector in Uganda was profitability (3.89). Long term partnership relationship had a mean of 3.99, Adherence to time had a mean of 4.01, reduced litigation and dispute had a mean of 4.02, reduced public administration costs had a mean of 3.95 and effective technology had a mean of 4.02 implying items above 4.01 were

accorded much importance than items below 4.01 in measuring success criteria for PPP project in the road sector.

4.2.8. Relationship between successful implementation of a PPP road project and managerial factors, economic factors and political factors.

During the study the researcher employed the multiple regression analysis to determine the strength of the relationship between successful implementation of a PPP road project and managerial factors, economic factors and political factors. The multiple regression was also used to form an opinion on the study hypotheses that:

1. Political factors have influence on the successful implementation of PPPs.
2. Economic factors have influence on the successful implementation of PPPs.
3. Managerial factors have influence on the successful implementation of PPPs.

From table 15 below, it was revealed that the $R^2 =$ of the model was 0.443 which implies that 44.3% of the variance in successful implementation of a PPP road project can be explained by managerial factors, economic factors and political factors.

Table 15 showing summary of the multiple regression model.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.675 ^a	.456	.443	3.029

a. Predictors: (Constant), Total score Managerial factors, Total score Economic factors, Total score Political factors

Source: Primary data

Further analysis in table 16 below, revealed that the F-statistic of the model was statistically significant at 0.05 level of significance since the p-value (0.000) < 0.05 thus we can assume that the model explains a statistically significant amount of the variance in the factors determining the successful implementation of a PPP road project. It can be concluded that managerial factors, economic factors and political factors can be used to reliably predict the successful implementation of a PPP road project.

Table 16: showing the Statistical significance of the multiple regression model

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	985.117	3	328.372	35.797	.000 ^b
	Residual	1174.179	128	9.173		
	Total	2159.295	131			

a. Dependent Variable: Total score Successful Implementation of a PPP road project

b. Predictors: (Constant), Total score Managerial factors, Total score Economic factors, Total score Political factors

Source: Primary data

Estimated model coefficients.

The general regression equation is as below;

$$\text{Success factors (Y)} = X_0 + X_1b_1 + X_2b_2 + X_3b_3 \dots \dots \dots \text{Equation 1}$$

$$\text{Success factors} = 4.687 + 0.082 \text{ Political factors} + 0.282 \text{ Economic factors} + 0.415 \text{ Managerial factors} \dots \dots \dots \text{Equation 2}$$

From equation 2 above and table 17 below, it was revealed that when the score on political factors, managerial factors and economic factors is zero, the score on success factors on the implementation of a PPP project in the roads sector in Uganda is 44.3%; keeping other factors constant. like communication, organizational structure, negotiation skills nature of relationship and compatibility between partners. These three factors contribute 44.3% variations in PPP implementation.

Further analysis from the standardized coefficient results revealed that the score of managerial factors was the strongest predictor of PPP implementation in the road sector the strongest effect with ($\beta = 0.415$) which is significant at 5% level of significance since the p-value $0.000 < 0.05$ leaving other factors constant. Therefore, the study concluded that managerial factors have an influence on the successful implementation of PPP projects in the roads sector. This implies that availability of managerial factors like appropriate risk allocation, detailed project planning, strong contract management and control, competence of the organizational staff and transaction advisor results into PPP implementation.

The study further revealed that economic factors were the second most predictors of PPP implementation in the road sector and was statistically significant at 5% level of significance since the p-value (0.000) < 0.05 with a ($\beta = 0.282$) implying that availability of a favorable economic environment in form of fixed low interest financing, project economic viability and stable macroeconomic indicators results into PPP implementation.

The study also revealed that a political factor were the least predictors of PPP implementation in the road sector p-value (0.003) < 0.05 and a ($\beta = 0.082$) implying that implying that a presence of favorable factors like political support, political stability, good governance, stakeholder support,

favorable legal and regulatory framework among others results into success of PPP implementation in terms of adherence to time, budget and reduced administration costs.

Table 17 showing the estimated multiple regression model coefficients.

Model		Coefficients ^a		t	Sig.	95.0% Confidence Interval for B	
		Unstandardized Coefficients B	Std. Error			Standardized Coefficients Beta	Lower Bound
1	(Constant)	4.687	2.735	1.714	.089	-.725	10.099
	Total score Political factors	.087	.097	.898	.003	-.105	.279
	Total score Economic factors	.330	.099	3.337	.001	.134	.526
	Total score Managerial factors	.418	.087	4.784	.000	.245	.590

a. Dependent Variable: Total score Successful Implementation of a PPP road project

4.3 Interview Findings

Views on the influence of political, economic and managerial factors for PPP implementation were sought. Four people were interviewed to reinforce the study findings. These included a Senior Engineer with Kampala Jinja Express way PPP Project, a director from UNRA, a director from MoFPED's PPP unit and a Senior Manager in the PPP unit.

4.3.1 Political Factors as a CSF in the implementation of PPPs in the roads sector

All the interviewees strongly agreed that political factors were important for PPP implementation.

Interviewee 1 pointed out that political factors are very important for the successful implementation of PPPs. She elaborated:

...political support is very important, but PPPs do not need any interference and meddling as PPP processes are very lengthy and you are dealing with funders coming to invest their money in a project. No one would invest their money in a high-risk place (politically unstable) and when they are not sure of the transparency of the process.... Political factors play a key role and if you don't have your factors in order, the chances are that you won't have a PPP and even if you do, the chances are that you won't attract the right players.

Similarly, interviewee 2, stressed that;

..... politics play a very critical in the Public Private undertakings in terms of passing relevant legislation that facilitate PPP undertakings, such as road tolling policies....

Interviewee 3 categorically said that;

..... you cannot underestimate the impact of political factors in the successful implementation a PPP project as any contracting authority would tell you that without political buy-in, a project fails during budget appropriation, project approvals from cabinet.

The mentioned interviewees' perspectives suggest that political factors are important for PPP implementation: as established by the questionnaire data. This is consistent with Ramli & Mohamed (2019) who contend that government political influence was a highly rated factor for PPP success in Malaysia.

4.3.2 Economic Factors as a CSF in the implementation of PPPs in the roads sector

Interviewee 1 ... Economic policies reduce the risk profile of the project available financial markets enable private players obtain financing that can be repaid using the local currency, which lowers cost of doing business....

Interviewee 2 asserted that; economic factors are very key for PPP project success. Factors such as interest rates and financial markets, favorable economic environment - all translate to the total cost of the project and have a bearing on tolling rate determination.

4.3.3 Managerial Factors as a CSF in the implementation of PPPs in the roads sector

Interviewee 2 Managerial factors are very critical for PPP project success because project execution is handled by the implementing agency on behalf of government you must have a highly skilled and robust staff portfolio to handle PPP road projects; a team that is able to interrogate, review and make substantial remedy or comments in view of PPP project reports – even those from the T.A - not simply relying on the T.A 100%, a team that is able to interpret whatever the T.A submits.

Interviewee 4 reiterated that Managerial factors are key as you won't be able to structure a PPP project without proper skills set.

Managerial factors are very key for PPP project implementation especially skills set and transaction advisory services for the PPP project.

CHAPTER FIVE

SUMMARY, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction.

This chapter presents the summary of the findings, conclusions drawn and recommendations of the study.

5.2. Summary of the findings.

5.2.1 The influence of political factors on the implementation of PPP road projects

The study revealed that when political factors, managerial factors and economic factors are regressed, they contribute to variation in PPP implementation in road projects in Uganda. Specifically, the findings revealed that there was a strong positive relationship between political factors and PPP implementation in the road projects and this relationship was statistically significant. Thus, political factors have an influence on the on the successful implementation of PPPs projects in the roads sector. The study also revealed that political factors were the least predictors of PPP implementation in the road sectors and also significant implying that political factors like support from policy makes is highly important if these kinds of financing mechanisms are to be used.

5.2.2 The influence of economic factors on the implementation of PPP road projects

The study also revealed that there is a strong positive relationship between economic factors and PPP Success Criteria. The results further revealed that this relationship was statistically significant. Thus, economic factors have an influence on the successful implementation of PPPs

projects in the roads sector. The study further adduced that a presence of favorable economic factors would increase in the successful implementation of a PPPs project in the roads sector keeping other factors constant. This is statistically significant thus it can be concluded that economic factors have an influence on the successful implementation of a PPPs project in the roads sector. This was the second most predictor of PPP implementation in the road sector of Uganda.

5.2.3 The influence of managerial factors on the implementation of PPP road projects

It was also reported that there is a strong positive relationship between managerial factors and PPP Success Criteria. The findings further revealed that this relationship was statistically significant. Thus, managerial factors have an influence on the on the successful implementation of PPPs projects in the roads sector. Further analysis from the standardized coefficient results revealed that the score of managerial factors has the strongest effect PPP implementation implying that presence of managerial factors would result into increase on the successful implementation of a PPPs project in the roads sector which is significant. Therefore, the study concluded that managerial factors have an influence on the successful implementation of a PPPs project in the roads sector.

5.3 Discussion of the findings

5.3.1 The influence of political factors on the implementation of PPP road projects

From the findings, political factors have an influence on the successful implementation of PPP road projects. These study findings and observations are supported by previous studies which attributed political instability as a determinant towards project implementation success (Dairu & Muhammad (2016) . Additionally, Casady et al., (2017) asserts that effective PPP delivery is dependent on institutional maturity. Political factors are mirrored by a sound public policy

characterized by good governance, to avoid opposition on the part of citizens and political parties (Firmino, 2018). Furthermore, Carter et al., (2017) revealed that PPPs are a tool for public infrastructure provision requiring rigorous stakeholder management, engagement and performance monitoring. From the study findings and related literature, the study affirms that political factors have an influence on the successful implementation of PPPs in road projects implying that the government of Uganda and policy makers should put this in consideration while planning for the implementation of PPP.

5.3.2 The influence of economic factors on the implementation of PPP road projects

Economic factors were also found to have an influence on the successful implementation of PPP road projects. These study findings were in line with Li et al., (2005) who submits that a stable and growing economic environment brought about by the adoption of appropriate economic policies is an enabler of private sector participation with confidence. Ahmadabadi & Heravi (2019) contend that sound economic policies are characterized by the ability to deal with fluctuations in exchange/interest rates and are also able to predict currency exchange risk, thereby fostering favorable economic systems. Economic factors also embody the presence of government guarantee / financial support especially as perceived by the private sector (Ismail, 2013). Therefore, economic factors as well has influence the successful implementation of PPP projects in roads. This implies that private sector investment is desirable to have implementation a success.

5.3.3 The influence of managerial factors on the implementation of PPP road projects

Lastly, managerial factors pose an influence on the implementation of PPP road projects. this is supported by previous studies for example, Osei-kyei & Chan, 2018 who noted that a clearly

structured and established national infrastructure plan enables right project selection by public authorities - that is characterized by demonstrated and accepted need for the project/facility by the public and the project being a near-monopoly in providing the public facility. Similar studies by Kahwajian et al., (2014) established that the lack of skilled/experienced private and public consulting organizations in Syria specializing in technical, legal and financial aspects of PPP projects were among the main problems being encountered in PPP projects in Syria. Maseko (2014) also emphasized that the selection criteria for the private partner should prioritize experience and capability to deliver PPP projects. based on the study findings and the reviewed literature, it's evident enough to affirm that proper management in all aspects has an influence on whether the implementation of these PPP projects in the road sector succeed or fail.

5.4. Conclusion.

This study set three hypotheses which included 1) Political factors have no influence on the successful implementation of PPPs, 2) Economic factors have no influence on the successful implementation of PPPs and 3) Managerial factors have no influence on the successful implementation of PPPs.

From the findings the researcher can conclude that political factors, economic factors and managerial factors have a significant influence on the successful implementation of Public Private Partnership projects in the roads sector in Uganda. This implies that favorable political factors are key in terms of establishing an overall PPP policy framework which influences the successful implementation of PPPs and the adoption of appropriate economic policies could lead to a stable and growing economic environment which allows private sector participation with confidence. In conclusion therefore, more emphasis should be put on the three factors that were under study because it was found out that all have an influence in the success of PPP

implementation hence favorable conditions should be put in place if implementation is to succeed.

5.5. Recommendations

The study recommends that;

There should be deliberate political will to enable institutions work without undue interference and meddling in the implementation of PPP road projects as such projects are characterized by lengthy time frames, costly investments and multilevel stakeholders' involvements. Functional institutions will facilitate right project identification, transparent procurement processes that enables selection of a strong private consortium as well as selection of a Transaction Advisor for the PPP road project; as all these factors contribute to the success of PPP road projects.

The study also recommends that to ensure the successful implementation of PPPs in the roads sector, the procurement process should result into selection of a strong private consortium with strong technical strength. The procurement process should therefore be transparently void of undue influence. Similarly, strong contract management and control should be undertaken throughout the PPP project implementation. However, strong contract management and control can only be effective if the organization staff and transaction adviser are impeccably competent in their understanding of PPP mechanisms. The study additionally should be able to inform the policy makers and stakeholders that detailed planning is key to the success of PPP projects. The PPP frameworks put in place should be key informants in project identification, planning and execution, to be an enabler of a successful PPP road project implementation as PPPs are country and sector specific.

5.6 Areas of future research

The study revealed that the R^2 of the model was 0.443 which implies that 44.3% of the variance in successful implementation of a PPP road project can be explained by managerial factors, economic factors and political factors. 56.7% of the variation is caused by other factors which were not studied. Therefore, the study recommends that other studies be conducted to establish the other factors that influence PPP implementation in the road sector.

5.7 Limitations of the study

Some respondents had reservations towards answer the questionnaire as they thought that the researcher could obtain and release confidential information about PPP projects to the public. This challenge was addressed by the researcher through assuring the respondents that the information that they would give would be treated as confidential and that they would remain anonymous through the study including in the research report.

The measurement scales that were used in the current study were adapted from previous research studies. Subsequently, the limitations that were entrenched in them likewise affected this study. However, the researcher utilized secondary data source for more explanation on the study variables.

Respondent were slow at filling in the questionnaire due to their busy work schedule, which somehow delayed the data collection exercise. The researcher attempted to resolve this challenge by sending humble reminder messages to respondents to fill the questionnaire within the duration earlier agreed upon with the researcher.

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APPENDICES

Appendix 1: The Krejcie and Morgan Table

TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN POPULATION

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: "N" is population size
 "S" is sample size.]

Krejcie, Robert V., Morgan, Daryle W., "Determining Sample Size for Research Activities", Educational and Psychological Measurement, 1970.

Appendix 2: Research Questionnaire

QUESTIONNAIRE

Dear Sir/Madam,

My name is Patricia Ajwang, a student of Kyambogo University pursuing a Master of Science in Procurement and Supply Chain Management. As a requirement for the award of this degree, I am conducting a research study on **Critical Success Factors influencing the Implementation of Public Private Partnerships (PPP) in the Roads Sector in Uganda.**

As an esteemed respondent, all information you provide will be treated with utmost confidentiality and used strictly for purposes of this academic research. At no times shall the information you provide be used against you.

The survey is aimed at identifying critical success factors influencing the implementation of Public Private Partnerships (PPPs) in Uganda’s Roads sector.

SECTION 1: Respondent’s Background Information (Tick as Appropriate)

Company/Organization name:

Gender:

Male

Female

Age Group

25-30

31-35

36-40

41-45

46-50

51 and over

Highest Level of Education

PhD

Masters/PG

Degree

Diploma

Level in Management

Director:

Head of Dept.

Manager

Senior Officer

Officer

Sector

Public Sector

Private Sector

Development Partners

Consultants

Academics

Number of years of Exposure to PPP projects

0-5 years

6-10 years

11-15 years

16 + years

SECTION 2:

Please evaluate the extent to which each of the listed Critical Success factors affects or promotes the successful implementation of PPP road projects in Uganda. Basing on a scale of 1 to 5 where ‘1’ is perceived as ‘not important’ ‘2’ is perceived as ‘less important’ ‘3’ is perceived as ‘some importance’ 4 is perceived as ‘important’ and ‘5’ is perceived as ‘very important.’

S/N	Success Factors	Rating					Definitive Narrative
POLITICAL FACTORS							
1	Political Support						Policy should increase inclinations towards PPPs and effectively address barriers faced.
		1	2	3	4	5	
2	Political Stability						A stable political environment largely affects factors such as regulatory and macro-economic environments. Political instability may result in PPP project termination, poor governance, insecurity and lack of transparency and accountability of the government.
		1	2	3	4	5	
3	Good Governance						Good governance is important for developing sound

		1	2	3	4	5	economic policy and effectiveness of public institutions to empower them administer projects.
4	Favourable Legal & Regulatory Framework						Allows a PPP project to be developed without undue legal restrictions on private sector involvement. Regulatory policy contributes to the consecution of rights and guarantees to partnerships.
		1	2	3	4	5	
5	Effective PPP Procurement Process						An effective procurement process is anchored on the principles of competition and transparency which enhances project value for money and fosters stakeholder confidence in the project.
		1	2	3	4	5	
6	Well Organized & Committed Public agency						A well-organized and committed public agency to negotiate on behalf of the public body is essential for a PPP project.
		1	2	3	4	5	
7	Stakeholder acceptance/support						Critical stakeholder management system to identify and manage issues and concerns that may impact the project. Public acceptance of the concept of private provision in terms of localized employed, economic and social development.
		1	2	3	4	5	
8	Multi-benefit objectives						PPP partners must understand and respect each other's goals. Public sector aims to reduce financial constraints & attain value for money. Private sector aims at profit generation, market penetration and diversification.
		1	2	3	4	5	

ECONOMIC FACTORS							
9	Available Mature Financial Markets						Presence of flexible and long-term project financiers with appropriate risk insurance instruments.
		1	2	3	4	5	
10	Fixed Low interest-rate Financing						Acts as a mitigant against interest-rate risk that affects project value for money and financial viability of the project.
		1	2	3	4	5	
11	Sound Economic Policies						Government adoption of economic policies to maintain a stable and growing economic environment which fosters private sector confidence e.g., fiscal policy.
		1	2	3	4	5	
12	Stable macro-economic indicators						Presence and extent of geo-political risks where the market exhibits reasonable certainty and market risk is correspondingly low, does a great deal to reduce risks for private investors. Macro-economic indicators such as purchase power parity/income levels, GDP and level of investments in the economy (local & foreign).
		1	2	3	4	5	
13	Government Financial Support/Subsidies						Government support through provision of partial capital financing, grants and tax exemptions.
		1	2	3	4	5	
14	Government Guarantees						Government guarantees tend to lower the risk taken by the concessionaire, support the cash flows of the
		1	2	3	4	5	

							concessionaire, and raise the level of confidence of investors and lenders.
15	Project Economic Viability (Split econ & fin, abilities)						Emphasizes the bankability of PPP projects. Bankability connotes the project's ability to generate a sustainably sufficient cash flow and yield optimal results.
		1	2	3	4	5	
16	Fiscal Concession and Investment policy						Use of budgetary process in line with government fiscal policy to minimize fiscal risk and ensure project affordability in consideration of government expenditure and revenue levels.
		1	2	3	4	5	
MANAGERIAL FACTORS							
17	Right Project Identification						A good PPP projects means a project is suitable and has a strong technical and economic rationale. It should be in line with the country's national development plan and/ sector specific plan.
		1	2	3	4	5	
18	Detailed project Planning						Aims to highlight all project intrinsic stages and associated costs, risks and measurable output from the inception stage to transfer of the good/service to the public sector.
		1	2	3	4	5	
19	Appropriate Risk Allocation (corner stone of PPPs)						Technical, construction, operational, financial, foreign exchange risks, force majeure. Risk allocation entails identification & allocation of risks to the party best suited/ positioned to handle, through a competitive concession
		1	2	3	4	5	

							agreement.
20	Sound Financial package						Cost of delivering the PPP project should be commensurate with private party's Return on Investment (ROI) over the PPP contractual period.
		1	2	3	4	5	
21	Strong Private Consortium with Strong technical strength						Experienced Private partners with specific PPP technical/construction experience and financial abilities so as to achieve the most favourable project results.
		1	2	3	4	5	
22	Competence of Organization staff and Transaction Advisor (T.A)						General knowledge and experience about PPP concept and mechanism. PPP Project technical, financial, insurance, procurement, and legal skills of agency staff & transaction advisor.
		1	2	3	4	5	
23	Strong Contract Management and Control – key for both the concession agreement &						Strong contract management that ensures compliance from both the public and private partners. PPP projects are inclined to be characterized by variations of scope as the project progresses, both justified and unjustified.
		1	2	3	4	5	
24	Acceptable Toll/Tariff Levels						Projects that are carried out with a PPP approach should be viable for revenue generation without excessive tariffs being applied during operation, therefore causing a public outcry which sends a negative sentiment to foreign investors.
		1	2	3	4	5	

2.2 Are there any other critical success factors you consider to be important that are not included in this questionnaire? (Please tick as appropriate; your response is highly valued).

Yes No

2.3 If Yes, please mention them.

.....
.....
.....

SECTION 3

PPP Success Criteria denote the extent of success of an implemented PPP project. To what extent do the following signify the successful implementation of a PPP road project? Basing on a scale of 1 to 5 where ‘1’ is perceived as ‘not important’ ‘2’ is perceived as ‘less important’ ‘3’ is perceived as ‘some importance’ 4 is perceived as ‘important’ and ‘5’ is perceived as ‘very important’.

S/N	Success Criteria	Rating					Definitive narrative
1	Profitability						Determination of appropriate toll/tariff level so that the private party (concessionaire) receives a reasonable ROI in line with the quality of facilities and services offered.
		1	2	3	4	5	
2	Long Term Partnership Relationship						Partnership of the public and private sector span over a lengthy time period.
		1	2	3	4	5	
3	Satisfying the need for public facility						Satisfying key interests of all stakeholders in terms of functionality, fit-for-purpose and quality.
		1	2	3	4	5	
4	Adherence to Time						PPP project completion within contractual stipulated time frame.
		1	2	3	4	5	
5	Adherence to Budget						Meeting the projected budget threshold for the PPP project.
		1	2	3	4	5	
6	Reduced Litigation and Disputes						Disputes arising from and within the public sector and private parties as well as within the latter (private consortium) should be minimal.
		1	2	3	4	5	
7	Reduced Public Administration Costs						Public sector costs on administration are arguably low/reduced due to transfer of greater risks to the private party that is able to best control them.
		1	2	3	4	5	
8	Effective Technology						New technology advanced by the project should be user friendly / easily adaptable by the users but patent protected from duplication.
		1	2	3	4	5	

3.1 Are there any other PPP road project Success Criteria that you would like to draw to this research's attention? (Please Tick as appropriate)

Yes: No:

If Yes, please mention them.

.....

SECTION 4

4.1 To what extent do PPP CSFs influence the implementation of PPP road projects in Uganda? (Please Tick as appropriate)

Large Extent:

Lesser Extent:

Thank you for your valuable responses.

Appendix 3: Interview Guide

INTERVIEW GUIDE FOR PPP SPECIFIC RESPONDENTS

Self-introduction

My name is Patricia Ajwang, a student of Master of Science in Procurement & Supply Chain Management at Kyambogo University. I am conducting a study on Critical Success Factors influencing the Implementation of PPPs in the Roads sector – A case of Uganda; as the partial requirement for the Master's degree award.

You have been selected as a respondent to provide me with your views on this study based on your experience on the subject matter. Your views will be kept and treated confidentially and at no moment will it be used against you.

1. What is your perception of Political Factors as an influential element of the successful implementation of PPPs in the roads sector?
2. Comment on the importance of stakeholder engagement and management in a PPP road project.
3. Do you perceive Economic Factors as key constructs in the successful implementation of PPPs in the roads sector?
4. What can government do to encourage private sector involvement in PPP road projects?
5. Comment on the influence of Managerial Factors as a PPP critical success factor in the roads sector.
6. PPP Success Criteria denote the extent of success of an implemented PPP project. How are you able to tell that a PPP road project has been implemented successfully?

THANK YOU FOR YOUR TIME AND PARTICPATION.