



University of Cape Town - Faculty of Engineering & the Built Environment
Department of Construction Economics and Management

IDENTIFYING FACTORS CONTRIBUTING TO THE DELAY OF PROJECT
TIMELINES IN PUBLIC- PRIVATE PARTNERSHIPS FOR HOUSING
DEVELOPMENT PROJECTS IN NAMIBIA

A minor dissertation submitted in partial fulfilment of the requirements for the degree
of Master of Science in Project Management at the University of Cape Town

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2022

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ACKNOWLEDGEMENTS

First and foremost, I would like to thank the Almighty God for the strength and wisdom through this academic journey. To my supervisor Professor Kathy Michell, I would like to express my special appreciation for all the support and guidance you provided during this research. You have been a tremendous mentor for me. To all officials from the City of Windhoek, Ministry of Finance, Development Bank of Namibia, the Build Environment Sector and Property Developers, thank you all for your contribution towards my research.

To my parents, Vincent, and Johanna Mberema, thank you for always supporting me and for all the sacrifices that you've made on my behalf. My gratitude goes to my siblings, thank you for cheering me on. To my partner Nobby Makwongwa, I would like to thank you for supporting and encouraging me throughout my academic journey. To my lovely children George and Gianna, thank you for always being my endless inspiration. "I love you guys". Finally, I would like to acknowledge all my friends and family who supported me during my academic studies, words enough cannot express my gratitude.

Philippians 4:12-13 "I know how to be brought low, and I know how to abound. In any and every circumstance, I have learned the secret of facing plenty and hunger, abundance and need. I can do all things through him who strengthens me."

DEDICATION

This paper is dedicated to my lovely children, George, and Gianna. Thank you for understanding when mommy could not be there full time because she was busy with her studies. I would further like to dedicate this thesis to my parents, Vincent, and Johanna Mberema, without whose constant support this thesis paper was not possible. I dedicate this paper to my partner Nobby Makwongwa, thank you for continuously encouraging me throughout my journey. To all my friends and family that played a significant role in my studies, this one is for you.

ABSTRACT

Public-Private Partnerships (PPPs) have recently gained widespread acceptance as a method of housing provision in several nations. The joint venture strategy is used in the majority of PPP housing development projects, which allows the local government to retain control over planning and development while utilizing the private partner's existing resources and experience. Timeliness delays in PPP projects are a typical occurrence in Namibia and around the world. The goal of this study was to identify the key factors that create delays in the timeframes of PPP housing development projects in Namibia.

The study adopts the inductive approach since the aspects of housing and Namibian context is relatively new with limited existing literature. The case study research was applied to this research using a mixed-method of quantitative and qualitative research design. Using a purposive sampling method, two officials from the local authority (CoW), two officials from the built environment professionals, and two PPP experts were selected for the interviews and ten property developers who have been involved in PPP housing development were selected and forwarded the online questionnaire where only four responded in this study. The researcher used descriptive analysis to analyse the quantitative data. By adopting semi-structured interviews, the researcher had a list of different questions for the different sectors. The researcher used thematic analysis to analyse the qualitative data.

The researcher identified 15 key factors that cause a delay in timelines of PPP housing development projects in Namibia which are namely: (1) Allocation; (2) Availability of land; (3) Funding; (4) Internal Factors from CoW/Delays from the Local Authorities; (5) Lack of Project Management; (6) No capacity; (7) Political Will/Bureaucracy; (8) Procurement; (9) Tenure ship; (10) Town Planning/Delays in Statutory Planning Approvals; (11) Understanding of PPP implementation/Lack of understanding in PPP processes; (12) Inadequate working relationships; (13) Corruption; (14) Lack of clear PPP Policies to be managed; and, (15) No streamlined processes.

According to the findings, (2) Availability of land, (4), Internal Factors from CoW/Delays from the Local Authorities and (10) Town Planning/Delays in Statutory Planning Approvals stood out as factors experienced in Namibia only. The researcher offers the

following recommendations to be explored; Central Government support, Establishment and Implementation of Project and Programme Management Office in the local authority (City of Windhoek), Project-Based Consultation and Training Workshops and finally a comprehensive investigation on PPP housing development projects delivered on time. Lastly, the study concluded six measures to mitigate delays in timelines of PPP housing development projects in Namibia. From the six mitigation measures the main ones that stood out is for the City of Windhoek to have strategies in place for forward planning of PPP projects and learn from pervious projects and for the Local Authority to reduce their involvement in projects which often lead to bureaucracy in statutory approvals.

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LIST OF ABBREVIATIONS

BOO	Build Own Operate
BOT	Build Operate Transfer
BTO	Build Transfer Operate
CoW	City of Windhoek
DBFO	Design-Build Financial Operations
DBOM	Design-Build-Operate-Maintenance
EBE	Engineering and the Built Environment
GIPF	The Government Institutions Pension Fund
GRN	Government
IMF	International Monetary Fund
ISPPP	Institutional Strengthening for Public-Private Partnership
JV	Joint Venture
LA	Local Authorities
MOF	Ministry of Finance
MURD	The Ministry of Urban and Rural Development
PPP	Public-Private Partnerships
SA	South Africa
SPV	Special Purpose Vehicle

CHAPTER ONE

INTRODUCTION AND BACKGROUND

1.1 Introduction to the Study

Many countries with resource limitations to achieve infrastructure needs depend on the Public-Private Partnerships (Thabane, 2014). Public-Private Partnership (PPP) arrangements have gained momentum in many countries and most are setting up PPP entities through the public sector to attract private sector attention in infrastructure development of which the infrastructure gaps could be funded through the PPP (BON, 2014). PPPs are important and are intended “to enhance government capacity to develop integrated solutions, facilitate creative and innovative approaches used to reduce cost and time spent to implement projects as well as transfer risks to the private partner, facilitate larger productivity and attract more sophisticated bidders to project while saving time to provide an avenue to access better skills expertise and technology” (Sanda et al., 2017 p. 36).

PPPs have been considered as one of the aspects of Namibia's expanding economic environment since its independence in 1990 (Nexus, 2020). According to the Namibian definition “*PPP is defined as a contractual arrangement between a Public Agency and a private sector, whereby the private sector performs a public function, following an output-based specification for a specified period in return for a benefit, which is normally in the form of a financial remuneration*” (MOF, 2013b p. 9).

The development of urbanization places pressures on several governments in many countries to speed up the development programs of urban infrastructure including the delivery of housing (Antono, 2009). Public housing plays an important role in both developed or developing countries during their urban development and sprawl (Liu et al., 2018). PPPs have adapted to housing provision, as the approach offers greater value for money as opposed to the traditional procurement scheme (Sanda et al., 2017). PPPs differ from the traditional procurement model by the beneficial role the private sector plays in the project, therefore the private sector is responsible for financing the development aspects and achieves certain services (Burbury, 2017).

Housing provision includes a large amount of capital investment, maintenance, and operating expenditure, which naturally requires a major budget allocation from the government or authority in control of the housing sector (Batra, 2020). Insufficient financing by the government and low participation of the private sector due to risks and low profitability are some of the many challenges faced in housing development projects (Giti et al., 2019). While the Namibian Government is committed to delivering housing, it is important that all housing role players which include both public and private sectors, development agencies, the international community, and others are expected to contribute their skills, labour, creativity, financial and other resources to meet the housing challenges in Namibia (Ministry of Regional and Local Government, 2009).

Research by Luaanda (2018) indicated that political commitment; land acquisition; interagency coordination; stakeholder communication and public sector capacity are some of the factors that influence the PPP enabling environment to ensure smooth PPP preparation, procurement, implementation, and operations in Namibia. However if not well managed, this may cause delays in project timelines or result in increases in project costs (Luaanda, 2018). This study aims to identify the key factors contributing to the delay of PPP housing development project timelines. The study will examine these key factors within the municipal council of Windhoek, Namibia.

1.2 Background of the study

Private investments in public infrastructure stretch back to the 18th century in European countries, however, the PPP approach has been widely applied since the late 1990s (Tang et al., 2010). The use of PPPs in developed countries include areas of public service providers such as education, health services, waste management, and public building, whereas developing countries with vast needs for basic infrastructure include power, water, or road sectors to survive the rapid economic growth (Alfen et al., 2009). It was since the early 1990s that most countries around the world observed some form of PPP investment in the provision of housing and urban infrastructure (Moskalyk, 2011).

The arrangements in PPP projects are that the government departments change the role of ownership and operations of infrastructure and public assets into the consumers of services from the private sector, as a result, the private sector becomes the long-term provider of services taking responsibility for the financing, feasibility study, design, construction, and operation of infrastructure and facilities (Zou et al., 2008). All PPP projects include different government departments at central and local levels and various types of participants from private sectors, with each party having its objective and interest (Zhang, 2005b).

According to Zhang (2005b), lines of authority, responsibility, and communication must be well defined among the coordinating authority, relevant governmental departments, the public client that sponsors a project, the private participants, and internal and external advisors of either public and private sectors. Moreover, the Government authorities play a vital role in creating a satisfactory social, political, legal, and economic environment and an effective institutional framework for PPPs, minimizing various risks for both public and private sectors (Zhang, 2005b).

The main objective of PPPs is to transfer tasks and responsibility for the delivery of infrastructure to the private sector, to gain efficiency, cost reliability, and financial security (Alfen et al., 2009). PPPs allow the public sector (client or consumer) and the private sector (service or facility provider) to combine their special skills to accomplish results that none of the sectors can achieve independently (Kalabamu and Lyamuya, 2017). The public sector encourages private sector investment to extend the financial burden and exploit the expertise through the procurement of major infrastructure projects since these projects are complex, highly competitive, costly, and time-consuming (Doloi, 2012).

The implementation of PPP projects improved when countries established policies, guidelines, frameworks, and board experiences to successfully realize PPP infrastructure projects (Mwakabole et al., 2019). Firstly, PPPs were only applied on a limited scale, however, today they have developed into one of the most noticeable alternative arrangements to resolve the backlog of infrastructure (Antono, 2009). PPP projects connect the gap between design, construction, and facility management roles and offer better services with lower life-cycle costs thus meeting the requirements of time and cost (Liang and Jia, 2018).

Babatunde et al. (2017) in their research highlighted that, although PPPs are increasingly being adopted, many countries' experiences have not been positive due to failure, delays, and revocation of concessions agreement that characterized its successful implementation, mostly in developing countries. The perceptions of PPPs from the public and private sector responses in the UK and overseas where that PPPs are complemented for the benefits it brings about in terms of its effect on economic development strategy and allows the government and private sectors to learn from one another (Li et al., 2005). Moreover, Bazhenkova (2016) emphasized that PPPs should be observed as a special form of government and business arrangement on the opinion “business wins if the government wins”.

However, PPPs are criticized for the controversial and problematic approach to capital development in the public sector (Li et al., 2005). Similarly, Batra (2020) criticized PPPs as being vulnerable to poor risk allocation due to the long-term nature of contracts, inadequate bidding evaluation criteria that can sometimes lead to under-investment and greater over-runs, poor contract designing, and management, or profit-sharing. Furthermore, Doloi (2012), in their research also argued that the risk related to the PPP processes is complex, due to the participation of many stakeholders, thus managing the risk in the PPP projects requires effective implementation of the main project management plan and a clear understanding of the PPP process and identification of all risks associated with the broader stakeholder through the PPP lifecycle. Therefore the efficiency in PPPs is improved when the risks of the projects are shared by both government and private sector, taking into account that each risk is transferred to the party best capable to control it (Antono, 2009).

The success of PPP projects is dependent on the relationship between organizations within the public and private sector, therefore good relationships are encouraged to avoid misunderstanding and conflict while the critical aspects of PPPs include proper political, legal, and economic environments (Tang et al., 2010). The most significant benefit achieved from the use of partnership in PPP projects is the improved relationship and communication amongst project participants (Tang et al., 2010).

Recently PPPs have gained wide acceptance as an approach for housing provision over the years in several countries however, the level of success differs from country to country due to economic, political, and cultural variations (Sanda et al., 2017). In

addition, Sulser (2018) their research also indicated that many countries differ in terms of degrees of institutional development, governance, or capacity in place. Therefore the involvement of the private sector must be custom-made to each country's specific context, likewise the PPP structure is adjusted suitably to each context (Sulser, 2018).

Giti et al. (2019), emphasized that PPPs are incorporated and recognized as the optimum alternative at present for the provision of urban housing delivery and was practiced by several countries such as Mexico, Pakistan, Egypt, India, South Africa, Bulgaria, Russia, Thailand and United Kingdom (Giti et al., 2019). According to Giti et al. (2019), the use of PPPs contributes to the capital, technology, innovation, effectiveness, efficiency, and economy in the production and development of housing units used to accommodate low-income urban households.

The public sector is responsible for undertaking the regulatory framework, creating an enabling environment, and monitoring and evaluating the housing projects development whilst also allowing the private developers to undertake the actual project development (Giti et al., 2019). According to Abdul-Aziz and Kassim (2011 p. 151), “the private developer is expected to perform all development tasks under PPP, the public sector may take on the role of the ‘regulator’, ‘enabler’, by providing the enabling environment for the private partner to step in, ‘moderator’ by balancing market incentives with community interests and ‘facilitator’ by assisting in project completion and reducing risks of the developer”.

Eggers and Startup (2006), highlighted that the most used PPP arrangement for these housing development projects is a Joint Venture (JV), which suits the local government's need to retain control over planning and development while utilizing the private partner's available resources and expertise. The PPP contracts naturally last for 5 to 10 years, after which the landowner (the government or private partner) takes ownership of the project (Eggers and Startup, 2006).

However, PPPs in housing development projects are fairly sparse with not enough empirical data available to indicate any real trend to successful PPP property (housing) development policy (Moskalyk, 2011). Therefore, the identified factors that affect the delay in timelines of PPP housing development projects remain poorly understood mainly within the context of developing countries like Namibia.

1.2.1 The Namibian Context

Namibia, officially the Republic of Namibia has a population of 2.6 Million and borders Zambia and Angola to the north, Botswana to the East, and South Africa to the south and east (Nations Online, 2022) On 21 March 1990, Namibia gained independence from South Africa. Windhoek is the capital and largest city (Nations Online, 2022). Namibia is classified as a lower to a middle-income country. The country's economy has grown at an average of 5.3% between 2010 and 2015 then entered a recession in 2016 and found it difficult to grow. Namibia has sufficient land of about 842 000 km and housing remained a critical challenge, however, the local and regional level, technical, planning, and financial capacity is limited leading to constrained delays and hinders the delivery of serviced land and housing (Ministry of Regional and Local Government, 2009). The problem of housing in Namibia remains a very complex and sensitive subject (Remmert and Ndhlovu, 2018).

In 2009, the Government of Namibia initiated its first attempt to develop the fundamentals of a proper PPP Policy. A study was developed to improve the Framework for implementing PPPs and managing associated fiscal risk upon the appointment of the International Monetary Fund (IMF) (Axis, 2013). Since 2012, Namibia has had a non-binding policy as its framework for PPPs. MacDonald and Santos (2018) in their report indicated that the Namibian government received funding from the African Development Bank for the Institutional Strengthening for Public-Private Partnership (ISPPP) project to provide capacity building, technical assistance, and advisory services to aid the Namibian Government in operating the PPP framework. *“The main focus of the projects was to fund technical assistance for pilot projects in an attempt to address some key challenges encountered by African governments procuring projects under the rapidly increasing PPP laws or frameworks”* (MacDonald and Santos, 2018 p. 1).

The Local Authorities (LA) and the private sector that request to undertake PPP arrangements are guided by the Namibian legislative and policy environment of which when adhered to contribute to successful PPP projects (Keyter, 2013b). The Public-Private Partnership Policy (PPP) of 2009, the Public-Private Partnership Act 4 of 2017, and its rules are examples of this. "The President of Namibia signed the Public-Private Partnership Act, No. 4 of 2017 into law on 9 July 2017, and it was published, by notice,

in the Government Gazette on 14 July 2017 under Article 56 of the Namibian Constitution” (MacDonald and Santos, 2018).

Local Authorities in terms of the Local Authority Act 23 of 1992 are mandated to deal with the supply of water, electricity, public spaces, and roads for its inhabitants. As more development opportunities emerge, particularly in metropolitan areas, rural-urban migration is on the rise as people look for work. This puts local governments under constant pressure to provide serviced land to their residents. In addition to the slow land delivery program, local authorities are facing huge financial constraints in trying to deliver these core services (MoF, 2016). Private investment is a necessity in ensuring adequate infrastructure investments in Namibia (MoF, 2016). Governments are not able to finance all infrastructure development requirements from budgetary resources, thus private investment is needed to help close the funding gap and further contribute by enhancing efficiencies in the infrastructure development process (Luaanda, 2018).

According to Fungai et al. (2018), the housing backlog in Namibia was estimated at 100,000 and continues to increase by 3000 yearly. The government has realized that alone they lack sufficient resources to meet the increasing demand therefore, PPPs are suggested by stakeholders in the Namibia construction industry together with the global trends (Fungai et al., 2018).

Challenges associated with housing development in Namibia can be traced back to the German and South African colonial administration and the SA Apartheid regime where government policy made certain that urban town centers were kept for white minority and public and private investments were focused on town centers (Remmert and Ndhlovu, 2018). To address this challenge many Local Authorities have turned to the use of Public-Private Partnerships (PPPs) arrangements to service land, under the pretext that local authorities lacked the financial resources to service land. In these PPPs the council (The City of Windhoek) conclude a development agreement with the private sector on the terms of sourced funding, infrastructure services to be installed to the property owned by the council, and the sale of the property to be jointly marketed/developed and sold. The PPP development projects are for the planning, design, and construction of infrastructure works and services within the Township development (Axis, 2013).

PPP projects are considered complete if the project lifecycle meets the time target, budget, quality requirements, health, safety and environment, and client satisfaction (Oyieyo, 2017). Thus the success in project delivery is measured by cost and time performance which are essentially important in the overall project (Doloi, 2012). History has shown that several openly procured contracts have been delayed and are more expensive than the original budget (Carpintero and Petersen, 2014). However, there are mixed feelings over the evidence concerning whether PPP projects avoid cost and time overruns (Carpintero and Petersen, 2014). This study, therefore, aims to identify the key factors that cause delays in project timelines of PPP housing development projects in Namibia.

1.3 Problem Area and Statement

The Public-Private Partnership approach has been experienced by most developed and developing countries with limited resources to achieve their infrastructure needs. The PPPs are complicated structures in the project cycle comprising project inception, project feasibility, project procurement, project development, and project operation (Industry, 2017). Despite some arguments from some researchers that the PPP approach should be used over the traditional procurement method as it is predicted to minimize time delays and cost overruns, there are still key factors that contribute to the delay of project timelines that need to be addressed (Carpintero and Petersen, 2014).

The factors that influence time delays differ from project to project and organization to organization (Maqsoom et al., 2019). Equally important Maqsoom et al. (2019), argued that the construction industry is allied to housing developments, and identified seven factors that influence time delays such as communication and coordination, contract management, design and documentation, financial management, skilled labour, procurement management, and site operations factors. In addition, the type of procurement process used in many projects may cause delays, resulting in many projects not meeting their project timelines (Thabane, 2014). Project delays have impacts, thus preventative measures must be taken by developing countries such as Namibia to lessen their impact (Maqsoom et al., 2019).

By determining the key factors that contribute to the delay of timelines, it is predicted that PPP consultants can formulate new measures to address these factors to improve

the time performance of PPPs in housing development projects (Thabane, 2014). Studies on PPP housing development using an empirical approach can hardly be found in Namibia. It is therefore against this background that the study attempts to fill the identified gap(s). The knowledge gained from the study will be used to improve expertise in PPP procedures to be documented and used as a reference for upcoming PPP housing development projects (Thabane, 2014).

PPP housing development projects are often delayed, which cause the timelines for the project's completion to be affected. Most property developers and built environment professionals who have been involved in PPP projects have experienced delays in their development projects. In this study, the researcher will aim to investigate the key factors that cause delays in timelines of Public-Private Partnerships for housing development projects.

Therefore, the problem statement is:

Most housing development projects are never delivered on time or according to the specified timeframe.

1.4 Research Questions

The primary research question is:

- What are the key factors that cause delays in timelines of PPP housing development projects in Namibia?

Subsidiary Questions:

- What are the most recent advances and implementations in Namibia's public-private partnership housing development projects?
- What are the implications of delays in project timelines of PPP housing development projects on the private sector?
- How can a delay in timelines of PPP housing development projects be mitigated?

1.5 Aim of the Study

This study aims to identify the factors that contribute to delays in Public-Private Partnership housing development projects in Namibia.

1.6 Research Objectives

The study adopts the following objectives to achieve its aim:

- To determine the key factors affecting delays in the timeline of PPP housing development projects in Namibia.
- To determine the recent advances and implementations in PPP housing development projects.
- To determine the impact of project delays on the private sector in Namibian PPP property housing development projects.
- To find effective strategies to reduce delays in PPP housing development projects in Namibia.

1.6 Research Proposition

The key factors that cause delays in timelines of PPP housing development projects in Namibia can be identified.

1.7 Research Methodology

A interpretivist research philosophy is adopted for this research. To this end, the following research methodology is employed:

- A critical literature review on PPPs and Housing developments was taken.
- An overarching single case study of Namibia was undertaken. In the context of the single case study, a mixed-method approach was utilized comprising:
 - Quantitative data - A questionnaire survey of property developers, involved in PPP housing development projects in Namibia. The questionnaire was emailed to respondents and comprised a mixture of both structured and unstructured questions.

- Qualitative data - Semi-structured interviews were conducted with local authorities, build environment professionals and PPP experts. This entailed one-on-one discussions between the interviewer (the researcher) and the Interviewee (the respondent).
- The quantitative data was analyzed using descriptive statistics. Thematic analysis was utilized for analyzing the qualitative data. The findings were triangulated and critically discussed in terms of the literature.
- Lastly, conclusions are drawn, and recommendations made in terms of ways to mitigate delays in timelines of PPP housing development projects in Namibia.

1.8 Significance of the study

In addition, there is limited research on land delivery. Research to date has focused mainly on infrastructure services using PPP agreements. The research is significant as it will seek to identify the factors that cause major delays in project timelines of PPP housing development projects for the private sector. In addition, the study will recommend possible solutions to deal with time management frameworks applicable to the Namibian PPP housing development industry. The study will benefit the Local Authorities and private sector both locally and foreign by broadening their awareness to improve time performance in PPP housing development projects in Namibia and many other developing countries.

1.9 Limitation

- The study is limited to previously available data on PPP property development projects.
- The target sample took long to respond to the questionnaire survey and interview and delayed the data collection process.
- Namibia has a small population; therefore, the research interview was only 6 participants and only 4 property developers' respondents to the questionnaire.

1.10 Structure of the Dissertation

The dissertation is structured into five chapters, as well as references and appendices:

Chapter One: This chapter addresses the introduction, background of the study, problem statement, research questions, aims and objectives, research proposition, research, research ethics, methodology, and delimitation and limitation.

Chapter Two: This chapter provides a theoretical and comprehensive literature review on the general understanding of Public-Private Partnerships. It also presents PPP theories, principles, and methods. The chapter also explored the housing development challenges in different country contexts including Namibia and the application of PPP housing projects in developed and developing countries which also included Namibia. Lastly, the factors that influence delays in PPP housing projects are discussed. The literature review includes several research studies, journals, conference papers, government documents, reports, thesis, and present sources.

Chapter Three: This chapter presents the research methodology, by applying the “research onion” which includes research philosophy; research approach; research strategy; research choices; time horizon; techniques and procedures. This chapter further includes the sampling technique, the validity and reliability as well as research ethics.

Chapter Four: This chapter presents the data presentation of the mixed-method approach. The data is collected through questionnaires and semi- structured interviews were findings and discussion are presented.

Chapter Five: This chapter presents the conclusions and recommendations of the study for future researchers.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides a theoretical framework for public-private partnerships as well as a complete literature assessment. PPP theories, principles, and methodologies are also presented. Namibia's legislative and policy framework for public-private partnerships, as well as the Public-Private Partnership Act of 2017, are discussed. The study's major goal is to determine the reasons that cause delays in the timeliness of PPP housing building projects in Namibia. The study also looked at housing development difficulties in several countries, including Namibia, as well as the use of PPP housing projects in both developed and developing countries.

2.2 General understanding of PPPs

2.2.1 Definition of Public-private partnerships and overview

A clear definition is required to fully understand the theory of Public-Private Partnerships (PPP). PPPs have many definitions which are available across many countries, nevertheless, all these definitions have common features or characteristics. Most countries use the term PPP which is the umbrella term to refer to public-private partnerships (Fulbright., 2019). The following are some of the PPP definitions described by several researchers:

Table 2. 1: PPP Definitions

No	Definitions of Public-Private Partnership	References
1.	<i>"The establishment of a long-term contractual partnership between public and private sector bodies where the private sector provides a significant portion of the financing, bear's significant risks and takes substantial responsibility for designing, building, financing, operating and maintaining a major public infrastructure asset under an agreed output specification".</i>	(Fulbright., 2019 p.11)
2.	PPP is a supportive attempt between the public and private sectors, with each partner having knowledge that meets the well-defined public requirements through proper sharing of resources, risks, and rewards. The PPP method is used by the government through an agreement with the private sector who pass their capital and capability to supply projects on time and within a budget; whereas the public sector's responsibility is delivering	(Blöse, 2015)

	these services to the public in ways that are beneficial and improves their quality of life.	
3.	Public-Private Partnership is understood worldwide in two ways; first, as a system of relationships between the government and business, commonly used as a tool for national, international, regional, city, municipal economic and social development and second, how government agencies and private businesses at sites of government and municipal property implement specific projects together.	(Bazhenkova, 2016)

Source: Author

There are however some contradictory definitions of PPPs that are explored. PPPs are regarded by some as anything that ranges between subcontracting public services and full privatization, while others view PPPs as a successor to privatization and others see it as a feasible alternative to privatization (Akintoye et al., 2006). The main reason why most governments use PPPs is firstly, to overcome financial constraints required for public infrastructure services and secondly, to connect efficiency and management know-how from the private sector (Akintoye et al., 2006). Furthermore, PPPs are viewed by many as a way of reassigning government duties to the private sector (Blöse, 2015). In addition, the assumptions of PPPs include, connecting flexibility, encouraging innovation, enhancing productivity, allowing better risk allocation, increasing value-for-money and improving cost-effectiveness by including the private sector in the delivery of public services (Ng and Wong, 2006).

2.2.2 PPP Project Structures

PPP projects are important instruments used to deliver vital public services, develop new assets and encourage growth in a variety of sectors and are experienced worldwide (Fulbright., 2019). The structure of a PPP project is an essential part of the partnership process; therefore, all parties must understand the PPP project structure. Many types of PPP structures exist. Figure 1 below depicts a typical PPP structure that involves the main parties comprising of Special Purpose Vehicles (SPV) which delivers the project through a project finance structure (Sulser, 2018). The structure also includes the government known as the Procuring Public Sector Authority, lenders, construction contractors and Operating and Maintenance Contractors (UNECE, 2012). When PPP frameworks are properly structured, they produce benefits to both the private and public sectors. According to Sulser (2018), the principles that support PPP structures are informative for all types of PPP contracts.

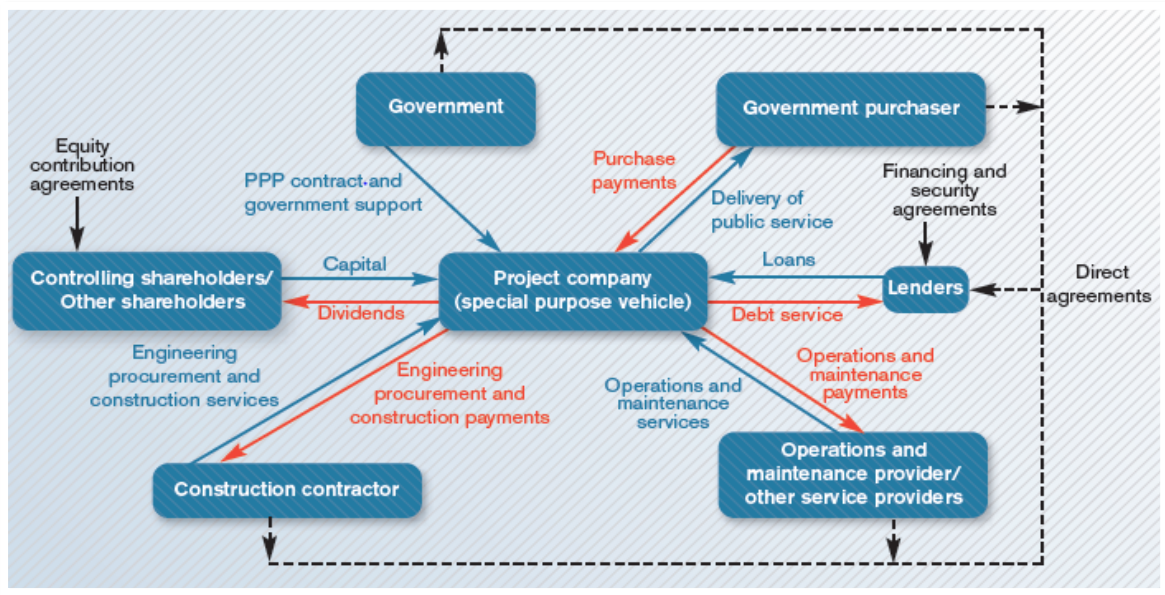


Figure 2. 1: PPP project structure, Source Sulser (2018 p.16)

2.2.3 Characteristics of PPP Infrastructure projects

Common characteristics exist in all infrastructure projects. PPP projects are characterized by the following features; the infrastructure projects are normally lengthy and include technical, legal, political and economic risks, extended payback periods, high gearing and negative returns in early years; the public authorities familiarize extreme competition, regulation and control in fear of monopolies; the levels of community involvement and accountability are high, including political pressures which are likely to interfere with the finance, management and procurement of projects, this is due to the importance of infrastructure to the public and services quality delivered by the private sector (Ng and Loosemore, 2007).

2.2.4 Types of PPP Models

There are several types of PPP arrangements worldwide. The majority of them operate the same and the name varies depending on the country it is used in, however differences in the approach can also be seen in some cases (Cheung, 2009). The

Namibian Public-Private Partnership (PPP) Guidance Manual by The Ministry of Finance MOF (2013a), has identified the various forms of PPP arrangements to be used by line/project agencies when making PPP- based decisions. Below is a detailed description of most of them.

Table 2. 2: Types of PPP Models

Model	Description
Management Contract	The management and maintenance of a public facility, as well as some specific services, are outsourced out to the private sector, with little or no capital expenditure necessary on the part of the private sector.
Management Contract (with rehabilitation/expansion)	In addition to the operation and management of a public facility, the private sector is required to make limited investments in its rehabilitation or expansion.
Build Lease Transfer (BLT) or Build-Own-Lease-Transfer (BOLT)	It entails building a public facility, leasing it to the public agency, and then shifting the public facility after the investment has been recovered.
Build-Transfer-Lease (BTL)	The private sector provides public services and collects user fees; as a result, a public facility's constructed building is given to the public agency and leased back.
Design-build-operate (DBO)	Design, building, management, and maintenance are all covered by the private sector's financing responsibilities.
Build-operate-transfer (BOT)/Design-Build-Finance-Operate-Transfer (DBFOT)	Design, finance, building, management, and maintenance are all handled by the private sector.
Build-operate-transfer (BOT) Annuity	The private sector is responsible for the design, financing, construction, management, and maintenance, while the Public Agency pays the private sector an income revenue or a unitary charge.
Build-own-operate-transfer (BOOT) or Design-build-own-operate-transfer (DBOOT)	The private sector is responsible for design, building, management, maintenance, ownership, and transfer.
Build-own-operate (BOO)	The private sector owns and is responsible for the supply of the public service/facility.
Build-transfer-operate (BTO)	The Line Agency contracts out an infrastructure project to the private sector on a turn-key basis, assuming cost overruns, delays, and specified performance risks. Once the project is completed, the private sector is permitted to run the facility and charge user fees.

Source: (MOF, 2013a p. 11)

Iwegbuna (2019), in their research, identified other PPP models, namely: Joint Ventures (JVs) which entail an agreement between the private and public sector to finance own and operate a facility jointly and is known as a shareholder arrangement;

and Leasing which is an agreement where the private sector operates and maintains the assets, while the public sector (government) keep ownership of the asset.

2.3 The Implementations of PPPs

Before the actual procurement process begins, the Project Director/ Manager and project team or a new project implementation set-up may need to be established, depending on the size, nature and complexities involved in project implementation (ESCAP, 2011). The public and private sectors of the project both contribute to the complete development of the project. During the implementation of projects, the government develops its main function-control, regulation, and compliance with the public interest. Moreover, the interest of the business is in maximizing profits from the sale of projects, provided by the state, whereas the private sector leans towards increasing productivity and innovation (Bazhenkova, 2016). Below is a detailed Project Implementation highlighting the different stages and steps (Ndandiko and Ibanda, 2013).

Table 2. 3: The Detailed Project Implementation highlighting the different stages and steps.

Project Implementation	
Stage 1: Contract Management	
Steps	Key Tasks
Attribute management responsibilities	<ul style="list-style-type: none"> ○ Set up the project management team ○ Develop a contract administration manual
Monitor and manage project delivery and service outputs	<ul style="list-style-type: none"> ○ Define timeline and responsibility for tasks ○ Monitor PPP project operational and financial performance
Manage changes permitted in the PPP contract	<ul style="list-style-type: none"> ○ Implement routine changes permitted in the PPP contract
Manage changes not provided for in the PPP contract	<ul style="list-style-type: none"> ○ Accept/reject extraordinary changes to the PPP contract

	<ul style="list-style-type: none"> ○ Implement protocols related to contingency plans
Dispute resolutions	<ul style="list-style-type: none"> ○ Choice of appropriate the forum ○ Dispute resolution solution/decision
When the contracts end	<ul style="list-style-type: none"> ○ Monitor residual value of the PPP assets at critical stages ○ Replace nonperforming parties ○ Make compensation payments
Stage 2: PPP Contract and Financial Close	
Steps	Key Tasks
Define Institutional Framework	<ul style="list-style-type: none"> ○ Set up a reviewing body ○ Formalize the evaluation objectives
Develop analytical framework	<ul style="list-style-type: none"> ○ Define evaluation criteria ○ Produce evaluation report

Source: (Ndandiko and Ibanda, 2013 p. 67)

2.3.1 Contract Management

Contract management is a critical component of PPP project administration, and it must be in place from the start to ensure a project's prompt completion and satisfactory operation (Ndandiko and Ibanda, 2013).

a) **Management Responsibilities**

Following the signing of the PPP contract, the local government normally assigns contract management responsibilities to a contract management team. (Ndandiko and Ibanda, 2013).

b) **Partnership management**

The success of the PPP project depends on the relationship management between the private and public sectors over the long contract term. The main factors contributing to a successful relationship includes mutual understanding, open communication and information sharing and recognition of mutual objectives (Ndandiko and Ibanda, 2013).

c) **Manage changes permitted in the PPP contract**

The PPP contract specifies the procedures and processes that can be used to agree on and implement contract amendments (Ndandiko and Ibanda, 2013). However, not all logistical or administrative actions that must be addressed to agree on or implement allowed changes may be described (Ndandiko and Ibanda, 2013). Because of the intricacy of the adjustments permissible under the PPP contract, they must be agreed at a senior level, according to (Ndandiko and Ibanda, 2013). These include "major changes in output parameters, refinancing, or the repercussions of a change in the law."(Ndandiko and Ibanda, 2013 p.71)

d) **Manage changes not provided for in the PPP contract**

Due to the extended duration of PPP contracts, unanticipated changes in contractual specifications (during construction or operation) are usual(Ndandiko; and Ibanda, 2013). Ndandiko; and Ibanda (2013 p.71), stressed the importance of the contract management team addressing these issues and striking a satisfactory balance between "encouraging the PPP Company to manage its risks; and preventing poor performance by the PPP Company from jeopardizing the PPP contract's viability."

e) **Dispute resolution**

The legal framework for dispute resolution is an important concern in the implementation of PPP projects. When both the commercial and public sectors are certain that any issues between them will be resolved fairly and efficiently, they are more likely to participate in PPP projects (Ndandiko and Ibanda, 2013).

f) **PPP Contract Termination**

Specific termination clauses must be included in all PPP contracts. These key issues include: the circumstances under which a party may terminate the contract before its scheduled expiration; any payment that the Authority is required to make to the PPP Company upon termination; and the condition of the assets when they are "handed over" to the Local Government following termination (Ndandiko and Ibanda, 2013).(Ndandiko and Ibanda, 2013).

2.3.2 PPP Contract and Financial Close

a) Define the Institutional Framework

Annual evaluations are necessary because they provide more information about operational performance and the achievement of desired value for money (Ndandiko and Ibanda, 2013). The local government is responsible for ensuring that the assessment body is separate from the teams in charge of delivering and implementing the PPP project that is being evaluated (Ndandiko and Ibanda, 2013).

b) Develop an Analytical Framework

The type of analytical framework that is appropriate for achieving the study's goals is determined as soon as the tasks are allocated and the evaluation study's goal is established. A well-designed PPP contract should give adequate information, collected throughout the monitoring phase, to facilitate this evaluation exercise (Ndandiko and Ibanda, 2013).

2.3.3 Principles for PPP Implementation

The governments have displayed an extensive amount of interest in PPPs, however, the system experienced weakness in its implementation (Abdel Aziz, 2007). Abdel Aziz (2007 p.920), their research, analyzed the United Kingdom and British Colombia's PPP program structure and identified important principles used in characterizing the implementation of PPPs at the program level. See the following principles:

- i. The availability of PPP institutional/legal framework.
- ii. The availability of PPP policy and implementation units.
- iii. The perception of private finance objectives.
- iv. The perception of risk allocation and contractor's compensation.
- v. The perception of value-for-money.
- vi. The process of transparency and disclosure in PPPs.
- vii. The standardization of PPP procedures and contracts; and
- viii. The performance specifications and method specifications.

According to Abdel Aziz (2007), these principles are important and may well be assumed according to the similarities in the achievement of the business goal; the goal is the implementation of PPP.

2.3.4 Implementation issues

There are implementation issues identified by the project team that must be resolved, either in advance of the official start date or during the construction period of the project. It is the responsibility of the project team to ensure that the implementation difficulties are resolved whenever they arise (ESCAP, 2011).

The broad difficulties a project may face are discussed below.

a) *Administrative*

Land acquisition, utility relocation, a lack of coordination between government departments, a lack of clear rules, an undefined process, and a lack of control over the speed with which government departments make decisions that may require approval or agreement are among the administrative challenges faced (ESCAP, 2011).

b) *Social*

Local groups may be concerned about the project or certain aspects of it, resulting in social challenges. As a result, the preparation and implementation of social and environmental components of a large project demand special attention (ESCAP, 2011).

c) *Legal*

Different interpretations of tender conditions, violations of environmental and other regulations, and consumer complaints are among the legal issues. This is something that the project team should be capable of handling (ESCAP, 2011).

d) *Supply of materials for project construction*

Some of the challenges the project may face include obtaining the appropriate building supplies in a timely manner owing to a supply shortage, price increases, and delays in the change of standards and specifications (ESCAP, 2011).

2.4 Risks in PPPs

Risks are inherent in all PPP and other infrastructure projects, and they develop as a result of uncertain future outcomes, which can have a direct impact on the provision of project services and the project's commercial viability. (ESCAP, 2011). Nnamani (2017 p.2) define project risk as an *“uncertain event or condition that, if it occurs, has a positive or negative effect on one or more project objectives such as scope, schedule, cost, and quality”*. During the project implementation process, the different types of risks need to be carefully anticipated and managed, as PPP projects are perceived to be long and have uncertainties (Chigumira; et al., 2016). Moreover, it is important that risks are mitigated and properly managed as the amount of risk control determines the success or failure of PPP projects (Iwegbuna, 2019). In addition, research by Nnamani (2017), also highlighted that if risks and uncertainty are not well managed, they could harm development projects which in turn affects the time, cost, and quality of projects with the associated economic, social, and environmental consequences.

One of the main objectives required for PPP projects is the ability for PPP project participants to classify, evaluate and distribute the risks that each of them can remove (Bazhenkova, 2016). ESCAP (2011), emphasized that the core of a PPP design lies in the risk allocation to parties in the contract and the management of risks. The public sector prefers to transfer as many risks as possible to the private sector, however, the PPPs main objective is not to transfer all risks to the private sector but simply allocating some to the party best suitable to manage it (Iwegbuna, 2019). Similarly Chigumira; et al. (2016), also argued that the PPP project success depends largely on transferring risk to a party suitable to manage or minimize it. Moreover, PPPs require appropriate allocation and management of risks and should not simply be considered as a vehicle for governments to develop infrastructure projects by transferring risks to the private sector detaching off all their responsibilities (Zhang, 2005a).

2.4.1 The Risk Management Process

Risk management is accepted throughout the entire project life cycle and is expected to solve problems of identifying and maintaining risks, preventing their occurrence and additionally mitigating them to benefit the project (Bazhenkova, 2016). According to

(Nnamani, 2017 p.3),” *risk management is a systematic approach to setting the best course of action under uncertainty by identifying, assessing, understanding, acting on and communicating risk issues*”. The risk management process includes all organizational regulations and procedures for the identification, analysis, assessment and control of all potential risks in addition to the control and supervision of the profitability and efficiency of any measure taken (Nnamani, 2017).

There are five stages that risk management goes through. These are depicted in

Figure 2 below.

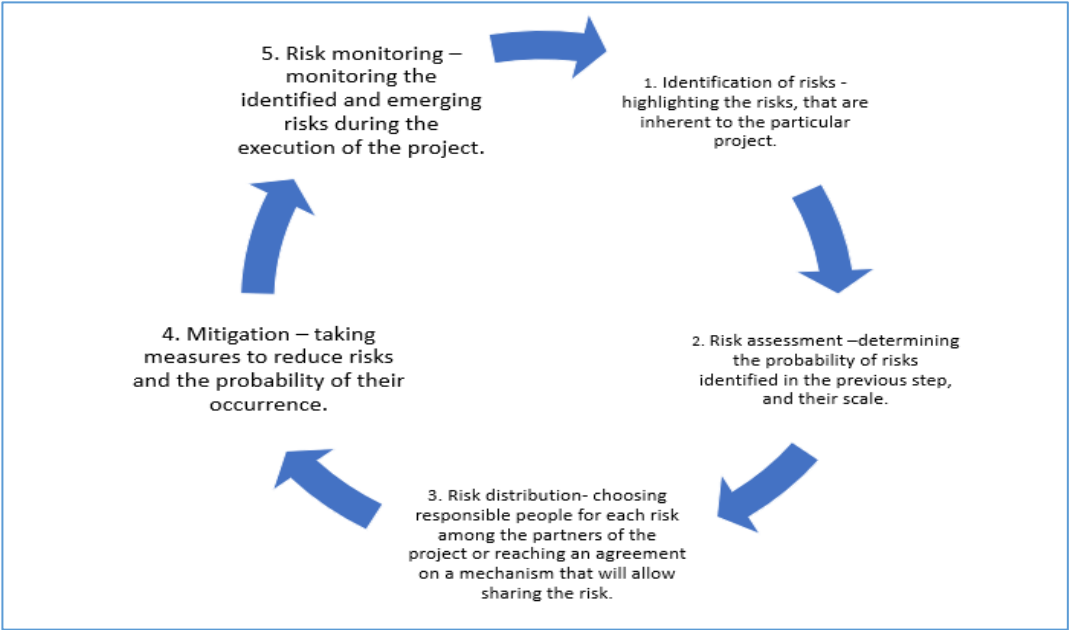


Figure 2. 2: The five stages of risk management, Source (Bazhenkova, 2016 p.24)

2.4.2 Risk Identification

To begin the risk management process, the risks in a PPP project must be identified and understood, which is the first stage (Devan, 2005). The life cycle of projects can experience various kinds of risks involved in PPPs which may develop at different stages (Zhang, 2005a). Contractual arrangements give instructions on the type and content of the contract, therefore the identification and allocation of risks are important subjects in all contractual agreements (Zhang, 2005a). Devan (2005) further points out that successful PPP participants examine risks in the different phases of their projects

which includes conception, inception, design, construction, commissioning, operations, and termination.

The table below identifies and describes the different types of risks found in the PPP life cycle.

Table 2. 4: Provides a summary of risk factors related to PPP project lifecycles. Source: (Farlam, 2005 p. 41)

<i>Risk</i>	<i>Explanation</i>
Completion risk	The possibility that a project's construction or installation will be delayed, with additional cost or other implications.
Cost overrun risk	The possibility is that during the design and construction phase, the actual project costs will exceed projected costs.
Design risk	The possibility is that the private party's design may not achieve the required specifications.
Exchange rate/forex risk	The possibility that exchanges rate fluctuations will impact the costs of imported inputs or the project's debt or equity.
Force majeure	The occurrence of certain unexpected events that are beyond the control of the parties, whether natural or man-made, affects the project.
Interest rate	Fluctuations in the rate at which the project borrows money.
Market/demand risk	The demand for the services generated may be less than projected.
Operating risk	Factors other than Force Majeure such as projected operating expenditure, skills requirements, labour disputes, and employee fraud.
Political risk	Unforeseeable conduct by a government institution materially and adversely affects the expected return on equity, debt service or costs of the project. This includes expropriation and nationalization.
Regulatory risk	Consents required from government authorities, or an independent regulatory agency are not obtained or result in additional costs
Utility risk	The utilities (water. electricity, gas) for the project are not available.

These dangers may be divided into various sub-categories. A risk matrix, which is a useful tool in risk management, is created to display all of the identified primary categories of hazards, as well as their sub-categories and probability of occurrence, across the project's expected contract duration (ESCAP, 2011). The remaining stages of the risk management process are not discussed as they are not relevant for the study.

2.5 The Advantages and Disadvantages of Public-Private Partnerships

The main objective of the implementation of PPPs is the improvement of service delivery, however, some negative implications of embarking on PPP projects have been highlighted by some researchers (Iwegbuna, 2019). Additionally Iwegbuna (2019), also indicated the importance of the feasibility of a PPP project to determine the opportunities and threats that its implementation may bring. The advantages and disadvantages that influence PPPs are considered below.

2.5.1 The Advantages of Public-Private Partnerships

a) Resources

The public sector combines resources with the private sector, this kind of partnership benefits the government agencies to carry out projects of which they have the absence of resources to complete the task (Iwegbuna, 2019).

b) Effectiveness and efficiency

The efficiency and effectiveness of the project are improved because the private sector brings expertise, advanced technology, and different management styles to partnerships. Thus resulting in cost-effectiveness and increased output (Iwegbuna, 2019).

c) Legitimacy

The legitimacy for policies in partnerships is greater because of the involvement of local communities in service delivery. Additionally, democratic legitimacy for PPPs

exists because of the provision of resources and constitutional authority by local authorities (Iwegbuna, 2019).

d) Value for money

The management style and expertise from the private sector can bring a commercial approach to public projects, which may result in cost-effectiveness and a value for money outcome. Furthermore greater returns are received from value for money projects, compared to similar projects procured conventionally (Iwegbuna, 2019).

e) Speedy delivery

In PPP projects there is a reduced amount of government bureaucratic processes, which is enhanced by the profit-making requirements of the private sector, by this means, results are delivered on time. This may result in economic growth, and increased tax income for the government (Iwegbuna, 2019).

f) Trustworthiness

The private sectors carry the risks of cost overruns and delayed completion, thus resulting in PPP projects being completed within limited time and budget. Thus, effective management is promoted by the contractual commitments which include incentives and penalties (Iwegbuna, 2019).

g) Transfer and sharing expertise and technology

New expertise and international institutions, and the encouragement and sharing of knowledge are some of the factors that PPP engagements offer. These are all subject to the level of the relationship in partnerships set against the contractual agreements; and the ability of the government agency to engage the new expertise and technology. Consequently, there is a promotion in the transfer of expertise and technology (Iwegbuna, 2019).

g) Training

The public and private sectors exchange experience and expertise on PPP projects, therefore creating opportunities in training. Costs are saved, hence the international

partners transfer knowledge to local staff, which improves the performance (Iwegbuna, 2019).

h) **Development of new business sectors**

New business opportunities have been created as an outcome of the implementation of PPPs (Iwegbuna, 2019).

2.5.2 The Disadvantages of Public-Private Partnerships

a) **Goals**

When partnerships are developed incorrectly, it may lead to failure because the goals of the projects are not openly identified. Misunderstanding and lack of coordination and conflicts arise when the goals are too broad (Iwegbuna, 2019).

b) **Performance enforcement**

At times managing the performance in PPP projects can be a problem, and this may harm customer relations (Iwegbuna, 2019).

c) **Resource costs**

There are heavy costs involved in the establishment of partnerships before any deal is settled, due to loss in time (Iwegbuna, 2019). According to Chigumira; et al. (2016), the transaction costs are high because the PPP tender process is longer and usually more complex compared to the procedures involved in traditional public procurement contracts.

d) **Unequal power**

Both the public and private sectors may want to control resources which leads to tension between the partners in the attempt to changes the priorities of both parties (Iwegbuna, 2019).

e) **Mitigating Risk**

Once projects become more complex and involve many people, the higher and more varied the risk develops. Some risks may be unforeseen and difficult to mitigate, even

though some structured PPP manages risk through well-defined contractual agreements (Moskalyk, 2011).

f) Rigidities in Long-Term Contract

The long-term contractual nature of PPP procurement is a key concern it limits the public sector ability to make changes to the contract if unforeseen economic or situational challenges arise (Moskalyk, 2011).

g) Loss of Accountability

The partnership of the public and private sector is governed by a complex web of contracts with extended responsibilities over them, therefore if they are not clearly defined, contracts can overlap roles and responsibilities and shadow the lines of accountability for public taxpayers (Moskalyk, 2011).

h) Reduced Control of Public Assets

The private sector inherits a substantial portion of the project risks, causing important decisions over the outcomes to be shared with that partner. Consequently, public control over important decisions concerning a range of public issues is lost (Moskalyk, 2011).

i) Corruption

PPP projects are always exposed to the risk of corruption, due to the involvement of a large number of people and long series of processes (Gupta, 2017).

i) Political and Legal Problems

Changing governments may cause an inequality in the political and legal environment or major changes in the law, which has an impact on ongoing PPP projects (Gupta, 2017).

2.6 The legislative and policy framework for Public-Private Partnerships in Namibia

Keyter (2013a) in their article state that the Namibian legislative and policy environment serves as a guide to local authorities and private operators who intend to

venture into a PPP arrangement. Furthermore, it makes provision for the instruments to be considered amongst the partners. The decision-makers in any PPP project need to ensure that the legislative and policy framework which improve service delivery through PPPs are in place before any PPP project can be implemented (Keyter, 2013a). According to Keyter (2013a), when the legislative and policy requirements are followed, this contributes largely to the success of a PPP.

2.6.1 Policy and Institutional Framework for Public-Private Partnerships

2.6.1.1 *Namibia Public-Private Partnership (PPP) Policy*

Entering into PPPs carries a number of dangers. As a result, these threats are identified and mitigated by establishing a formal PPP Framework and a specialized PPP unit with the relevant skills and experience (Ministry of Trade and Industry, 2017).

Namibia Public-Private Partnerships Policy from Ministry of Trade and Industry (2017 p.5), documents that “the PPP Policy proposes to develop PPP Regulations for Namibia to govern Government’s partnership with the private sector”. The PPP Policy may also recommend that the Ministry of Finance form a PPP Committee and PPP Unit with the authority and experience to determine whether PPP is the best procurement option for the government and, if so, to assist Line Agencies in completing the project (Ministry of Trade and Industry, 2017).

The Namibia Public-Private Partnership Policy (Ministry of Trade and Industry, 2017 p. 17-18) has the following objectives:

- ix. “Encourage private sector investment in infrastructure and other projects/services where value for money can be effectively demonstrated”.
- x. “Encourage innovation in the provision of infrastructure and other projects/services”.
- xi. “Ensure rigorous oversight and governance on the projects to be selected for PPP, thus ensuring competition for the awarding of contracts”.
- xii. “Provide the principles, framework and guiding procedures that will assist agencies in applying PPPs across Namibia”.
- xiii. “Identify responsibility centres and enunciate accountability for outcomes”

The cooperation with the private sector will be built on the fundamental concepts outlined below in order to achieve the PPP policy objectives.

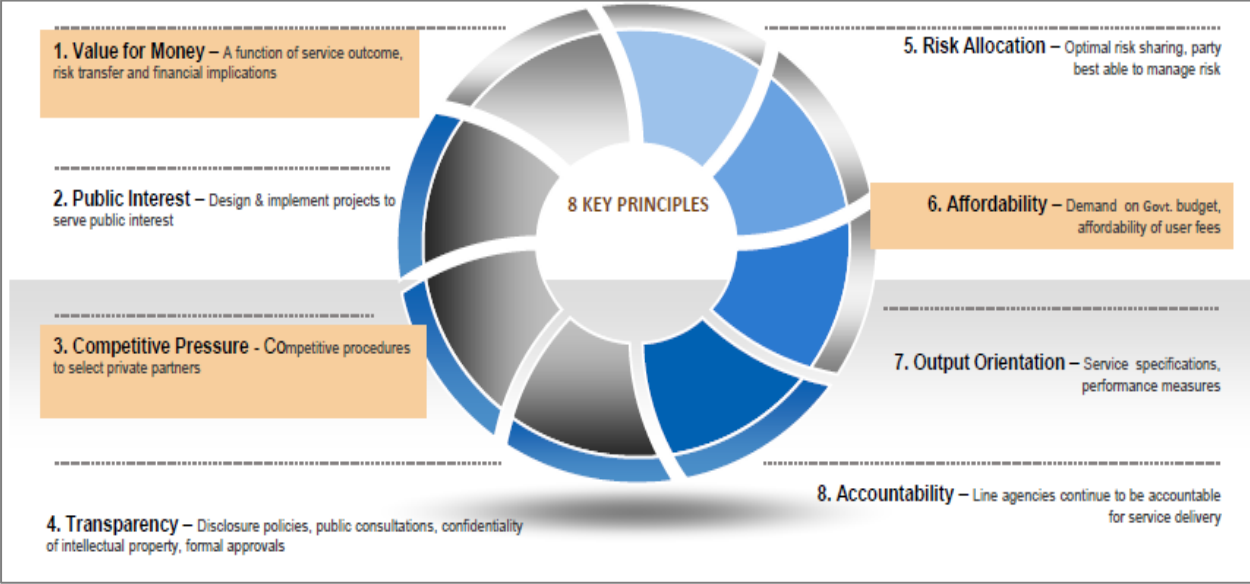


Figure 2. 3: Key Principles in National PPP Policy, Source (Luaanda, 2018 p.36)

The table below shows the Institutions and their roles that are related to the Namibia PPP Policy.

Table 2. 5: Institutions and their roles relating to Namibia PPP Policy

Institution	Role
The Line Agency	Appointment of Transaction Advisor; Invitation of tenders and selection of the PPP developer; Negotiating the PPP contract; Monitoring the progress etc.
The Line Ministry	Assist the Agency in preparing a feasibility study for the PPP project, for example.
The PPP Committee	As required by this Policy, provide all Transaction Approvals. Develop policies for public-private collaboration ventures; PPP planning and progress will be monitored. Oversee the PPP Unit's operations and raise public-private partnership awareness throughout the country.
The Central PPP Unit	Determining whether PPP is the best procurement option; ensuring consistency in project preparation and evaluation; serving as a

	technical secretariat for the Ministry of Finance and the PPP Committee aiding the PPP Committee/Ministry of Finance in the distribution of PPP-related rules, circulars, and guidance notes; and ensuring that other parts of PPP policy are adhered to in the development and procurement of PPP projects
Ministry Of Finance	Provide overall advice and regulatory control to the Line Agencies/ SOEs in the development and implementation of PPP Projects; Regulate the implementation of this Policy; The PPP Committee and the PPP Unit will be guided and regulated. Provide approvals for PPPs worth more than N\$ 150 million in contract value.

Source: (Ministry of Trade and Industry, 2017 p. 30-34).

2.6.2 The Public-Private Partnership Act of 2017

The Public-Private Partnership Act 4 of 2017 aims to “ *provide a legal framework for public-private partnership projects; to establish the Public-Private Partnership Committee; to regulate public-private partnership projects through the stages of initiation, preparation, procurement, the conclusion of a public-private partnership agreement and implementation; and to provide for incidental matters*” (Parliament, 2017 p.1).

The objectives of this Act are to: (Parliament, 2017 pp.5-6)

- i. promote private sector participation in the provision of public services through public-private partnership projects;
- ii. enable private sector investment in the provision of public infrastructure assets or services;
- iii. to create frameworks and ensure oversight and governance on projects selected for development through the public-private partnership model;
- iv. enable the creation of adequate institutional capacity for processing and regulating public-private partnership projects;
- v. ensure fairness, transparency, equity, and competition in the process of awarding public-private partnership projects; and

- vi. provide for principles, framework, and guiding procedures to assist public entities during the initiation, preparation, procurement, management, and implementation of public-private partnership projects.

2.6.2.1 Legislation relating to Public-Private Partnerships in Namibia

The Namibian law in favour of PPPs are controlled by the following pieces of legislation, namely: (Keyter, 2010)

- a. The Local Authorities Act, 1992 (Act No. 23 of 1992) as amended.
- b. The Regional Councils Act, 1992 (Act No. 22 of 1992).
- c. The Decentralization Enabling Act, 2000 (Act No. 23 of 2000).
- d. The Trust Fund for Regional Development and Equity Provisions Act, 2000 (Act No. 22 of 2000).
- e. The Nature Conservation Ordinance, 1975 (Ordinance No. 4 of 1975).
- f. The National Water Policy White Paper of August 2000.
- g. The National Environmental Health Policy of March 2003; and
- h. The National Land Policy of 2004.

According to Keyter (2010), the above current or pending laws have implications on PPPs in Namibia and currently recommends two instruments for the establishment of PPPS. Joint business ventures/ or and commercialization of services functions or duties are the two instruments used, with joint business ventures by the local authority council or regional council being the current most preferred instrument for PPPs in Namibia (Keyter, 2010).

2.7 Housing Development Challenges in Different Country Contexts

Housing is a requirement known as a basic human need and right, it is also considered as one of the effective indicators of the level to which poverty has been eliminated countrywide (Manomano et al., 2016). Given providing suitable housing, contributes to the achievement of the physical and moral health of a country and encourages social stability, work efficiency and people's development (Olayiwola et al., 2005). According

to Manomano et al. (2016) over the years, people worldwide have faced severe housing problems, at present, several people are said to be living in severe shelter scarcities conditions. There are various commitments benchmarked by both developed and developing countries to address these problems, however, numerous regions have failed to effectively strengthen the problems, with world bodies who openly declared it to be a critical concern (Manomano et al., 2016). Many countries observe different housing development challenges, below are some of the challenges observed in China, Nigeria, South Africa, and Namibia.

2.7.1 Housing development challenges in China

China's housing reform was launched in 1980 and has positively converted a centrally-planned housing system to a market-oriented housing industry, thus improving the living conditions of its urban residents (Deng et al., 2011). A basic housing policy framework was formed in China after three decades of reform. According to Deng et al. (2011), the development of the housing policy framework delivered significant policy instruments for the Chinese government to act upon while new decisions on how to get involved in the housing industry were being created. The housing industry in China has become the main contributor to the country's economic growth (Deng et al., 2011).

Many housing estates have been and continue to be built in, thus turning China into the largest construction site in the world (Liu and Xue, 2016). Tsou et al. (2008) emphasized that housing in China may be affected by various internal/ external factors such as the economy and cultural background. Given their research, the housing problem in China is perceived as dynamic and complicated and also influenced by inter-dependent and multi-scale factors (Tsou et al., 2008).

Research by Man (2011) highlighted the current issues and challenges in affordable housing systems in China include firstly, the central government not providing financial support to regional and local governments for affordable housing through its budgetary spending, secondly, the provision of affordable housing only accounts for a small number of the total housing stock, thirdly, the local government in China lack motivation and financial means to provide affordable housing and lastly, only the urban residents

who have city residence permits as part of its household registration system are targeted in the current affordable housing system in China.

2.7.2 Housing development challenges in Nigeria

Nigeria, like any other developing country, has been burdened by the overwhelming growth of the urban population caused by a lack of provision of infrastructure facilities and poor economic conditions in rural areas (Ugonabo and Emoh, 2013). The Government or private sector are responsible for providing housing delivery in Nigeria (Olugbenga and Adekemi, 2013). At present, it is estimated that 17 million units are the country's housing shortfall and is further expected that Lagos State would require roughly 40,000 housing units yearly estimated at \$1 billion to provide accommodation for its rising population (Afolabi and Dada, 2014).

Equally important, the issue of insufficient housing is caused by the rapid rates of urbanization and economic growth (Olayiwola et al., 2005). The low-income groups experience more serious housing difficulties where problems are influenced by rapid growth, inflated real estate values, speculative activity, an influx of poor immigrants and poor planning (Olayiwola et al., 2005).

Given the policies, institutions and regulations which the Nigerian Governments have put in place since independence, the job of introducing an efficient, effective, affordable and sustainable housing delivery process is still a challenge to the policymakers (Ugonabo and Emoh, 2013). Ugonabo and Emoh (2013 p. 1) in their research identified various factors which prevent housing development and delivery, these included "lack of secure access to land, high cost of construction, limited access to finance, bureaucratic procedures, high cost of land registration and titling, uncoordinated policies and implementation at Federal and State level, ownership rights under the Land Use Act, lack critical infrastructure, affordability gap, inefficient development control, youths harassment of developers, inelegant revocations and compensation process among others".

Research by Afolabi and Dada (2014 p. 779) show that "urbanization, population growth rate, political factor, project financing, corruption, limited land supply, poverty,

inadequate planning of the environment, cost of building material, the economic state of the nation, availability of technology and efficient designs, vandalism, poor maintenance culture" are some of the factors that were identified to be affecting the housing and urban development projects in Lagos State.

2.7.3 Housing development challenges in South Africa

South Africa's current housing policy is the result of a process of extreme negotiation inside the National Housing Forum from 1992 to 1994 and is based on an important understanding that housing is a basic need (Huchzermeyer, 2001). Some limitations obstruct the delivery of housing in South Africa, which increased the drop in the number of houses constructed per year since 2000, although, achievements of the first ten years in providing housing to the underprivileged has been observed (Burgoyne, 2008).

The housing challenge faced in South Africa is due to several historical, political, social and economic factors: first, the inheritance of apartheid and earlier segregationist policies; second, the nature of housing conditions inherited by the new government; third, the housing policies established in the changes towards democracy and reform in the early 1990s; fourth, the implementation of policy and the institutional and other obstacles hindering the housing Programme and finally, the implications of the social, economic and political factors which make housing key issues for the government (Goodlad, 1996).

Burgoyne (2008), identified some factors influencing and affecting housing delivery in South Africa, which include the following; there were concerns emphasized by the Department of Housing such as, integrated housing environment which were not created to a satisfactory level, beneficiaries not constantly considering their houses as assets, limited participation from the financial sector to finance low-income households, under-spending on budget by housing departments, increase in informal settlements and lastly providing housing needs in the setting of a reduced household. In addition, other challenges influencing housing delivery was South Africa's historical situation, urbanization and migration, financial limitations and lack of suitable, available land and buildings (Burgoyne, 2008).

2.7.4 Housing development challenges in Namibia

Housing is one of the development priorities of the Government of Namibia and plays a significant role in reducing poverty in urban and rural areas; hence the housing sector is considered a major contributor to the national economy (Ministry of Regional and Local Government, 2009). The Ministry of Regional and Local Government (2009 p.3) reported that *“Namibia’s housing vision is to see the housing sector become one of the key contributors to Namibia’s economic growth and creation of sustainable communities all over Namibia”*. The private sector provides an important association in the delivery of serviced land and housing and contains five main sub-sectors involving; the material supplier, contracting, professional service, property developers and banking sector (Ministry of Regional and Local Government, 2009).

Namibia's Vision 2030 states that Namibians should have the right to suitable housing, water and sanitation facilities (Remmert and Ndhlovu, 2018). “The National Housing Policy was adopted in 1991 and reviewed in 2009” (Remmert and Ndhlovu, 2018 p. 23). One of the main challenges that the policymakers face in Namibia is the provision of affordable housing (Mwilima et al., 2011). According to Mwilima et al. (2011), a backlog of 80,000 households in need of housing was a problem for the country by the year 2007 and further reported that roughly 70% of Namibians are excluded from home loan facilities available in the financial markets. Additionally Mwilima et al. (2011) indicated that the main contributing factor of the housing shortage is the insufficient supply which was not able to retain the demand which has increased over the years.

Chiripanhura (2018) in their research identified three problems to the housing situation in Namibia; firstly, many households lack adequate finance to purchase a property, secondly, the house prices are too high, and prices continue to increase and a high rate over the years; and thirdly, the housing finance market excludes many Namibians because they have low incomes, are poor or unemployed.

The study by Remmert and Ndhlovu (2018) identified some findings on the housing challenges in Namibia namely, complex and limited regulatory framework, lack of capacity and resources from the local authority, limited engagement and

communication between stakeholders, information is little and vague, limited availability of serviced land, a mismatch between supply and demand, inadequate use of alternative and local materials and technology, little use of private-sector know-how and resources and limited access to banking. Some several laws and regulations govern the housing sector, town planning and building constructions that are owned by Namibia, however, the shortage of regulations makes it difficult for housing developments, town planning and township proclamations (Remmert and Ndhlovu, 2018). Additionally, the lengthy bureaucratic application, review, certification and approval process overall may add huge delays and costs to urban land planning and housing delivery (Remmert and Ndhlovu, 2018)

2.8 Application of PPP housing projects in developed and developing countries

This study is focused on the Namibian context. However, it would be of great substance to observe how PPP housing have been carried out globally. PPP housing is perceived as "a co-operative venture for providing housing infrastructure or service, built on the expertise of each partner that best meets the clearly defined public needs, through the most appropriate allocation of resources, risks and rewards" (Izuwah, 2019 p.151).

According to Sengupta (2006) developed countries, experience a long tradition in PPPs while relatively sparse literature is observed in developing counties in PPPs in housing. Ibem (2011) emphasized that the main purpose for the establishment of PPP in housing delivery is to provide decent and affordable housing for all socio-economic groups.

2.8.1 PPP housing in developed countries

Most developed countries that used the PPP approach for housing projects have involved a joint venture, whereby the private and public sectors join together to finance, own, and operate a housing project, and where risks are shared according to the prearranged contractual requirements (Ibrahim and Saleh, 2016). The Netherlands is one country that has had the most experience in public housing projects by applying

the PPP for nearly two decades (Eggers and Startup, 2006). Batra (2020) in their research argue that PPP in housing gained minimal momentum because of its perceived lack of probability, compared to other sectors in different European countries

PPPs in housing is encouraged on the theory that it enhances multi-sectoral participation, the productivity of the housing sector as well increasing housing affordability and accessibility (Zhang, 2016). The government pursue suitable partner to develop projects by providing empty land to facilitate public housing supply and in return help to ease its shortfall in financing and techniques (Liu et al., 2018). However, in Australia, the Department of Housing has no limitation on the type of partnerships (between two parties public and private sectors) and those not only under PPP types of agreements (Susilawati and Armitage, 2004).

In addition, stakeholders in Australia had no interest in applying public-private partnerships for affordable housing for many reasons (Susilawati and Armitage, 2004). These included "the benefits are inadequate to attract the private sector entering affordable housing projects; PPPs are too complicated for nonprofit projects; players have no confidence using it without learning from success stories from other projects and the traditional procurement methods and short-term partnership agreements are still preferable to long-term options such as PPPs" (Susilawati and Armitage, 2004 p. 6). To conclude, PPPs were not viewed as suitable ways of facilitating the increase in the supply of affordable housing without any major changes and additional wide-ranging support (Susilawati and Armitage, 2004).

The application of PPPs in housing is uncommon in China, although PPPs have been used for many years (Yuan et al., 2012). According to Yuan et al. (2012), public housing is a major concern in China, therefore the strategy to develop PPP housing for the Chinese government should be taken into careful consideration. Several problems in PPP housing are a result of long payback periods and fewer profits, which are critical issues that should be addressed during the application of PPP in housing (Zhang, 2016). Additionally, numerous problems have been reported as a result of the public sector being fully responsible for designing, building, and operating public housing (Yuan et al., 2012). Given the research by Yuan et al. (2012), developing

public housing in China experienced challenges such as more funding, the more financial burden for local authority and requirements for a new model of funding.

The objective of PPPs in Housing differ from country to country and are permitted out of different conditions (Abdul-Aziz and Kassim, 2011). The experience from the developed countries is that the PPPs in housing have been encouraged as an approach for delivering housing on the basis that it provides possible remedies to housing imbalance. However, some countries had no interest in applying PPPs in housing delivery for many reasons, while others identified some problems with the application.

2.8.2 PPP housing in developing countries

A great number of government structures in developing countries are encouraged to adopt the common public-private partnership (PPP) strategy to deliver affordable/low-cost housing projects for low-income groups (Kavishe et al., 2019a). In Nigeria, the typical PPP arrangement for housing development was characterized by the private sectors taking responsibility for design, finance and construction of the housing units and where the public sector contributes the land, counterpart funding when the need arises and determining the housing typology and selling price (Sanda et al., 2017). According to Ahmed et al. (2020), there are different forms of PPP for applying infrastructure and housing projects in Nigeria which include, 'Build Transfer Operate (BTO); Build Operate Transfer (BOT); Build Own Operate (BOO); Design-Build Financial Operations (DBFO); Design-Build-Operate-Maintenance (DBOM) others'.

Onyemaechi et al. (2015) in their research highlighted that public-private partnership housing in Nigeria was encouraged on the theory that it may inspire multi-sectorial participation, increase the number of housings, encourage sustainability in housing development, increase the affordability and accessibility in housing and deliver housing to the people on time. The researcher further argued that this had not been accomplished due to the poor implementation of the PPP Policies. Additionally, Ahmed et al. (2020), argued that PPPs made no significant contribution to address the

continuing housing problem in the urban areas in Nigeria. Moreover, Sani et al. (2018), emphasized that Nigerian cities which applied the PPP housing scheme to address the shortfall in the delivery of affordable housing in the country observed very few recordings of achievements.

It was observed by Izuwah (2019) that PPPs can only have decent projections for housing in Nigeria for the low and middle-income recipients if the policy, institutional, regulatory and funding frameworks are acceptable, relevant and effective. The challenges of PPP for affordable housing in Nigeria were "acquisition and access to land, high dependent of foreign building materials, adequate housing finance, the difficulty of access to mortgage facilities and land title, poor infrastructure facilities and cost recovery among others" (Ahmed and Sipan, 2020 p. 1962).

Similarly, government institutions in Malaysia also developed housing using the PPP approach and are generally comparable to that adopted by Bulgaria, Australia, South Korea, and India where the private developer undertakes all development responsibilities which includes design, construct and finance while the private sector contributes land to the partnership (Abdul-Aziz and Kassim, 2011). Malaysia adopted the PPP in housing facilities to increase urban housing standards and address housing affordability and convenience (Razi et al., 2020). According to the National Audit of Malaysia, a few Housing PPPs under-performed, where one project took 8 years longer to complete since the developer concentrated on completing the high-end portion of the development first (Abdul-Aziz and Kassim, 2011). The presence of government policy, the institutional framework of regulation, the satisfactory socio-economic structure that improved income generation and available and satisfactory terms of housing loans from financial institutions, as well as vibrant private sector combined have helped improve the success of the partnership using PPPs in housing delivery in Malaysia (Abdullahi and Abd Aziz, 2011).

Previously, public-private partnership (PPP) was the most prominent urban housing policy that developed and was widely supported for housing and infrastructure development as part of the recent housing reforms in India (Sengupta, 2006). Sengupta (2006) indicated that the housing production under the PPP model in India had been impressive in terms of costs quality, although it was little in terms of numbers.

According to Liu et al. (2014), a holdup on the scale of PPP housing has been faced in India since there is a shortage of large scale land under the current land regulation in commercial institutions. Liu et al. (2014) , further indicated that the government and large-scale builders form a joint venture to develop housing projects in India.

Research by Kavishe et al. (2019b), investigated the aspects of PPP housing project delivery in Tanzania on influencing factors such as cost and affordability, sustainability and outcomes of benefits. In their findings, cost and affordability factors were that PPPs bring about value-for-money in housing delivery projects and that PPPs can facilitate the supply of affordable housing outcomes in Tanzania; sustainability factors were that sustainability assessments will at all times start from the feasibility stage and are always considered when evaluating project viability, and finally, the benefits were to encourage private sector innovation and management skills, options of risk-sharing between parties and encourage on-time delivery (Kavishe et al., 2019b).

According to the research by Kavishe and An (2016) PPP housing was still in the initial stages in Tanzania mainly due to lack of direct experience and inadequate new investment in housing projects. Kavishe and An (2016) further emphasized that PPPs had not performed well in housing projects and identified 5 challenges which include the following: "inadequate PPP skills and knowledge", "poor contracting and tendering documents", "inadequate project management". "Inadequate legal framework" and "misinformation on the financial capacity of private partners".

The joint venture approach has been the leading type/form of PPP in housing projects in Tanzania (Kavishe et al., 2018). According to Kavishe et al. (2018), the implementation of Joint Venture (JV) in delivering housing projects have also been adopted by both developing and developed countries like Nigeria, Yemen, the Philippines, India, Ghana, the Netherlands, UK and Ireland.

Research by Kutama (2017), indicated that the key objective of the development of PPPs in housing delivery in South Africa is to improve the housing efficiency of the housing sector by the public sector being more focused on removing limitations of both supply and demand side. Additionally, South Africa's Housing policy introduced PPPs in addressing the housing problems and delivery of adequate and affordable housing

(Blose, 2015). However, PPPs are not completely agreed upon with different opinions on the transfer of government tasks to the private sector (Blose, 2015). The PPP arrangement for housing in South Africa involves the state contracting the private sector to design, build, finance, maintain and operate a public infrastructure (Blose, 2015). Thus social housing is delivered much faster, instead of having the government solely supplying social housing, moreover, this is a better option for the government since they are faced with a housing backlog (Blose, 2015).

2.9 PPP housing in Namibia

Namibia like many other African countries faces challenges in the supply of housing stock in urban areas. Namibia's residential housing market is characterized by the major differences in the relation of demand and supply forces (Mwilima et al., 2011). The high cost in the market is a result of the constrained supply of houses (Ministry of Finance and Unit, 2015). According to the report by Ministry of Finance and Unit (2015), "the rise in the supply of serviced land in urban areas and increases in property development activities can ease the supply and price pressure across the board in the real estate sector". Because of this, the Public-Private Partnership (PPP) approach was introduced for the development of affordable housing units in Namibia (Ministry of Finance and Unit, 2015).

According to Chiripanhura (2018), housing delivery in Namibia is mainly left to individuals, non-governmental organizations and the private sector. Namibia uses the joint venture approach for the PPP housing delivery projects. "This arrangement implies that a local authority or a regional council in Namibia may enter into a joint business venture by taking up shares in an existing company registered, or a company to be registered in terms of the Companies Act, 2004 (Act No 28 of 2004) or by accepting the position of the beneficiary of a trust established or agreeing with the government, a ministry, a regional council, another local authority council, a public enterprise or an NGO relating to the joint or business venture" (MRLGH, 2004 p.91).

The newspaper article by Confidente (2021) reported that The Government Institutions Pension Fund (GIPF), are individually placed to make a meaningful impact on the Namibian housing landscape in terms that also support them to deliver on their

mandate in terms of returns. Thus, they follow "a liability-driven approach in deciding the strategic asset allocation of the fund" (Confidente, 2021 p.1). Lack of serviced land from municipalities; poor capacity of bulk infrastructure in certain nodes; bureaucratic auction processes at municipalities that prolong the sales process, delaying developments and resulting in lower returns; high land prices; high building material costs, outdated building regulations, and long lead time in the housing value chain are among the challenges faced by GIPF while implementing investments in the housing market (Confidente, 2021).

However, Fungai et al. (2018), in their research indicated that the empirical evidence relating to the application of PPPs in housing delivery is presently lacking in Namibia since the implementation is fairly new. Furthermore, Fungai et al. (2018 p.398-399) argued that "the existing practice of PPP in housing delivery was a mere negotiation between the government and the private investors, as there no clear cut ' government-private sector' contractual partnerships". Additionally, PPPs were viewed to be not the best option for housing delivery in Namibia, as documented evidence of successful projects managed through the PPP approach was not available (Fungai et al., 2018).

2.9.1 The PPP housing concept in Namibia

The initiation of PPP projects is anticipated to catalyze private investment to develop affordable housing units in urban areas in Namibia (Ministry of Finance and Unit, 2015). Ministry of Finance and Unit (2015 p. 2) presented the core objectives of the planned PPP initiative which included the following:

- b. To accelerate the "development of affordable housing units of acceptable quality that are ultimately delivered to deserving members of the population".
- c. To "undertake development through a commercially viable project structure such that private investment is possible"; and
- d. "Achieve significant risk transfer to private sector developers, also such as that for the pilot projects there is minimal to nil fiscal burden due to the project".

2.9.2 PPP affordable housing project structure and key stakeholders in Namibia

The figure below summarizes the proposed structure of affordable housing PPPs in Namibia (Ministry of Finance and Unit, 2015).

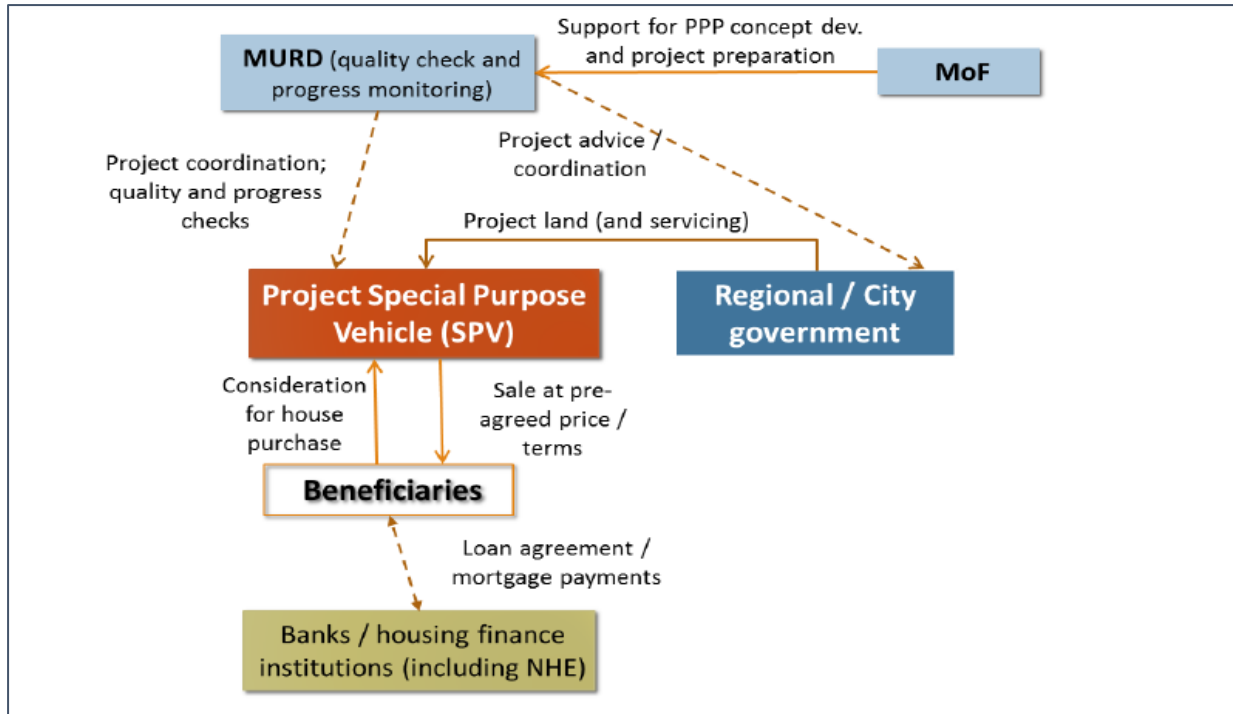


Figure 2. 4: Proposed structure of affordable housing PPPs in Namibia, source (Ministry of Finance and Unit, 2015 p.5)

The proposed project structure defines the roles and relationships between the major stakeholders expected to be involved in the PPP project preparation and monitoring activities, and the relevant entities will include the following.: (Ministry of Finance and Unit, 2015 p.5-6).

- i. **The Ministry of Urban and Rural Development (MURD):** central ministry responsible, among other mandates, for the development of housing in the country.
- ii. **Regional / City government:** local government entities that would typically be owners of land selected to be the site for the PPP housing development.
- iii. **Ministry of Finance:** the central ministry responsible for managing the financing aspects of government development projects and the Public-Private Partnerships (PPP) program in the country.
- iv. **Private Developer:** to be nominated for the project development.

- v. **Project special purpose vehicle (SPV):** a company formed for the development and commercialization of the housing project.
- vi. **Beneficiaries:** the purchasers of the developed housing units; and
- vii. **Bank/ housing finance institutions:** mortgage finance providers

2.10 Factors that influence delay in timelines of Public-Private Partnership housing projects

a) Project delay defined

It is particularly unusual for projects to be completed within the allocated timeframe, even though proper planning is done to complete the project within the allocated timeframe (Al-Azad et al., 2019). Durdyev and Hosseini (2019 p.1) defined project delay “as an overrun beyond the scheduled project completion time”. As a result, when projects are delayed, the specified timeframe for project completion is affected (Alharbi, 2020).

b) The different project features that cause delay

According to Zarei et al. (2018), most projects encounter delays as a common problem, the level often depends on different projects and industries. The delivery of the project is affected by delays, additionally, it may cause inefficiency including cost overrun as well as managerial and relationship issues (Zarei et al., 2018). Furthermore, Maqsoom et al. (2019) argued that apart from the size and experience of the public and private sector, the project features can also affect the time delay of projects.

c) The impact of resources and the economy due to project delay

Delays limit the growth potential of the economy because the provision of public goods and services are prolonged for the people and the economy due to delays in project implementation, while the competitiveness of the economy is reduced because of cost overruns (Singh, 2009). Furthermore Alharbi (2020), also indicated that the delay factors often extend the deadlines of projects, which may cause pressure on resources and may even inconvenience the key stakeholders.

d) Financial risk due to project delay

According to Al-Keim (2017), when the project is delayed, it causes more risk of inflation and finance charges to clients and contractors, as a result, the majority of the commercial loss applies to the party that is accountable for the delay. The consequences of delays are "reduction in project productivity, increased costs, missed opportunities and elimination of projects economic feasibility (Zarei et al., 2018)". Additionally, Zarei et al. (2018), emphasized that for optimum project performance and success, effective control of project delays is a must. Furthermore, delays in property development projects have a financial impact on contractors, resulting in schedule and cost overruns, conflicts, litigation, and project cancellation (Stander, 2016).

e) Inefficient procurement process

In their study, Thabane (2014) found that inefficient procurement processes have a significant impact on the delivery of PPP projects. Many factors can cause the procurement process to be disrupted, such as regulatory approval or organizational incapacity in terms of the necessary skills to complete the process, resulting in time overruns and high bid costs for both the public and private sectors of the PPP procurement process, causing a delay in the delivery of PPP infrastructure projects (Thabane, 2014).

f) Delays identified in land acquisition PPP projects

There are limited empirical studies on the causes of delay in PPP projects. The most common research conducted is mainly on the causes of delay in construction projects. Research by Babatunde et al. (2017) was to identify factors causing a delay in land acquisition for PPP projects in Nigeria. In their findings, three different stakeholder organizations involving public sector authorities, concessionaires and lenders/banks indicated that: "delay due to litigation/agitation; legal disputes; ownership disputes; a large area of land to be acquired; compensation disputes; inadequate government support in taking physical possession; and project induced increase in land cost", were the identified factors that caused the delay in land acquisition for PPPs in Nigeria (Babatunde et al., 2017 p.11).

g) Delays identified in residential developments projects

Stander (2016), researched developing a framework for the successful delivery of residential developments in South Africa in the context of time, by conducting a descriptive survey on, professional property development practitioners, real estate agencies, conveyancers, and projects managers. According to Stander (2016), the variables causing the delay for projects include: 1) Political influences; 2) Legislation issues; 3) Project management; 4) Social changes; 5) Environmental feasibility; 6) Technological factors; 7) Property economics and; 8) Mortgage bonds. The understanding of these factors influencing time contributed significantly to the impact of time and money which are the most important factors that influence property development (Stander, 2016). Furthermore, Stander (2016) emphasized the importance of delivering the property on time, as entering the market late due to a project delay can result in significant losses in rental or capital returns over the critical period, and also emphasized the importance of removing unnecessary delays from the planning control system.

h) Delays identified in construction projects

Durdyev and Hosseini (2019) researched the causes of delays in construction projects, which can be applied to the current study. In their research findings, the following factors which include, weather/climate conditions, poor communication, lack of coordination and conflicts between stakeholders, ineffective or improper planning, material shortages, financial problems, payment delays, equipment/plant shortage, lack of experience among stakeholders, labour shortage and poor site management were identified as the most shared causes of project delays in construction projects (Durdyev and Hosseini, 2019). The study is aimed at providing a better understanding of the main areas that require attention to reduce or control factors causing project delays in construction (Durdyev and Hosseini, 2019).

2.10.1 Mitigating delays in Projects

Mejía et al. (2020), emphasized that the benefit of carefully learning the main causes of delay is the mitigation of adverse impacts on the project performance. Equally important, before the project performance is influenced, the project delay must be managed and mitigated before it develops (Mejía et al., 2020). According to Mejía et al. (2020), identifying the causes for proposing corrective actions is the first step for mitigating delays. According to research by Maqsoom et al. (2019) steps on the main projects were taken by the government of Pakistan to counter the project delays, these included, identification of irregularities, change of project scope, additional land acquisition and enhancement of security. New Property (housing) developers in the market can take active measures to avoid time delays and learn from the significant factors that might affect their performance (Maqsoom et al., 2019).

2.11 Conclusion

This chapter presented a literature review directed to provide background knowledge on PPP's, housing development in the Namibia context. The existing literature aims to identify the factors that cause delays in project timelines of public-private partnership housing development projects in Namibia. The public-private partnership (PPP) approach has become popular internationally with most of the public sector forming partnerships with the private sector to undertake infrastructure projects. It covered a general understanding of PPPs and definitions, typical PPP project structures, the main characteristics of PPP infrastructure projects, the types of PPP Models used, the type of risks involved in PPPs as well as the major advantages and disadvantages of PPPs.

The legislative and policy framework for Public Private Partnerships in Namibia contribute to the success of PPP projects. This includes the Namibia Public-Private Partnership (PPP) Policy which proposes the development of PPP regulations for Namibia to govern. The PPP Policy has also established Institutions and their roles related to the PPP Policy. Additionally, The Public-Private Partnership Act of 2017 with

its aims and objectives provide a legal framework for PPP projects. Furthermore, other legislation relating to Public-Private Partnerships in Namibia were identified.

The literature has highlighted the different housing development challenges observed in China, Nigeria, South Africa, and Namibia. All these countries observed similar challenges which included: lack of financial support from the central government; implications of social, economic, and political factors; lack of secure access to land; lack of capacity and resources from the government etc.

This chapter further reviewed the application of PPP housing projects in developed and developing countries. Many developed and developing countries applied the PPP approach in housing delivery projects. The joint venture approach was the most popular used in many countries. The most experienced developed country that applied PPP in housing projects is the Netherlands. Countries like Australia had no interest in applying the PPP approach for housing delivery for several reasons, while China observed the scarcity of using the PPP approach in housing development projects. Developing countries such as Nigeria, Malaysia, India, South Africa, and Tanzania all encouraged the use of the PPP approach for housing delivery, however, it was observed that Tanzania performed poor in housing projects and identified some challenges.

In Namibia, the use of the public-private partnership approach in affordable housing developments was introduced to ease the rise in the supply of serviced land in urban areas. The Joint venture approach has been practiced in the PPP housing delivery projects. However, it was observed that very little literature exists about the application of PPPs in housing delivery in Namibia. The Ministry of Finance developed the PPP housing concept and summarized the proposed structure and key stakeholders of affordable housing PPPs in Namibia.

Finally, a comprehensive review was conducted to study the factors that influence delay in timelines of Public-Private Partnership housing projects. Delays in project deliveries have serious implications on the project cost, thus, projects need to be delivered on time. This is however not the case for most projects, as they never meet the project timeline. There is a lack of empirical studies on PPP projects and their causes of delay in project timelines. Most research found is mainly on the causes of

delay particularly in construction projects. The following delay factors were identified in the delivery of residential development projects; political influences, legislation issues project management; social changes, environmental feasibility, technological factors, property economics and, mortgage bonds. In generally it is highly important to carefully study the main causes of delay, this will help new property developers find solutions to mitigate them and improve the performance of their projects.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter highlights the research methodology employed to answer the research questions. The “research onion” by Saunders et al. (2009) was used to describe the main layers in the research methodology which includes, research philosophy; research approach; research strategy; research choices; time horizon; techniques and procedures. This chapter further includes the sampling technique, the validity and reliability, research ethics and finally the conclusion.

3.2 Research Methodology

Research is defined by Williams (2007 p.65) “as the process of collecting, analyzing, and interpreting data to understand a phenomenon”. The research process includes frameworks and guidelines used by researchers to help with the performance of the research, since the research process is an organized process that ‘defines the objectives, manages the data, and communicates the findings to occur’ (Williams, 2007). Mackenzie and Knipe (2006 p.6), defined methodology “as both the collection of methods or rules by which a particular piece of research is undertaken and the principles, theories, and values that underpin a particular research approach”. Research methodology “is a science of studying how research is conducted systematically” and is known to carefully resolve unanswered questions in research (Mishra and Alok, 2017 p.1).

According to Melnikovas (2018), the ‘research onion’ is recommended to show the important modules of the research methodology based on a theoretical concept. The research onion describes the ‘main layers or stages’ which are the six layers namely “research philosophy, research approaches, research strategies, research choices, time horizons and techniques and procedures” (Melnikovas, 2018). The following sections of this chapter will provide well-defined descriptions of each layer which are vital to articulate in the current study (Melnikovas, 2018). Figure 5 depicts the “research onion” below.

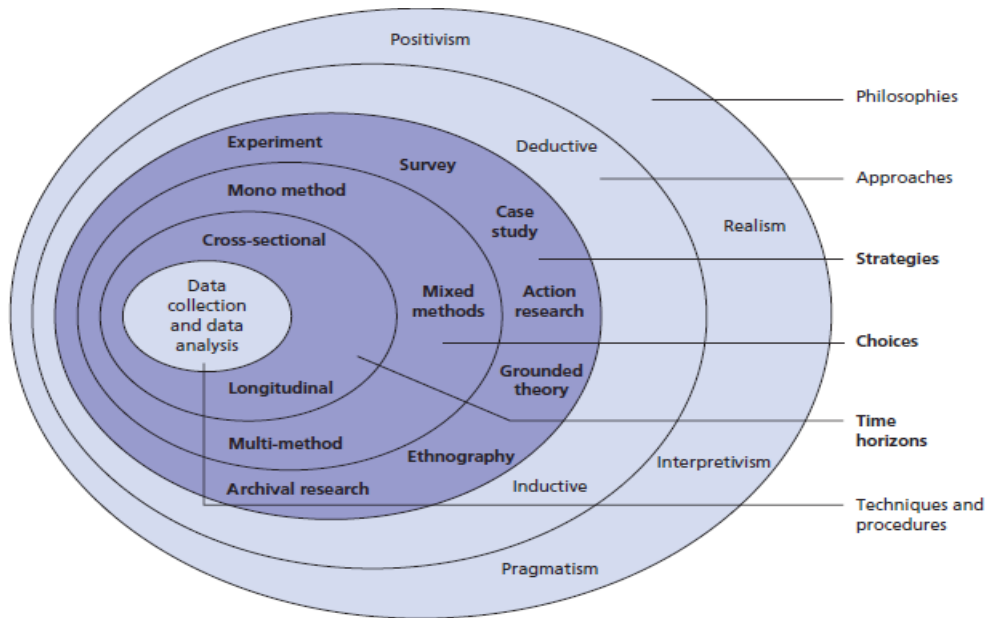


Figure 3. 1: Research onion Source (Saunders et al., 2009)

3.3 Research Philosophy

According to Melnikovas (2018) research philosophy ‘forms a basis of the research by delineation of *ontology* which is concerned with nature of reality, *epistemology* is concerned with nature, sources of knowledge or facts and *axiology* is concerned with values, beliefs, and ethics of the research. Simpson (2017 p.4) defined pragmatism “as a celebration of pluralism that offers a multiplicity of enticing options for researchers who are seeking more dynamic and more processual ways of engaging with their research contexts and questions”. According to Saunders et al. (2009), pragmatism emphasizes the research topic as the most important contributing factor to the epistemology, ontology, and axiology adopted. By adapting the pragmatism philosophy either positivist and interpretive positions or whichever is suited for a 'particular research question' is used within the research (Melnikovas, 2018). Furthermore, Goldkuhl (2012), indicated that pragmatism adapts ‘the methods and method combinations that is relative to the research purpose and the present empirical situation’.

This research wants to find the key factors that contribute to the delay of timelines in PPP housing development projects in Namibia and requires a small sample size of people involved in PPP housing development to generalize the findings. A pragmatist

research philosophy is adopted, because it allows for a mixed-method approach for data collection which is applied for this research.

3.4 Research Approach

Two main research approaches exist in the research onion called "deduction and induction" (Saunders et al., 2009). Saunders et al. (2009) and Melnikovas (2018) both indicated that deduction theory is when 'the research starts with an existing theory, then rising a question or hypothesis and data collection strategy is designed to test the hypothesis. According to Saunders et al. (2009), the deduction theory is seen as a dominant research approach in the natural sciences where justifications, expectations, predictions occur and are thus allowed to be controlled. In the induction theory, 'the research starts with observation and data is collected, moving to description and analysis to develop a theory' (Melnikovas, 2018). The induction approach focuses on the context around specific events consequently, making it suitable for smaller focus groups (Saunders et al., 2009).

This research wants to find the key factors that contribute to the delay of timelines in PPP housing developments projects in Namibia. The researcher is also interested in understanding the main reasons why these certain identified factors may cause a delay in PPP project timelines. The research topic is relatively new with little existing literature; thus, the researcher wants to produce new data and analysis. Based on this information, the current study adopts the induction approach.

3.5 Research Strategy

Melnikovas (2018 p. 39), defined a research strategy "as a general way which helps the researcher to choose main data collection methods or sets of methods to answer the research question and meet the research objectives". According to Saunders et al. (2009 p.141), the main research strategies include "experiment; survey; case study; action research; grounded theory; ethnography; and archival research". In addition, 'each strategy can be used for exploratory, descriptive and explanatory research'(Saunders et al., 2009 p.141).

3.6 Case Study

Case studies are described by Noor (2008 p.1602) “as being concerned with how and why things happen, allowing the investigation of contextual realities and the differences between what was planned and what occurred”. Case study research often includes close analysis of “people, topics, issues or programs (DeMarrais and Lapan, 2003 p. 218)”. Baxter and Jack (2008 p. 545) defined a case as “a phenomenon of some sort occurring in a bounded context”. The case is, “in effect, your unit of analysis” (Baxter and Jack, 2008 p. 545)

Saunders et al. (2009) distinguishes four case study strategies: single case versus multiple case and holistic versus embedded. Saunders et al. (2009 p. 146) defines the use of a single case as "a critical case or otherwise an extreme or unique case". When more than one case is used, a multiple case study is required (Saunders et al., 2009). The purpose of using multiple cases is to 'focus the need to establish whether the findings of the first case occur in other cases and, as a result, the need to generalize from these findings,' according to (Saunders et al., 2009). Holistic versus embedded analysis units are the two types of analysis units (Saunders et al., 2009). When using a holistic case study, the research focuses solely on the organization as a whole, whereas an embedded case study looks at a number of logical sub-units within the company (Saunders et al., 2009).

Because the research topic is unique in that it focuses on identifying and developing a thorough understanding of the primary causes that cause delays in the timelines of PPP housing development projects in Namibia, a single case study of Namibia has been used.

3.7 The Unit of Analysis

‘Unit of analysis’ is defined by (Dolma, 2010 p.169) as “ the entity that is being analyzed in a scientific research”. According to Dolma (2010), ‘ the research problem, the hypotheses, variables, measurement instruments, sampling method and population to which the findings are intended to generalize, data analysis techniques and all other elements of a scientific research affect the unit of analysis of a given study’. The unit

of analysis is the embedded case study and consists of property developers, local authority officials, built environment profession and PPP experts.

3.8 Research Choices

Research choice is referred to “as the way researchers choose to combine quantitative and qualitative techniques and procedures” (Saunders et al., 2009 p. 151). According to Melnikovas (2018), the research problem question and the overall aim of the research determine the choice for the method to be applied in the research. The research choices include ‘mono, mixed and multi methods’ (Melnikovas, 2018).

The mixed-method approach was used for different purposes in the current study. It was mainly used to improve the accuracy of the data obtained and to build the initial findings by using different kinds of data and methods (Denscombe, 2008). Saunders et al. (2009 p.152), described the mixed-method approach “as the general term for when both quantitative and qualitative data collection techniques and analysis procedure are used in a research design”.

3.8.1 The difference between quantitative and qualitative research approach

3.8.1.1 Quantitative research approach

A quantitative research method is a setup of 'numeric or statistical approach to research design, where the accuracy of the collected data is used to measure reality (Williams, 2007). Mathematical or numerical models are used by researchers to analyze data in the quantitative approach (Williams, 2007). According to Williams (2007), quantitative research has three general classifications, namely descriptive, experimental and causal-comparative.

According to (Saunders et al., 2009 p. 360), a questionnaire is “a general term to include all techniques of data collection in which each person is asked to respond to the same set of questions in a predetermined order”. The questionnaire consisted of open and closed questions created and stored using google forms, see attached Appendix A. The questionnaire was distributed via email to ten (10) property

developers involved in PPP housing development projects in Namibia of which only four (4) responded. The questions were derived from the literature review in chapter two summarizing the main factors that cause delays in PPP housing development projects as well as ways to mitigate the delays.

3.8.1.2 *Qualitative research approach*

Qualitative research is described by Williams (2007 p.67) “ as an unfolding model that occurs in a natural setting that enables the researcher to develop a level of detail from high involvement in the actual experiences”. According to Williams (2007), qualitative research has several different methods and the following five have been recommended, namely, case studies, grounded theory, ethnography, content, and phenomenological.

“An interview is a purposeful discussion between two or more people” (Saunders et al., 2009 pg. 318). The qualitative data was obtained using online semi-structural interviews conducted with six (6) individuals from the local authority, build environment professionals, and PPP experts who have an understanding and are involved in PPP housing projects. By adopting semi-structured interviews, the researcher had a list of different questions for the different sectors, see attached Appendix B.

3.9 Time Horizon

The time frame for the research is described in this layer, which consists of a " cross-sectional or short term study, involving a collection of data at a specific point in time" (Melnikovas, 2018). Cross-sectional studies, according to (Saunders et al., 2009) might use qualitative methodologies and case studies based on interviews performed over a short period of time. "Longitudinal studies are the collection of data repeatedly over a long period to compare data" (Melnikovas, 2018 p.34). Longitudinal studies have the capabilities to ‘study change and development’ and ask this basic question which is ' Has there been any change over some time?' (Saunders et al., 2009).

Longitudinal studies require high costs because of their repetitiveness. Therefore, the current study will use a cross-sectional study due to the limited time and costs. The

semi-structured questionnaire to the property developers ran over a period between June 2021 to August 2021. The virtual interviews conducted with the local authority, built environment professionals and PPP experts were from May 2021 to June 2021.

3.10 Sampling

The purpose of using sampling strategies in a research study “is to obtain a sufficient sample that is representative of the population of interest” (Ponto, 2015 p.169). There are two types of sampling techniques available called "probability or representative sampling and non-probability or judgmental sampling" (Saunders et al., 2009 p.213).

Probability or representative sampling is "commonly associated with survey-based research strategies where one needs to make inferences from the sample about a population to answer the research question(s) or to meet objectives" (Saunders et al., 2009 p.214). Non-probability or non-random sampling "provides a range of alternative techniques to select samples based on the researcher's subjective judgement" and is the most practical to use in a pilot survey (Saunders et al., 2009 p.233).

Purposive sampling is a type of non-probability sampling which allows researchers 'to use judgement to select cases that best enable the researcher to answer the research questions to meet the objectives (Saunders et al., 2009). Using a purposive sampling method, two officials from the local authority (CoW), two officials from the built environment professionals, and two PPP experts were selected for the interviews and ten property developers who have been involved in PPP housing development were selected and forwarded the online questionnaire where only four respondents in this study. The purposive method is applied because the study focused on in-depth information rather than making general conclusions. Purposive sampling is widely utilized when working with small samples, such as case study research, and by researchers that use the grounded theory technique, according to Saunders et al. (2009).

3.11 Techniques and procedures

This will involve the data collection and analysis procedures (Melnikovas, 2018). The primary data are data collected once again and for the first time, making it unique while the secondary data are data previously collected by individuals and have previously undergone statistical processes (Kothari, 2004).

3.11.1 Data collection

This study took several options of data collection into account which included virtual interviews and questionnaires. The summary of the research instruments used in the study is shown in the table below.

Table 3. 1: Data collection instrument

Instruments	Data collection process
Interviews with Local Authority, Built environment professionals, and PPP experts	<ul style="list-style-type: none">• Conduct virtual interviews• Use semi-structured interviews• Use thematic analysis to analyze data for discussion
Questionnaires	<ul style="list-style-type: none">• Develop a mixture of open and closed-ended questionnaire• Administer questionnaire using google forms and send via email to 10 property developers involved in PPP housing development projects• Summarize results using graphs and tables

Source: Author

3.11.2 Data Analysis

Kothari (2004 p.122), define data analysis “as the computation of certain measures along with searching for patterns of relationship that exist among data-groups”. For this study quantitative approach used descriptive and inferential statistics and the qualitative approach used thematic analysis.

3.11.2.1 Quantitative Approach-Descriptive and Inferential statistics

"Descriptive statistics describe, or summarize, data and inferential statistics use methods to gather conclusions about a population from a sample" (Byrne, 2007 p.32).

Sutanapong et al. (2015 p.22) describe descriptive statistics “as the statistical description of the data”. These descriptions consist of ‘mean, median, mode, variance, and standard deviation’ (Sutanapong et al., 2015). Before proper conclusions are made from the data set, descriptive statistics are used. According to Sutanapong et al. (2015), 'data sets come from a sample and a sample comes from the population. Sutanapong et al. (2015 p.31) further defined inferential statistics “as using the sample descriptive statistics to make an inference (estimation) of the population”.

The researcher used descriptive analysis to present the research findings. To answer the closed-ended questions from the respondents, the researcher applied frequency distribution to present tables, charts, and graphs of the findings. For the open-ended questions, the researcher used the thematic analysis to identify themes and presented the findings.

3.11.2.2 Qualitative approach- Thematic analysis

Braun and Clarke (2012 p.57), defined thematic analysis “as a method for systematically identifying, organizing, and offering insight into patterns of meaning (themes) across a data set”. According to Braun and Clarke (2012 p.57), thematic analysis is 'an accessible, flexible, and increasingly popular method of qualitative data analysis. Many researchers use thematic analysis because of its accessibility and flexibility and further suggest techniques used in qualitative data that give a broad explanation on the 'mechanics of coding and analyzing qualitative data systematically this is further connected to the broader theoretical or conceptual issues' (Braun and Clarke, 2012).

Using thematic analysis, the researcher was able to sort the large data sets to provide answers to the research questions. The thematic analysis also enabled the researcher to summarize and highlight the main points from the interviews into themes where the researcher could relate.

(Braun and Clarke, 2012) adapted a six-phase approach to thematic analysis detailed in table below.

Table 3. 2: A six-phase approach to thematic analysis

Phase 1: Data familiarizing
The first phase involves familiarizing yourself with the data by thoroughly reading the textual data which may come in the form of transcripts of interviews and listening to audio recordings (Braun and Clarke, 2012).
Phase 2: Generating Codes
The second phase 'starts the systematic analysis of the data through coding'. Codes are useful in identifying and providing labels for a feature of the data appropriate to the research questions (Braun and Clarke, 2012).
Phase 3: Searching for Themes
In the third phase, the data analysis is well outlined and moves from codes to themes. According to Braun and Clarke (2012 p.63) a theme " captures something important about the data concerning the research question, and represents some level of patterned response or meaning within the data set".
Phase 4: Reviewing Potential Themes
The fourth phase is doing quality checking. This is done by reviewing the themes that have been developed that are relative to 'coded data and entire date set' (Braun and Clarke, 2012).
Phase 5: Defining and Naming Themes
The fifth phase includes choosing quotes 'to present and analyze and providing the structure for the analysis (Braun and Clarke, 2012). Each theme when defined should clearly state its uniqueness and must be detailed.
Phase 6: Producing the Report
The final phase is about producing a report to provide ' a convincing story about your data based on your analysis (Braun and Clarke, 2012).

Source: Author

The interviews were recorded and transcribed ready for analysis. A randomly selected interview transcript may be found in Appendix E.

3.12 Validity and Reliability

Good research adapts 'reliability and validity which are the two most crucial elements used in the evaluations of measurement instruments or tools (Mohajan, 2017). "Reliability is the referred to the stability of findings, whereas validity has represented

the truthfulness of findings" (Mohajan, 2017 p.1). According to Mohajan (2017), 'validity and reliabilities represent transparency and decrease opportunities to add researcher bias in qualitative research. "Reliability" is defined by Saunders et al. (2009 p.156-157) as "the extent to which your data collecting approach or analysis techniques will provide consistent findings," whereas validity is concerned with whether the findings are truly about what they appear to be about. Reliability measures 'constancy, precision, repeatability, and trustworthiness of research and validity assess the extent to which the instrument measures what it is designed to measure' (Mohajan, 2017).

The triangulation method is known to "strengthen a study by combining methods" to test the validity and reliability of a study by using both quantitative and qualitative approaches (Golafshani, 2003). The study relied on a mixed-method analysis of semi-structured interviews (qualitative) and questionnaires (quantitative) data collected from 10 respondents in total.

By using the triangulation method, the researcher was able to check the consistency of the findings which was generated by the different data collection methods (Patton, 1999). A set criterion for acceptable data was adapted to manage the use of data and therefore, the data that did not meet the criterion were excluded from qualitative and quantitative analysis in this study. The literature review in this research work was acknowledged to compare and validate the research findings. The researcher ensured the survey questions were thoroughly linked to the research questions of this study.

3.13 Research Ethics

Ethics in research "refers to the appropriateness of your behavior concerning the rights of those who become the subject of your work, or are affected by it" (Saunders et al., 2009 p. 183-184). According to Saunders et al. (2009 p.184), research ethics is concerned with "questions about how researchers formulate and clarify research topics, design and conduct research, gain access to data, collect data, process and store data, analyze data, and write up the research findings in a moral and responsible manner".

The research proposal was submitted to the Faculty of Engineering and the Built Environment (EBE) ethics committee at the University of Cape Town for approval of ethics clearance before any data was collected and analyzed. The signed ethics clearance form is attached in Appendix C. In addition, an information sheet and consent form for a recording of interviews was forwarded to the participants, see attached Appendix D.

3.14 Conclusion

The objectives of this chapter were reached by adapting the "research onion" by exploring the different layers which included research philosophy; research approach; research strategy; the unit of analysis; research choices; time horizon; techniques and procedures used in the research methodology and further selecting the most suitable for the research report. Furthermore, the chapter also looked at the sampling technique, validity, and reliability as well as the research ethics. The following chapter will present the findings and discussion.

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents the main findings of the case study using the mixed-method approach. The main aim was to identify the factors that contribute to delays in Public-Private Partnership housing development projects in Namibia. The study findings were obtained from six semi-structured interviews from the Local Authority, Built Environment Profession and PPP Experts and four questionnaire respondents from Property Developers. The first section of the chapter provides a presentation and analysis of the results from semi-structured interviews into six different themes and sub-themes. This is followed by the presentation and analysis of the results from questionnaires. The final section consolidates the findings from the interviews and questionnaires. Furthermore, it discusses the findings in comparison to the literature review to answer the researcher's four main objectives.

4.2 Overview of the Case of Namibia

The supply of housing stock in urban areas is a problem in Namibia, as it is in many other African countries. Individuals, non-governmental organizations, and the private sector, are principally responsible for housing delivery in Namibia. Empirical information on the use of PPPs in housing delivery is currently limited in Namibia because the implementation is still relatively new. For PPP housing projects in Namibia, a joint venture model is used.

4.3 Qualitative data: Presentation and analysis of the results from semi-structured interviews

The semi-structured interviews were conducted with six respondents from various institutions which included the local authority, built environment professionals and PPP experts. The thematic analysis approach was used with *NVivo 12* software package to

analyze the interview transcripts. Six main themes emerged from the identified codes. These are presented in the table below and discussed in more detail thereafter.

Table 4. 1: Six main themes generated from the thematic analysis

Themes	Sub-Themes
Current PPP development and implementation	<ul style="list-style-type: none"> • PPP passed experiences • General perception of PPPs • Performance of PPPs • Importance of PPPs • Challenges in PPPs
PPP Procedures and Guidelines	<ul style="list-style-type: none"> • Government support in PPPs • Policies to support PPPs • Challenges with Policies
Different sector's involvement in PPP housing development projects	<p>Involvement by City of Windhoek</p> <ul style="list-style-type: none"> • Current PPP progress in CoW • Implementing PPPs in CoW • PPP functions in CoW <p>Involvement by PPP experts and built environment professionals</p> <ul style="list-style-type: none"> • PPP Involvement • Type of PPP procurement
Identified key factors that cause delays	<ul style="list-style-type: none"> • Allocation • Availability of land • Funding • Internal Factors from CoW • Lack of Project Management • No capacity • Political Will • Procurement • Tenure ship • Town Planning • Understanding of PPP implementation
Implications of delay in PPP timelines	<ul style="list-style-type: none"> • PPP Timelines • Effects of time
Mitigating delays	<ul style="list-style-type: none"> • Reduce delay in PPPs from CoW perspective • Suggestions for PPPs

Source: Author

4.3.1 Theme 1: Current PPP Development and Implementation

The Interviewees were requested to give a broad explanation and opinions of PPP housing development projects within the Namibian context.

a) PPP passed experiences

The PPP concepts are slowly emerging, with the local authorities and government showing interest in them. In the past, the government and local authority's operations developed projects with their own funding and had no budget for it (Interviewee 3).

b) General perception of PPPs

In the Namibian context, Public-Private Partnership projects are relatively new with all sectors involved having different perceptions. Interviewee 4 indicated that Namibia has shown a relatively slow movement or slow progress on how PPP housing initiative or housing development are conducted, which is a result of past experiences and the time it takes for development projects to enter the market:

“It is a very systematic slow procurement process which might cause people to have that general negative perception towards the process in general”
(Interviewee 4).

This view was supported by Interviewee 5 who felt that PPP projects are more government and local authority central and very few projects have been implemented where only the private sector is involved as a developer. Furthermore, many local authorities are appreciating the context of PPP projects and the implementation thereof (Interviewee 5). The PPP concept has been received from different towns in Namibia, such as Windhoek, Otjiwarongo, Rundu, Ondangwa, Walvis and Oshakati:

“My view is we will be expecting a lot more projects coming forth” (Interviewee 5).

c) Performance of PPPs

The performance of PPP projects depends highly on the current market (Interviewee 3). This opinion was supported by Interviewee 4, who felt that the PPP approach for housing in Namibia has not been utilized to its full extent and further highlighted that there is still room for improvement (Interviewee 4). According to (Interviewee 5), land delivery projects are more popular compared to housing projects in Namibia.

Interviewee 6 indicated that the performance of PPPs is not what it should be and argued that although the Council is engaged in the projects, they are not actively

involved to resolve problems and assist projects in finalizing the developments as quickly as possible:

“The main reason is, if you look at Council, the different departments are made up in a silo, and there is no direct line of communication between these silos to ensure that if you have a problem with town planning that the agreed people are actually addressing the problem with town planning” (Interviewee 6).

d) Importance of PPPs

The PPP concept and process is important because most local authorities that are tasked to develop houses lack the financial resources. The demand for housing has increased but the resources are very limited to deliver (Interviewee 4). Furthermore, the PPP concept creates an opportunity for the private sector to invest where, if the local authority and any public entity properly structure and prepare a commercially viable PPP housing project, it can be a direct opportunity to stimulate private sector investments (Interviewee 4).

According to Interviewee 4, PPP concept is important for its risk identification, risk management and risk allocation. The shared risk enables the private sector to help local authorities to manage some of these risks and relieve some pressure from the local authorities from both a technical and fiscal point of view (Interviewee 4):

“Government, public entities and municipalities are transferring some of the risks that the private sector entities are better able to do compared to what we would do as a municipality” (Interviewee 4).

In addition, Interviewee 5 also agreed that risk sharing is one of the significant methods of PPPs. When projects are executed through a PPP arrangement, the parties involved which is the developer, financiers and local authority all take risk (Interviewee 5). The share in risk amongst the team is considered a fair approach:

“Distribution of risk is one of the key reasons why the PPP approach is attractive” (Interviewee 5).

The other benefit of using the PPP agreement is that the developer or local authority that is availing land does not need to worry about the bank assessing their financial position or their balance sheets (Interviewee 5):

“It’s easier for a project to be executed using a PPP arrangement. It has been quite effectively, if we can just continue with this, we will see of a lot of houses constructed” (Interviewee 5).

e) Challenges in PPPs

Many challenges have been experienced by stakeholders involved in PPP housing projects. Interviewee 3 mentioned two challenges experienced within their involvement PPP project development. Firstly, COVID-19 and the hard lock down restrictions and secondly, the bureaucracy issue which involved the decision-making process within City of Windhoek:

“These decisions on how and when to sell, hampere our delivery period” (Interviewee 3).

Interviewee 6 supported this view and indicated that the Town Councils interfere with the private sector’s initiative. Approval is mandatory from the City of Windhoek and their representatives. However, these representatives are not mandated to make decisions and must report back to the Councils for approval. This process takes a very long time (Interviewee 6):

“If you look at these long processes, it’s very difficult to implement the projects at the speed that it needs to be implemented to ensure that It’s a cost-effective project” (Interviewee 6).

According to Interviewee 6, the Councils have too much connection and influence with the PPP projects and are more involved in the decision-making process of projects. This has influenced the role of the private sector in projects (Interviewee 6).

Most of the PPP projects are a turnkey setup, where public sector provides the development agreement or development right and the private sector implements it over a period:

“These projects are however difficult to implement, I don’t know whether it’s politically driven, but there are very few of these projects going out now” (Interviewee 6).

Interviewee 4 identified the procurement process as a challenge. The procurement process involves setting up various institutional structures, such as drawing up procurement documents and managing the processes, this however comes with its own capacity challenges and resource challenges, especially from the local authority point of view (Interviewee 4).

4.3.2 Theme 2: PPP procedures and guidelines

a) Government support in PPPs

The administration of PPPs by the government of Namibia has been fully established where the government has a major role to play in the implementation of PPPs. According to Interviewee 1, the government’s involvement in PPPs is not through a policy document but rather a policy decision, where the government has taken initiative in the provision of affordable housing in the informal settlements.

The need for government sector support is required, especially in PPP housing projects where the target is relatively low-income population or groups (Interviewee 4). According to Interviewee 4, the role of the government in PPPs is to manage public resources, implement policies and programmes:

“There is an opportunity for government to be more proactive within the segment of trying to address the low-income segment by studying certain PPP deals” (Interviewee 4).

b) Policies to support PPPs

The Ministry of Trade and Industry (2017) established the Namibian Public-Private Partnership Policy ‘to develop PPP regulations to govern the public sector relationship with the private sector’. There are overarching policies governing the PPP projects, the three general ones are the National Development Plan, The Millennium Development Goals and Vision 2030 (Interviewee 2). Other policies include the National Housing Policy, which is being amended and reviewed by the government to ensure the PPP

component is being addressed (Interviewee 1). Furthermore, Interviewee 1 indicated that the new Urban Planning Act had been approved and regulations drafted, however it was not implemented yet (Interviewee 1).

With regards to specifically developed policies, the National Housing Policy of 1999 has been reviewed in 2009, this policy gives an idea of government's commitment towards the whole housing issue (Interviewee 2). Housing development in Namibia are regulated by the following legislative acts, described by the Interviewee 2:

1. The Local Authority Act of 1992 describes the roles of the local authority which are specified in establishing schemes for housing.
2. The National Housing Enterprise Act (NHE) determines the operations of the NHE and plays a pivotal role in terms of housing in the country.
3. The National Housing Development Act which guides the local authority and government in terms of establishing revolving funds and built together schemes

c) Challenges with Policies

Challenges are experienced with the policies governing housing development projects. Funding is one of the core challenges identified:

“These policies and strategies align the root for capital investment, infrastructure, availing land and the government to provide grants and soft loans to address the issue of affordability to the lower end-users” (Interviewee 2).

4.3.3 Theme 3: Different sector's involvement in PPP Housing Development Projects

a) Involvement by City of Windhoek (CoW)

- ***Current PPP progress in CoW***

In terms of the housing development, CoW is in the process of constructing affordable housing, but is not a PPP arrangement (Interviewee 1). This view was supported by Interviewee 2, who argued that not much exploration has gone into PPPs for housing development and further highlighted those thirty years have passed and very little has happened with regards to PPP housing developments apart from the last eight years.

According to Interviewee 2, in the last eight years' progress has been seen in terms of policies, regarding land delivery and housing, where the low and ultra-low-income sectors need to be addressed:

“Over the past five years City of Windhoek delivered 1685 serviced plots via PPP and it gave an average of 337 per annum and the requirements were 1200 per annum” (Interviewee 2).

At present, the CoW lack land that is already planned and surveyed which is ready for servicing (Interviewee 6). The PPP concept has been adapted to avail serviced land, but not for the construction of houses (Interviewee 1). The CoW is currently aligning all new PPPs and JVs to the Act and regulation (Interviewee 1):

“Currently CoW is in the process of planning and developing PPPs for the provision of housing” (Interviewee 1).

According to Interviewee 1, the recent involvement of Cow in PPPs is that it has identified township extensions where 1000 affordable houses will be constructed as part of the PPP approach. The PPP process allows City of Windhoek to tap into private sector capital which can be used to develop housing (Interviewee 4). Additionally, it provides a leeway into alternative financial resources to develop houses which helps the City to achieve their objective of housing delivery (Interviewee 4).

- ***Implementing PPPs in CoW***

PPPs have been challenging to implement in the CoW because they are not aligned to the PPP Act, this is because all project agreements in CoW were signed before the Proclamation and Gazette of the PPP Act (Interviewee 1). The Ministry of Urban and Rural Development and the Ministry of Finance have trained a core group within the L/A of Windhoek, Walvis Bay and Ondangwa to be able to implement the PPP Act in their jurisdiction for the construction of houses (Interviewee 1). Moreover, since the implementation of the PPP Act, people have recently been empowered and trained on how to implement PPPs within their projects (Interviewee 1).

- **PPP functions in CoW**

The role of PPPs in CoW is that the concept deals with the provision of infrastructure services in the City which include provision of township development, provision of water, electricity, storm water, sewerage, and infrastructure, and can also be stretched into providing services for the construction of houses (Interviewee 1).

Interviewee 2 supported this view by adding that the role of CoW involves planning for areas of land for development in terms of its mandate according to Local Authorities Act 23 of 1992 for the establishment of housing schemes, loan schemes and direct loans to avail it to low-income users:

“The CoW was normally responsible for the planning, design, and financing and all the cost related to the project” (Interviewee 3).

Additionally, the CoW must ensure that the quality and standards is maintained throughout the construction, so that developers do not give a product that is not meeting the requirements for the end-user (Interviewee 2). The developers must ensure that the living environment being created, has access to sanitation, water, sewage services and electricity, and mainly to maintain a nice living environment for the end-user (Interviewee 2).

b) Involvement by PPP Experts and Built Environment Professionals

- **PPP experts**

PPP experts are individuals who have experience in PPP projects. These individuals play different roles within the PPP housing development projects.

Based on the function of Interviewee 4, their directorate’s involvement with the PPP housing in Namibia is to facilitate and advise public entities, this includes municipalities, L/A, Town Councils, Regional Councils and Ministries on prospective PPP projects. For housing projects, the directorate advice the L/A to structure, that is to prepare PPP housing concepts and help them undertake a feasibility study as well as guide them through the procurement of the private partner who would invest and develop the housing units and supply to the market (Interviewee 4):

“We are sort of an advisory body to all L/A with regards to developing housing projects as well as taking them to market” (Interviewee 4).

Interviewee 5 is mandated to participate in facilitating financing resources which is debt, capital into projects that are in different sectors and infrastructure. According to Interviewee 5, they are responsible for appraising projects that require financing to execute the different types of PPP projects. Additionally, their role is to receive readily packaged projects in terms of the PPP agreements with project features that require financing from the bank (Interviewee 5):

“I am responsible for doing a recommendation to the approval committee to establish whether we should assist this project by availing funds or not and give reasons to that effect” (Interviewee 5).

- **Built Environment Professional**

The built environment professionals are the practitioners who provide technical support services in PPP projects.

Interviewee 3 have been involved with PPPs in Namibia particularly with land development and not in construction or development of houses:

“The key thing, when you enter a PPP, the responsibility of the private partner is to go look for financing, so when we go look for financing and you get someone who is willing to finance under the scheme. There are certain sureties that you give as a private developer and guarantees” (Interviewee 3).

Interviewee 6 make use of a company within their subsidiary to assist developers and Town Councils with the whole PPP development process. They have experience with land delivery projects, from when it's vacant land and are familiar with how to get the project through a statutory process phase (Interviewee 6). Furthermore, they know how the engineering, procurement and contractors work as well as the sale of these ervens and marketing (Interviewee 6). Interviewee 6 indicated that they can provide the full service when the land is allocated:

“With the PPPs that we have been involved in, the developer was tasked with finalizing the layout” (Interviewee 6).

c) Type of PPP Procurement

All PPP projects differ in terms of the PPP procurement that is applied. The type of PPP procurement method undertaken by Interviewee 6, involves providing a turnkey

project, where the Council is approached to make land available. According to Interviewee 6, they are responsible for all processes and ensure that everything is done accordingly. Furthermore, they assist in obtaining financing for the project through the development bank or any other GIPF funds and do not receive any profit, making these projects affordable:

“Most of these PPPs will be a turnkey setup, where public sector would provide the development agreement or development right and the private sector implements it over a period” (Interviewee 6).

Interviewee 3 had a similar approach where they identified a vacant piece of land and made an offer to CoW to develop on it. CoW’s role was to provide the land and they would provide the financing and technical skills to develop the project:

“After two years, we were called for a presentation and accepted the proposal, but from the date of the presentation, the actual signature of the PPP was about five years” (Interviewee 3).

4.3.4 Theme 4: Identified key Factors that cause delays

The Interviewee’s identified several factors that may cause delay in PPP housing projects. These identified factors are listed below.

a) Allocation

Allocation of the houses is seen as a problem, although the L/A has a waiting list, the process of allocation is a time-consuming process that can take about 1-1½ years (Interviewee 2). This point was supported by Interviewee 5, who also argued that the MURD who approves the names of prospective buyers of ervens and houses with regards to sales is very lengthy process. Moreover, this slow process may put pressure on the cash flow of the project and on the delivery and timelines to finalize the projects (Interviewee 5).

b) Availability of land

The availability of serviced land for development of houses is seen as one of the key challenges that cause delay (Interviewee 2). Interviewee 4 supported this view by

stating that land was the primary factor for the development of houses but was not always readily available from the L/A to implement such projects.

c) Funding

Implementing PPPs in L/A and across the country is relatively very expensive, and it needs skills which the country does not have (Interviewee 1):

“There was no concrete funding provided to land servicing and construction of affordable funding” (Interviewee 1).

Interviewee 2 also agreed that funding was an issue and highlighted that finding financing for projects in the low and ultra-low income was challenging. Additionally, access to affordable land, services and infrastructure also proved to be difficult (Interviewee 2).

d) Internal Factors from CoW

The internal decision-making process within CoW is governed by an Act of parliament and the L/A and this includes how responsibilities are prescribed (Interviewee 3):

“As the private sector, we want to sell the property as soon as possible, as long as we do not engage in any illegal commercial venture, but for CoW it’s not in their power to change the process unless they change the Act, even if we want to fight them” (Interviewee 3).

According to Interviewee 6, the CoW is seen to be working in silo’s and do not have a project steering committee that are the implementers of projects or contract of the PPP agreements:

“As soon as something needs to happen, they need to go to one of these silos to get the information and it’s as if the silos in the CoW is not part and parcel of the PPP agreement” (Interviewee 6).

e) Lack of Project Management

Some of the PPP projects lack the project management skills. According to Interviewee 1, end-to-end project management has become an issue in Namibia where projects are started but not seen through and money is spent and cannot be accounted for:

“Projects start and are not on time, not within budget, and quality is poor” (Interviewee 1).

f) No capacity

The projects have no capacity in terms of the divisions or departments that are mandated to provide access to housing, land servicing (Interviewee 1). In addition, they are short staffed, and housing is not prioritized (Interviewee 1). According to Interviewee 4, after land is secured, it requires a feasibility study and structuring of the project, however very often L/A's and public entities don't have the capacity to do these studies. They don't have the technical and financial expertise to assess project viability or feasibility (Interviewee 4).

g) Political Will

Political will is lacking, there is no commitment from politicians in terms of supporting the development of resources to be able to address the affordable housing in informal settlements or low-income areas as PPP projects (Interviewee 1).

The bureaucratic process within the L/A and government which was introduced many years ago is one factor contributing to delay and the people find it difficult to move away from it (Interviewee 3). Furthermore, decision-making process within CoW on how properties are to be sold hampered the delivery period (Interviewee 3). Interviewee 5 supported this view by stating that there was a lot of bureaucracy around the PPP housing projects:

“A presentation will be made to CoW Town Council and address the problems and what we think they should do to resolve this, because ultimately there is a big drive to develop land and the developers' hands are being cut off because of the bureaucracy at the CoW” (Interviewee 6).

h) Procurement

Procurement of services, specifically construction in PPP projects is another key factor identified that cause delay (Interviewee 2). The tendering and construction that involves the capacity with L/A can take roughly 2-3 years and in total the development period alone before a house is being constructed can take 5-6 years (Interviewee 2).

According to Interviewee 4, the procurement process is about setting up various institutional structures, for example drawing up procurement documents and managing the process. This however comes with its own capacity challenges and resource challenges, especially from the local authorities' point of view (Interviewee 4). The actual procurement might also take time, because the nature of the process does not happen overnight (Interviewee 4):

“It can span anything between 1-2 years or 3 years, it really depends on how strong that public entity” (Interviewee 4).

i) Tenure ship

Tenure ship is identified as one of the key factors that cause delay in projects, where no development can be made on a property unless the property is not on someone's name (Interviewee 2).

j) Town Planning

The process of Town Planning starts with firstly, planning the township layout; secondly, submission to Council for approval; thirdly, circulated and submitted to the Township Board and the Surveyor General and lastly the Township is registered in the Deeds office (Interviewee 1). According to Interviewee 1 the Town Planning process needs to be shortened:

“This entire process can take up to 5 years and that is very long” (Interviewee 1).

Similarly, Interviewee 2, also supported this view and stated that the statutory process which has to do with planning for a specific vacant land involves approvals from the Township Board, surveying the land and eventually doing the Township registration before establishment can take place (interviewee Interviewee 2):

“In terms of timelines, we are looking at 1(½) – 2 years of all these processes if everything goes according to plan” (Interviewee 2).

“One project in Cimbebasia we have been working on the town planning is for almost a year now, recently CoW's town planner came up with a different layout, which could have been done a year ago, and the project is not continuing because of the delays from Councils side” (Interviewee 6).

k) Understanding of PPP implementation

The PPP concept is new and very few people have an understanding on how to develop and implement PPP projects (Interviewee 1). Consequently, there are talks about PPPs, but the agreements need to be developed into a workable document that becomes a project to be implemented, monitored, evaluated, and ensures that projects are successfully completed (Interviewee 1). This assessment was supported by Interviewee 2, who stated that one of the delay factors depends on the lack of understanding of the PPP process.

4.3.5 Theme 5: Implications of delay in PPP Timelines

a) PPP Timelines

The following Interviewees described their experience with project timelines within the different PPP projects they were involved in.

Following the experience of Interviewee 3, at first, they identified vacant land and made an offer to CoW to develop the land. The CoW offers land for development, and they provide the financing and technical skills to develop the project. After 2 years CoW called them for a presentation and accepted the proposal, from date of the presentation to the actual signing of the PPP agreement, it took a period of 5 years of which they could then only secure financing (Interviewee 3). According to Interviewee 3, the bureaucracy that went into signing the agreement was long, therefore they did not meet their timelines in the process of procuring the project:

“The longer the project takes, the more you pay in interest and key thing about this agreement is that there is a penalty interest, so you would get for instance 24 months at a certain rate but if you do not make it within that time, you will have a penalty rate added to the base rate” (Interviewee 3).

Following the experience of Interviewee 4, the project timelines are based on past experiences but also the process and time it takes to develop a project and take it to the market. Various stakeholders emphasized that it takes more time, because of the involvement by the L/A who firstly must structure and prepare projects. According to Interviewee 4, timelines are not really a casting stone, for implementing PPP projects

from the initial stage until the stage where houses were developed, it can take anything between one year and six months, depending on the type of the project, the size, and the cost:

“For the projects to work smoothly, for you to implement it from initiation to construction in one year and six months, you would need to have the land available and ready and in many cases that is a challenge for L/A, because there is a number of consultations and approvals that go into that process” (Interviewee 4).

Regarding the procurement process, it can span from between one to 3 years, depending on the strength of that public entity (Interviewee 4). Moreover, if the L/A or municipality have the technical capacity, financial ability, strong management structure and people who can manage these processes, one can implement the project within the one year and 6 months but of course, it can expand to a longer timeline of anything between two to three years (Interviewee 4). Following the experience of Interviewee 5:

“We are not involved in the packing of the projects; we receive an application that is already put together”.

When a complete application has been submitted, it helps to speed facilitation of the application and quickness the assessment and conclusion for financing (Interviewee 5). According to Interviewee 5, from the bank’s perspective, the approval process depends on the loan amount, where the application passes different approval levels or committees depending on the loan amount:

“The lower the amount, the faster the application can be concluded, where the higher the loan amount, the lengthy the conclusion time, because more people will then be involved” (Interviewee 5).

Following the experience of Interviewee 6, the initiation phase until construction consists of having the entire statutory processes out of the way. During the construction phase, CoW is not so involved in the process. According to Interviewee 6, the final handover of services to CoW or to Council needs to be finalized within 28 days, and to date, they have not managed to finalize the hand over process on any single project they have worked on:

“Usually by the end of 28 days, you receive a letter from CoW stating that they cannot take over because of different reasons, but its more because of differences within their side” (Interviewee 6).

What has happened is that is the developer provided financing, implemented the project, surveyed the land which the engineer and developer has taken over from the contractor who is ready to start building. These services now need to be handed over to the CoW or Council before the land may be sold to the next party, on an average that process takes at least 2 months (Interviewee 6).

b) Effects of Time

Interviewee 3 highlighted that Council is not interested in coordinating the PPP housing projects to be time effective and do not understand the interest time value for money:

“The longer the money stays in the project, the costly it gets, the developer might not even make money (profit), because what they perceive as profit is the total revenue of the project and not necessarily the actual profit after expenses” (Interviewee 3).

Additionally, Interviewee 6 emphasized that from the Councils side, they do not see time cost of money, because they receive budgets to implement projects and timelines do not matter to them. As a result, many clients loose interest because of the delay in projects and these are the profits from the projects (Interviewee 6). According to Interviewee 6, CoW does not focus on getting these projects done and so that land is transferred to the new owners.

4.3.6 Theme 6: Mitigating Delays

a) Reduce delay in PPPs from CoW perspective

In general, revolving funds, policies, programmes, and provision of human resources to manage the implementation of the PPP housing projects is lacking and needs to be in place (Interviewee 1). According to Interviewee 2, the city can put strategies for forward planning of PPP projects in the form of creating savings account for land which needs to become available continuously as projects are rolled out. Additionally, the

CoW needs to manage time of all housing projects irrespective of the type of mode of delivery (Interviewee 2).

Government engagement especially for affordable housing PPP projects is essential. Interviewee 3 suggested that regulations that govern relationships within the PPP housing projects must be changed for the parties to make commercially viable decisions. Furthermore, all final decisions must be left in the hands of the private partner to escape the regulations that the L/As are bound follow.

In addition, Interviewee 3 suggested that when implementing the PPP concept, objectives and mandates for the projects must be put on the table for both parties to agree if the project is either for affordable housing or a profit orientated project. It will lead to failure if the two concepts are mixed (Interviewee 3).

b) Suggestions for PPPs

The following Interviewees gave suggestions on best management practices for PPP housing projects.

According to Interviewee 4 firstly, secure the land or site and ensure that land is registered within the Local authority boundaries and that it meets the suitable criteria for structuring it as a PPP project. Secondly, build the capacity of L/A and public entity to be able to identify PPP opportunities in housing, this will be done by spending a lot of time, money, resources with the right skills and expertise to assist in preparing bankable housing PPP investment opportunities (Interviewee 4):

“That way we can attract a significant amount of private sector investment into housing PPP process” (Interviewee 4).

Thirdly, there is need for GRN sector support, especially if one is looking at doing a housing PPP targeting relatively low-income population or groups. There is an opportunity for GRN to be more proactive within the segment of trying to address the low-income segment by studying certain PPP deals (Interviewee 4):

Private sector entities would not construct or develop low-cost housing, especially if they don't see an opportunity to make a return” (Interviewee 4).

According to Interviewee 5, there is a lot of bureaucracy around the PPP arrangement or PPP projects. The local authorities are too involved in projects and often lack the capacity to understand the projects and allocate enough resources to attend to the actual projects like meetings or approvals of certificates from the L/A. Interviewee 5, advises the L/A to step back and allow the developer and professional team to carry the project:

“Too much involvement delays the work and delays the project at the end of the day” (Interviewee 5).

In addition, MURD usually approves the names of the prospective buyers of plots and houses, this process also delays very long (Interviewee 5). Interviewee 5 suggests that the minister allocates the approval authority to a less occupied person who can facilitate this process much faster (Interviewee 5):

“Often, we found the minister is taking months to get back to the developer to finalize the list of buyers” (Interviewee 5).

Interviewee 6 indicated that CoW works in silos and do not have a project steering committee that enforce the PPP agreements. When issues arise, although the PPP committee which consists of developers, engineers, financier, and CoW is in place, not much is resolved, because the PPP committee needs to return to Council for the final answer, this had resulted in communication breakdowns (Interviewee 6).

Interviewee 6 further emphasized that if the PPP committee is mandated 100% to implement the project on behalf of Council, things will go a lot faster:

“The idea of the PPP steering committee is that it should have the ultimate implementation powers to implement the project without interference from any of the departments within the Town Council and within the framework of the agreement” (Interviewee 6).

This would entail town planning, financial aspects with regards to sales and the takeover process, all persons involved in these elements must be part of the PPP steering committee must thus guide and report directly to this committee (Interviewee 6):

“If we can get that done, I’m sure that a lot of the challenges that we have will disappear” (Interviewee 6).

4.3.7 Summary of emergent themes

As a result of thematic analysis, six main themes were established and further subdivided into sub-themes. First theme, current PPP development and implementation explored passed experiences, the general perception, performance, the importance, and challenges in PPP projects. The second theme, PPP procedures and guidelines observed the government and policies to support PPPs. The third theme, different sector’s involvement in PPP housing development projects observed the involvement by the City of Windhoek and by PPP experts and built environment professionals. The fourth theme identified the key factors that cause delays namely, allocation, availability of land, funding, internal factors from CoW, lack of project management, no capacity, political will, procurement, tenure ship, town planning and understanding of PPP implementation. The fifth theme, the Implications of delay in PPP timelines focused on the PPP timelines as well as the effects of time. The last theme, mitigating delays highlighted ways to reduce delay in PPPs from CoW perspective and offered suggestions for PPPs.

4.4 Quantitative data: Presentation and analysis of the results from Questionnaires

Questionnaire results

The questionnaire received 4 responses; this is 40% of the selected sample of 10 Property Developers who are involved in PPP housing projects in Windhoek, Namibia. The responses were analyzed according to the reliability testing and are reliable as detailed in the previous chapter. The feedback received from the questions is seen below.

Background Questions

The following background questions were asked to the respondents with the aim to identify the key factors that cause delay in PPP housing development projects and assess the impacts on the project timelines for the private sectors.

Question 1: Highest level of Education

Figure 4.1 depicts the highest level of education the respondents represented in the study.

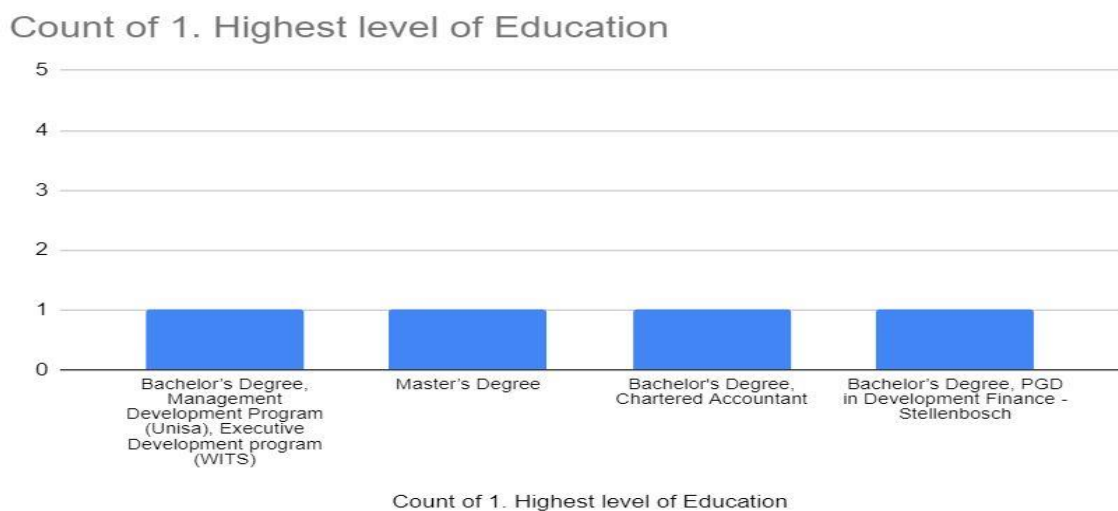


Figure 4. 1: Highest level of education

Figure 4.1 shows the highest level of education from the respondents. This question was answered by 100% (4) of the survey respondents. Three respondents hold Bachelor's degrees, a Bachelor's degree Management Development Program, Bachelor's Degree, PGD in Development Finance and Bachelor's degree of Chartered Accountancy. Only one respondent holds a Master's degree. The highest level of education of the respondents show that they all hold advanced academic knowledge in management, development and finance and can provide comprehensive knowledge with regards to the research question. Property development is a business process and does not necessary require a specific qualification.

Question 2: Profession

Figure 4.2 depicts the profession of the respondents represented in the study.

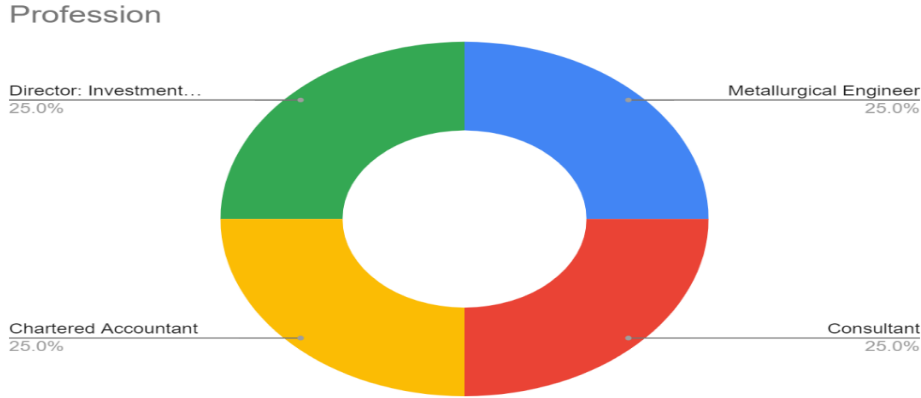


Figure 4. 2:Profession

Figure 4.2 show that all four respondents have different professions. The differences in the respondent’s profession enabled the researcher to gain an understanding of different professions involvement in property development projects.

Question 3: Indicate organization/sector

Figure 4.3 depicts the type of organization/sector that the respondents represented in the study

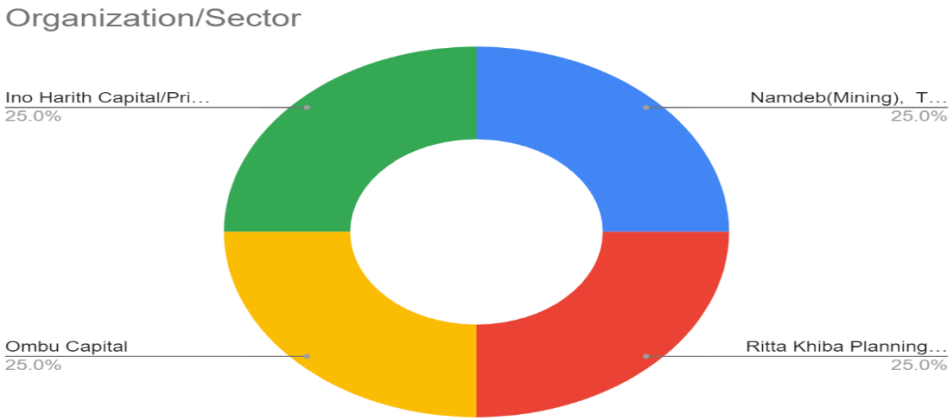


Figure 4. 3:Organization/sector

Figure 4.3 show that all four respondents are from different organizations or sectors. The findings show that, although the respondents are from different organizations or sectors, what they all have in common is the knowledge and capability to participate in property development projects.

Question 4: Have you been involved in any PPP housing development project in Namibia?

Figure 4.4 depicts the respondents who have been involved in PPP housing development projects.

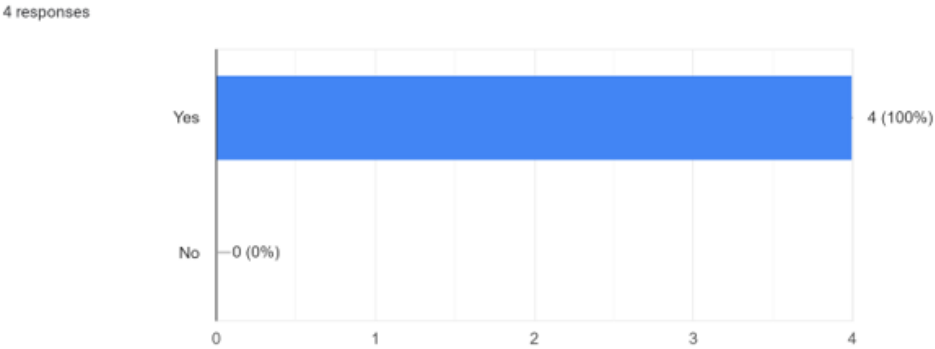


Figure 4. 4: Number of involvements in PPP housing development projects

Figure 4.4 show that all four respondents (100%) have been involved in PPP housing development projects and are able to share their experiences.

Question 5: How many PPP housing development projects have you been involved in?

Figure 4.5 depicts the total number of PPP housing developments the respondents have been involved in.

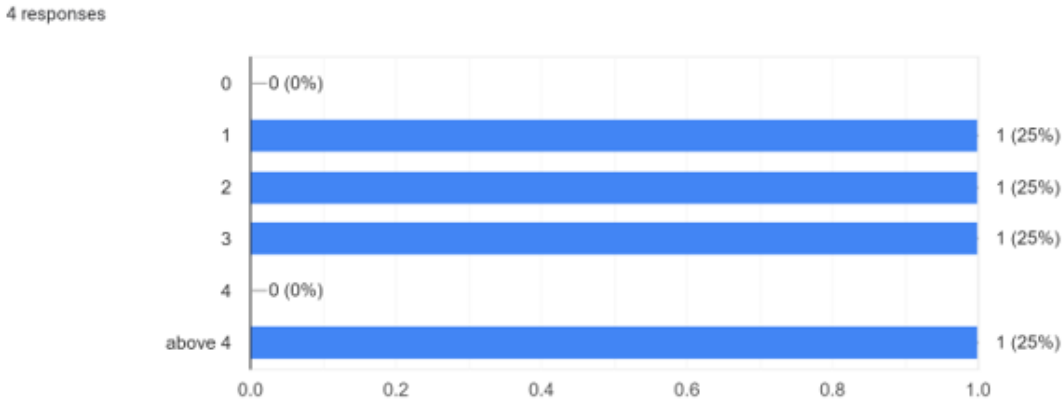


Figure 4. 5: Total number of PPP housing development projects involved in

Figure 4.5 show that from the four respondents, 1 (25%) has been involved in one PPP housing development project, 1 (25%) has been involved in two projects, another 1 (25%) has been involved in three projects and lastly 1 (25%) has been

involved in more than four projects. No respondent indicated involvement in only four projects.

Question 6: What are the key factors that cause (s) delay during PPP housing development projects?

Table 4. 2: Frequency of identified factor that cause delay in PPP Housing development projects

Frequency of identified factors that cause delay in PPP Housing development Projects		
Identified Factors that cause delay	Frequency	Percent
Bureaucracy	2	11.76
Delays in Statutory Planning Approvals	4	23.53
Lack of understanding in PPP processes	2	11.76
Inadequate working relationships	2	11.76
Funding	1	5.88
Delays from the Local Authorities	1	5.88
Corruption	2	11.76
Lack of clear PPP Policies to be managed	1	5.88
No streamlined processes	2	11.76
Total	17	100.00

Source: Author

Table 4.2 shows that the four respondents identified 8 factors that cause delays in PPP housing development projects. Bureaucracy was identified by 2 (11.76%) respondents; all 4 (23.53%) respondents identified delays in Statutory Planning Approvals and 2 (11.76%) respondents mentioned a lack of understanding in PPP processes. Inadequate working relationships was identified by 2 (11.76%); only 1 (5.88%) respondent identified funding; another 1 (5.88%) respondent identified delays from the Local Authorities. 2 (11.76%) respondents mentioned corruption; the lack of clear PPP Policies to be managed was identified by 1 (5.88%) and lastly 2 (11.76%) respondents identified no streamlined processes.

Question 7: What is the relative importance of the identified key factors affecting project timelines in PPP housing development projects? (short answer question)

The identified factors that affect project timelines in PPP housing development projects have a relative importance to the project. According to the property developers, the most important factor is the statutory planning approvals which includes the township plan approval by the Council, Township Board regulation as well as the bureaucratic processes within the City of Windhoek. The lack of inefficient officials in projects have also been identified. Communication barriers can be seen between the property developers (private sector) and landowners (public sector). Lastly, property developers have experienced the delays in negotiating funding with financiers.

Question 8: What are the implications of delays in project timelines of PPP housing development projects on property developers?

Table 4. 3: Frequency of Implications of delays in project timelines in PPP housing development projects

Frequency of Implications of delays in project timelines in PPP Housing development Projects		
Implications of Delays in Project Timelines	Frequency	Percent
High Interest rates on projects	3	30
Delay in housing delivery	3	30
Funding difficulties	1	10
Loss of project/ developer’s profits	3	30
Total	10	100

Source: Author

Table 4.3 shows the 4 Implications of delays in project timelines in PPP Housing development Projects recognized by the four respondents. High Interest rates on projects was recognized by 3 (30%) respondents; the delay in housing delivery was also recognized by 3 (30%) respondents; this was followed by funding difficulties which only 1 (10%) respondent acknowledged and finally, the loss of project or developer’s profit was recognized by 3(30%) respondents.

The following discussion forms part of the open ended questions from the survey of questionnaires distributed to the property developers.

Question 9: How can delay in timelines of PPP housing development projects be mitigated?

Theme 1: PPP Policies and Regulations

The public and private sector relationship is governed by regulations that are implemented by the Namibian Public-Private Partnership Policy. The property

developers emphasized that the regulations and approval process within the PPP housing development projects need to be restructured to accommodate all parties. Furthermore, the property developers indicated that Land and Housing Delivery Policies are not clear enough to support the parties to complete projects on time.

Theme 2: Public and Private Sector Relationship

The public and private sector enter into a relationship through the PPP agreement. This agreement highlights the roles and responsibilities of each sector. Both parties in the agreement need to understand the entire PPP cycle from land identification, housing delivery, time frames and the processes involved, to guard against conflict amongst them. There should be cooperation between the public and private sector to ensure that none of the parties are working against each other. The parties must prioritize and commit to delivering the project on time.

Theme 3: Suggestions for the Local Authority (City of Windhoek)

Based on experiences from the property developers they have highlighted a few suggestions for the local Authority (City of Windhoek) on specific ways to mitigate the delay in timelines. Firstly, the lessons learned from previous projects must be incorporated into new PPP housing development project, this applies to both the public and private sector. Secondly, to reduce the bureaucracy in statutory approvals, as this approval process is very long. Thirdly, the local authority to provide land to property developers on land allocation basis and not on exorbitant prices. Lastly, the local authority is advised not be involved in delivery of houses to clients as this falls out of their mandate and capacity.

4.5 Discussion

4.5.1 The key factors that cause delays in timelines of PPP housing development projects in Namibia

The first research objective determined the key factors affecting delays in the timeline of PPP housing development projects in Namibia. A few conclusions related to the first research objective can be drawn from the results presented in this chapter.

Namibia has a small population hence, the sample of data gathered is small. Nevertheless, the researcher is of the view that the results obtained still deliver important findings. A sample of six semi-structured interviews were conducted and only four responses were received from the questionnaire circulated.

The main aim of the question was to understand the factors based on the perceptions of the respondents to enable a successful delivery of projects on time by identifying the cause of delay in timelines of PPP housing development projects. Table 4.3 below compares the factors identified in the findings to the literature review. The findings show the 15 key factors namely: (1) Allocation; (2) Availability of land; (3) Funding; (4) Internal Factors from CoW/Delays from the Local Authorities; (5) Lack of Project Management; (6) No capacity; (7) Political Will/Bureaucracy; (8) Procurement; (9) Tenure ship; (10) Town Planning/Delays in Statutory Planning Approvals; (11) Understanding of PPP implementation/Lack of understanding in PPP processes; (12) Inadequate working relationships; (13) Corruption; (14) Lack of clear PPP Policies to be managed; and, (15) No streamlined processes that is identified to contribute to the delay in timeline of PPP housing development projects in Namibia. From the identified factors, (2) Availability of land, (4) Internal Factors from CoW/Delays from the Local Authorities and (10) Town Planning/Delays in Statutory Planning Approvals stood out as factors experienced in Namibia only.

Table 4. 4: Comparison of Key factors that cause delay in timelines of PPP housing development projects in the research findings and literature review.

No	Findings	Literature review	Author	Country
1	✓ Allocation	✓ Large area of land to be acquired	(Babatunde et al., 2017)	Nigeria
2	✓ Availability of land			
3	✓ Funding	✓ Financial problems and payment delays	(Durdyev and Hosseini, 2019)	China, UK, Malaysia, USA, Saudi Arabia, India, Jordan, Taiwan, Nigeria, and Thailand
4	✓ Internal Factors from CoW ✓ Delays from the Local Authorities			
5	✓ Lack of Project Management	✓ Project management	(Stander, 2016)	South Africa
6	✓ No capacity	✓ Lack of coordination	(Durdyev and Hosseini, 2019)	China, UK, Malaysia, USA, Saudi Arabia, India, Jordan, Taiwan, Nigeria, and Thailand
7	✓ Political Will ✓ Bureaucracy	✓ Political influences	(Stander, 2016)	South Africa
8	✓ Procurement	✓ Procurement process	(Thabane, 2014)	South Africa
9	✓ Tenure ship	✓ Ownership disputes	(Babatunde et al., 2017)	Nigeria
10	✓ Town Planning/Delays in Statutory Planning Approvals			
11	✓ Understanding of PPP implementation/ Lack of understanding in PPP processes	✓ Lack of experience among stakeholders	(Durdyev and Hosseini, 2019)	China, UK, Malaysia, USA, Saudi Arabia, India, Jordan, Taiwan, Nigeria, and Thailand
12	✓ Inadequate working relationships	✓ Inadequate government support in taking physical possession ✓ conflicts between stakeholders	(Babatunde et al., 2017) (Durdyev and Hosseini, 2019)	Nigeria China, UK, Malaysia, USA, Saudi Arabia, India, Jordan, Taiwan, Nigeria, and Thailand
13	✓ Corruption	✓ Legal disputes	(Babatunde et al., 2017).	Nigeria
14	✓ Lack of clear PPP Policies to be managed	✓ Legislation issues	(Stander, 2016)	South Africa
15	✓ No streamlined processes	✓ Ineffective or improper planning	(Durdyev and Hosseini, 2019)	China, UK, Malaysia, USA, Saudi Arabia, India, Jordan, Taiwan, Nigeria, and Thailand

4.5.2 The recent advances and implementations in PPP housing development projects

Interviewees during the in-depth interviews revealed PPP passed experiences, general perception of PPPs, performance of PPPs, the importance of PPPs and the challenges in PPPs pertaining the current developments and implementations in PPP housing developments in Namibia.

The housing projects in the past were developed solely by the government and local authorities. Chiripanhura (2018) acknowledged that housing delivery in Namibia is currently left to individuals, non-governmental organizations, and the private sector. At present a slow development of the PPP concept within the local authorities and government is seen.

The findings show that the PPP concept is relatively new in Namibia. The general perception of PPP in housing development projects is that it is a very slow process, and some people receive it in a negative way. This was supported by (Fungai et al., 2018), who mentioned the lack of empirical evidence in PPP housing delivery projects in Namibia, because the concept is fairly new. In addition, Batra (2020) also supported this view as it applied in different European countries where PPP in housing gained minimal momentum because of its perceived lack of probability, compared to other sectors.

The findings show that different towns in Namibia such as Windhoek, Otjiwarongo, Rundu, Ondangwa, Walvis and Oshakati have appreciated the implementation of the PPP concept in housing delivery and is presently being applied. Akintoye et al. (2006) supported this view by emphasizing that most governments are using the PPP concept to overcome financial constraints required for public infrastructure services and to connect efficiency and management know-how from the private's sector.

The findings show that land delivery PPP projects are more common compared to housing development projects in Namibia. There is still room for improvement in implementing the PPP concept for housing delivery as it is not applied to its full capacity. Kavishe et al. (2019a) encourages the government structures in developing countries to implement the PPP concept to deliver housing projects. The overall performance of the PPPs in housing development projects are not satisfactory, because of a lack of involvement from Councils to resolve problems that arise in the

projects. These findings are acknowledged by Blose (2015), who noted that PPPs were not completely agreed upon because of the different opinions on the transfer of government tasks to the private sector. Additionally, Fungai et al. (2018) argued that PPPs was not the best option as no documented evidence were visible for any successful project managed through the PPP concept.

Local authorities are responsible for developing houses. The findings reveal that the PPP concept is important for the delivering houses since the local authority lack financial resources. The PPP concept thus allows the private sector to invest and provide financial support to the local authorities. These findings are consistent with the study by Zhang (2016), who supports PPPs in housing on the basis that it improves multi-sectoral participation and productivity of the housing sector.

Furthermore, the PPP concept is significant for sharing risk amongst the property developers, financiers, and local authority. Similarly Ibrahim and Saleh (2016), acknowledged this view by stating that in the PPP approach, both the public and private sector finance, own, and operate a housing project and share risks according to the arranged contractual conditions. Consequently, the shared risks allow the private sector to help the public sector relief pressure from a technical and fiscal point of view. Liu et al. (2018) agreed with this view and stated that the public sector provides land for housing development while the private sector in return help ease its shortfall in financing and techniques.

Lastly, the findings show the different challenges experienced in the PPP housing sector which include firstly, hard lock down restrictions due COVID- 19. Secondly, the bureaucracy issue involving decision-making process with the City of Windhoek which takes a long time. These findings are consistent with the newspaper article by Confidente (2021) that mentioned that the “bureaucratic auction processes at municipalities prolongs the sales process thus delaying developments which result in lower returns”. In addition, lack of serviced land from municipalities; poor capacity of bulk infrastructure in certain nodes; high prices for land; high building material costs, outdated building regulations and long lead time in the housing value chain were some of the challenges identified in the newspaper by (Confidente, 2021).

Thirdly, most of the PPP projects are a turnkey setup and difficult to implement. Yuan et al. (2012) in their findings also come across similar problems where the public sector being fully responsible for designing, building, and operating public housing and experienced funding as financial burden for the local authority.

Fourthly, the procurement process was also identified as a challenge. Kavishe and An (2016) supports this view by stating that “poor contracting and tendering documents” was one of the five challenges experienced. The remaining four challenges included, “inadequate PPP skills and knowledge”, “inadequate project management”. "Inadequate legal framework" and "misinformation on the financial capacity of private partners".

Ahmed and Sipan (2020), identified the following challenges experienced in Nigeria such as "acquisition and access to land, high dependent of foreign building materials, adequate housing finance, the difficulty of access to mortgage facilities and land title, poor infrastructure facilities and cost recovery”.

4.5.3 The impact of project delays on the private sector Namibian PPP housing development projects.

The findings from the in-depth interviews reveal PPP Timelines and effects of time as part of the implications of delays in project timelines of PPP housing development projects on the private sector.

The findings show that PPP timelines can take a period of five years, from presentation date of the project to the signing of the PPP agreement. The private sectors did not meet their timelines in the process of procuring the project, because of the bureaucracy that went into signing the agreement, which took a long time. This view was supported by Remmert and Ndhlovu (2018) who highlighted that the lengthy bureaucratic application, review, certification and approval process overall add huge delays and costs to urban land planning and housing delivery. Furthermore, the involvement of the local authority in structuring and preparing projects influences the delays of the projects.

The findings show that the procurement process can take a span of 3 years if the local authority have the technical capacity, financial ability, strong management structure and capable human resource. Thabane (2014), stated that the procurement process may be hampered by regulatory approval or organizational incapacity regarding the required skills to complete the process; these factors result in time overruns and high bid costs for both the public and private sectors, causing delays in the delivery of PPP infrastructure projects.

The loan amount for the project will determine the length of project conclusion from the bank and works on a basis that the lower the amount, the faster the application is finalized and approved. Moreover, the final handover of services from the property developer to City of Windhoek/ Council upon completion must be finalized within 28 days. There is no evidence of a project that have meet those timelines. It was revealed that on average, the handing over process takes 2 months.

The findings show that time cost for money is not a priority for City of Windhoek/ Council. The private sector accumulate interest over time as a result of delays in projects consequently causing clients to lose interest because the projects are taking time longer than expected. According to Stander (2016), it is vital to eliminate needless delays from the planning control system since properties that reach the market too late due to project delays can result in significant losses in rental or capital returns over the key time.

The findings from the questionnaire reveal the top four identified implications of delays in project timelines in PPP housing development projects on the private sector. The implications include (i) High Interest rates on projects, (ii) Delay in housing delivery, (iii) Loss of project/ developer's profits, which all received a higher frequency rate of 30% each and (iv) Funding difficulties received a frequency rate of 10%.

These findings are consistent to the research by Al-Keim (2017), who noted that the delay in projects can cause more risk of inflation and finance charges to clients and contractors (private sector) who take accountability for the delay on the commercial loss. Zarei et al. (2018) in their study recognized that project delays have an impact on the delivery of projects which cause inefficiency in cost overrun and managerial and relationship issues.

4.5.4 The effective strategies to reduce delays in PPP housing development projects in Namibia.

The findings from the in-depth interviews reveal reducing delay in PPPs from the City of Windhoek perspective and suggestions for PPPs. The findings indicate that the City of Windhoek lack revolving funds, policies, programmes, and provision of human resources to manage the implementation of the PPP housing projects. Strategies can be applied for forward planning of PPP projects in the form of creating savings account for land which needs to become available continuously as projects are rolled out. Moreover, the City of Windhoek is encouraged to manage timelines of all housing projects irrespective of type of delivery approach.

The results suggest that regulations that govern relationships within the PPP housing projects be improved for both parties to make commercially viable decisions and furthermore, for the private sector to make final decisions. Further suggestions are for both parties to agree on the objectives and mandates of the PPP scheme during the implementation stage of the project.

The following six findings indicate suggestions on best management practices for PPP housing projects and proposes ways to mitigate delays in timelines.

- (i) First, ensure that the land secured is registered within the local authority boundaries and meets the suitable criteria to structure a PPP project.
- (ii) Second, develop capacity for the Local Authority and public sector to identify housing PPP projects, by availing time, money and resources with right skills and expertise.
- (iii) Third, there is a need for government sector support in the involvement of PPP projects especially for affordable housing projects.
- (iv) Fourth, the bureaucracy process around PPP projects often leads to delay since the local authorities are too involved and lack proper understanding in these projects. The local authorities are therefore advised to reduce the involvement in the projects and allow the property developers and professional team to continue with the project, without interference.
- (v) Fifth, the minister MURD is responsible for the approval of names of prospective buyers of plots and houses. This process often delays;

therefore, the minister is advised to allocate the approval authority to a liable person to facilitate the process much faster

- (vi) Sixth, a project steering committee is recommended to enforce PPP agreements within the CoW, hence they work in silos. The process is assumed to be faster if the PPP steering committee is mandated 100% to implement the project on behalf of Council. The PPP steering committee must consist of persons involved in town planning, financial aspects with regards to sales and the takeover process to guide and must report directly to this committee

The findings from the questionnaire reveal three key issues that were raised via the short answer questions: PPP Policies and Regulations, public and private sector relationship, and suggestions for the Local Authority (City of Windhoek) identified by the property developers to mitigate delays in timelines of PPP housing development projects in Namibia

- (i) The Namibian Public-Private Partnership Policy govern the regulations of the public and private sector. Keyter (2013b) in their findings indicated that the Namibian legislative and policy environment guides local governments and the private sector in PPP arrangements, which, when followed, leads to successful PPP initiatives. The property developers suggest that the regulations and approval process within the PPP housing projects be restructured to accommodate both parties. Moreover, the Land and Housing Delivery Policies should be properly structured to support the parties to complete projects on time.
- (ii) PPP agreements stipulate the roles and responsibilities of both public and private sector. The parties must have a clear understanding of the PPP cycle from land identification, housing delivery, time frames and the processes involved. Both parties should cooperate and not work against each other and must prioritize and commit to delivering the project on time. According to Alfen et al. (2009), all parties involved in PPPs must have a common understanding of the ideas that drive PPP structures, as well as an appreciation of the basic difficulties faced by both the private and public sectors.

- (iii) The suggestions for City of Windhoek are to learn from previous projects. Mejía et al. (2020) noted the importance of studying the main cause of delay in previous projects to mitigate the impacts on project performance. To limit the bureaucracy in statutory approvals. To provide land to property developers on land allocation basis and not on exorbitant prices and the local authority to limit their involvement in delivery of houses to clients.

4.6 Conclusion

This chapter presented the results of the study using the mixed-method approach. The qualitative data was collected from six semi-structured interviews from the Local Authority, Built Environment Profession and PPP Experts and the quantitative data was collected from four questionnaire respondents from Property Developers. The overall findings from the study were consolidated and allowed for comparison of the results with the literature review.

The analysis has identified 15 key factors that cause delay in timelines of PPP housing development projects in Namibia namely: (1) Allocation; (2) Availability of land; (3) Funding; (4) Internal Factors from CoW/Delays from the Local Authorities; (5) Lack of Project Management; (6) No capacity; (7) Political Will/Bureaucracy; (8) Procurement; (9) Tenure ship; (10) Town Planning/Delays in Statutory Planning Approvals; (11) Understanding of PPP implementation/Lack of understanding in PPP processes; (12) Inadequate working relationships; (13) Corruption; (14) Lack of clear PPP Policies to be managed; and, (15) No streamlined processes.

The current developments and implementations in PPP housing development projects confirmed that the PPP concept is relatively new in Namibia, however the general perception of PPP in housing development projects is that it is a very slow process. Currently the PPP concept in housing delivery is being applied around different towns in Namibia. The land delivery PPP projects are more common compared to housing development projects in Namibia. Moreover, there is still room for improvement in implementing the PPP concept for housing delivery.

The evidence from the study shows the following implications of delays in project timelines of PPP housing development projects on the private sector. These include

the following: bureaucracy process in procuring projects; the procurement process which takes a span of 3 years; City of Windhoek not prioritizing timelines in projects; high interest rates on projects; delay in housing delivery; loss of project/ developer's profits; and funding difficulties.

The study acknowledged suggestions to mitigate delays in timelines of PPP housing development projects in Namibia. The City of Windhoek should have strategies in place for forward planning of PPP projects and learn from previous projects; develop capacity for the Local Authority and public sector to identify housing PPP projects; Local authority to reduce the involvement in the projects because of the long bureaucracy process; create a project steering committee to enforce PPP agreements within the CoW; restructure the regulations and approval process within the PPP housing projects; and the public and private sector to both cooperate and not work against each other.

The next chapter presents the conclusions and recommendations for the study.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The purpose of this study was to identify factors contributing to the delay of project timelines in Public-Private Partnerships for housing development projects in Namibia. This final chapter presents the review of the research objectives, research aims and research questions as well as the research proposition. It finally makes recommendations that will help local authorities, property developers and stakeholders on PPP property development projects to improve on their practices and the conclusion. Thereafter, the references are presented followed by appendices.

5.2 Revisit the research objectives

The researcher is satisfied that the objectives of the research have successfully been met. As per the findings the main objectives of the study are detailed below as follows:

I. Objective 1: To determine the key factors affecting delays in the timeline of PPP housing development projects in Namibia.

The Research findings presented 15 key factors identified as the cause of delay in timelines of PPP housing development projects in Namibia which are namely: (1) Allocation; (2) Availability of land; (3) Funding; (4) Internal Factors from CoW/Delays from the Local Authorities; (5) Lack of Project Management; (6) No capacity; (7) Political Will/Bureaucracy; (8) Procurement; (9) Tenure ship; (10) Town Planning/Delays in Statutory Planning Approvals; (11) Understanding of PPP implementation/Lack of understanding in PPP processes; (12) Inadequate working relationships; (13) Corruption; (14) Lack of clear PPP Policies to be managed; and, (15) No streamlined processes. From the identified factors, (2) Availability of land, (4) Internal Factors from CoW/Delays from the Local Authorities and (10) Town Planning/Delays in Statutory Planning Approvals stood out as factors experienced in Namibia only.

II. Objective 2: To determine the recent advances and implementations in PPP housing development projects.

The PPP housing development projects are relatively new in Namibia and the concept is perceived to be a very slow process. Many towns in the country are making use of the PPP concept for property development, however, it was revealed that PPPs in land delivery projects are more popular compared to PPPs in housing development projects. Furthermore, the findings indicate that the PPP concept can still be improved.

III. Objective 3: To determine the impact of project delays on the private sector in Namibian PPP property housing development projects.

The findings presented and indicated the implications of delays in project timelines of PPP housing development projects on the private sector which are bureaucracy process in procuring projects; the procurement process which takes 3 years; the City of Windhoek not prioritizing timelines in projects; high-interest rates on projects; delay in housing delivery; loss of project/ developer's profits; and funding difficulties.

IV. Objective 4: To find effective strategies to reduce delays in PPP housing development projects in Namibia.

Lastly, the study concluded with some suggestions to mitigate delays in timelines of PPP housing development projects in Namibia. These include the City of Windhoek having strategies in place for forwarding planning of PPP projects and learning from previous projects; developing capacity for the Local Authority and public sector to identify housing PPP projects; Local authority reducing their involvement in the projects because of the long bureaucracy process; creating a project steering committee to enforce PPP agreements within the CoW; restructuring the regulations and approval process within the PPP housing projects; and the public and private sector to both cooperate and not work against each other.

5.3 Revisit the research aims and the research question

This study was aimed at identifying the factors that contribute to delays in Public-Private Partnership housing development projects in Namibia. The study focused on this area because most PPP housing development projects often fail to meet project timelines which leads to late delivery of houses to clients.

The study attempted to answer the following research questions:

The primary research question was:

- What are the key factors that cause delays in timelines of PPP housing development projects in Namibia?

Subsidiary Questions:

- What are the most recent advances and implementations in Namibia's public-private partnership housing development projects?
- What are the implications of delays in project timelines of PPP housing development projects on the private sector?
- How can a delay in timelines of PPP housing development projects be mitigated?

The research aim has been achieved and the research questions have been answered. The key findings indicate that a number of factors have been identified that cause delay in timelines of PPP housing development projects. Although PPPs are generally seen in land delivery projects, there is still room for improvement in the management of projects. The findings further show that projects can result in high interest rates when they do not meet timelines. Moreover, the findings suggests that the local authority have strategies in place for forward planning to help future PPP housing projects.

5.4 Research Proposition

According to the literature review, several developed and developing countries over the years have applied the PPP approach for housing provision as the approach offers

greater value for money compared to the traditional procurement scheme, however, the success of the projects differs from country to country. In Namibia, the Joint venture approach has been practiced in the PPP housing delivery projects.

The research proposition is summarized as follows:

The key factors that cause delays in timelines of PPP housing development projects in Namibia can be identified.

Projects need to be delivered on time; however, most projects never meet the project timeline. Delays in project deliveries have serious implications on the project cost. The importance of the study was therefore to seek to identify the factors that cause delays in project timelines of PPP housing development projects, more especially for the private sector and recommend ways to mitigate these delays for the Namibian PPP housing development industry. As a result of the research, the proposition is supported.

5.5 Recommendations

The researcher offers the following recommendations to be explored.

5.5.1 Central Government support

The availability of serviced land within Namibia is scarce. It is therefore recommended that the central government support the local authorities across the country by providing more funding towards land servicing. This effort from the government will encourage participation from the private sector, thus promoting the PPP agreements in housing developments projects.

5.5.2 Establishment and Implementation of Project and Programme Management Office in the local authority (City of Windhoek)

It is recommended the local authority (City of Windhoek) establish and implement a Project and Programme Management Office which will ensure the implementation of End-to-End Project Management. It should be a regular organizational structure, not a bureaucratic one. The PPMO aims to guide project delivery effectively and efficiently.

The PPMO should be developed as the focal point that controls all project reporting and accountability within the local authority. The PPMO will be responsible for the coordination of project-based consultations and training workshops. The local authority (City of Windhoek) would therefore be required to appoint pertinent staff with project management qualifications and skills.

5.5.3 Project-Based Consultation and Training Workshops

Since the PPP concept is new in Namibia especially for property housing development projects. It is recommended that regular project-based consultations and training workshops be held to sensitize both the private sector (property developer, the built environment professionals, and relevant stakeholders) and public sector to ensure the parties have a clear understanding of the PPP cycle from land identification, housing delivery, time frames and the processes involved. Additionally, the content of the training can focus on areas such as a) project scope; b) project time, quality management; c) project cost management; d) project procurement management, and e) project legal management. This will promote accountability as well as encourage the parties to cooperate and not work against.

5.5.4 A comprehensive investigation on PPP housing development projects delivered on time

The current research focused on key factors that cause a delay in PPP housing development projects. It is recommended that future research studies focus on investigating PPP housing development projects that were completed on time. This would be helpful to understand the main success factors that contribute to the successful completion of related PPP property development projects.

In addition, another in-depth exploration is required to investigate factors that lead to delay in completion and ways to mitigate these factors in PPP property development projects. The research could especially explore the developing countries; this can support countries like Namibia to improve project delivery on time from nearby countries. It was observed that the empirical studies on PPP housing development are very limited thus the research will improve the current literature review.

5.6 Conclusion

The research was aimed at identifying the key factors contributing to the delay of PPP housing development project timelines in Namibia. The objectives were to determine the key factors affecting delays in the timeline of PPP housing development projects in Namibia; to determine the current developments and implementations in PPP housing development projects; to assess the implications of delayed project timelines on the private sector in PPP property housing development projects in Namibia and finally to identify relevant ways to mitigate delays in timelines of PPP housing development projects in Namibia. The research findings may aid in the improvement of Namibia's Public-Private Partnership in housing development projects literature.

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APPENDIX A: Research Questionnaire

UNIVERSITY OF CAPE TOWN CONSTRUCTION ECONOMICS & MANAGEMENT



QUESTIONNAIRE

**Researcher: Maria MS Mberema
Town**

Institution: University of Cape

**Student Number: MBRMAR004
Management**

Course: MScs. Project

Research Title:

IDENTIFYING FACTORS CONTRIBUTING TO THE DELAY OF PROJECT
TIMELINES IN PUBLIC- PRIVATE PARTNERSIPS FOR HOUSING
DEVELOPEMENT PROJECTS IN NAMIBIA

Research Objective:

To identify the key factors that cause delay in PPP housing development projects
and assess the impacts on the project timelines for the private sectors.

Survey Questions

Indicate your response by ticking.

1. Highest level of Education

Undergraduate Diploma

Bachelor's Degree

Master's Degree

Doctoral Degree

Other

2. Profession

.....
.....

3. Indicate organization/sector

.....
.....

4. Have you been involved in any PPP housing development project in Namibia?

Yes

No

5. How many PPP housing development projects have you been involved in?

1 2 3 4 above 4

6. What are the key factors that cause (s) delay during PPP housing development projects?

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7. What is the relative importance of the identified key factors affecting project timelines in PPP housing development projects?

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8. What are the implications of delays in project timelines of PPP housing development projects on property developers?

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9. How can delay in timelines of PPP housing development projects be mitigated?

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For queries, clarity, additional information, kindly contact me at
mbrmar004@uct.ac.za / or via mobile: +26481 [REDACTED]

Thank you!

APPENDIX B: Semi-structured interview questionnaire

SEMI-STRUCTURED INTERVIEW QUESTIONNAIRE

Government/ Local Authority

1. How is the current progress of PPP housing development in Namibia?
2. What is the involvement of the Local Authority in PPP housing development projects?
3. What are the policies regarding government support in PPP housing projects?
4. What are the key factors that cause delay in PPP housing development projects?
5. What strategies and efforts of the local authority are put in place to reduce delay in PPP housing projects?

Private sector – Built environment professionals

1. What are your views on and how would you describe the performance of PPPs in housing development projects in Namibia?
2. Please describe the type of PPP procurement process that you have undertaken and timelines?
3. Please advise on whether the planned timelines were achieved in the PPP housing project.
4. What are the key factors that contributed to the delay of project timelines in the PPP housing development?
5. What are your suggestions to overcome these constraints?

PPP Experts

1. What is your involvement in PPP housing projects in Namibia?
2. What is the general perception towards the current progress of PPP housing developments in Namibia?
3. Why is the PPP approach important to use in housing developments projects in Namibia?
4. What are the timelines for PPP housing project formation and delivery?
5. Do you think the PPP approach has been effective for housing development projects in Namibia?

6. Do you have any suggestions relating to PPPs involved in housing development projects?

..... **Thank you**.....

APPENDIX C: Signed ethics clearance form

Application for Approval of Ethics in Research (EIR) Projects
Faculty of Engineering and the Built Environment, University of Cape Town

ETHICS APPLICATION FORM

Please Note:

Any person planning to undertake research in the Faculty of Engineering and the Built Environment (EBE) at the University of Cape Town is required to complete this form **before** collecting or analysing data. The objective of submitting this application *prior* to embarking on research is to ensure that the highest ethical standards in research, conducted under the auspices of the EBE Faculty, are met. Please ensure that you have read, and understood the **EBE Ethics in Research Handbook** (available from the UCT EBE, Research Ethics website) prior to completing this application form: <http://www.ebe.uct.ac.za/ebe/research/ethics1>

APPLICANT'S DETAILS		
Name of principal researcher, student or external applicant	Maria Mberema	
Department	Department of Construction Economics & Management	
Preferred email address of applicant:	Mbrmar004@myuct.ac.za	
If Student	Your Degree: e.g., MSc, PhD, etc.	MSc in Project Management
	Credit Value of Research: e.g., 60/120/180/360 etc.	60 Credit
	Name of Supervisor (if supervised):	Prof. Kathy Michell
If this is a research contract, indicate the source of funding/sponsorship	N/A	
Project Title	Identify factors contributing to the delay of Project Timelines of Public Private Partnerships for Housing Development Projects in Namibia	

I hereby undertake to carry out my research in such a way that:

- there is no apparent legal objection to the nature or the method of research; and
- the research will not compromise staff or students or the other responsibilities of the University;
- the stated objective will be achieved, and the findings will have a high degree of validity;
- limitations and alternative interpretations will be considered;
- the findings could be subject to peer review and publicly available; and
- I will comply with the conventions of copyright and avoid any practice that would constitute plagiarism.

APPLICATION BY	Full name	Signature	Date
Principal Researcher/ Student/External applicant	Maria Mberema		10/05/21
SUPPORTED BY	Full name	Signature	Date
Supervisor (where applicable)	Kathy Michell		11/05/2021

APPROVED BY	Full name	Signature	Date
HOD (or delegated nominee) Final authority for all applicants who have answered NO to all questions in Section 1; and for all Undergraduate research (Including Honours).	Dr. Frank K. Ametefe		21/5/2021
Chair: Faculty EIR Committee For applicants other than undergraduate students who have answered YES to any of the questions in Section 1.	Dr. Frank K. Ametefe		21/5/2021

APPENDIX D: Information sheet and consent form



Information sheet and consent form

Introduction

My name is Maria Mberema, and I am conducting research towards a master’s degree. I am identifying factors contributing to the delay of Project Timelines in Public Private Partnerships for Housing Development Projects in Namibia and would like to invite you to participate in the project.

About the project

The project is aimed at identifying factors contributing to the delay of Project Timelines of Public Private Partnerships for Housing Development Projects in Namibia. This is to establish, your experiences based on your involvement in PPP projects. I would like to interview you to gather more information on the topic.

Participation is voluntary

Please understand that you are not obligated and do not have to participate in this project. Your participation is entirely voluntary. The choice to participate is yours alone. If you choose not to participate, there will be no negative consequence. If you choose to participate, but wish to withdraw at any time, you will be free to do so without negative consequence. However, I would be grateful if you would assist me by allowing me to interview you.

Expectations from participations

I will only ask you a few questions regarding your involvement in PPP housing projects. This should take 15 to 30 minutes. There is no financial obligation from the project or you as the participant. Therefore, there is no payment/reimbursement available. With your permission, I would record this interview however you do not agree that is still acceptable. I also need your consent to refer to this recording and any notes I may have taken for academic purposes including my project, academic conferences and possibly journal publications.

Benefits to participants

No indirect or indirect harm

Risk of harm to participants

No foreseen or unforeseen risks

Sharing and use of data

Data generated from the interview will be synthesized and used to answer the research questions set for this master’s project, presented in conferences, and may be published in journals.

Anonymity and confidentiality

Identity encoded but standing conveyed (it matters who you are interviewing)

.....**separate**
page

By signing the consent form you agree to the terms stipulated in this consent sheet regarding them interview. If you are not comfortable with the terms, please make a note on the form.

Interviewee name: Interviewee’s signature:

Date: Additional comments

Participation Information Sheet

1. Research title

Identifying factors contributing to the delay of Project Timelines in Public Private Partnerships for Housing Development Projects in Namibia

2. What is the purpose of this research?

You are being invited to participate in a behavioral study developed by researcher at the University of Cape Town. The primary aim of the research is to identify the factors that contribute to delays in Public Private Partnership housing development projects in Namibia.

3. What will the research involve for me?

This will involve one-on-one discussions between the interviewer (the researcher) and an individual intended to gather information on the PPP housing Projects. This should take approximately 15 to 30 minutes.

4. What are the possible benefits of taking part?

The research is significant as it will seek to identify the factors that causes major delays in project timelines of PPPs in housing development projects for the private sector. In addition, the study will recommend possible solutions to deal with time management frameworks applicable to the Namibian PPP housing development industry. The study will benefit the Local Authorities and private sector both locally and foreign by broadening their awareness to improve time performance in PPP housing development projects in Namibia and many other developing countries.

5. Am I eligible to participate in this survey?

This survey is only for Namibian based individuals who are particularly involved in PPP housing projects.

6. Do I have to take part, and can I withdraw my response from the research?

Participating in this study is entirely voluntary. You are free to not participate in this research at all. If you have successfully signed up to the survey but afterwards decide not to participate in the formal survey, or if you have already started with the formal survey but later do not want to continue anymore regardless of the reason, you have the right to exit at any point of the survey and we will delete your response from the dataset. There will be no consequences for failing to complete the survey. This data collection and research work is totally independent from the university's employment/ assessment. Once you have submitted your completed survey responses, it is not possible to withdraw your data.

7. Will my taking part in the research be kept confidential and how will the data be processed?

Please bear in mind that no personally identifiable information will be required throughout the entire data collection. You will only be asked to leave your email address to sign up, allowing us to invite you for a follow-up survey and be registered for the raffle game. If you are willing to reveal your email address, this information will be irrevocably deleted after the entire data collection is finished. This data collection and research work is for our academic use only. Publication of research outputs or potential sharing of data with other research institutes will only take place after the thorough anonymization and will not disclose any personally identifiable information.

8. Ethical approval

The research has been reviewed and approved by the University Research Ethics Committee of UCT, with the ethics reference number and permission has been obtained to circulate this survey.

9. What if I feel discomfort while taking part in this research?

We understand this is a difficult time which can be very distressing. If you feel particularly anxious or find it distressing to consider changes that the COVID situation has brought about to you, please do not hesitate to quit this survey, and if needed, the following organizations may offer mental health or practical support:

10. What if I have any questions?

We very much appreciate your valuable input, and we hope you stay well. This statement has been developed to protect people who agree to take part in research studies. If you have a complaint/concern, please contact Dr. Frank Ametefe (Head of Research Integrity and Governance) at frank.ametefe@uct.ac.za email address. If you require more information about this research or have any questions about the survey, please feel free to contact Prof. Kathy Michell (Supervisor of this research) at kathy.michell@uct.ac.za

Consent form for recording of interview – to accompany information sheet given to participant

Title of project:

Identifying factors contributing to the delay of Project Timelines in Public- Private Partnerships for Housing Development Projects in Namibia

Name of interviewer:

Maria Mberema

Title of degree:

Master's in project management

University of Cape Town

I, confirm the following:

1.	I have read the information sheet provided by the researcher and thus understand the projects aims and objectives.	
2.	I am participating in this project voluntarily and understand that I may withdraw from the interview at any time if I so do wish.	
3.	I acknowledge and understand that confidentiality will be maintained.	
4.	I have been asked permission to record this interview and have given my permission.	
5.	I understand that this data is accessible to other researchers only if they honour the confidentiality agreement.	

Participant

Date

Signature of participant

Name of participant

Organization of participant.....

Researcher:

Name:

Signature:
.....

Date:

APPENDIX E: Randomly selected interview transcript

RESEARCH INTERVIEW QUESTIONNAIRE: INTERVIEWER 2

Government/ Local Authority

1. How is the current progress of PPP housing development in Namibia?

Currently in the broader part of Namibia most of the projects would be on JV basis as not a lot of exploration has gone into PPP as a housing development. The CoW has ruled out PPP land development or land delivery. The current progress in the L/A on PPPs is rated 2 from a scale of 1 (poor)-5 (high), because 30 years has passed and not a lot has happened apart from the last 8 years. In the last 8 years there has been progress in terms of policies, regarding land delivery and issues of housing, because the sector that needs to be addressed is the low and ultra-low-income sector. Over the past 5 years CoW delivered 1685 serviced plots via PPP and it gave an average of 337 per annum and the requirements were 1200 per annum.

2. What is the involvement of the Local Authority in PPP housing development projects?

The mandate of the L/A pertaining to housing is the provision of serviced land and providing affordable housing. There are certain sectors in the market who lean strongly on the L/A providing housing in that arena. The role of the L/A involves planning for areas of land to be developed in terms of its mandate, according to L/A Act is that it can establish housing schemes, loan schemes, direct loans and make it available to low-income users. It should administer and drive the whole issue of land ownership or land tenure, which is relatively a new concept developed for the past 3 years and is at a point of implementation. The L/A must ensure that the quality and standards is maintained throughout the construction, so that developers do not give a product that is not meeting the requirements for the end-user. The main thing has to do with the living environment that is being created, the issue is sanitation, access to water, access of sewage services and electricity, mainly the maintain a nice living environment for the end-user.

3. What are the policies regarding government support in PPP housing projects?

In terms of the policies, there are overarching policies of which the three general ones are the National Development Plan, the Millennium Development Goals and Vision 2030. With regards to specifically developed policies is the National Housing Policies of 1999 and has been reviewed in 2009, this policy gives an idea of GRN's commitment towards the whole issue of housing. There is Local Authorities Act of 1992 where roles of the L/A are specified in establishing schemes for housing. There is a National Housing Enterprise Act that determines the operations of the NHE and plays a pivotal role in terms of housing in the country. There is the National Housing development Act which guides the L/A and GRN in terms of establishing revolving funds and built together schemes. The whole idea with the policies is, it will get to the point where we realize that funding is one of the core challenges that one sits with. Through these types of policies and strategies aligns the root for capital investment and infrastructure and availing land and GRN to provide grants and soft loans a to address the issue of affordability to the lower end- users.

4. What are the key factors that cause delay in PPP housing development projects?

The whole issue of identifying delays is resting on one should get an understanding of the process and terms of the process is the areas where the problems lie. In terms of housing process proceeded by land delivery process is the issue of the statutory process, which has to do with planning of specific areas, getting approvals via Township Board, getting specific packets of land surveyed and eventually getting to the process of township registration before establishment can take place. In terms of timelines, we are looking at 1(½) – 2 years of all these processes if everything goes according to plan. There is an area of tendering and construction, this has to do with the capacity with L/A and process can take 2-3 years. There is an issue of allocation – the L/A have a waiting list but there is still an issue of the allocation, and that process can take 1-1(½) years. In total the development period alone before a house is being constructed can take 5-6 years.

This is one of the key factors in terms of the availability of enough stock in terms of serviced land for houses to be built, this is one of the core challenges. There is an

issue of funding; difficulty of procurement of services for specifically construction; tenure ship, one cannot go out and build unless a property is not on someone's name or that person can obtain the property with a top structure which is a house with the land; and finally, access to affordable land, services, infrastructure. The core thing of finding financing in the sector and financing specifically to the low and ultra-low-income sector.

5. What strategies and efforts of the local authority are put in place to reduce delay in PPP housing projects?

Strategy and effort would start with the main thing of forward planning, this is like building up a savings account of land which needs to become available continuously as projects are rolled out. This unfortunately takes time and cannot be done in a short period of 3 or 6 months or 1 year. There is the issue of the engaging funding partners, the whole idea is to obtain a sustainable basis of sufficient funding at affordable cost to the end user. There is an issue of exploring SPV, different modes of delivery via JV's or via PPP's or making the environment conducive and attractive for funders or investors who may take a keen interest in this. There is an issue of GRN engagement, because specifically at the low or ultra-low-end users, one requires GRN to be engaged. There is an issue of managing time to ensure that houses are delivered irrespective of what mode of delivery. There is an issue of bureaucratic process in L/A and GRN, which was introduced many years ago and the people are difficult to move away from it. The establishment of the new Urban and Rural Planning Board, which is an effort from the Ministry of Urban and Rural development to look at how the whole-time constraints regarding statutory processes and planning can be addressed.

Thank you very much for your time.