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Factors that influence the time performance of the procurement process of Public Private Partnership projects in South Africa from Request for Qualifications (RFQ) to Financial Close

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A dissertation interim report submitted to the Faculty of Engineering and the Built Environment, University of Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Science in Building.



School of Construction Economics and Management, University of the Witwatersrand, Johannesburg

2014

DECLARATION

I declare that this research report is my own unaided work. It has been submitted for the Degree of Master of Science in Building in the University of Witwatersrand, Johannesburg. It has not been submitted for any degree or examination in any other University.

_____

(Signature of Candidate)

_____ Day of _____ (year) _____

ABSTRACT

Public Private Partnerships (PPP) are a unique model for countries that wish to deliver infrastructure services to the communities they serve. This unique form of procurement combines the efforts of both the public and private sectors. PPP procurement allows governments with resource constraints to access private sector funds to implement their infrastructure and services delivery programmes. South Africa has taken a decision to adopt PPP's as an alternative to the traditional form of infrastructure delivery. PPP's are however a fairly new way of procurement for government departments. The delivery of PPP's has therefore come with its own unique challenges that need to be addressed in order to make this type of procurement effective.

South Africa has adopted world-class PPP procurement guidelines which are on par with those of established PPP markets. The PPP procurement process is outlined in the National Treasury's PPP Manual and Standardised PPP Provisions. The PPP Manual provides guidelines for the implementation of the full project life-cycle of a PPP. PPP procurement forms an important part of the project lifecycle, and ensures that the outcomes of a PPP are met, being affordability, value for money, and equitable risk transfer for the contracting parties.

The aim of this research was two-fold. Firstly, this research aims to investigate the time performance of the procurement process for PPP projects in South Africa. Secondly, the research aims to determine the factors that influence the time performance of the procurement process for these projects.

The case study research strategy was identified as the most suitable method of addressing the research aims. The justification of the use of the case study strategy was based on the type of research questions posed, the extent of control the researcher had over behavioural events, and the ability of case studies to address the contemporary as opposed to historical events. In addition, the case study strategy was considered advantageous because it follows a rigorous methodical path that protects against threats of construct, internal and external validity. To this end, four cases were selected for the research. The cases selected were as follows:

- Maropeng and Sterkfontein PPP Project;
- Department of Statistics South Africa (DSSA) New Head Office Accommodation PPP Project;
- Department of Foreign Affairs (DFA) New Head Office Accommodation PPP Project; and
- Department of Rural Development and Land Reform (DRDLR) New Head Office Accommodation PPP Project.

The cases were initially analysed individually, and thereafter a cross-case analysis was conducted. The cross-case analysis was used to identify trends and associations across cases, together with any differences worth highlighting.

Analytical procedures were used to analyse the time performance of the PPP procurement process from Request for Qualification (RFQ) to Financial Close. Planned and actual procurement timelines were

collected from the PPP procurement documentation (i.e. RFQ and RFP documentation) and the interview respondents respectively. Semi-structured interviews were used to collect qualitative information on the factors that the respondents deemed to have influenced the time performance of the procurement process for the selected cases. The interview questions were based on insights gained from the literature review related to the factors that influence the time performance of the PPP procurement process.

It is envisaged that the insights gained from the research will go a long way to improving the time performance of the procurement process for PPP projects in South Africa. An improved time performance of the procurement process can lead to quicker delivery of PPP projects to marginalised communities where the need for infrastructure services is the highest.

Keywords: Construction, Procurement, Public Private Partnerships, Time Performance, South Africa.

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LIST OF ACRONYMS

BBB-EE	Broad Based Black Economic Empowerment
BAFO	Best And Final Offer
BEE	Black Economic Empowerment
BLTM	Build Lease Transfer Maintain
BOO	Build Own Operate
BOT	Build Operate and Transfer
BOOT	Build Own Operate and Transfer
BPF	British Federation System
CFO	Chief Finance Officer
CII	Construction Industry Institute
COHWHS	Cradle of Humankind World Heritage Site
CSF	Critical Success Factors
D&B	Design and Build
D&C	Design and Construction
DACEL	Department of Agriculture, Conservation, Environment and Land Affairs
DBSA	Development Bank of Southern Africa
DBFO	Design Build Finance Operate
DED	Department of Economic Development
DFA	Department of Foreign Affairs
DG	Director General
DDG	Deputy Director General
DoE	Department of Energy
DLA	Department of Land Affairs

DPW	Department of Public Works
DRDLR	Department of Rural Development and Land Reform
DSSA	Department of Statistics South Africa
ECC	Evaluation Coordination Committee
EIA	Environmental Impact Assessment
EoI	Expression of Interest
EPC	Engineering Procurement and Construction
FHA	Federal Highway Administration
HIV	Human Immunodeficiency Virus
ICC	Interpretation Centre Complex
ICT	Information and Communications Technology
IPP	Independent Power Projects
MDBs	Multilateral Development Banks
NPC	Net Present Cost
P-A	Principal-Agency
PEC	Project Evaluation Committee
PFI	Private Finance Initiative
PFMA	Public Finance Management Act
PPP	Public Private Partnership
PSC	Public Sector Comparator
PwC	Pricewaterhouse Coopers
QCA	Qualitative Content Analysis
RFI	Request for Information
RFP	Request for Proposal
RFQ	Request for Qualification

RFQ	Request for Qualification
RSA	Republic of South Africa
SG	Statistician General
SMEs	Small and Medium Enterprises
SPV	Special Purpose Vehicle
TA	Transaction Advisor
TET	Technical Evaluation Team
UK	United Kingdom
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
USA	United States of America
VFM	Value For Money

GLOSSARY OF TERMS

Bidder: A bidder is one who submits a bid in response to a project brief of a request for an expression of interest.

Build Lease Transfer (BLT) – A contractual arrangement involves the design, construction and financing of a facility by the private sector, who then leases the facility to government for a fixed rental for an agreed period. The legal ownership of the facility rests with the concessionaire during the lease period, and is then ceded to government after the lease terminates.

Build, own and operate (BOO): A contractual arrangement whereby the responsibility for design, funding, construction, operation and maintenance of the facility vests with the private sector during the concession period. Control and ownership of the facility is retained by the private sector, i.e. no transfer of the facility to government.

Build, own, operate and transfer (BOOT): A contractual arrangement whereby the private sector does a large development under contract to the public sector. Ownership of the facility vests with the private sector until the end of the concession period, and thereafter ceded to the host government.

Build, operate, and transfer (BOT): A contractual arrangement whereby the responsibility to attain funds to build and operate the facility for a fixed term is borne by the private sector for a required return on investment. At the end of the fixed term all the operating rights and maintenance responsibilities are ceded to the host government.

Concession Agreement: An agreement with a government body that entitles a private entity to undertake an otherwise public service.

Design, build finance and operate (DBFO): A contractual arrangement whereby the responsibility to design, build, finance and operate the facility vests with the private sector or concessionaire. During the concession period, the right of ownership is retained by the host government while the private party is given access to the facility.

Financial Close: In financing a PPP Project, the point at which the documentation has been executed and conditions precedent have been satisfied or waived to allow drawdowns to be permissible.

Output Specification: The output specification sets out the range of services that government is seeking to procure and the performance levels required for each of those services.

Private Finance Initiative (PFI): A UK programme encompassing arrangements whereby a consortium of private sector partners come together, to provide an asset-based public service under contract to a public body.

Private Party: This is a private sector entity which the government contracts within a PPP.

Procurement: The process which creates, manages and fulfils/terminates contracts through a succession of logically related actions occurring or performed in a definite manner and which culminate in a major deliverable or attainment of a milestone.

Public Private Partnership: A contractual arrangement between a government institution and a private party whereby the private party performs an institutional function and/or uses government property in terms of output specification.

Public Sector: Relates to public agencies and enterprises that are financed, owned and controlled by government.

Risk Allocation: In PPP's, this refers to allocation of risk to the party that is in the most favourable position to absorb and manage the risk.

Special Purpose Vehicle: A legal entity that is formed by the private equity investors and sponsors of a PPP with the purpose of contracting directly with the grantor or the public entity.

Traditional Procurement: A type of procurement whereby the client is responsible and accepts the risk for design and cost control while the contractor is responsible and accepts the risk for carrying out the works.

Value for Money: Achieving the best available outcome after taking into account all of the benefits, costs and risks over the whole life of procurement.

CHAPTER 1
INTRODUCTION TO THE RESEARCH

1.1 Introduction

This study seeks to investigate the time performance of the procurement process for PPP projects in South Africa, and to determine the major factors that influence that time performance. Four case studies have been conducted for this purpose. It was anticipated that the knowledge gained from this investigation would shed new insights for both the public and private sector PPP practitioners alike, as to the problems that can hinder an efficient procurement process on PPP projects, with the ultimate aim of addressing and mitigating these challenges. The research involved the use of quantitative and qualitative research methods. The quantitative methods involved the use of a time variance analysis to measure the time performance of the procurement process for each individual case, while the qualitative methods involve the use of semi-structured interviews to determine the factors that influence the time performance of the selected case.

This chapter follows a clear road map as described by Bloomberg and Volpe (2012: 68) in their example of an introductory chapter to a dissertation paper. The chapter begins by offering a *context and background* to the research area that the study is framed upon. The context and background of the study is thereafter followed by the *problem statement*, which narrows down the research problem within the context of the broader research topic. The problem statement is followed by the *statement of purpose and accompanying research questions*. The *research approach* is described in the succeeding sections, followed by the *research hypothesis* made by the researcher to guide the investigation and gather evidence. The chapter is concluded by explaining the *rationale and significance of the study* in terms of the insight it can bring to improve future PPP procurement process objectives.

1.2 Background and Context

Governments around the world have a responsibility to deliver infrastructure and public services to their citizens. Basic services are considered a necessity to the well-being of each human being. Developing countries have bound themselves to meet the United Nations' eight Millennium Development Goals by 2015, which include "eradicating extreme poverty and hunger, achieving universal primary education, reducing child mortality, and improving maternal health" (UNDP, 2006). In reality, this has proven to be a mammoth undertaking for countries already under immense resource constraints. Increasing population growth, especially in developing countries, has put these countries in a position where they cannot afford to deliver even basic services to all their citizens with their annual fiscus. Delmon makes reference to a World Bank report on the lessons learnt in the infrastructure space which states that 'poor infrastructure is one of the biggest inhibitors of a country's economic growth and international competitiveness' (2011: 1).

It has been established by academics and policy makers alike that a strong link exists between infrastructure investment and the growth of economies (Bogetic & Fedderke, 2006: 2). For example, it has been shown by research that a heavy investment in improving transport infrastructure, even though not sufficient on its own to generate wider economic growth, definitely steers the physical location of such growth and its overall efficiency and scale (Cervero, 2009a, as cited by Willoughby, 2013). Growing economies require a firm infrastructure base to make an economy amenable to growth. It is not, however a mere question of building infrastructure, but also one of ensuring that there are efficiencies built into infrastructure projects, and that the stock is maintained for sustainability.

The traditional approach of procurement for delivering services has long been the preferred and dominant method used by a lot of governments around the world. In the traditional approach to procurement, the government specifies the quantity and quality of the service required, and contracts the design and construction of the required infrastructure to a private party, usually via a tender process (Burger and Hawkesworth, 2011: 4). On completion the facility is transferred back to government who will thereafter be responsible for the staffing, maintenance and operation. There are however challenges associated with the traditional approach to procurement. The National Treasury PPP Unit (2007: 6) highlights the main challenges associated with the traditional approach to infrastructure. Firstly, the one challenge is the apportionment of risk. The public sector is not generally known to manage risk well, and it is normally found that there are time and budget overruns if a public institution undertakes to build its own infrastructure. Secondly, there is the challenge of budget constraints whereby the public institution does not have the requisite budget to deliver a service or infrastructure when required. The National Treasury therefore recommends that a "value-for-money" test should be conducted to determine whether a traditional or alternative PPP procurement approach will be more cost effective to deliver a service or infrastructure need.

Public Private Partnerships (PPP's) demonstrate how the collaborative efforts of the public and private sector can take advantage of each other's strengths to bring about tangible change by adding valuable infrastructure projects to States with tight fiscal budgets. The rationale behind PPP's is the benefit they offer to both the public and private sector, by allowing each to tap into mutual resource pools. The value-add is one that "public ownership alone is unable to tap into" and combines the "financial and operational capabilities" that neither of the parties can provide alone (Weihe, 2008, as cited by Gordon et al., 2013: 74). Grimsey and Lewis (2009) explain that one of the major objectives of a PPP is to "harness private sector management expertise, and the market disciplines associated with private ownership and finance, for the provision of public services" (Akintoye & Beck, 2009: 399). The authors explain that the private sector is expected to bring the operational efficiencies implemented in private organisations to the public sector, and they in return are reimbursed for the delivery of the services to specified levels. One of the main arguments in support of the use of PPPs is the perceived efficiency of the private sector that can be used to benefit an inefficient public sector (Akintoye & Beck, 2009: 83). Akintoye and Beck differentiate between the notion of 'efficiency' and effectiveness, and explain that an effective policy is one that delivers on the level of service it set out to deliver (2009: 84). Ahadzi and Bowles describe the main drivers behind the use of PPPs as "budget deficits, ageing or poor infrastructure, and growing demand on public sector services" (2004: 967).

For developing countries, Willoughby argues that the advantages of PPP procurement in the delivery of infrastructure are more pronounced than developed countries due to the following reasons (Willoughby, 2013: 35):

- "To some extent in easing the resource constraints of local authorities, the financing advantage,
- To significant degree in enabling competition more fruitful in terms of additional efficiencies, resulting from better division of risks, than obtainable through the contracting procedures previously used, the efficiency advantage,
- And notably in introducing, and adapting to local circumstances, more modern techniques in fields from ticketing to land management, and sounder practices of maintenance and performance monitoring, the innovation advantage."

PPP projects have been delivered with great success in developed countries, notably in the United Kingdom, Australia and Canada. These countries have adopted flagship PPP programmes that serve as good examples for the rest of the world's active and potential PPP participants. Many developing countries have adopted PPP's as a conduit to delivering infrastructure projects with the aim of spurring economic growth and contributing to social benefit of communities they serve. There have been some successes to date, but there have also been some challenges in adopting PPP programmes to deliver on the States' developmental objectives. In reality these challenges emanate from various stages of the PPP project life cycle, namely inception and feasibility, procurement, construction, to operation and maintenance of the facility.

Inefficiencies in the procurement process of PPPs can have adverse effects on the delivery of PPP projects. These inefficiencies take form in a variety of ways. For example, the PPP procurement process can be derailed by 'red-tape' regarding the string of approvals required by the regulatory institution in charge, or the organisational incapacities regarding the level of skills required to see this process through to contractual close. This normally leads to time overruns of the PPP procurement process and high bid costs for both the public and private sector. The outcome may be a delay to the delivery of a much needed infrastructure project. The inefficiencies can also act as a deterrent to new PPP entrants and this in turn can lead to a compromised competitive tendering environment. A competitive tendering environment is required to achieve the desired outcomes of a PPP initiative, namely innovation, quality, cost and risk transfer.

According to a report compiled by KPMG on the status of PPP procurement in Australia, inefficiencies in the PPP procurement process are a result of a number of factors. The report identified the primary shortfalls as follows (KPMG Australia Corporate Finance, 2010: 41):

- A largely unknown pipeline of projects that is sporadic in nature;
- Lack of skill and expertise;
- Governments' level of commitment to a project, PPP model and the procurement process;
- Excessive information and documentation requirements;

- Inconsistency in tender documentation; and
- Inefficient decision making processes and delayed communication of decisions.

The KPMG study was based on the PPP Procurement process in Australia, which is considered one of the most established PPP markets alongside Canada and the United Kingdom. Notwithstanding the fact that developing countries and their PPP markets are yet to reach a stage of maturity, learnings can still be drawn from these developed counterparts. It seems evident from the literature that the skills and expertise of government departments is one of the more prominent issues exacerbating the inefficiencies of the PPP processes. A lack of skills in developing countries should therefore be cause for concern. Government buy-in or commitment is also pivotal in making PPP projects a success, and this success can translate itself into an efficiently run procurement process where target milestones and outcomes can be achieved within envisaged timeframes.

Excessive information and documentation requirements have also been cited as one of the contributors to the inefficiencies of the PPP procurement process. The excessive information relates primarily to the detail of design input that is required for the submission of the bids at an early stage of the procurement process. Bidders spend a huge amount of resources and time compiling detailed design submissions. Some of the information requested is generic in nature and can be avoided in the submissions. Some of the more experienced countries, such as Canada, have adopted reduced information requirements at the bidding stage (KPMG Australia Corporate Finance, 2010: 33). Bidders benefit significantly as less input into design translates into lower bidding costs.

1.2.1 The South African Context

South Africa is a fairly young democracy that has recently been transformed from a state where a majority of the population was marginalised by the previous apartheid regime, to an inclusive society where all citizens are entitled to services as enshrined in the Constitution. The introduction of a new democratic dispensation in 1994 meant that the majority of the population, that was previously marginalised, was brought into the mainstream economy. This means that the government has had to embark on a massive accelerated campaign to ensure the provision of basic services for the population, namely electricity, water and sanitation and housing. However, this has proven to be a difficult feat, owing to massive unemployment that has resulted from a lack of skilled labour and a mismatch of skills that do not meet the high demands of a growing economy. The rampant unemployment has also translated into a small tax base that needs to support a large population, and thus resulted in stretched resources and a backlog of the roll-out of the government promise of service delivery to the “have-nots”. In their assessment of the performance of key infrastructure sectors, Bogetic and Fedderke (2006) establish that electricity, water and sanitation, information and communication technology and transportation in South Africa lags behind some of its international counterparts regarding the provision of infrastructure, especially access, performance, affordability and quality thereof.

The South African government has recognised PPPs as an essential part of delivering basic services to their population. In his opening statement in the Public Private Partnership Manual, the then Minister of Finance, Trevor Manual, stated that "South Africa is proudly amongst the leading countries in the world in the law, policy and systems…" established for public private partnerships (National Treasury PPP Manual, 2004: 1). The government of South Africa has, as part of the PPP implementation drive, adopted PPP procurement guidelines that are world class and compare to that of other leading countries such as the United Kingdom, Canada and Australia. These procurement guidelines form part of National Treasury's Regulation 16 of the Public Finance Management Act (National Treasury PPP Manual, 2004). The procurement guidelines provide a roadmap of National Treasury's procurement requirements from inception of a PPP project to contractual close and beyond.

World-class guidelines do however require a high level of skills set to implement them in practice. It is also worth mentioning that in South Africa, the traditional procurement approach is still the most dominant. Strong political will is therefore required to support PPP projects against the back-drop of the prominent traditional procurement approach. A lack of commitment can lead to increased time being spent on decision making. The excessive time spent on decision-making leads to high bid costs for both bidders and public institutions alike (KPMG, 2010: 2). These costs act as inhibitors to competition and compromise the value outcomes of the project. Potential PPP participants may also be deterred from placing their bids if there is uncertainty regarding government's commitment to PPP projects. These bids take a huge amount of time and expertise to prepare; and as such bidders need a degree of certainty that these projects will in fact be implemented (KPMG, 2010: 2). This study therefore explored the extent of these and other procurement challenges in the South African context.

1.3 Problem Statement and Research Questions

1.3.1 Problem Statement

Public private partnerships are set to be part of the answer for countries with resource constraints to fulfil their infrastructure needs. At its core, a PPP is however a complicated structure that involves the full lifecycle of a project from inception, procurement to operation. A lot of projects do not get to the market on time due to a protracted procurement process.

By determining the main factors that influence time performance, it is envisaged that PPP practitioners can thereafter present new ideas on how to address these factors in order to get to an improved time performance of the PPP procurement process. Lessons learnt can be used to produce best practice procedures that can be documented as reference for future PPP projects.

1.3.2 Research Questions

The main research questions seek to address the research problem prepared as follows:

1. What is the time performance of the PPP procurement process for the case under investigation?

2. What are the main factors that influenced the time performance of the procurement process for the case under investigation?

The following subsidiary research questions flow from the main research questions and insights from the literature review:

1. How did political will influence the tie performance of the PPP procurement process?
2. How did communication structures within the client department influence the time performance of the PPP procurement process?
3. How did turnover of staff influence the time performance of the PPP procurement process?
4. How did the level of skill and capacity influence the time performance of the PPP procurement process?
5. How did standardisation of procurement documentation influence the time performance of the PPP procurement process?
6. How did a project champion influence the time performance of the PPP procurement process?
7. How did the client structure influence the time performance of the PPP procurement process?
8. How did client type influence the time performance of the PPP procurement process?
9. How did land enablement matters influence the time performance of the PPP procurement process?
10. How did external factors influence the time performance of the PPP procurement process?

1.4 Research Approach

The research is based on a review of four case studies, which entailed three office accommodation PPP projects, and one tourism PPP project. The aim of the study is to investigate the time performance of the selected PPP projects, and determine the factors that influence the time performance.

The research approach is two-fold and involves the use of both quantitative and qualitative research methods. The quantitative approach involves the use of quantitative methods to determine the time performance of each case study's procurement process. A time variance analysis (expressed as a percentage) is used as a comparison of the planned and actual timelines for each stage of the procurement process. The results of the analysis are summarised thereafter. The discussion of the results of the analysis highlights the problem stages of the procurement process in terms of meeting or exceeding planned procurement timelines, and also highlights stages that are less problematic in terms of time variance.

The qualitative approach of the study involves an investigation of the factors that influence the reported time performance of the four PPP projects. This has been done by conducting semi-structured interviews with the prominent participants involved during the procurement processes of the four case studies. The aim of the semi-structured interviews is to determine the respondent's perceptions regarding factors they feel influence the time performance of the procurement process of the projects they're involved in. The

questions of the semi-structured interviews are based on a review of existing literature on the topic of interest, and a pilot case study that was conducted to get deeper insights into the specific issues that affect the procurement process of PPP projects in South Africa. Each interview has been recorded using a dictaphone and transcribed thereafter. After transcribing, the responses of the interviews are coded. Qualitative Content Analysis (QCA) is used to analyse the responses from the interviews and to allow the researcher an opportunity to draw informed conclusions on the phenomena under scrutiny.

The primary sources of data include interviews of the primary PPP practitioners from both the private and public sector. The secondary sources of data includes literature on the subject matter, ranging from books, journal papers, conference papers and credible internet sources.

1.5 The Rationale and Significance of the Study

Public Private Partnerships can play a major role in meeting the developmental imperatives of resource constrained countries, especially those in the developing world. In recent years, South Africa's PPP programme has gained momentum, and there have been some successful projects undertaken under this type of procurement. The inefficiencies that are borne by the PPP procurement process do however have the potential of eroding the benefits of PPP procurement in South Africa, and derailing its developmental goals.

This aim of this study was to firstly investigate the time performance of the PPP procurement process of four selected case studies. Furthermore, the study aimed to investigate the factors that led to the time performance of the PPP procurement process for the selected cases. Ultimately, it was anticipated that the investigation would give a better insight of the issues at play during the PPP procurement process, and allow PPP practitioners from both the public and private sector to make more informed decisions in their formulation of a procurement strategy for future PPP projects. It was also anticipated that this will in turn lead to improvements in the time performance of the procurement process for PPP projects in future, therefore ensuring that projects are delivered to the very beneficiaries they are meant to serve. These improvements include critical services such as primary healthcare, education facilities, and other critical infrastructure projects that can lead to marked improvements in the livelihood of communities.

It was important to note that governments need to implement efficient and practical PPP procurement processes in order to ensure that they meet their delivery milestones, and reduce bidding costs for potential bidders. It was therefore the researcher's intention to offer guidelines and recommendations to help improve the time performance of the PPP procurement process. The researcher acknowledged that each country is unique, with differing circumstances, and as such, a uniform 'one size fits all' solution would not necessarily suit every other country, even if the strategy had been effective elsewhere. The study therefore aimed to contextualise the South African situation, and address the market specific issues. The end result was one that could spark debate and introduce viable solutions to a phenomenon that, if utilised in the right manner, could address the huge infrastructure backlog that is predominant in South Africa.

1.6 Limitations of the Study

- The study is limited to investigating PPP projects conducted within the Gauteng Province, in the Republic of South Africa;
- The investigation is limited to only four of the identified case studies;
- The study is limited to investigating the time performance of the PPP Procurement process from **Request for Qualification** to **Financial Close**;
- The PPP inception and feasibility, and the post procurement related to construction, operation and maintenance will therefore not form part of this investigation; and
- The study will not investigate the extent of bid costs affiliated with the time performance of the case studies.

1.7 Assumptions of the Study

- The existing South African PPP policy framework and guidelines are well established and on par with the rest of the developed countries.
- Proper implementation of PPP's can help ease the infrastructure backlog in South Africa.
- Inefficiencies in the PPP procurement process can lead to time delays of bringing the procurement process to Financial Close.
- A lack of skills and capacity in the public and private sector can adversely affect the time performance of the PPP procurement process.

CHAPTER 2
LITERATURE REVIEW ON CONSTRUCTION PROCUREMENT

2.1 Procurement in the Construction Industry

Procurement in the construction industry stems from a need for the acquisition of requisite resources to bring a building project from conception envisaged by a client to construction, and finally into its use and operation. It is not an isolated process and covers the full project life cycle of a project.

The definition of procurement amongst procurement practitioners is wide and varied. The BS ISO 10845-1 describes procurement as the process which creates, manages and fulfils a contract through a "succession of logically related actions occurring or performed in a definite manner and which culminate in the completion of a major deliverable or attainment of a milestone" (BS ISO 10845-1, 2009). Franks (1990) defines procurement as the "amalgam of activities undertaken by the client to obtain a building." (Rowlinson & McDermott, 1999: 3) cited the Hibberd's Oxford English Dictionary definition of procurement as "the act of obtaining by care or effort, acquiring or bringing about". They further cite Lenard and Mohsini's (1998: 79) definition of procurement as "a strategy to satisfy client's development and/or operational needs with respect to the provision of constructed facilities for a discrete life-cycle." As already mentioned the definitions are vast, and have evolved over the years amongst academics and practitioners alike.

Rowlinson and McDermott (1999: 4) however argue that the vast numbers of definitions are limited in their approach. The construction industry cannot absolve or isolate itself from societal forces that govern societal norms. It has to operate under various legislative and cultural landscapes, depending on the geographical location it is operating within. In fact, procurement systems in European countries generally differ with procurement systems in the USA. The challenge of comparing "like with like" in developed markets was highlighted in the Latham report where it was noted that "some international comparisons reflect differences of culture or of domestic legislative structure which cannot be transplanted." (Latham, 1994, as cited by Rowlison & McDermott, 1999: 4).

Procurement can have far reaching social and economic impacts. The BS ISO 10845-1 promotes the inclusion of a 'secondary procurement policy' for organisations that promotes the upliftment of "small and medium enterprises (SMEs), poverty alleviation, job creation, local economic development, business equity, HIV-Aids prevention, skills transfer, skills development, construction industry development, quality standards, environmental standards, sustainability etc." (BS ISO 10845-1, 2009: 11). Given the aforementioned context, procurement in developing markets has its own characteristics that distinguish it from that of more developed markets such as those in Europe and the USA. The responsibility for procurement strategies to assist in reducing the plight of the impoverished population in the third world is immense and cannot be ignored. No longer can developed world countries ideologies be adopted to the "tee" without recognition of the impact that socially conscious adaptations can make in improving the

lives of the countries inhabitants. Various academics have articulated this necessary paradigm shift required by procurement practitioners in developing countries. South Africa's national procurement framework is no different and recognises the need for its people who were, in the past, marginalised from participating in the mainstream economy of the country.

> "No longer can South Africa rely solely upon the paradigms of the developed world. It must develop procurement systems which consider more than speed, quality, price competition and certainty, and risk transfer. The procurement systems must encourage, inter alia, appropriate, people-intensive technology and processes, learning and skill development. In these circumstances, the process of procurement assumes a greater status than it is normally afforded. The process related goals become as important as the product related goals"
>
> (Rowlinson and McDermott, 1999: 8).

The then Minister of Finance of South Africa, Trevor Manuel, reinforced the need for procurement strategies in fast-tracking development in the statement made in the preface to the PPP Manual by stating that "the *PPP Manual* contains a code that will go a long way to achieving broad-based black economic empowerment in PPPs, not only in the equity and management of contracted private parties, but in their subcontracting and in the projects' local socio-economic impacts" (National Treasury PPP Manual, 2004:1). The implementation of such strategies in achieving the developmental goals has however proved challenging in practice as companies and individuals have attempted, and in many instances, succeeded in manipulating the system for personal gain. This is exacerbated by government's incapacity to overlook these processes to ensure that the requirements imbedded in legislation are achieved in an equitable manner.

2.2 Procurement in the South African Construction Industry

South Africa is one of the few countries in the world to have its procurement process subject to the Constitution (Watermeyer, 2003: 11). Procurement by organs of State in South Africa is overseen by various pieces of legislation under law that guide its implementation. These legislation comprise of the following:

- Public Finance Management Act (Act 1 0f 1999)
- Local Government: Municipal Finance Act (Act 56 of 2003)
- Promotion of Administrative Justice Act (Act 3 0f 2000)
- The Promotion of Equality and the Prevention of Unfair Discrimination (Act 4 of 2000)
- Preferential Procurement Policy Framework Act (Act 5 of 2000)
- Construction Industry Development Board (Act 38 of 2000)
- Broad-Based Black Economic Empowerment Act (Act 53 of 2003)
- Prevention and Combating Corrupt Activities Act (Act 12 of 2004)

(Watermeyer, 2012: 48)

Since the inception of a democratic South Africa post 1994, the country has identified strategic procurement as a means of rectifying the imbalances of the past whereby the non-white segment of the population were denied from participating in the economy. This principle is enshrined in the Constitution which prescribes the governing and use of procurement to promote socio economic objectives of the country (Watermeyer, 2003: 11). South Africa has opted to utilize preferential procurement policies via the Preferential Procurement Policy Framework Act (Act 5 of 2005) to promote, support and encourage the development of the previously disadvantaged segment of the population (Watermeyer, 2003: 11). Watermeyer argues that the challenge for the country when implementing the preferential procurement system is to ensure that the primary procurement objectives of a fair, equitable, transparent, competitive and cost effective system are not compromised (2003: 13), whilst ensuring that the methodology does in fact target and benefit the intended beneficiaries (2003: 16). There is very little evidence in the form of qualitative and quantitative data to determine the outcomes of South Africa's preferential procurement policy (Watermeyer, 2003: 15).

Procurement by State organs in South Africa's construction industry is governed by the Construction Industry Development Board (CIDB). The CIDB legislation is used by organs of state to define policies, processes, procedures and methods applicable to procure goods, services and works from the construction industry. The CIDB has prescribed the procurement criteria in the form of (1) a CIDB Code of Conduct for Parties engaged in Construction Procurement, and (2) a CIDB Standard for Uniformity in Construction Procurement (CIDB 2004) (Watermeyer, 2012: 49). The CIDB Standard for Uniformity in Construction Procurement was subsequently amended to May 2010 edition to incorporate amendments made in Board Notice No 86 0f 2010 (CIDB, 2010: 1). The main aim of the legislation is to bring "about standardisation and uniformity in construction procurement documentation, practices and procedures" (CIDB, 2010: 1). The document defines minimum requirements for the solicitation of tender offers, the use of standard forms of contract, standard procurement procedures and methods, formatting and compilation of procurement documents, and the application of the registration of contractors to public sector contracts (Watermeyer, 2012: 49). The CIDB Standard for Uniformity in Construction Procurement (May 2010) also makes reference to documents that provide guidance on preferential procurement policies.

2.3 The Procurement Process

The procurement process follows a fairly logical and concise sequence of events that allow for the achievement of certain goals or milestones in a project. The BS ISO-10845-1 (2009: vii) sets out six principal activities associated of a generic procurement process as follows:

"…

1. establishment of what is to be procured;

2. decision on procurement strategies in terms of contract;
3. solicitation of tender offers;
4. evaluation of tender offers;
5. award contract; and
6. administration of the contract and confirmation of compliance with requirements. "

2.4 Roles in Construction Procurement

Procurement in construction comprises of a number of independent parties who amalgamate to bring a project to fruition. The "project realization process" speaks of four distinct cultural groups, namely the client, designers, constructors (and suppliers), and regulators, each of which has their own distinct role to play in making a project a reality (Rowlinson & McDermott, 1999: 153). Clients use construction to pursue their own business interests, designers and constructors produce the projects, and regulators of various levels of association with the construction industry, e.g. Town Planning, Law, Building Control etc., (Rowlinson & McDermitt, 1999: 153). The clients are the main derivers of demand of construction, while designers, constructor (including suppliers), and regulators are the derivers of supply to the industry.

2.4.1 The Client

The client has been the main driver of the choice of procurement strategies over the past decades. As the main sponsor of a building project, the client has certain expectations of how a project should be delivered from the moment of inception to the date of occupation and operation of a facility. These expectations may sometimes be misaligned with affordability regarding the type of product that can be achieved, and it is therefore the responsibility of the client's agent to step in and facilitate the process from inception to fruition.

2.4.1.1 Definition and Categorisation of the Client

It is critical for one to define the client before proposing and implementing a procurement strategy. Clients are the main "sponsors of construction process" and therefore provide "the most important perspective on project performance and whose needs must be met by the project team" (Masterman, 2002: 9). Clients are not homogenous, and certain procurement strategies that work for some clients, may not necessarily work for others. Masterman (2009: 9) advises that "the identity, nature and characteristics of the client are comprehensively and accurately identified and that the project team is fully aware of, and understands, the client's needs". This should be done before any of the technical elements of the project are tackled by the project team.

One may therefore ask the question "why is it important to categorise the client before selecting a suitable procurement method?" The reason is that clients vary in terms of experience in the construction industry which normally affects their ability to make prompt and suitable decisions, their risk appetite, and level of 'hands on' approach they want on a project (Morledge, Smith & Kashiwagi 2006: 82) explain that clients can partly be categorised by their varied motives or reason for undertaking construction projects and their attitudes towards achieving their objectives.

In their simplest form, clients can be distinguished between public and private sectors. These are two distinct parties with different objectives and motives. Public organisations rely on public funding in the form of taxes, and therefore have a duty of accountability and responsibility to ensure that monies spent are to deliver the requisite services to their tax payers. In this regard public organisations tend to adopt more risk averse and conservative policies (Masterman, 2002: 11).

In contrast, privately owned organisations are more profit driven in their approach and are accountable to their shareholders (Masterman, 2002: 11). For this reason, privately owned organisations tend to lean towards procurement strategies that are 'fast-track' and allow for earlier occupation of the facility being constructed. They are therefore more inclined "to adopt more aggressive policies and take such commercial risks as are necessary to achieve their ends" (Masterman, 2002: 11).

However, the wide variety of literature does not account for the fact that government regulations, which are imposed on private clients, can steer these organisations to be more accountable to their community and environment at large. Building regulations have now forced developers to build facilities that have less impact on the environment. A good example is the fact that the new building regulations in South Africa have now recommend that all buildings need to have double glazing. There are also heritage considerations that need to be considered in some instances, and these can affect a project's "bottom line" and skew the initial anticipated viability. A balance should therefore be achieved between the profit motives and overall accountability to the community at large. This notwithstanding, it can be argued that the extra-over cost will in most cases simply be passed on to the end user as the clients get more sophisticated.

Masterman (2002: 11) recognizes the client's experience as another important factor that distinguishes clients of the construction industry. Masterman (2002) expands further and delineates this categorization into 'experienced' and 'inexperienced' clients. Experienced clients are defined as those with a "detailed knowledge and understanding of the construction industry and its procedure" (Masterman, 2002: 11). They deal with the construction industry on a day-to-day basis and develop building projects for profit gains. They normally have their own in-house expertise to execute and manage the construction process.

The 'inexperienced' clients are explained by Masterman (2002: 12) as those who do not have continued involvement in the construction industry. Their knowledge and understanding of the construction industry is limited. The literature stipulates their inability to prepare a clear project brief from the conceptual stage, which can lead to on-going, and at times expensive, changes throughout the design and construction process. A clear project brief cannot be over emphasized enough. Masterman's (2002: 13) further

categorisation is based on the reason for the client to build the facility, whether for primary purposes (i.e. sale, lease investment etc.) and lastly on the activities the companies are involved in.

Turner's (1990: 4) categorisation of clients is somewhat different but offers another relevant perspective into how client roles affect their behavior. Turner (1990) categorises clients into property and development companies, investors, occupiers, and local and central government authorities. All these parties are governed by different objectives and these affect their approach to construction projects. Turner (1990: 4) explains that a property development company's main objective is to make maximize their financial gains in construction projects. Investors on the other hand tend to take a longer view than property development companies and seek investments that will accrue a steady income flow over an extended period. Turner (1990:5) explains that investors "tend to be cautious and dislike unconventional buildings and uses, unconventional lease terms, and perhaps (to them) lease conventional building procurement methods. Turner explains that occupiers on the other hand will build facilities that are best suited to allow them to carry out their line of business. This in turn may make the building have little or no market value. Local and central government authorities on the other hand have to be accountable to the public they serve and have to consider their desires when making public expenditure decisions. Turner (1990: 7) explains that other considerations by the public sector are translates "public accountability and the need for an authority to consider the overall desires of its community and any possible effects, other than monetary, of the development/building proposals on the environment".

The importance of categorising clients before selecting a suitable procurement strategy cannot be understated. The type of client drives their attitude towards a construction project. The priorities of the clients with regards to time, cost and quality required differs from client to client, and more so depending on the type of client in question i.e. public or private, primary or secondary etc. Owner-occupiers for instance are more likely to want a facility that is "functional, aesthetically pleasing and relatively inexpensive to run and maintain" while developers "will aspire to speed and simplicity", and investors "will look for long functional, physical and economic life of buildings which retain their marketability" (Morledge, Smith & Kashiwagi, 2006: 83).

All the clients mentioned above have objectives that revolve around time, cost and quality of a construction project. It is seldom that all these objectives are fully realised on any individual project.

The process of categorising a client before selecting a suitable procurement strategy is seldom undertaken by construction practitioners. Morledge, Smith and Kashiwagi (2006: 34) stress that "the client's needs and wants must be sufficiently well articulated, analysed and communicated for an appropriate procurement process to be developed". Without fully understanding a client's objectives and priorities, strengths and weaknesses, a suitable procurement method may not be selected which could be detrimental to the performance of a project. Given the above, a strategic approach to procurement needs to be adopted very early in the selection process.

2.4.2 Others

Turner (1990: 29) explains that consultants are independent of any commercial interest in construction companies or property companies. Under contractors falls the subcategory sub-contractors which include the craftsmen who offer specialist trades, and suppliers who manufacture and install the separate components of a building (Turner, 1990: 30). Subcontractors normally do work under the main contractor.

2.5 Commercial Relationships in Construction Procurement

The commercial or contractual agreement between parties varies depending on the type of procurement option that is chosen by the client. In general, the client contracts directly with consultants to assist with developing the client brief, prepare design and/or tender documentation, preparation and submissions for statutory approvals, and quality assurance on site. Conversely, contractors are contracted directly with the client to construct the facility. As already mentioned, there are various permutations of this traditional approach to contracting, and these could involve the consultants' scope being limited to preparation of the client's requirements and the facilitation of tenderer selection and adjudication of submissions, while the contractor is contracted directly with the client to design (or develop a design) and construct, as with the Design and Build procurement method (Turner, 1990: 35). In Management Contracting, the client contracts directly with a management contractor, consultants for design and cost control, subcontractors of individual trades to construct separate components of the project, and suppliers (Turner, 1990: 38). In a Design and Manage arrangement, the client contracts a design and manage contractor, and possibly a scope designer to assist with developing a brief (Turner, 1990: 40). The design and manage contractor on the other hand, contracts directly with consultants for design and cost control services, and works contractors (or sub-contractors) to implement the work on site.

2.6 Procurement Strategies

According to the BS 8534:2011 (2011: 3) a 'construction procurement strategy' outlines the "plan of action for funding, organization, management, selection and payment of supply chains for the design, fabrication and which may include the operation of constructed facilities to achieve a desired objective". The procurement strategy involves, amongst other things, the formulation of a feasibility and value for money (VFM) study, client brief, evaluation of procurement methods, an understanding of how the various 'work packages' are to be awarded and integrated, market engagement with potential suppliers and development of the supporting procurement process, i.e. programme, change control, cost management, information coordination, statutory approvals, risk management, and preparation of high-level business case (BS 8534:2011: 10).

2.6.1 The Evolution of Procurement Strategies

Procurement strategies have evolved in the past decades from the more 'traditional' approach to 'design and build' strategies. The move from the 'traditional' approach has been fuelled by clients who were unhappy and frustrated by the "construction industry as a whole to deliver the projects needed on time, to budget and to acceptable quality standards" (Morledge, Smith & Kashiwagi, 2006: 95). New approaches to procurement were required to make the construction industry more efficient and to deliver project to clients' expectations. It is however important to note that 'traditional' procurement strategies are still the most popular methods of procurement.

The UK has been at the forefront of advancing alternative procurement strategies for the implementation of construction projects. Traditionally, the construction industry has been considered to be one that is plagued with adversarial relationships amongst its participants with the result being more commonly undesired outcomes for clients. The UK government recognised this shortcoming early in the 1960's, and commissioned several reports that highlighted the problems in the UK construction industry, and investigated possible remedies that would allow the industry to deliver more favourable results for clients. The Banwell Report from the 1960's was a government commissioned document which is recognised as a "game changer" that altered the way in which central and local government in the UK ran their procurement departments by forcing them to consider alternative methods of procurement that went beyond the typical 'traditional' approach of lowest price rationale (Franks, 1990: 1). Frank (1990: 1) explains that most of the new contract arrangements claimed to facilitate shorter project periods which in turn allowed the client earlier occupation of their facility. The Latham Report which was commissioned by the Construction Industry Board in the UK was prepared with the intention of changing the adversarial culture of the construction industry at the time (Rowlinson & McDermott, 1999: 8). Masterman (2002: 4) makes reference to subsequent reports such as the Cabinet Office Efficiency Unit's paper *Construction Procurement by Government*. Masterman (2002: 4) notes that the UK government's intention as a public client was to go beyond merely achieving value for money, but to also establish a more co-operative and non-confrontational environment to operate in.

The evolution of the procurement strategies was perhaps inevitable as clients were pressing for 'non-traditional' methods that give "earlier and earlier start on site with faster and faster completion" while providing "some level of price and time" (Morledge, Smith & Kashiwagi, 2006: 96). Design and build solutions seem to provide the answer to solving some of the problem of traditional methods. The authors do however caution that the ability for the design and build solutions to provide improved value for money and/or functional performance has however not been ascertained and will be revealed through studies taken over time.

2.6.2 Selection of a Procurement Strategy

Most clients prefer to adhere to what they know and their agents have the same tendencies. But each project is unique and what has worked in the past on previous projects, may not necessarily by ideal for

the next venture. The literature on procurement is quite vocal on this point and there is consensus that a strategic approach to construction procurement should thus be adopted. Morledge, Smith and Kashiwagi (2006: 33) propose that for the process "to be effective, a strategic and inclusive approach to construction procurement must provide a cohesive framework within which all of the various project objectives required by the client may be addressed in the most effective way". It is important to understand the priorities and objectives of a client and match these to a suitable procurement method (CRC, 2008: 2). An unsuitable procurement strategy may prove to be detrimental to the overall success of a project. Clients normally do not have the know-how to select an appropriate procurement strategy and it is therefore the responsibility of the client's agent to guide and make a recommendation.

The selection method of a procurement strategy should not be based on price alone, but should take a more holistic view of the project based on an assessment of relative value and risk to the client (BS8534:2011, 2011: 14). According to Hughes et al. (2006: 10) contractual relationships are formed with the emphasis on either competition or co-operation. Open and selective tendering on the competitive end of the spectrum rely on price as their only or main criterion, while co-operative or collaborative approaches have a preference for negotiation and rely primarily on non-price criteria (BS 8534, 2011: 14; Hughes et al., 2006: 10). Two-stage tendering is a hybrid approach that seeks to exploit the advantages of both negotiation and competition, and permitting overlap of design and procurement hence accelerating the procurement process. Stage 1 is based on competition (cost for preliminaries, overheads and profits) while Stage 2 appointment is made after satisfactory open-book negotiation of final price (BS 8534, 2011: 14).

There is a certain methodology that needs to be followed in selecting an appropriate procurement method. It is essential to determine the client requirements and preferences when selecting a suitable procurement method. There is a list of criteria that can be employed to establish a profile of the client's requirements. Love et al. (1998: 223) recommend a multiple criteria approach to establish the most suitable procurement method as follows:

a. speed (during both design and construction);
b. certainty (price and stipulated time and knowledge of how much the client has to pay at each period during the construction phase);
c. flexibility in accommodating design changes;
d. quality (contractors' reputation, aesthetics and confidence in design);
e. complexity (client may specify particular subcontractor, or constructability analysis);
f. responsibility (completion of program, price, product quality, design and construction);
g. price competition (covering such issues as value for money, maintenance costs and competitive tendering); and
h. disputes and arbitration

The project performance requirements above have a different bearing or importance to the different client groups. Each of these criterion fares differently against the various procurement methods.

Masterman (2002) further makes reference to his own study that attempts to prioritise project requirements or needs for each client category type. The client categories under review were 'public experienced primary and secondary', 'private experienced primary and secondary' and 'private partially experienced primary and secondary'. The criteria used for the study were prepared from previous research and they read as follows:

a) Certainty of final cost;
b) Accountability;
c) Value for money;
d) Lowest possible tender;
e) Actively involved;
f) Single point of contact;
g) Elimination of/minimize risk;
h) Minimum design and construction period;
i) Certainty of completion date;
j) High quality and innovative architecture; and
k) Ability to change design

(Masterman, 2002: 19)

The study revealed that "functionality/quality, cost and time remain clients' primary objectives" (Masterman, 2002: 20). It was also found that the "differences in ranking of the needs by the three main categories of client were not significant" (Masterman, 2002: 18).

It is important to understand the priorities and objectives of a client and match these to a suitable procurement method (Davis, Love and Baccarini, 2008: 2). Clients will always be confronted with a certain level of risks given the unique and bespoke nature of building projects (Davis, Love and Baccarini, 2008: 4). The risks are three-fold, from a building that does not meet the functional requirements of client, a project that is delivered later than the initial programme, and a project that costs more than the client's original budget (Davis, Love and Baccarini, 2008: 4). Either one of these risks can adversely affect the core business of any client who is embarking on a building project. The identification and overall weighting of these risks will therefore affect the procurement method to be considered for a building project.

There is normally a compromise that needs to be achieved between the three objectives of functionality/quality, cost and time by clients. Each client implementing a project needs to be aware of these compromises during the project initiation phase. A procurement strategy that meets the requirements of the client will need to be prepared with the client's individual requirements in mind. For instance, 'traditional' procurement system is ideal if a client wants a high level of certainty on the cost early during the project, but there will have to be a compromise on the time allowance as traditional systems tend to carry on for longer periods as compared to other less conventional methods. This reality is sometimes difficult to grasp by clients who are inexperienced in the construction process and it is therefore imperative that the client's agent clarifies any ambiguities.

2.7 Variables in Procurement

It is important for clients and their representatives to appreciate the variables that affect procurement. This will inevitable influence the choice of procurement method that is ultimately selected for a project. The *BSI Standards Publication: Construction procurement policies, strategies and procedures – Codes of practice (BS 8534:2011)* has published these variables for consideration by Clients and their advisors (2011). These variables are taken from a publication by Murdoch and Hughes, "Construction Contracts: Law and Management". The key variables for consideration are as follows:

i. Source of funding;
ii. Selection method;
iii. Price basis;
iv. Responsibility for design;
v. Responsibility for management; and
vi. Supply chain management.

An explanation of the key variables is provided in the BS 8534:2011 (2011) as follows.

2.7.1 Source of Funding

The source of funding needs to be evaluated by the constraints that are attached with that type of funding. For PPPs specifically, it is important for clients to understand that the preferred design and build option comes at a premium for the public sector as they will attempt to transfer most of the development risk to the private sector partners. The more risk that the public sector attempts to transfer to the private sector partner, the higher the premium that will be priced into the PPP remuneration structure.

2.7.2 Selection Method

It is highlighted that the selection of the procurement method cannot be driven by price alone as the main criterion, but rather that other considerations of value for money and risk to the client should be considered. For example, when price alone is the driving factor then open and selective tendering is more advisable, while a "collaborative outlook favouring negotiation is recommended" when "non-price criteria" are more significant.

2.7.3 Price Basis

The price mechanism that is selected boils down to the level of risk that the client is willing to incur. Fixed price rates entail the acceptance by the contractor to the work for a fixed price, and therefore bearing most of the risk, while a cost reimbursement rate entails the client incurring the risk of the final price.

Both are dependent on the level of detail that is available to the project team at the time of going out to tender.

2.7.4 Responsibility for Design

The BS 8534:2011 code of practice advises that the client's decision on whether to retain design responsibility on the whole or partial scope of the work on the project depends on the urgency of the information requirement and how these take priority over other constraints (2011: 15). The code further explains that the decision on whether or not to retain design responsibility also depends on the design liability the client is willing to bear, especially when project expectations are not met. In the case of PPPs which are synonymous with the design and build type arrangement, the design and construction risk of the project is transferred to the contractor.

2.7.5 Responsibility for Management

Each procurement method has its own level of degree of management that the client undertakes either by utilizing an in-house team, or by outsourcing consultants to undertake the management of the contract on behalf of the contract. The various management options available to the client are discussed in more detail below in the review of procurement methods.

2.7.6 Supply Chain Integration

The BS 8534:2011 code outlines the decision making structure that can guide clients and their advisors on the most suitable procurement approach to be selected based on the unique characteristics and constraints of the project, and the client's individual preferences.

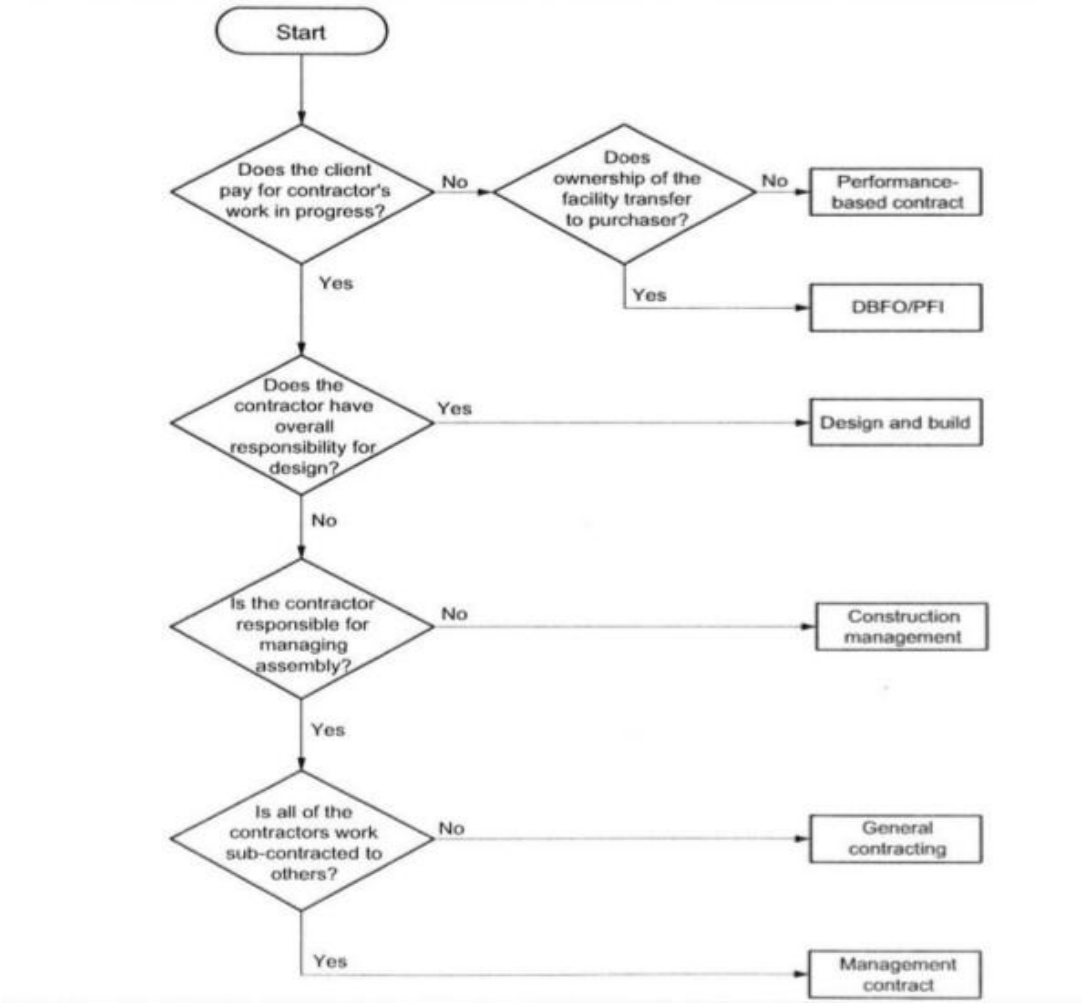


Figure 1.1: Identifying procurement methods

Source: BS 8534, 2011: 16

2.7.7 Summary

If managed correctly, these are the variables that will make the procurement happen a lot more efficiently. It is therefore imperative that these variables of procurement are addressed sufficiently by procurement practitioners to allow for a successful procurement process.

2.8 Procurement Methods in Construction

When establishing the different categories of procurement systems, Masterman (2002: 27) advises that the following criteria should be considered:

- Amount of risk borne by each participating party
- Level of information available or required at the time construction contracts are let
- By the way in which the interaction between the design and construction, and sometimes the funding and operation, of the project is managed

The above criterions have led to the following categories which will be evaluated in the research paper:

1. Separated procurement systems/conventional/traditional;
2. Integrated procurement systems – there are permutations to this procurement strategy, e.g. design and build, novated design and build, develop and construct, the package deal and turnkey approach;
3. Management-orientated procurement systems – including management contracting, construction management and design and manage; and
4. Discretionary systems – e.g. Partnering, use of the British Property Federation System.

There is a risk level that is related to each of the abovementioned procurement methods. This is referred to as "speculative risk" because it can be apportioned in advance and decided by the parties (Davis, Love and Baccarini, 2008: 7). The risks are variants to the apportionment of risk that can be shared between the client and the contractor depending on the selection of procurement method (see Figure 1.2).



Figure 1.2: Risk apportionment between Client and Contractor

Source: Davis, Love and Baccarini, 2008: 7

The figure above shows that the contractor generally assumes the highest risk for *Design and Build* procurement arrangements, while on the other side of the spectrum the client generally assumes the highest risk for *Management Contract* procurement methods. There is a spectrum in between whereby the apportioning of risk between the client and contractor varies depending on procurement method selected.

2.8.1 The Traditional Approach

The 'traditional method' of procurement enjoys predominant use in the construction industry. As a procurement method, it has "the advantage of having stood the test of time over many years and being understood by many clients and by all participants from the construction industry itself" (Masterman, 2002: 63). In fact, the author's research states that the traditional approach has been in use for at least the past 150 years (Masterman, 2002: 51).

The main characteristic of the traditional approach is "the separation of the design and construction process" (Rowlinson & McDermont, 1999: 39). The client essentially appoints his or her own design team at the inception of the project, who basically take the design to a point where the project can be tendered out to potential contractors. Once the appointment of the contractor is made through competitive tendering, the client's design team provides a supervisory role during the construction phase to ensure that the quality of workmanship is adhered to in order to achieve the required performance of the building. This is but a simplified version of the sequence of events and the process is in reality a lot more intricate than the author makes it out to be.

2.8.1.1 Characteristics of the Traditional Approach

As already mentioned in the literature, the responsibilities of design and construction are split in the traditional approach. Further characteristics of this method are highlighted by Masterman (2002) as follows:

- Project delivery is a sequential process;
- The design of the project is largely completed before work commences on site;
- The responsibility of managing the project is divided between the client's consultants and the contractor, and there is little scope for the involvement of either of the parties in the other's activities; and
- Reimbursement of the client's consultants is normally on a fee and expenses basis, whereas the contractor is paid for the work completed on an admeasure or lump sum basis.

Turner (1990: 51) lists some of the other characteristics and considerations of the traditional approach as follows:

- Experienced clients understand that if the design has been fully developed at tender stage they should know their financial commitment before entering into a construction contract;
- Design can be carried out without undue pressures of programme or price because no contractor has yet been engaged;
- The overall period of design and construction, with design often being completed before construction tenders are invited, generally requires to be longer than is necessary for 'design and build' and for 'management' procurement options;
- Experienced clients have found the system unsatisfactory for complex, large projects where certainty of completion on programme is a high priority; and
- Separation of design teams from construction teams during the development of the project until tender stage may lead to the establishment of adversarial attitudes.

The traditional approach works best if the design is fully or close to completion before the tender document is issued to the main contractors for pricing. If orchestrated properly, "the conventional method of procurement, provides a high degree of price certainty and competition" (Masterman, 2002: 59). A high level of certainty with the final cost of the project is certainly one of the major requirements of most clients as pin-pointed in the literature. There is however the pitfall that a protracted design period can add to the bottom line when considering the opportunity cost of money and interest charges. It is therefore more ideal for projects whereby time is not a driving factor but rather and for clients with budget constraints or a limit in terms of how much they can borrow from lending institutions (Morledge, Smith & Kashiwagi, 2006: 109).

The quantity surveyor requires accurate information to prepare the bill of quantities. Incomplete information in the tender document can lead to inaccurate submissions by contractors, and "probably result in many post-contract changes which could delay progress of the works and increase the costs" (Morledge, Smith & Kashiwagi, 2006: 109).

A consequence of the split of responsibility between design and construction is that the financial risk pertaining to the design and construction are allocated to the parties for which these functions are responsible. In practical terms, the "contractor assumes responsibility and financial risk for the construction of the building works to the design produced (usually) by the client's architect, for the contract sum agreed and within the contract period, while the client takes the responsibility and risk for the design and design team performance" (Morledge, Smith & Kashiwagi, 2006: 108). The client's design team performance therefore becomes critical during construction as they have to ensure that they issue information to the contractor when it is required, failure of which could lead to claims for time and/or compensation from the contractor. For a claim-conscious contractor, who in most cases has submitted the lowest tender submission, this is an opportune time to recover costs. The relationship between the design team and contractor can suffer strain as these issues escalate.

2.8.1.2 Variations of the Traditional Approach

The 'traditional approach' has had to evolve to accommodate some of the shortcomings that have been highlighted in the literature. There a common variations to the 'traditional approach' that can be implemented during the construction process to suit the client's project requirements. The variations of the tradional approach include the following (Turner, 1990: 50):

- Sequential whereby a drawn and specified design is prepared and, together with cost documentation, contractors bid, generally in competition
- Accelerated whereby a contractor is appointed earlier in the sequence of the design on the basis of partial information, either by negotiation or competition
- Partial design of parts or elements of the works whereby a drawn and specified design is prepared by the client's design consultant and parts design by the contractor are then incorporated within the construction project.

In South Africa a common variation of the traditional approach is called the 'multiple- procurement' system, similar to the accelerated approached above. The client's team designs a building to a point whereby the main contract tender is let on the basis of a provisional bill of quantities with all quantities remeasurable on completion. Provision is made in the tender for selected subcontracts which are included as provisional sums with the tender bill of quantities. The selected subcontracts are later tendered separately during the course of the Building Contract, and timed to be appointed before the actual work is required to commence on site. The tender process in this instance is at all times controlled by the client's design team, and the final payments or accounts of the selected subcontractors are agreed with the client's quantity surveyor. Responsibility for the performance of the selected subcontractors is assumed by the Principal contractor.

An allowance for provisional sums in the main tender means that the specialist work can be tendered out by competition which in turn allows the client to get the most competitive price. It also allows the client's design team to have some form of control over the workmanship of their design on site as the selected subcontractors are agreed with the main contractor before the tenders are issued. It should however be noted that "an attempt to speed up the process by producing tender documents from an incomplete design" may "result in less cost and time certainty and can be the cause of expensive disputes" (Morledge, Smith & Kashiwagi, 2006: 111).

2.8.1.3 Advantages and Disadvantages of the Traditional Approach

There are main advantages and disadvantages that need to be considered when considering the traditional procurement method. These a summarized in the CRC Construction Innovation: Building our Future report (Davis, Love and Baccarini, 2008: 10).

The main advantages of using the traditional procurement method are:

- accountability due to a competitive selection;
- competitive equity as all tendering contracts are bid on the same basis;
- design lead and the client is able to have a direct influence which can facilitate a high level of functionality and improve the quality in the overall design;
- price certainty at the award of contract;
- variations (changes) to the contract are relatively easy to arrange and manage; and
- a tried and tested method of procurement which the market is familiar with.

The main disadvantages of using the traditional procurement method are:

- can be a timely process to produce the full contract documentation. Tender documents from an incomplete design can be produced but can lead to less cost and time certainty, and may lead to disputes;
- overall duration may be longer than the other procurement methods as the strategy is sequential and construction cannot be commenced prior to the completion of the design; and
- no input into design or planning of the project by the contractor as they are not appointed during the design stage.

2.8.2 Integrated Procurement Systems

2.8.2.1 Design and Build

Design and build is an alternative procurement strategy which incorporates the design and construction functions under one entity. “Design and Build (D&B) is a procurement system where a single organization undertakes the responsibility and risks for both the design and construction phases” (Hughes et al., 2006: 8). Design and build is suitable for clients that are looking for a ‘fast-track’ solution to deliver their projects. The client prepares a brief stipulating their requirements which are normally performance based, and issues a tender to ‘design and build’ contractors on this basis. The tenderers thereafter submit their bids or proposals for design, time and cost (Turner, 1990: 45).

Masterman (2002: 72) explains that design and build contractors organise themselves in three distinct ways being:

1. Pure design and build – all design and construction expertise are found in-house
2. Integrated design and build – certain core designers and project managers found in-house, but other expertise is let when the need arises
3. Fragmented design and build – external design consultants are appointed and coordinated by in-house project managers. This arrangement of design and build is seen as the least advantageous to the client.

Masterman (2002: 78) explains that the three main benefits to clients resulting from the use of design and build are speed, single-point responsibility and savings in cost.

The design and build strategy has shorter overall project time which is attributed to the overlapping of design and construction (Masterman, 2002: 78). The shorter project time is also attributed to the contractor's knowledge of 'buildability' (Turner, 1990: 48). This means that the contractor can ensure that the design of the facility itself allows for quicker building methods. The contractor, being responsible for both design and construction, is also incentivised to 'fast track' the building process, by ensuring that construction information is issued timeously so as to not delay construction activities on site.

One of the main benefits of design and build is that the client has a single-point responsibility being the contractor. This direct contact is said to minimise misunderstanding between parties and simplifies the construction process (Masterman, 2002: 79). Turner states that the single-point responsibility also produces economies for both contractor and client (Turner, 1990: 47). The fact that the client deals with only one party significantly reduces a commitment to resources and time contracting with designers and contractors separately (Morledge, Smith & Kashiwagi, 2006: 117). When there is a single conduit in terms of flow of information, this translates into better efficiencies in process.

Design and build offers the advantage to a client because a financial commitment is known early in the process as the contractor offers a fixed lump sum price based on the client's brief (Turner, 1990: 47). Any variation in the final sum will be attributed to changes that may be introduced by the client during the construction period. Turner (1990: 48) cautions that these changes can be very disruptive and lead to relatively high price to both the client and contractor. The consequence is that a client is therefore required to commit to a conceptual design at an early stage. It is therefore vital that the client's requirements are captured concisely from the beginning stages. It does however appear that only a few clients are capable of writing a thorough brief (Morledge, Smith & Kashiwagi, 2006: 117).

Franks (1984: 18) states that the range of designs available on package deals is often limited. Masterman (2002: 80) on the other hand argues that current experience shows that many large and complex or innovative buildings are procured using design and build. It seems that the main issue resides back to how well a client has captured their requirements in the brief. The authors have highlighted the inability of most clients to prepare a clear and accurate project briefs.

2.8.2.2 Variations of Design and Build

There are four main variants to the design and build strategy. These are namely the novated design and build, package deals, turnkey method and develop and construct.

Novated Design and Build

Under a novated design and build arrangement, the client appoints a team of consultants at project initiation and concept stage who take the design from viability to tender documentation stage. As a standard, the "tender documentation will contain details of the client's consultants and the proposed novation procedure, together with a requirement the contractor who is eventually awarded the contract will have to accept responsibility for the total design of the project, including the initial work carried out

under the client's aegis" (Masterman, 2002: 81). The design team is also responsible for getting the necessary statutory approvals (Hughes et al., 2006: 8). Once a suitable contractor has been appointed to carry out the construction works, the design team is ceded to the contractor for the balance of duration of the contract.

This arrangement allows the client to have a strong influence on the design of the project from a functionality and quality point of view, rather than having to outsource this function to an external party. The contractor is thereafter left with "little more than to prepare the working details to enable the building to be erected" (Turner, 1990: 47). There is also a smoother transition from the pre-contract to post contract stage as there is continuation as far as negotiating parties are concerned (Masterman, 2002: 81).

Package Deals

The idea behind a package deal strategy is that "clients would be able to purchase a total package, virtually of the shelf, to satisfy speedily their building needs at an economical price" (Masterman, 2002: 82). The buildings are repetitive in nature and therefore lack innovation. This arrangement is enticing in theory but can be problematic in practice as clients have unique requirements that may or may not be satisfied in a package deal offering. In this light, Masterman (2002: 2) highlights this shortcoming of package deals in comparison to their design and build counterpart, which provides a 'bespoke' solution for clients rather than a 'one size fits all' solution.

The Turnkey Method

The turnkey method is similar to package deal. In fact, Turner (1990: 47) states that the turnkey method is another term for package deal. The contractor is responsible for the design down to handover of the facility to the client. The contractor's scope may be extended to the other functions such as procurement of funding, commissioning of the client's equipment, training of staff, and in some instances, operation of the facility (Masterman, 2002: 83). Examples of turnkey packages are found in PPP's or what is termed PFI's in the UK. Turnkey arrangements are found in concession contracts and can take different forms, i.e. BOO (build, own, operate), BOT (build, operate and transfer or build, own and transfer), BOOT (build, own, operate and transfer) and DBFO (design, build, finance and operate) (Masterman, 2002: 84).

Develop and Construct

The process of design and construct involves the client's design team preparing the conceptual drawings for a scheme up to a stage where tender documents are issued for the procurement of competitive tenders. The successful tenderer is thereafter tasked with developing the conceptual design drawings to detailed design and construction drawings.

The advantage of the *Develop and Construct* approach for the client is that his or her requirements are accommodated for at concept stage while providing for a single point of responsibility once the design and construction function is ceded to the contractor (Masterman, 2002: 86). The main difference between

develop and construct, and design and build is the "extent to which the design of the project has been developed by the client before inviting tenders" (Masterman, 2002: 86).

2.8.2.3 Advantages and Disadvantages of Design and Build

There are main advantages and disadvantages that need to be considered when considering the Design and Build procurement method. These a summarised in the CRC Construction Innovation: Building our Future report (Davis, Love & Baccarini, 2008: 13).

The main advantages of using the Design and Build procurement method are:

- client has to deal with one firm and reduces the need to commit resources and time to contracting designers and contractors separately;
- price certainty is contained before construction commences as client's requirements are specified and changes are not introduced;
- use of guaranteed maximum price with a savings option to split can stimulate innovation and reduce time and cost;
- overlap of design and construction activities can reduce project time; and
- improved constructability due to contractor's input.

The main disadvantages of using the Design and Build procurement method are:

- difficulties can be experienced by clients in preparing an adequate and sufficiently comprehensive brief;
- client changes to project scope can be expensive;
- difficulty in comparing bids since each design will be different, project programme will vary between bidders, and prices for the project will be different for each design;
- client is required to commit to a concept design at an early stage and often before detailed designs are complete; and
- design liability is limited to the standard contracts that are available.

2.8.3 Management-Orientated Procurement Methods

Management-orientated procurement systems have been in wide use in the more developed economies such as North America and United Kingdom. These procurement systems have gained popularity for clients who have been frustrated by the conventional procurement approaches, and demand "earlier commencement and completion times than could be achieved using conventional methods, more control over project costs and higher standards of functionality and quality" (Masterman, 2002: 91). There isn't however substantive evidence to show their use in South Africa by both public and private clients. The

interrogation of the management orientated procurement methods does however give a broader perspective on the procurement systems available to clients to meet their requirements.

2.8.3.1 Management Contracting

Management contracting entails the appointment of a management contractor at an early design stage of a project. The management contractor is integrated into the design process to provide construction management expertise. The management contractors do not undertake any of the works themselves, but rather employ works contractors (subcontractors) to fulfill this function. The contractual implication of this arrangement is that the management contractor "bears the responsibility for the construction works without actually carrying out any of that work" (Morledge, Smith & Kashiwagi, 2006: 114). In return the management contractor is reimbursed by the client on a fee basis for management services and payment of actual prime cost of the construction (Masterman, 2002: 92).

Process

Masterman (2002: 96) advises that the there are three distinct phases in this procurement process which are the

1. the period before management contractor appoint;
2. the preconstruction period; and
3. the construction period

The management contractors who tender for a project are evaluated on their proposals and verbal presentations on how they plan to deliver the project based on the client's brief (Masterman, 2002:96). The selection criterion for the appointment of the management contractor involves the assessment of resources, expertise and financial capability amongst other things.

Once appointed the management contractor is made part and parcel of the design team and comes in to offer programme information and construction expertise on buildability etc. The management contractor offers input on suitable works contractors to be appointed for the project and assists in documentation to procure their services. The mandate also spreads to the "agreement of the contract cost plan/estimate of prime cost with the cost consultant" (Masteman, 2002: 99).

As mentioned above, the management contractor does not undertake any of the work on site, but this function is assigned to the works contractors into works packages. These work packages are procured when required on site.

In theory, the project should benefit from the input of the management contractor at the early stages of the design. The managing contractor should be able to advise the design team on "buildabiltiy, construction methods and techniques, and economics of the proposed design" (Masterman, 2002: 102). The managing contractor's role may however be undermined by the design team's reluctance to fully integrate the contractor into the design process (Masterman, 2002: 103).

2.8.3.2 Construction Management

The construction management differs from its management contracting method counterpart in that "the client enters into a direct contract with the individual works contractor" (Masterman, 2002: 107). The management contractor on the other hand acts as the client's agent to coordinate the efforts of the works contractors to ensure that they are working within the required design specifications and project timeframes.

Process

The construction management process is five-fold and entails:

1. Concept;
2. Detailed feasibility;
3. Scheme design;
4. Design completion and construction; and
5. Completion.

(Masterman, 2002: 110)

This procurement strategy places financial risk on the client as the final cost of the project is unknown until all the work packages have been let. The client is exposed to further risk due to the fact that the construction manager "provides professional construction expertise without assuming financial risk, and is only liable for negligence by failing to perform the role with reasonable skill and care" (Morledge, Smith & Kashiwagi, 2006: 112).

The construction management method is therefore ideal for the client's whose primary objective "is relative speed to completion" (Morledge, Smith & Kashiwagi, 2006: 112). This is because design and construction can overlap. This method is also ideal for and "recommended for projects where there is a high degree of design innovation, where the client wants 'hands on' involvement". It is therefore recommended that the construction method is not adopted for inexperienced or unsophisticated clients, but rather clients who have the 'in house' experience and expertise.

2.8.3.3 Design and Manage

The design and manage procurement method involves a single organisation assembling both the design of the project and managing the construction process. The organisation can either be a building contractor or a consulting firm (Masterman, 2006: 118). Similarly to the other management-orientated methods of procurement, the actual work is conducted by separate works contractors under agreed works packages.

The ‘contractor-led’ and ‘consultant-led’ design and manage variants differ fundamentally based on the fact that the contractor appoints the individual works-package contractors with the contractor-led arrangement, while the appointments are procured by the client in the latter arrangement (Masterman, 2002: 122). The apportionment of financial risk is therefore shifted to the contractor in the ‘contractor-led’ arrangement, while the consultant is left with a “comparatively risk-free responsibility for the design and management of the project” (Masterman, 2002: 122). The consequence may be a more strained relationship with the contractor-led arrangement as the contractor will be more profit driven and claim conscious.

2.8.3.4 Advantages and Disadvantages of Management Orientated Procurement Methods

There are main advantages and disadvantages that need to be considered when considering the Management orientated procurement methods. These a summarised in the CRC Construction Innovation: Building our Future report (Davis, Love & Baccarini, 2008: 15).

The main advantages of using the Management orientated procurement methods are:

- the client deals with only one firm, which enables improved coordination and collaboration between designers and constructors;
- potential for time savings for the overall project as design and construction activities are overlapped;
- under a design and manage form, the contractor assumes the risk and responsibility for the integration of the design with construction;
- works packages can be let competitively at prices that are current;
- improved constructability through constructor input into design;
- roles, risks and responsibilities for all parties are clear; and
- flexibility for changes.

The main disadvantages of using the Management orientated approach to procurement are:

- price certainty is not achieved until the final works package has been let;
- informed and proactive client is required;
- poor price certainty;
- close time and information control required
- client must provide a good quality brief to the design team as the design will not be complete until resources have been committed to the project (Construction management and management contracting); and
- client loses direct control of design quality which is influenced by the constructors (design and manage).

2.8.4 Discretionary Procurement Systems

There is a crop of procurement methods that fall outside the ambits of conventional methods which revolve around the relation and coordination of design and construction. The procurement methods in question are called discretionary or collaborative procurement methods. These procurement methods took centre stage in the UK following the Latham review named *Constructing the Team* which cited major frustration from the "construction industry customer" regarding the industry, and how a more collaborative approach to procurement may assist to mitigate the negative stance. Discretionary or collaborative procurement systems have therefore been seen as the clients' response "to the failings of the construction industry" by way of developing and unilaterally introducing their own procurement methodology (Morledge, Smith & Kashiwagi, 2006: 170).

Discretionary systems are "an administrative and cultural framework into which any procurement system(s) can be incorporated" (Masterman, 2002: 131). The principle is that by creating an environment that allows for dialogue amongst all project participants, a joint effort should be made to resolve problems quickly and harness the efforts of others.

2.8.4.1 British Federation System

British Property Federation (BPF) system falls under the discretionary or collaborative procurement systems. This was prepared by clients who were frustrated by the ongoing problems that plagued the construction industry. For this reason it was fairly one-sided in as far as its proposals to run construction projects (Masterman, 2002: 134). Morledge, Smith and Kashiwagi (2006: 170) explain that the BPF did not gain much momentum in the UK construction industry due to its radical approach. At the time, the construction industry had questioned the BPF's ability to solve the raging problems that plague the construction industry (Masterman, 2002: 34). For these reasons we will mention, but not attempt to unpack the BPF system for the purposes of this paper.

2.8.4.2 Partnering

Partnering is the most widely used of the discretionary methods, with extensive successful implementation in the USA (Morledge, Smith & Kashiwagi, 2006: 171). Partnering is subset of the family of discretionary methods which "aims to eliminate adversarial relationships by encouraging the parties to work together towards shared objectives and achieve a win/win outcome (Black, Akintoye & Fitzgerald, 423: 2000).

Partnering can be described as "a means of administrating and establishing an environment within which a project is implemented using any of the procurement systems to carry out funding, design, construction etc." (Masterman, 2002: 134). Rowlinson and McDermont (1999: 254) make reference to the widely accepted definition of *partnering* by Construction Industry Institute (CII):

> A long term commitment between two or more organisations for the purpose of achieving specific business objectives by maximising the effectiveness of each participant's resources. This requires changing traditional relationships to a shared culture without regard to organisational boundaries. The relationship is based on trust, dedication to common goals, and an understanding of each other's individual expectations and values. Expected benefits include improved efficiency and cost effectiveness, increased opportunity for innovation, and the continuous improvement of quality products and services.

Essentially, at the core of every successful partnering venture are mutual project objectives amongst all project participants, appropriate methods of problem resolution must be agreed, and continuous measurable improvement of all parties (Masterman, 2002: 135). Black, Akintoye and Fitzgerald (2000: 428) highlight the importance of having the relationship fit in with strategic plans of all parties to the partnership, and having a high level of commitment from all the parties involved. The results of the study showed that respondents perceived (in ranked order) mutual trust, effective communication, senior management commitment, actions consistent with stated objectives, a dedicated team, flexibility with regard to change and commitment to continuous improvement as key factors to a successful partnership (Black, Akintoye & Fitzgerald,2000: 426).

The Partnering Procurement Process

Partnering can take the two forms, whereby two organisations can choose to partner on a project on a 'once-off' basis which is defined as project partnering, or two organisations can get into a long term arrangement whereby they undertake a series of projects which is defined as Strategic partnering. The 'nuts and bolts' in terms of process are essentially the similar, with the distinguishing factor being that "more care and time are needed in the initial stage to ensure that both organisations and their respective managements are totally dedicated to the use of strategic partnering" (Masterman, 2002: 133).

Masterman (2002: 133) identifies a 3-stage process with regards to partnering. The first is the 'decision stage' where a decision is made by two organisations to get into a strategic partnership arrangement based on the compatibility of the parties, and the value-add both organisations bring the fore. The second stage is the 'establishment of working practices' whereby a workshop is held to identify mutual objectives of the parties and an agreement on problem resolution mechanisms. The result is a 'partnering charter' which captures these aspects. It is important to note that the charter is not a legally binding agreement. Lastly is the 'implementing partnering practices' stage which entails a series of workshops during the project that are conducted to resolve prevalent issues, strategise, monitor progress and discuss any other business that requires attention.

Benefits and Shortfalls

The concept of a partnership to overcome the mishaps of the adversarial nature of the construction industry brought about partly by the use of traditional procurement methods is attractive. Morledge, Smith and Kashiwagi (2006: 177) indicate that partnerships should allow for the three project pillars being

time, cost and quality to be noticeably improved. The benefits of partnering with suppliers are higher margins, lower costs, better value for customers, larger market share, quality improvements, design cycle time reductions and increased operating flexibility (Black, Akintoye & Fitzgerald, 2000: 430). In his literature, Masterman (2002: 143) notes that although existing literature mentions cost savings that can be attained using partnerships, the extent of improvements has however not been quantified due to varying data reported worldwide. Similarly, improvements are reported regarding time in terms of shorter design and construction periods (Masterman, 2002: 142). There is a consensus in the existing literature that quality on a project can benefit from a partnering arrangement, with defects at handover being brought to a minimum.

The sharing of risk between parties is perceived as one of the main benefits of partnering because "construction projects are inherently risky" in nature (Black, Akintoye & Fitzgerald, 430: 2000). When risk and reward are shared by parties on a construction project, a lot of the traits of the traditional adversarial relationship can be mitigated. This is because it is in the best interests of all parties that issues are resolved expeditiously in order to successfully complete the project. The focus on medium to long term relationships is highlighted as one of the other key benefits to partnering in construction (Black, Akintoye & Fitzgerald, 2000). This can prove rather useful in concessionaire agreements whereby private partners to Government projects are forced to take a long-term view on the operation of a facility once it is built. Operational costs can spiral out of control if they are not accommodated for properly in the design, and what initially seemed like a good project may cost private companies immensely in the long run.

The shortfalls of partnering include the "chances of relationships becoming too comfortable and the client's loss of access to "market value" that comes with abandoning repetitive tendering" (Hughes et al., 2006: 9).

2.8.5 Summary

Procurement methods have evolved over time and left the client with a wide array of choices to choose from that best suits their needs. It is therefore the responsibility of the client's principal agent to lead the way in advising the client on the most suitable procurement method to adopt. Each project is unique and the procurement method that worked on a previous project will not necessarily be effective on another. A strategic approach to the process of selection, based on a strategic brief that is prepared to capture the exact client objectives and needs has to be prepared from the initial stages.

Conventional methods of procuring, coupled with an accelerated strategy, may be more advantageous to inexperienced or partially inexperienced clients. This is because this category of clients is normally not competent or experienced enough to develop an accurate brief for their construction projects. By splitting design and construction, the client's design team is able to incorporate changes into the project during the planning phase of the project. Changes to the brief are however more difficult to incorporate with 'design and build' solutions. This is because "changes are usually more expensive to introduce after the contract has been let, compared with other types of strategy" (Morledge, Smith & Kashiwagi, 2006: 116).

The increased scale complexity, uncertainty and time pressure posed on some construction projects has rendered the traditional approach to procurement somewhat obsolete (Eriksson & Westerberg, 2011: 198). Non-conventional methods have been identified as practical solutions to some of the shortcomings of the conventional system.

Integrated procurement systems on the other hand offer clients a 'bag' of advantages and disadvantages that are in contrast to conventional methods. These procurement strategies on the one hand offer the client a single point of contact to engage with on a project which enables the project to progress more smoothly and provides economies for both contracting parties (Masterman, 2002: 87). On the back of a thorough brief that accurately captures the client's requirements, integrated procurement systems offer clients a level of certainty regarding the final cost of their projects (Masterman, 2002: 87). The overlapping of design and construction can lead to shorter project periods and earlier occupation of the client's facility.

Conversely, there are also shortcomings of integrated procurement systems that clients need to be fully aware of when making a decision on the most suitable procurement system to employ. The client is required to commit to a concept in the early stages of the project, and any variations to an approved concept can prove to be costly to both the client and contractor (Morledge, Smith & Kashiwagi, 2006: 118). Clients are likely to pay a higher premium using design and build if the brief does not accurately capture their requirements. A premium is often incurred in the form of an undisclosed contingency sum which results in unnecessarily inflated tenders (Masterman, 2002: 71). Most literature also cites the client's lack of control over the aesthetics of their buildings as one of the shortcomings of integrated procurement systems. This aspect can however be mitigated by using some of the variants of design and build, i.e. develop and construct, to offer the client a level of control over the design.

Depending on the region, firms offering design and build solutions (and its variants) are few and far between therefore there is less competition to get the best price on tenders submitted and value for money (Morledge, Smith & Kashiwagi, 2006: 118).

Management-orientated procurement methods are ideal for clients who prefer a more 'hands on' approach on their projects. Various literature state that higher degrees of functionality and quality can be achieved with this type of procurement as compared to others. The contractors input at the early stages of the project ensure that 'buildability' aspects are catered for in the design of the building. Changes can be managed and absorbed by the project for as long as the works-package has not been let and that there is minimal impact on those already let (Morledge, Smith & Kashiwagi, 2006: 115).

The benefits of the management-orientated methods need to be weighed against some its shortcomings. These methods alleviate some of the responsibility and risk from the contractor to the client as the contractor is elevated to "the status of the client's adviser/consultant" (Masterman, 2002: 126). Price certainty is not achieved at the early stages of the project but rather when all the works-packages are let. The four key differences between management-orientated and the traditional approach are "(1) an emphasis between cost rather than price, (2) a long term rather than a short-term focus, (3) defect prevention in place of quality checks, and (4) single rather than multiple sourcing" (Black, Akintoye & Fitzgerald, 2000: 23).

CHAPTER 3
LITERATURE REVIEW ON PUBLIC PRIVATE PARTNERSHIPS

3.1 What are Public Private Partnerships?

The emergence of PPPs came as a direct result of attempts by resource constrained governments to find innovative ways to address their mandate, which includes the delivery of public infrastructure and services to the communities they serve. Unlike traditional procurement models which put the full burden of delivery on government, PPP procurement allows governments to offload some of the risks to the private sector. These risks comprise mainly of the design, construction, operation and financing aspects of projects. The private sector is incentivised by potentially large financial gains that can be accrued over the duration of the agreement. The profits also allow the private participants to repay the debt to their financiers.

The definition of PPPs is varied in academic literature. Researchers have been publishing papers on PPPs from the early 1950's when Stevenson (1952) interrogated public private partnerships in the field of mental hygiene, to the current works that explore avenues of sustainability in provision of PPP procurement. A typical PPP project has been described as a "long-term contractual arrangement between a public sector agency and a private sector concern, whereby resources and risks are shared for developing public infrastructure, such as the potential for synergy, the development and delivery of a strategy" (Akintoye, Beck & Hardcastle, 2003). According to Amponsah and Forbes (2012: 212), PPP procurement entails the delivery of public services to government by the private sector by creating, financing and owning any necessary infrastructure. Grimsey and Lewis concur (2004: 2) and define a PPP as an arrangement whereby the private sector participates in, or provides support for, the provision of infrastructure, result of which is a binding PPP contract that obligates the private entity to public infrastructure-based services. The rationale behind a PPP is to combine the resources of both the public and private sector in order to achieve more efficient service provision (Akintoye et al., 2003: 461). PPP's have also been described "as a contractual agreement between a public agency and a private company, whereby, as partners, they pool resources together and share risks and rewards, to create efficiency in the production and provision of public or private services" (Akintoye & Beck, 2009: 124). Ahadzi and Bowles (2004: 968) make reference to the definition provided by the Canadian Council for PPPs, "A co-operative venture between the public and private sectors, built on the expertise of each partner that best meets clearly defined public needs through the appropriate allocation of resources, risks and rewards". PPP's are described in the South African PPP Manual's as:

"…a commercial transaction between an institution and a private party in terms of which the private party –

a) Performs an institutional function on behalf of the institution; and/or
b) Acquires the use of state property for its own commercial purposes; and

c) Assumes substantial financial, technical, and operational risks in connection with the performance of the institutional function and/or use of state property; and…"

(National Treasury, 2004a: 4)

3.2 The Nature of PPP's

This section of the research will now focus on what sets PPP's apart from other forms of procurement in both the public and private space.

3.2.1 Risk Allocation

In PPPs risk is allocated to the party that is in the most favourable position to absorb and manage the risk. "In all cases, the underlying principle of PPP schemes is that certain construction and operational risks associated with the provision of services should be transferred away from the public sector to where they can be best and most appropriately managed (Carrillo et al., 2008: 138). The rationale is that government's risk of owning and operating infrastructure comes at a relatively high cost as compared to transferring the risk to the private sector, which lowers the cost for government (Grimsey & Lewis, 2004: 14). Cartlidge (2006) shows this analogy with a comparison of procurement strategies and the proportion of risk that is borne between public (or private) client versus the contractor. The author explains that at the one end of the spectrum, there is a lump sum fixed price contracts where the contractor carries nearly all of the risk for a specified sum; while on the opposite end there are cost reimbursement/cost plus contracts where the client carries nearly all of the risk. Traditional procurement for both private and public sector also transfers the vast majority of risk to the clients, as the contractor is only responsible to construct the infrastructure while the client has to carry the long term operational and maintenance costs (Cartlidge, 2006: 16). By opting to procure a project via means of a PPP, the public sector can cede the design, finance, build and maintenance to the private sector which is best suited to manage those types of risks.

3.2.2 Focus on Services

A unique feature of a PPP approach is that they are centred on offering government services, and not state procurement of economic or social infrastructure. "Government pays for services provided by the private party, which are delivered through privately owned or rented infrastructure as part of the service structure" (Grimsey & Lewis, 2004: 14). The service required by government is specified in an output specification and it is up to the private party to come up with an innovative solution to deliver the service. The private party undertakes to deliver on the particular quality and quantity of service in return for a unitary charge paid by government or a user charge (e.g. toll) levied by the private partner on the direct recipients of the service (Amponsah & Forbes, 2012: 212)

3.2.3 Whole-Life Cycle Costing

Unlike conventional forms of procurement, the design and construction of a facility, together with the operation, maintenance and refurbishment, are all fulfilled by a single party (Grimsey & Lewis, 2004: 14). This is done by utilising a long term contract between the public and private entities.

3.2.4 Value For Money (VFM)

The key to any successful delivery or implementation of a PPP project is the achievement of value for money (VFM). The VFM test is outlined in the National Treasury PPP Manual (2004) document. The National Treasury PPP Manual (2004: 7) defines value for money as "the provision of the institutional function or the use of state property by private party in terms of the PPP agreement" which "results in a net benefit to the institution defined in terms of cost, price, quality, risk transfer or a combination thereof". Li, Akintola and Hardcastle (2005: 17) did a survey which analysed the rating of several factors by public and private sector in the UK PPP market participants which concluded that "efficient risk allocation", "output based specification" and "long-term nature of contracts" as the top VFM factors. VFM concerns achieving the "best available outcome after taking into account all of the benefits, costs and risks over the whole life of the procurement" (Amponsah & Forbes, 2012: 212).

VFM in PPPs is determined by doing a comparison of the project under both traditional and PPP procurement via the public sector comparator (PSC) (Aziz, 2007: 925). "The PSC describes in detail all costs to the public sector, if the project were developed in a traditional way" (Akintoye, Beck & Hardcastle, 2003:463). The "risk adjusted cost" to the public sector entails the cost of acquiring the asset and the operational service procurement, and financing it directly from the State budget (Rintala et al, 2008: 148). In other words, the financial cost of the whole life of the project if procured via conventional means revealed by the PSC, are discounted to yield a net present cost (NPC) and compared against the cost of a project procured under PPP (Shaoul, 2005: 448). Similarly to the United Kingdom, South Africa has also adopted a PSC as part of the value assessment at the feasibly study stage (National Treasury, 2004b: 17). The PPP project should only be selected if it displays considerable advantages over the PSC (Akintoye, Beck & Hardcastle, 2003: 463). Furthermore, the authors emphasise that the "wider government objectives of sustainable economic development and fair employment opportunities" cannot be separated from the value for money proposition (Akintoye, Beck & Hardcastle, 2003: 463). In South Africa, this is analogous to the BBB-EE requirement by Treasury's PPP Manual that has been adopted as part of the State's wider plan to address social and economic inequalities created by the past apartheid regime.

The adjudication and awarding of PPP projects has a huge value-for-money element. In South Africa, for instance, a concession is only awarded if it meets the VFM test. The approach regarding the payment mechanism plays a vital role in terms of how value-for-money is achieved. Aziz (2007: 925) uses an example of a toll road project based on a 'finance-based approach', where main emphasis is to optimise and obtain best value for each dollar spent by enforcing certain monetary limits on the finance, e.g. establishing a cap on revenues, enforcing specific toll rate setting mechanisms, requiring specific equity-

debt ratio, limiting concession periods etc. Alternatively, the emphasis with a 'service-based approach' with a toll project should be to "achieve the best value for taxpayers' money as well as the user tolls, if any". Achieving best value using a service-based approach may entail governments taking on a number of varied interventions ranging from "being impartial when selecting a procurement method (traditional or PPP) that would achieve best value for money, being reasonable in risk allocation where government may retain demand risk, using private finance as an incentive for better performance and compensating contractors based on their performance of the services provided" (Aziz, 2007: 925).

3.3 Understanding Private Finance Objectives

Understanding the appropriateness of financing structures for PPP's is critical for governments as this may affect the outcome of PPP arrangements. Aziz (2007: 923) explains the difference between a 'PPP finance-based approach' and a 'PPP services-based approach'. A finance-based approach entails tapping into private finance as the "major objective to get the needed infrastructure built when insufficient government funds are available" and requires 'robust demand' to be effective (Aziz, 2007: 923). The PPP service-based approach on the hand focuses on the "optimization of the time and cost efficiencies in "service" delivery through the utilisation of private sector skills, innovations, integration, and collaboration in project design, construction, financing, operation, marketing, and management. The integration of both a finance and service based approach, and PPP arrangements where no private finance is used are also common permutations of the above. Aziz (2007: 924) therefore advises that the objectives of using private finance in PPPs needs to be clear in terms of purely a desire to tap into private capital or for better service, as these will impact on the successful implementation of a PPP.

3.4 The Organisation of PPP's

The highly specialised nature of PPPs brings together expertise from engineering and project management consultancies, construction companies, financial underwriters, and facilities management companies (Grimsey & Lewis, 2004: 108).

One of the key factors to a successful PPP agreement is the establishment of 'Special Purpose Vehicle' (SPV). The SPV is a separate legal entity that is formed by the private equity investors and sponsors of a PPP, and which contracts directly with the grantor or the public entity. In a concession agreement for instance, the contracts with government for the "development, construction and operation of specific projects" (Chowdhury, Chen & Tiong, 2012: 546). "The SPV is normally formed just prior to financial close to a PPP agreement.

The SPV is advantageous as it offers limited liability of equity holders, by allowing for "off-balance sheet financing" meaning that the "debt raised by promoters (i.e. investors, contractors, subcontractors and suppliers) would not appear in their balance sheet but it would appear only on the balance sheet of the SPV" (Chowdhury, Chen & Tiong, 2012: 547). This allows for ease of raising funds by the SPV as the project

is assessed on its own merits. Another main advantage of the SPV is its ability to "minimize the project risks assumed by it and pass them through the contractual structure to stakeholders who are best able to assess and manage risks" (Chowdhury, Chen & Tiong, 2012: 547).

A typical contractual network revolves around the SPV whereby each party sets up contracts with the SPV for a specified period (Chowdhury, Chen & Tiong, 2012: 546). The SPV contracts with various specialist subcontractors being the design and/or construction contractor, and an operator, to form a consortium for the project (Grimsey & Lewis, 2004: 109). A typical PPP consists of the following participants or stakeholders:

- Public sector or grantor;
- Lenders or Financiers;
- Rating Agencies;
- subcontracts;
- Advisors; and
- Insurers.

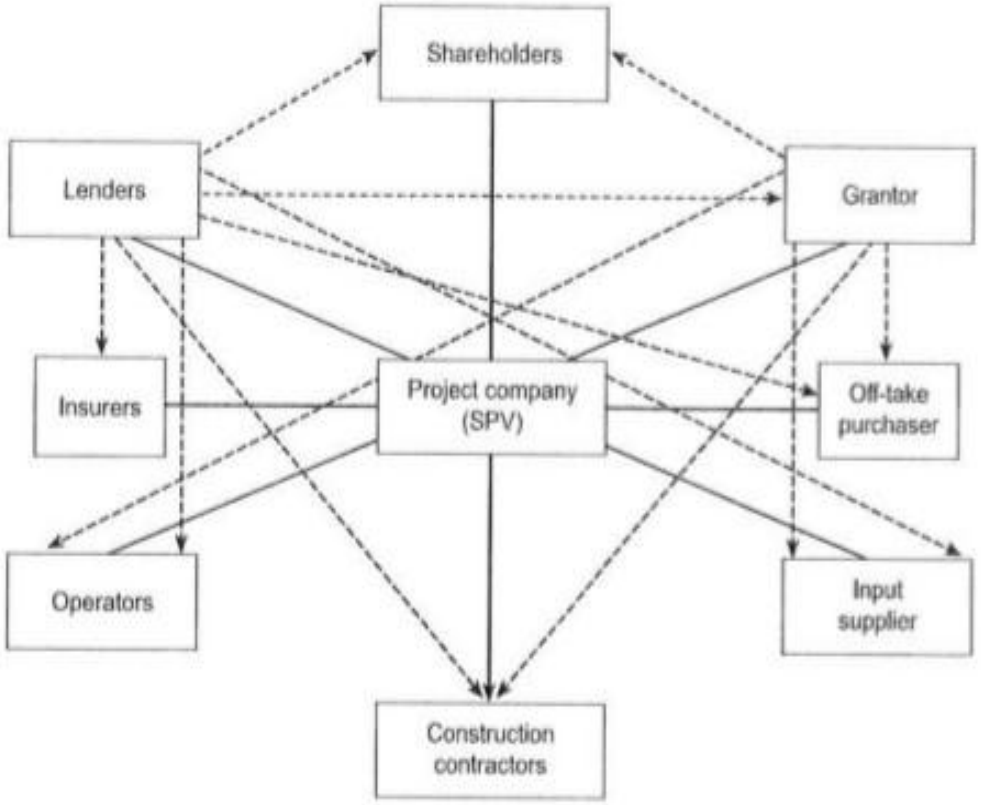


Fig 3.1: Typical PPP Structure

Source: Delmon, 2009; as cited by Chowdhury, Chen and Tiong, 2011: 249

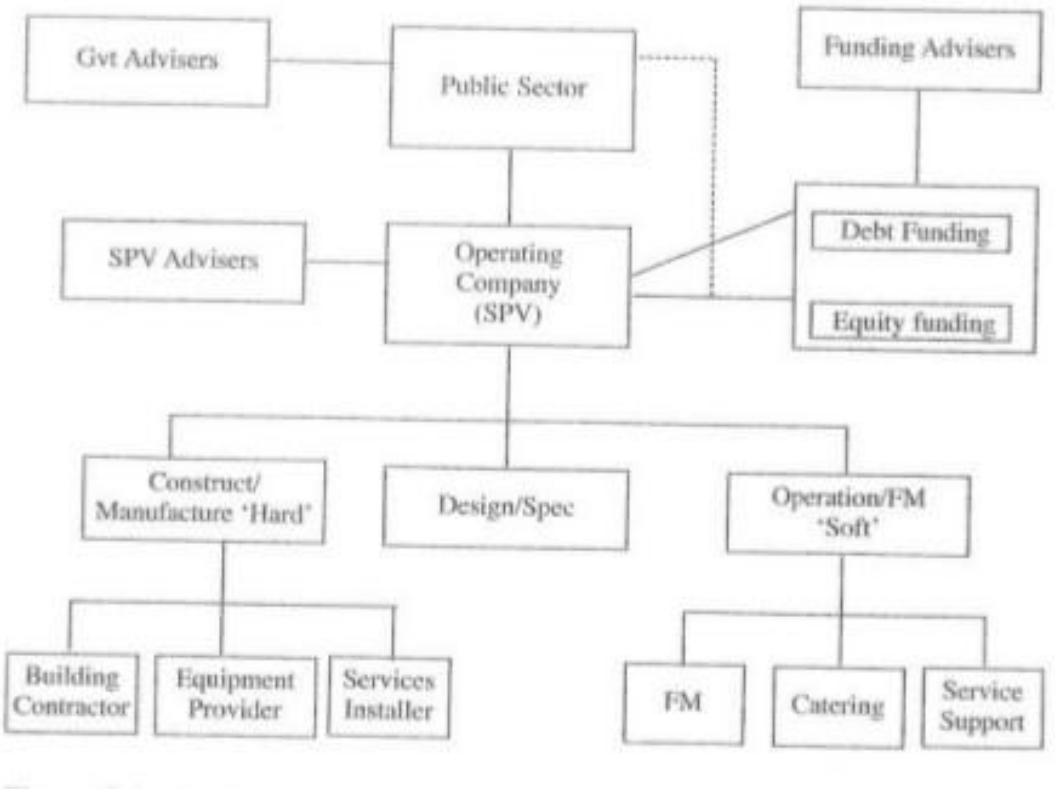


Fig 3.2: SPV and its agreements with various parties

Source: Sapte, 1997; as cited by Chowdhury, Chen and Tiong, 2012: 548

Gordon et al. (2013) interpret the different roles played by the parties to an agreement that bears relevance for the basis of this discussion whereby: government plays a strategic role; regulator plays a tactical role; and the operator plays an operational role.

3.4.1 Analysis of the Structural Relationship between PPP Actors

The intricate structure of a PPP framework means that relationship between actors takes various forms. Chowdhury, Chen and Tiong (2011) conducted a study aimed at exploring the structural properties of the network generated by a typical PPP agreement using network theory. The study was conducted using a comparison of PPP infrastructure projects and selection of best case, and a selection of that best case using network theory. Network analysis (social network theory) is defined as "the study of how the social structure of relationships around a person, group or organisation affect their beliefs or behaviour. (Chowdhury, Chen and Tiong, 2011: 252). "The network theory helps map out the relationships between people, thus identifying the opinion leader" who is the "potential person who holds the core position and many people are linked with him/her in the network". The authors explain that this is done by measuring the centrality of actors through measures of (1) degree; (2) closeness; and (3) betweeness. By mapping the relationships, the method was able to identify the position, power and influence of each stakeholder.

The findings of the research indicated that there were four main influential stakeholders to a PPP which are noted in hierarchy order, namely the (1) SPV; (2) government; (3) equity holders; and (4) multilateral development banks (MDBs). The 'opinion leader' was found to be the SPV because of their influence, greater access to information and efficiency in communicating with others. Second most influential was the government due to their control over the flow of communication, and how the state can connect more actors indirectly. MDB's were found to be an important actor as they are close to all other actor. Conversely, the contractors and operators were found to have the least influence and therefore considered to be "peripheral actors".

3.5 Traditional versus PPP Procurement

There are various fundamental difference that distinguish a project procured via a traditional public sector procurement and that procured via a PPP route. A vast amount of literature has been written comparing the trade-offs between traditional and PPP procurement.

From a contractual and financial point of view, the fundamental differences between traditional and PPP procurement include the following, (1) the contractor may be an equity partner involved as part of the concessionaire; (2) off-balance sheet project finance is used to finance projects which may be quite complex; and (3) the allocation of risks and rewards to those involved in bidding needs to be carefully considered (Ive & Edkins, 1998: 4). In their research to compare the performance of PPP's and traditional procurement in Australia, Raisbeck, Duffield and Xu (2010: 345) found that the sampled projects procured via the PPP option outperformed those procured via the traditional procurement option from a cost perspective during the period when the PPP is announced to contractual close. The same study also indicated that PPP's take longer than projects procured through the traditional manner during the same period. The authors proposed the lack of experience within institutions to administer a PPP, and the "quality and robustness of the PPP project initiation process" to be the reasons for the longer procurement process displayed by PPP projects (Raisbeck, Duffield & Xu, 2010: 357). The period before a project procured via the traditional route is announced to the public was however not investigated. It is difficult to get access to such information from government institutions.

The research into the differences between the traditional versus PPP procurement options was however not extended any further as it fell out of the envisaged scope of this research.

3.6 The PPP Procurement Process

The PPP procurement is an involved and complex process. The steps leading towards the appointment of a preferred bidder are generic across the board, and may involve some adaptations depending on the preferences of certain states. The principles are, however, the same in terms of how this process is applied.

3.6.1 Invitation to Tender

"Parties can be invited to express interest by publishing a notice in newspapers or journals/magazines" (Zhang, 2004: 672). The advertisement must be drafted in such a manner that it captures the broad output terms to achieve "maximum flexibility in determining the nature of possible tenderers and to exploit strategic opportunities" (Zhang, 2004: 672). The author adds that failure to issue a well drafted advertisement (e.g. issuing a notice that is too specific) may deter some potential tenderers and therefore undermine competition and opportunities for innovative solutions.

3.6.2 Prequalification

The prequalification phase of the project involves an invitation to interested tenderers to prequalify to bid for a PPP project. The prospective bidders are requested to provide the relevant background information about their technical, financial and legal credentials. These requirements could be augmented depending on the client, and their experience with PPPs. For instance, in South Africa prequalification is also based on a company's' black economic credentials. Zhang (2004: 673) explains that the resources involved in preparing the bid documentation to finance, design build and operate facility are costly when compared to other design build type contracts. The prequalification process helps eliminate those contractors who do not have the requisite technical and financial experience to implement the project (Delmon, 2011: 53). The prequalification process also ensures that those who do not meet the criteria do not incur unnecessary tendering costs (Zhang, 2004: 673).

3.6.3 Bid-Request for Proposal (RFQ)

This is the stage where prequalified tenderers are issued with the tender and invited to forward their bids based on same. "Tender documents may include the (1) project brief, (2) instructions to tenderers, (3) draft concession agreement, (4) financial analysis model, and (5) outline of tender evaluation methodology" (Zhang, 2004: 672). Once the bidders have received the tender documentation, they conduct a due diligence on the viability of the project, and prepare a technical and financial solution based on the tender requirements (Delmon, 2011: 56). During the bid process, the client may invite comments from the tenderers as part of an iterative process with the aim of getting a best value for money and bankable project (Delmon, 2011: 56).

3.6.4 Selection of Preferred Bidder

Zhang and Kumaraswamy (2001: 357) write that there are mainly two proposals (that make up the tender submission) to be assed, namely the financial and technical proposals. The authors highlight that the financial proposal for BOT-type projects is normally assigned the higher weighting. "Technical assessment

involves the evaluation of designs and the planned facilities in a life-cycle scenario including environmental impacts" (Zhang & Kumaraswamy, 2001: 357). During the bidder selection process, the submissions from tenderers are assessed against each other and against the Public Sector Comparator (PSC). The project is only awarded if it passes the value-for-money (VFM) test. The tenderer that scores the highest is selected as the preferred bidder. A reserve bidder is also selected. Emmnauel (2007) explains that a reserve bidder is one of the means of exerting competitive pressure on the preferred bidder during negotiations.

3.6.5 Best and Final Offer (BAFO)

The grantor has the discretion to request one or more revised proposals in accordance with the requirements raised by client during the negotiations (Zhang, 2004: 677). This may happen if, after concluding the bid evaluation, the grantor is unable to judge which of the bids offer the best value for money (Rintala et al., 2008:152). The BAFO enables the client to get further development of the proposals while maintaining competitive pressure (Rinatala et al., 2008: 152). The authors highlight that an additional round of bidding creates additional procurement costs for both the public and private parties, and may cause a withdrawal from one or some of the bidders. The National Treasury PPP Manual (2004c: 51) requests bidders to submit bid bonds, which are refunded on submission of a fully compliant BAFO, in order to prevent withdrawal from the bidding completion.

3.6.6 Negotiation Phase

After a preferred bidder has been selected, the parties engage in negotiations over the contract that will bind the agreement. The negotiations are intended to clarify the final terms and conditions of the PPP agreement. "The negotiations will centre on achieving a mutually acceptable contract that reflects the preferred tenderer's tolerance for risk and preferences for the reward structure" (Zhang, 2004: 677). Zhang (2004) adds that the client may engage the reserve bidder should negotiations with the preferred bidder not materialise into an acceptable agreement for all parties concerned.

3.6.7 Financial Close

Once successful negotiations have been reached, the procurement process reaches financial close. Financial close requires three sets of approvals as described by the Constructors' Key Guide to PFI research report (Ive & Edkins, 1998: 50):

i. approval from the relevant authority which allows the public sector client to sign the contract
ii. approval of the contracts by the bank which allows the concessionaire to sign the contract; and
iii. Successful fulfilment by concessionaire of all the conditions precedent as set out in the agreed contracts by the parties.

3.7 The PPP Project Types

Ahadzi and Bowles (2004: 968) classify the PPP procurement process into four distinct phases which are described as: the planning and feasibility phase, the bidding and negotiation phase, the construction phase, and the operation phase.

PPP arrangements are not one-dimensional and can take different forms to accommodate the needs of the contractual parties, i.e. public and private entities. These arrangements can be tweaked to satisfy risk appetites, financing strategies, governance and public accountability requirements etc.

Morledge, Smith and Kashiwagi (2006: 200) have highlighted the various PPP arrangements based on degrees of 'partnership' and 'shared control'. These are listed below and as stipulated by the authors.

3.7.1 Outright Privatisation

Outright privatisation involves a government entity, including assets, being sold to a private party who then becomes responsible for its operation. Morledge, Smith and Kashiwagi (2006: 200) state that government involvement comes on a regulatory level, in order to ensure that strategic public services are rendered to the public consistently and at equitable levels. They therefore explain that this model works better for industries that provide a "relatively low unit cost to a large number of consumers" and "where the market can be easily opened up to a large number of potential competitors" (Morledge, Smith & Kashiwagi, 2006: 200).

3.7.2 Participative Privately Finance Techniques

Participative privately funded techniques give governments the opportunity to use private institutional finance to provide a public service without the budgetary constraint of paying out the full capital amount from the onset of the project (Morledge, Smith & Kashiwagi, 2006: 201). The opponents argue that the use of private sector finance proves to be more expensive in the long term than the use of public capital. For governments with sizeable budgetary constraints, the former can be more advantageous.

3.7.3 Corporatisation and the Use of Semi-Private (i.e Mixed) Companies

3.7.3.1 Publicly Owned Corporations

In the case of publicly owned corporations, governments create a "special-purpose" corporation which is mandate to construct and operate infrastructure facilities (Morledge, Smith & Kashiwagi, 2006: 201). These companies can either be totally public owned or governments can share ownership with private entities, i.e. mixed companies (Morledge, Smith & Kashiwagi, 2006: 201).

3.7.3.2 Semi-Public Corporations

Similarly to publicly owned corporation, semi-public corporations are "mixed" in terms of ownership, with government normally maintaining a controlling interest. The distinguishing factor between the two is that semi-public corporations can raise their own funds on the open market (Morledge, Smith & Kashiwagi, 2006: 202).

3.7.4 Management Contracts

Management contracts essentially involve the private sector taking "responsibility of the operations and maintenance of some existing facility which has previously been operated by the public sector" (Morledge Smith & Kashiwagi, 2006: 203). The arrangement normally involves a level of upgrade or renovation of the existing facility.

3.7.4.1 The Leasing Model or Build-Lease-Transfer (BLT)

This contractual arrangement involves the design, construction and financing of a facility by the private sector, who then leases the facility to government for a fixed rental for an agreed period. The legal ownership of the facility rest with the private sector during the lease period, and is then ceded to government to government after the lease terminates. Morledge, Smith and Kashiwagi (2006: 203) clarify that the maintenance of the facility is normally government's responsibility during the lease period. Alternatively, government may choose to outsource the operation and maintenance function to the same private party which would then make the arrangement a build-lease-transfer-maintain (BLTM) (Morledge, Smith & Kashiwagi, 2006: 203).

3.7.5 Prefinancing

Prefinancing is similar to the BLT arrangement in that the private sector does initially finance and construct the project, but differs in that the government pays off the "full cost, including financing charges, by a series of pre-agreed annual lump sum payments over some agreed period of time" (Morledge, Smith & Kashiwagi, 2006: 204). Another difference is that owner of the facility is passed to government once construction is completed (Morledge, Smith & Kashiwagi, 2006: 204).

3.7.6 Mixed Models

This is a combination of a leasing and pre-financing approach whereby the private sector finances and constructs a facility on behalf of government. Government does however, not pay a fixed predetermined fee, but rather pays for the use of the facility during the life of the agreement (Morledge, Smith & Kashiwagi, 2006: 205). The authors make reference to the redevelopment of the A2 motorway in Germany, whereby the payments to the private operator were based upon the number of different types of vehicles using the road (Morledge, Smith & Kashiwagi, 2006: 205).

3.7.7 Concession Based Models

There are different variants to the concession and these are elaborated upon in more detail below.

3.7.7.1 Build-Operate-Transfer (BOT)

Build-operate-transfer (BOT) involves the responsibility of attaining funds to build and operate the facility for a fixed term being borne by the private sector for a required return on investment (Amponsah, & Forbes, 2012: 212). At the end of the fixed term all the "operating rights and maintenance responsibilities" are ceded to the host government (Morledge, Smith & Kashiwagi, 2006: 206). It is common for the legal ownership of the constructed facility to pass to the host government upon completion (Morledge, Smith & Kashiwagi, 2006: 206).

3.7.7.2 Build-Own-Operate-Transfer (BOOT)

The build-own-operate-transfer (BOOT) approach is a contractual arrangement whereby the private sector develops a large development under contract to the public sector (Amponsah & Forbes, 2012: 212). In this procurement approach, ownership of the facility vests with the private sector until the end of the concession period, and ceded to host government thereafter (Morledge, Smith & Kashiwagi, 2006: 207).

3.7.7.3 Build-Own-Operate (BOO)

Under the build-own-operate (BOO) system, control and ownership of the facility is retained by the private sector, i.e. no transfer of the facility to government (Amponsah & Forbes, 2012: 213). The responsibility for design, funding, construction, operation and maintenance of the facility rests with the private sector during the concession period (Morledge, Smith & Kashiwagi, 2006: 207).

3.7.7.4 Design-Build-Finance-Operate (DBFO)

In terms of the design-build-finance-operate (DBFO) approach, the private party is required to design, build, finance and operate the facility under a single contract (Amponsah & Forbes, 2012: 213). During the concession period, the right of ownership is retained by the host government while the private party is given access to the facility (Morledge, Smith & Kashiwagi, 2006: 208).

3.8 PPP Procurement Framework in South Africa

The government of South Africa has developed a world class PPP framework. From a historical perspective, the "components (definitions and dimensions) of the framework for assessing PPPs were drawn up in the early 1990s from experiences of four developed countries, Australia, Canada, UK and Ireland, and the US" (Binza, 2008: 310). Binza (2008) explains that the framework has been tailor-made to suit the socio-political and economic backdrop of the country. The countries that are mentioned above have been at the forefront of the advancement of PPPs globally. South Africa's commitment to PPPs is re-affirmed by the opening preface in the National Treasury PPP Manual by the former Finance Minister, Trevor Manuel, which states that "South Africa is proudly amongst the leading countries in the world in the law, policy and systems we have established for public private partnerships" (National Treasury, 2004a: I).

The Public Finance Management Act (No 1 of 1999) is an important piece of legislation that provides guidelines of good accounting and governance practices to all spheres of government. The PFMA is "outputs and outcomes" driven, and is used as a mechanism to ensure that government deliverables are met from public monies accrued by the receiver (National Treasury, 2004b: 2). The Act not only provides the tools for proper financial management by government departments, but also has legislation that deals with financial misconduct, and the remedies for those who are found guilty of such. The PFMA is therefore a financial management tool that must be used as a 'checklist' for all government practitioners that make decisions on the spending of tax payers' money.

3.8.1 Treasury Regulation 16 of the PFMA

PPP's in South Africa at both provincial and national level are governed by the Treasury Regulation 16 which makes up part of the PFMA (National Treasury, 2004b: 2). The Treasury Regulation 16 provides a regulatory framework and guidelines for the use of PPP's by both the national and provincial government institutions in South Africa. The South African National Treasury's PPP Manual is made up of 9 modules. These standard documents articulate each stage that governs the PPP process.

The PPP Manual recognises the huge role that PPP's can play in empowering the previously disadvantages population of the country that were marginalised in the past. The PPP Manual therefore strives to integrate the less impoverished into the mainstream economy through inclusive procurement requirements stipulated in the PPP Manual. This speaks volume to the assertion that procurement formulators cannot turn a blind eye to the huge impact procurement can have in bringing about equality.

3.8.2 The PPP Unit

Generally, a PPP Unit is a government body that has oversight powers for the initiation and conclusion of PPP projects. This unit generally has the authority to provide the final approval of PPP agreements (Akintoye & Beck, 2009: 83). The rationale of a PPP unit as an instrument to:

a) monitor and judge the affordability of a proposed PPP project;
b) judge and approve ability of an individual government department to afford a PPP project; and
c) create a centre for knowledge and expertise for future PPP projects;

(Akintoye & Beck, 2009: 83)

The South African PPP Unit falls under the National Treasury and was created to ensure that "all PPP agreements comply with the legal requirements of affordability, VFM and sufficient risk transfer" (Akintoye & Beck, 2009: 90). The authors explain that the South African PPP Unit provides the requisite (1) technical assistance to government bodies (government departments, provinces and municipalities) and (2) the National Treasury Approvals during the pre-contract phases of a PPP agreement (Akintoye & Beck, 2009: 90)

3.8.3 The PPP Project Life Cycle – Two Stage Approach

The PPP project cycle is shown in Figure 1 and covers the pre-contract 'project preparation period' which entails the bidding and negotiation phases, and the 'project term' which covers the post-contract operational and exit phase of the PPP.

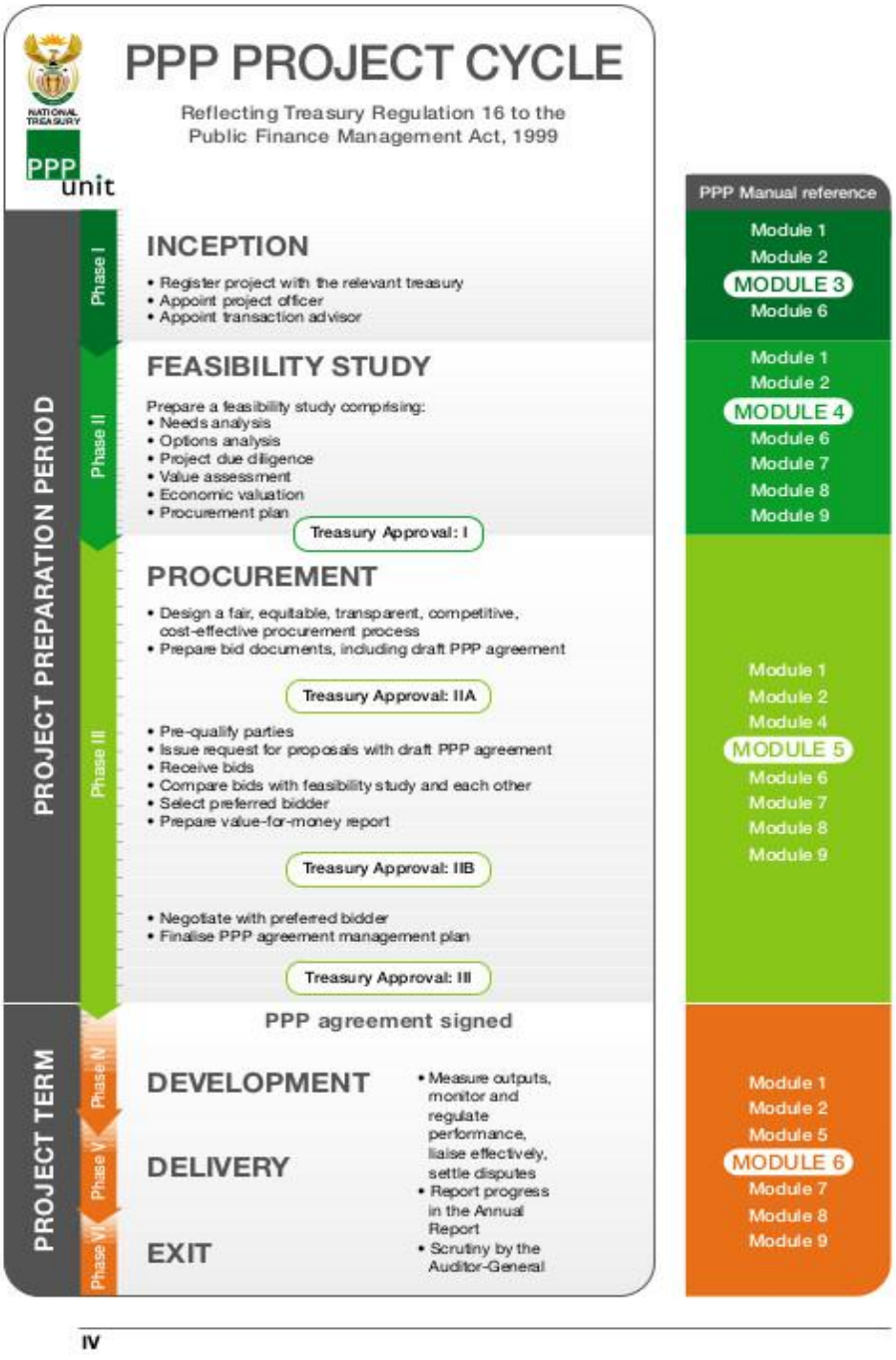


Figure 3.3: The PPP Project Cycle

Source: National Treasury, 2004d: IV

3.8.3.1 Phase I – PPP Inception

The PPP Inception phase is the point where the project is initiated and goes through the administrative process of being registered with the relevant treasury. This is also the stage whereby a transactional advisor is appointed after a bidding process to evaluate suitable parties. Akintoye and Beck (2009: 91) explain that at the stage of inception, the relevant department informs the PPP Unit of their intent of setting up a PPP, and also informs the Unit of its available capacity and expertise to roll out a PPP project.

3.8.3.2 Phase II – PPP Feasibility Study

The feasibility study is the stage whereby the view of whether to go the PPP route in lieu of conventional public sector procurement is assessed. The needs analysis is matched against the "core concepts of affordability, risk and value for money (VFM)" (National Treasury, 2004c: 17). These three tests are applied in the Treasury Approval: 1 (TA:1). In the feasibility stage, the department must motivate for the service being pitched for. Thereafter, a comparison is made between the traditional public procurement and PPP procurement method. Once it is proven that the PPP procurement route is most advantageous in terms of affordability, risk transfer and VFM, the relevant department or province is then in a position to proceed with the procurement phase (Akintoye & Beck, 2009: 91). Finally, a project due diligence and value assessment is conducted. The value assessment stage entails the formulation of a "base PSC and then a risk-adjusted PPP reference models" (Akintoye & Beck, 2009: 91).

3.8.3.3 Phase III – PPP Procurement

The third phase covers the PPP procurement process. The PPP procurement process is a 5-stage approach that entails:

- Request for Qualification (RFQ);
- Request for proposals (RFP);
- Best and final offer (where appropriate);
- Negotiations; and
- Financial closure.

(National Treasury, 2004d)

Stage 1: Request for Qualification (RFQ)

"The bidding process is generally lengthy and costly, both for the bidders and for the grantor" Delmon, 2011: 53). In order to ameliorate the time and cost overruns, the Unit prequalifies those bidders who are more likely to submit attractive bids and discards those bidders "who do not have the fundamental qualifications or financial substance that would enable them to undertake the project" (Delmon, 2011:

53). The Request for Qualification (RFQ) stage allows for bidders to be evaluated on their financial and technical capability, and capacity in terms of resources to undertake the project at hand (National Treasury, 2004d: 19).

The empowerment (BEE) credentials of the bidders also play a vital role in the evaluation of the bidders. The BEE compliance requires bidders to demonstrate that they have BEE participation in their equity ownership, and/or use BEE compliant suppliers, subcontractors etc., and a track record of "implementing local socio-economic programmes as part of their operations" (National Treasury, 2004d: 20). This is in line with procurement practitioners' responsibility to not only strives to deliver projects timeously and to the required quality and cost, but to enhance economic opportunities for the impoverished population.

In order to ensure that there is transparency, the RFQ's are advertised in all the major publications to allow all potential bidders to have equal opportunity to participate in the bidding process. On receipt of the bids, the documents are evaluated in terms of compliance and adjudicated against the stipulated criteria to verify that all the conditions as set out have been met. The successful bidders will then qualify to submit their detailed bids in the RFP stage.

The RFQ document itself provides sufficient information to make the subsequent evaluation and adjudication process in the RFP stage simpler without compromising the advantage of competitive tendering.

When the pre-qualification (RFQ) process is concluded a final shortlist is determined. The PPP Manual prescribes that both successful and unsuccessful bidders must be informed of the outcome of the RFQ process, including a brief to unsuccessful bidders on the reasons for their omission from the final list (National Treasury, 2004d).

Stage 2: Request for Proposal (RFP)

Following the RFQ process, the successful prequalified bidders are invited to the bidding or Request for Proposal (RFP) process. The RFP as outlined in the PPP Manual Module 5 is a two-step process (National Treasury, 2004d: 26). The first stage entails a draft RFP which is based on the feasibility study, and the PPP agreement (National Treasury, 2004). The draft RFP is essentially a tender document which includes the requisite project documents and technical specifications (Delmon, 2011: 55). The draft is required to go through a submission to the relevant treasury (for TA:IIA). Once the draft RFP has gone through TA:IIA approval, it is thereafter issued to prequalified bidders for review and comment (National Treasury, 2004c: 26). Input on the draft RFP from the prequalified bidders is facilitated via "bidders' conference" and one-on-one consultations with the institution.

Once the requisite input from the shortlisted bidders is received and consolidated, a final RFP document is drafted and submitted to the bidders for their proposals. The contents of the RFP document are as follows (National Treasury, 2004d: 27):

1. General information;
2. Essential minimum requirements;
3. Service specifications;

4. Standard specifications;
5. Payment mechanisms and penalty regime;
6. Legal requirements and draft PPP agreement;
7. Commitments required from bidders;
8. Evaluation criteria; and
9. Bid formalities.

Once concluded, the RFP and PPP agreement documentation are submitted to the relevant Treasury for **TA:IIA** approval.

Stage 3: Choose the Preferred Bidder

The Treasury Regulation 16 of the PFMA has clear guidelines on how the evaluation of the bids needs to be orchestrated. The regulations makes provision for approval (Treasury Approval: IIA) of the procurement documentation before issuing to the bidders, and requires a "fair, equitable, transparent, competitive and cost effective" process which makes preference for advancement of the previously disadvantaged of the population (National Treasury, 2004d: 42).

The bids are evaluated by a 3-tier committee which consist of a technical evaluation team (TET), evaluation co-ordination committee (ECC) and the project evaluation committee (PEC). The TET evaluates the technical aspects of the bids including "technical solution, legal solution, financial solution, BEE and price" (National Treasury, 2004d: 45). The ECC undertakes a coordination role between the TET and PEC, and ensures that all the documentation is complete and compliant before a recommendation is communicated to the PEC. The recommendation of preferred bidder must demonstrate how the criteria of affordability, VFM and substantial risk transfer have been applied in the evaluation of bids, and how these have been met by the preferred bidder (Akintoye & Beck, 2009: 93). This recommendation is communicated in the Value-For-Money report which make up 'Part 3' of the procurement process.

The **TA:IIB** approval marks the pronouncement of the preferred bidder and one or more reserve bidder.

The PPP Manual, Module 4, makes provision for a Best and Final Offer (BAFO) in the event that there is no clear preferred bidder. This may be due to the fact that the submitted bids are too similar hence no clear preferred bidder, or that the bids do not meet the institution's defined project objectives (National Treasury, 2004d: 58). The BAFO process is similar to the previous 6-stage process leading to TA:IIB approval.

Stage 4: Negotiations

After a TA:IIB has been granted, the institution (grantor) enters into formal negotiations with the preferred bidder. The negotiation stage involves an open dialogue between the parties regarding the open issues in the project documentation (Delmon, 2011: 58). "The output of the negotiations must be a PPP agreement with all ancillary agreements containing the service level agreements and payment mechanism" (National Treasury, 2004d: 59).

Stage 5: TA:III

The details agreed in the negotiation stage are consolidated in the VFM report which shows the "final negotiated project cost, the value for money, the final terms of the PPP agreement, and the contingent liabilities incurred by the institution" (National Treasury, 2004d: 59). The relevant institution is obligated to draw up a management plan that stipulates the capacity of that institution, and how it intends to implement and manage the PPP once operational. Furthermore, the institution also needs to show that a thorough due diligence on all the parties to the agreement was conducted.

Once the above are adhered to the institution is granted TA: III approval by the relevant treasury.

Stage 6: The Close-Out Report and Case Study

The PPP Manual speaks of Stage 6 of the procurement process which entails the close-out report and case study. The manual makes a clear distinction between the two documents. The close-out report is noted as a classified document for internal use by the institution. The aim of compiling a close-out report is "to provide a comprehensively summarised institutional record, with all project documentation properly annexed, giving the details of the transaction, and including all confidential negotiated, contracted and financing matters" (National Treasury, 2004d: 65). This document therefore becomes useful during the life of the project as reference where required, and to also acts as a learning tool for future projects. Conversely, the case study is more of a document complied for public use, compiled with the intention of building a "public library of South African PPP experience" (National Treasury, 2004d: 65).

The discipline of the various departments that have implemented PPP's in preparing this documentation is however unknown.

3.9 Challenges of Implementing PPP's

Around the world, the emergence of PPPs has been praised, on the one hand, to fill the infrastructure gap where states have not been able to deliver due to resource constraints. PPPs are seen by some as the 'magic wound' to fix the infrastructure dilemma, and provide countries with a life line to bring about economic development reform in their countries. PPPs do however have their fair share of critics who argue that the pros and somewhat diminished by the cons. These critics are the main proponents for more traditional forms of public procurement. Some of these concerns are not ill informed and stand on good authority from previous experience on highly publicised PPP projects that have gone wrong.

The successful implementation of PPP's has proved to be quite challenging. Governments and the private sector around the world experience their own unique challenges with regards to their successful implementation. These challenges are varied in severity and extent across the globe

A study of the literature around challenges faced on PPP's from a global perspective was conducted. The literature spanned a review of mature PPP markets such as United Kingdom, Australia and the UK, and to those less developed, including South Africa, China and Nigeria. The challenges were varied in nature,

therefore commonalities were identified and documented. This research has identified the main challenges that face PPP projects globally.

3.9.1 Global Challenges of Implementing PPP's

3.9.1.1 Barriers to Entry

Zhang (2005b) investigated impediments experienced in China, United Kingdom and other countries via a questionnaire. The findings of the survey concluded that the general barriers for PPP's include (1) social, political and legal risk; (2) unfavourable economic and commercial conditions; (3) inefficient public procurement framework; (4) lack of mature financial engineering technics; (5) problems related to the public; and (6) problems related to the private sector. Aziz (2007: 919) further cited a report prepared by the Federal Highway Administration (FHA) (2005b) in the United State of America which mentions that the six main impediments to implementation of PPP's are "(1) lack of statutory authority to enter into PPP's; (2) lack of familiarity with the mechanisms for developing and implementing PPP projects; (3) bureaucratic government processes for environmental review, right-of-way acquisitions, and project contracting; (4) cultural differences between the public and private sector interests; (5) opposition by transportation program administrative staff; and (6) lack of dedicated revenue sources/innovative; and (6) lack of dedicated revenue sources/innovative financing to enable projects to be developed" (Aziz, 2007: 920). The misunderstanding of central and local government's role in implementation of PPP's, and setting up appropriate public monitoring and management systems have been mentioned as two of the major challenges of implementation of PPP's in China (Chang, Memon & Imura., 2003: 232). A survey investigating the Ugandan PPP market concluded that (1) the inability of local institutions to provide equity financing; (2) multiple requirements to obtain project approvals; (3) lengthy project approval process; (4) delays as a result of lengthy bureaucratic procedures; (5) resistance from environmental interests; and poor coordination between Government departments, as the main constraints to implementing PPP's in that country (Akampurira, Root & Shakantu, 2009: 7).

Zhang (2005) conducted a survey to identify the main barriers to PPP's globally, and to explore effective ways to overcome these barriers. The survey was done via a questionnaire which was issued to PPP practitioners from a vast number of organisations around the world who have either been involved in PPP projects or done extensive research on the subject. These countries include Australia, Hong Kong (China), South Africa, and United Kingdom. The respondents were asked to identify the critical barriers they perceived to retard the extended use of BOT in infrastructure in procurement. The results of the survey identified barriers which were analysed and classified into six categories:

a) Social, political and legal risk;
b) Unfavourable economic and commercial conditions;
c) Inefficient public procurement framework;
d) Lack of mature financial engineering techniques;
e) Problems related to the public sector; and

f) Problems related to the private sector.

(Zhang, 2005: 75)

3.9.1.2 Political Risk

The successful delivery of a PPP project in any specific country is affected by both macroeconomics and microeconomics conditions (Pessoa, 2008: 314). On a macroeconomic level, the political factors are important as no real partnership can exist without an overall political environment favouring both "private for-profit and non-profit activities" (Pessoa, 2008: 314). Political uncertainty in a country can deter potential investors from considering a certain country as a potential investment destination. This is because political risk brings uncertainty. Private Investors around the world are sensitive to political risks. This is because private investors are normally required to invest heavily in infrastructure projects from the onset, and receive a return on their investment over a long-term basis (Koppenjan & Enserink, 2009: 288). Political changes over the term of the concession can therefore prove very costly. Sources of political uncertainty can take various forms. Koppenjan and Enserink (2009) make reference to the Bangkok Elevated Transport System project that collapsed due to a scope change by government to a tunnel, or a power plant in China whereby the state made a decision to lower electricity charges and therefore reducing the opportunity for the private party consortia to recover their investment on time.

The lack of coordination of government entities can also lead to political uncertainty (Koppenjan & Enserink, 2009: 288). Government departments tend to act independently of each other, and uninformed decisions by one department can have dire consequences for another. It is therefore crucial that clarity in the division of functional responsibilities of different governmental departments is essential to promoting and smoothing private sector participation in public infrastructure (Zhang, 2005: 74)

Given the above, it is important that government plays a leading role to ensure that political risks are alleviated and creating a favourable social, legal, economic, and financial environment for PPP infrastructure development (Zhang, 2005: 73). Political support is therefore important to see PPP projects to completion, by removing obstacles in the development and approval process, and in communicating the projects in a coherent and transparent manner (Iseki & Houtman, 2012: 77). A public participation initiative should therefore be part and parcel of the PPP development process. Adequate legal and regulatory frameworks need to be in place to allow the private sector to plan accordingly.

3.9.1.3 Public Opposition to PPP's

PPP's have been subjected to poor public sentiment since their inception. "Given the public-service nature of PPPs, it is inevitable that they are subject to heavy political debate" (Yescombe, 2007). In the instances whereby reasons for a PPP project are not publicised correctly, it may face strong opposition from the public. The public is mostly concerned with the private sector's opportunistic behaviour, as they are perceived prioritise profit over the rights of the public they are offering services to.

PPP opposition has been experience in both developed and developing countries. In the UK PPPs have been subject to opposition by labour unions. The two main reasons that have been cited for union opposition are the use of profit maximisation practices to deliver public services and the unions' concern that PPP will negatively affect members' pay (Ghobadian et al., 2004: 26). It was argued that the unions' fear of losing recognition once the private company has taken over is also cause of the opposition. In her study of the South African PPP market, Malao (2011) found that there is resistance from state employees to PPPs as the notion is that projects procured in this manner threaten job security during their operational phase. Citizens in Malaysia have been known to protest against PPP's due to concerns over low levels of transparency and the lack of public participations requirements, which has subsequently deterred some foreign investors from bidding for potential PPP projects in that country (Iseki & Houtman, 2012: 77). Iseki and Houtman (2012) bring to the fore that the public may also oppose PPPs due to a failed track record on previous projects.

Chung, Hensher and Rose (2010: 53) caution that, if not managed properly, adverse public perception of a PPP project may result in delays in project approvals. Notwithstanding this fact, most states generally struggle to manage this risk, and are generally seen as taking the public's concerns as futile. Chung Hensher and Rose (2010: 54) argue that public misconception of toll-roads for instance, is normally due to the public not being aware of the benefits they generate, including savings in travel time and fuel from reduced congestion, and increased property values in adjoining neighbourhoods from improved accessibility. The authors therefore strongly recommend early involvement of the public in the planning process where the public will be educated by the benefits (and shortfalls) of earmarked PPP projects. Having been informed early enough in the process may make the public more amenable to the idea of an infrastructure program. The public will not have a sense that the state is 'pooling wool over their eyes' by doing 'back-door' deals with private entities.

3.9.1.4 Equitable Risk Transfer

PPPs work on the premise that risk will be allocated to the party that is best able to manage and control the risk (Aziz, 2007: 924). Design, time and the future O&M overruns are best able to be absorbed by the private sector (Aziz, 2007: 924). The author explains that a finance-based approach works on the allocation of demand risk to the private sector. Conversely, if government's objective is to have "continuity of the service whether the facility is used or not" then a service-based approach is more ideal (Aziz, 2007). It is important that governments are aware that allocating demand risk to the contractor will mean that a premium will be charged in the cost of finance which will eventually be borne by the consumer (Aziz, 2007). It is therefore mentioned that under a 'service-based' approach, the overall project cost can be minimised by allocating demand risk to the government which is analogous to the payment mechanism used for tolls in the United Kingdom and British Columbia. The objectives of government need to be well defined when making the decision on the most suitable financing arrangement to implement.

Risk transfer - The question of equitable risk transfer among the parties to the PPP agreement is contentious, with the state being held liable for using its influence to muscle private companies into bearing onerous risk requirements in cases (Malao, 2011).

Black economic empowerment - Achieving black economic empowerment objectives with PPP procurement is a challenge because a lot of the black firms do not have the adequate skills and capacity, and/or do not have the financial capacity to undertake large scale projects (Malao, 2011)

3.9.1.5 Legal and Regulatory Restrictions

Aziz (2007: 921) defines the legal framework as that which establishes the limits within which the government units work. This is essentially encapsulates the legal and policy frameworks within government departments, i.e. the acts, guidelines and initiatives. These acts, guidelines and initiatives are put in place to regulate, drive and monitor the PPP process. The author explains how for instance, projects in the United Kingdom, Victoria (Australia) and British Columbia need to be evaluated for PPP delivery before a procurement decision is made (Aziz, 2007). The authors further explain how the institutional framework needed to support PPP's not only needs to provide guidance not only a central government level, but also at local government and authority level.

PPP projects need to be implemented under a strong regulatory environment for both developed. Pessoa states that a much more "intrusive and demanding form of regulation" is required in developing countries as opposed to their developed counterparts (Pessoa, 2008: 322). This type of regulation is necessary due to the fact that developing economies are characterised by "non-competitive industry structures and/or lack of capital market discipline" (Pessoa, 2008: 322). Private investors require the assurance that their interests will be protected by the laws of the land once they commit to infrastructure projects in developing countries. Developing countries, however, face the challenge of having sound and impressive regulations on paper, but lack the technical capacity or political will to implement these regulations. According to Poulton and Macartney (2012: 97), unpredictable state policies discourage private sector investment into infrastructure.

There are cases whereby legal and regulatory restrictions imposed by government have disrupted existing projects, and deterred potential foreign investors from committed capital to infrastructure projects. China is a prime example of a country with forever increasing infrastructure needs given the high rate of urbanisation, but the lack of capital to meet these needs. Choi, Chung and Lee (2009: 584) make reference to the Da Chang WFOE BOT water project in Shanghai whereby a sudden change of government policy that made guaranteed rates of returns for infrastructure projects illegal, and equitable sharing of risks and returns between state and foreign entities on BOT projects mandatory, which skewed the business case and forced an exit from the project by the foreign partners. The authors also make reference to other examples such as the bulk water supply contract of Shenyang Public Utility and the Shanghai Pudong Water Utility Project whereby a change of policy negated the assumptions that were made in support of the business case and rendered the projects unviable. Choi, Chung and Lee (2009) categorise the legal and regulatory risks in a Chinese context as (1) uncertain concessionaire selection method, (2) prohibition of

cross-border design and construction services, (3) right to elect an EPC contractor in a BOT projects, and finally (4) the ban on guaranteed rates of return for foreign invested projects. In Europe, legislation of PPPs is not uniform amongst EU countries. For instance, the legislative impediments to transport projects range from complex requirements for tendering sub-contracts (e.g. Germany), restriction of creation or transfer of security over assets used in provision of public services (e.g. Poland), restriction on step in rights (e.g. Poland), public finance laws that restrict long-term budgetary commitments (e.g. Poland), etc. (Price Waterhouse Coopers, 2005: 59). Governments need to engage more with the private sector to identify impediments to PPPs in their countries, and to provide stronger legislation in response to mitigating these impediments.

3.9.1.6 Summary

Developing countries face their own unique challenges with regards to implementation of infrastructure projects, and more specifically PPP projects. Funding of major infrastructure projects remains the biggest obstacle in developing economies. Some of the other major barriers includes the "absence of efficient, transparent and participatory policies", "lack of adequate capacity", and the "absence of innovative partnerships and business models" to 'kick-start' these projects (Akintoye & Beck, 2009: 128).

South Africa is a fairly young democracy and prior to the first democratically elected government, formalised PPPs were non-existent in South Africa. The PPP market has therefore not reached the maturity as a lot of the western counterparts. Lots of challenges still hinder the implementation of successful PPP projects, especially on the PPP procurement process. The country has however adopted world class PPP procurement legislation and processes as illustrated in its PPP Manual. The country does however face its own challenges with regards to the implementation of PPPs. The need for policy, legal and procedural reform, along with issues related to public finance, capacity and training, and effective institutional arrangements to drive and monitor the regulatory and support framework for PPP's have been mentioned as some of the main constraints in the implementation of PPP's (Heymans & Schur, 1999). The abovementioned world class guidelines require a high level of expertise to implement in practice.

3.9.2 Challenges Unique to Emerging Markets

Developing countries are perhaps the ones with the direst need for improved infrastructure to improve the lives of ordinary citizens. Most developing countries have a population that is growing at a rapid pace whereby the supply of new infrastructure cannot keep up with this growth. India's power sector has been struggling for the past decades to keep pace with its economic growth, and the gap between demand-supply is widening (Sharma & Vohra, 2008: 68). Poulton and Macartney (2012) make reference to a study by the World Bank (2009) that emphasises that improved infrastructure is vital to increase competitiveness in many African agricultural value chains. The authors note however, investment in rural infrastructure in most African countries fell noticeably during the 1980s and 1990s.

The PPP approach to procurement is considered an effective way for developing economies to tap into private investor funding. Developing countries do however face their own unique challenges with regards to the implementation of PPP's. These challenges range from access to capital to access to technical expertise required to implement PPP projects. The challenges that have been identified are unique to developing countries with regards to their acuteness, and how they can cause projects to not push ahead at all, or pose problems on implemented projects in their future operation etc.

3.9.2.1 Financial Challenges

In developing countries, public funding for infrastructure projects is problematic. The ever-increasing migration to urban areas has put tremendous pressure on existing services, whereby demand far surpasses supply of services. Most developing countries are however under immense resource constraints, and therefore private sector funding is seen as part of the solution to fill the resource gap. Akintoye and Becks (2009) explain that funding of major infrastructure projects is a problem for many developing countries as they rely on government annual capital investment or foreign aid. Furthermore, Akintoye and Becks (2009) states that developing countries unfortunately cannot afford these projects, primarily in transportation, energy, potable water and telecommunication without affecting other economic activities because of cost considerations. Most of the alternative private sector funding in developing countries is sourced from developed economies whereby foreign investors are looking for areas to earn good returns on their investments. There are however certain financial challenges that may deter this desired private sector investment into infrastructure projects in developing countries. These are to be explored in more detail.

Non-Dependable Project Revenues

Robust demand for a particular service is an important financial factor required for successful PPP project, and consequently luring investors (Aziz, 2007: 923). Unfortunately robust demand alone is not enough to convince investors to have a positive outlook on a project. "A stable and dependable project revenue is essential for; payment of the debt service; operation and maintenance costs; and generation of profits" (Akintoye & Beck, 2009: 169). There a various other factors at play that require consideration by both the host country and investors. "South Africa also has a history of poor customer payment for municipal charges for many; political activism, low income, inadequate billing and collection systems, and lack of political will to discontinue services" (Jackson & Hlahla, 1999).

A lot of South African municipalities struggle to raise finance from the private sector. Private companies are reluctant to offer municipalities finance based on their poor balance sheets and overall performance (Jackson & Hlahla, 1999).

A lot of the developing economies suffer from extreme poverty. Poor countries have a low income base per capita, which makes them unattractive to investors. This is because the low income base "can limit

some of the economics that private investors typically look for, namely stable cash flows from project revenues (Gordon, 2012: 297). Historically, a lot of developing countries have failed to adopt pricing policy of tariffs to keep pace with rising costs of providing services to the public which negates the achievement of a profitable income stream (Dunkerley, 1995: 931; Sharma & Vohra, 2008: 73). These unfavourable economic conditions can therefore make it less attractive for private parties to invest in PPP's in developing countries.

Lack of Strong Domestic Markets

Developing countries rely heavily on foreign investment to finance their infrastructure needs. Foreign investment alone is, however, not sufficient to cover the financing requirements of infrastructure needs of these countries, and therefore local financial markets have a vital role to play in supporting the development of infrastructure projects in their respective countries. There are generally fewer risks involved in raising funds from local capital markets than foreign ones. The challenge is however that the undeveloped nature of capital markets in developing countries makes it difficult to obtain long term finance from local financial institutions (Akampurira, 2007; Jyoti & Sravat, 1998). According to Zhang (2005: 73), the lack of mature financial engineering techniques, specifically speaks to the complexities of PPP financing, and the lack of understanding by public bodies to of these financial systems to bring PPPs to financial close. In the power sector for example, domestic investors are known to not take a liking to investing in the power sectors of their home countries in their present economic and financial condition (Dunkerley, 1995: 935). A poor performance and efficiency of these power sectors in developing countries make for a risky investment. Dunkerley (1995) adds that major restructuring of the power sector along with a reform/development of the local markets in developing countries is therefore required to sustain private investment. According to Choi, Chung and Lee (2009: 588), the uncertain state of the banking system and capital markets in China to deal with specific local conditions such as the foreign exchange risk which warrants revenue from infrastructure projects to be retained in local currency is problematic for foreign investors.

Limited Raising of Institutional Funds

Developing countries should capitalise on institutional and statutory funds from pension funds, employee provident funds and insurance companies in order to meet the debt requirements for private sector investment for infrastructure projects (Jyoti & Sravat, 1998: 104). It is however worth highlighting that the major hindrance to the use of this type of funding is "low level of maturity of institutional debt markets" and regulatory restrictions and risk averse policies engaged in investments of institutional funds" (Jyoti & Sravat, 1998: 104).

Gordon's (2012: 297) case study of PPP investments in road infrastructure in Bangladesh explains underinvestment in the overall road network also deters private investors as they ideally prefer PPP investments that "represent additions to a fundamentally well-functioning though congested network in

which there is substantial latent demand and a good chance to meet that demand reliably". Gordon (2012) adds that the lack of funding for infrastructure in developing countries does not sit well with funders as there will be 'gaps' between their well built and maintained infrastructure and the existing under-maintained facilities as the flows to and from facility will not be reliable.

3.9.2.2 Corruption

At the core of PPP procurement, a fair, open and transparent process needs to be upheld at all times for public accountability purposes (Aziz, 2007: 926). Developing countries are normally affiliated with reports of corruption, especially amongst civil servants. For example, Bangladesh rates poorly on the world benchmark in control of corruption (Gordon, 2012: 300). Gordon (2012: 300) notes that corruption and inefficiency in public administration remain serious problems in Bangladesh. In South Africa, the threat of corruption is rife. South Africa was ranked 72 out of 177 countries on the 'corruption perceptions index' of 2013 (Transparency International, 2013). Transparency and consistent procedures for selection of bidders is therefore critical for investors to instil a sense of confidence in state entities and an assurance that there will not be any untoward dealings. Private investors need an assurance from the state that there will be a likelihood of smooth operation and fair treatment for all (Willoughby, 2013: 39). The reality is that corruption associated with a perceived lack of transparency can be a major deterrence to private investors who feel that they will be side-lined if they invest in certain countries, especially given the high bidding costs incurred when a bidder does not get selected for a PPP project. Transparent procurement systems and competitive process are therefore desirable in all circumstances (Jackson & Hlahla, 1999).

From a regulatory perspective, Willoughby (2013) explains that it is vital to develop regulatory capacity that is independent from the state, so that it is perceived to operate in a neutral manner. Unlike the traditional public procurement method, the PPP procurement process 'make-up" or characteristics can be perceived as being less transparent than their counterpart. A good example is of the measures used by Partnerships British Columbia, whereby fairness auditors are used who evaluate the transparency and fairness of the PPP procurement process of a project, and a value-for-money report "that shows the rationale, objectives, and processes that led to the use of a PPP for the project and how the value for money is measured" (Aziz, 2007: 926). In South Africa, a value for money report is prepared after evaluation of the bids, but prior to appointing the preferred bidder (National Treasury, 2004). This report needs to stipulate "how the criteria of affordability, value for money and substantial technical, operational and financial risk transfer were applied in the evaluation of bids, demonstrating how these criteria were satisfied in the preferred bid and including any other information by the relevant treasury" (National Treasury, 2004).

3.9.2.3 Political Will

Poulton and Macartney (2012) made reference to the private operators trading in developing countries frequently complaining about lack of government commitment to agreements, especially after political

change-overs. Zitron's (2006: 59) study of the factors that encourage to 'contractors' bid for PPP projects emphasised that a lot of the contractor's that were interviewed perceived lack of political commitment as an issue that would influence whether they bid for a project.

3.9.3 The South African PPP Experience – Lessons Learnt

Nyagwachi and Smallwood (2012) did a study on PPP projects undertaken in South Africa before the enactment of the Public Finance Management Act (PFMA) of 1999. Their study entailed a selection of case studies from an array of sectors, including transportation, health, water, telecommunications, housing, schools, energy, urban services, correctional facilities and sports. Nyagwachi and Smallwood (2012: 79) made reference to eight case studies of which lessons learnt were summarised. These projects entailed the following:

- IDC;
- Sasol Natural Gas;
- Maputo Port;
- N4 Toll Road;
- Prison Contracts;
- Dolphin Coast Water;
- Eco-tourism in Kruger; and
- Nelspruit Concession.

Below is a summary of the background and lessons learnt from three of the aforementioned case studies (i.e. Prison Contracts, Dolphin Coast Water, Eco-tourism in Kruger).

3.9.3.1 Prison Contracts in South Africa

According to Nyagwachi and Smallwood (2012: 83), when embarking on this PPP, the South African government had vastly underestimated the costs involved in terms of number of prisons initially envisaged, and subsequently had to reduce the number of prisons to two. The lessons learnt were as follows (Nyagwachi & Smallwood, 2012: 83):

- There is a need for conducting a thorough feasibility study;
- Experienced private sector operators can provide a better quality service at comparable rates to the public sector;
- Overly high specifications at the planning stage have cost implications; and
- High base interest rates can be avoided in favour of floating rates or Consumer Price Index (CPI) - linked interest rates.

3.9.3.2 Ilembe Water Concession

Ilembe Water Concession PPP project entailed the provision of water and sanitation services within the then Dolphin Coast municipal boundary (Nyagwachi & Smallwood, 2012: 83). The challenge came about in 2001 during operation when Siza Water Company, the contracted private company, could not afford to pay its concession fees due to a significant increase in water costs (Nyagwachi & Smallwood, 2012: 83). The lessons learnt from this project highlighted the need for the following (Nyagwachi & Smallwood, 2012: 84):

- Capacity building for better performance of PPPs;
- Comprehensive feasibility studies;
- Clear policy guidelines and regulatory frameworks;
- Greater transparency;
- Technology transfer; and
- Control of scope creep.

3.9.3.3 Eco-Tourism Concessions in South Africa's Kruger National Park

The Eco-Tourisms concession was an initiative by the South African National Parks (SANParks) whereby a 10 year build-operate-transfer (BOT) concession was signed with a private party to use, design and construct facilities in various designated SANParks areas (Nyagwachi & Smallwood, 2012: 84). The lessons learnt were identified as follows (Nyagwachi & Smallwood, 2012: 84):

- Successful PPPs require sound transaction skills on the part of the public sector partner, as well as an experienced service provider from the private sector;
- The projects were attractive to the private sector since they represented a good business opportunity;
- Improved quality of service and proper skills assessment of the staff prior to the contract provides better understanding operational risks; and
- Strong commitment by SANParks in the form of intervention plan saved the concession from potential failure.

3.9.3.4 Summary

The three case studies selected above show that there are challenges that plague the implementation of PPP projects in South Africa. The issue of a lack of skills and capacity is a challenge throughout the board, more especially in the public sector. A lack of well executed feasibility studies has also been cited as a challenge from an affordability perspective. It is therefore imperative that State departments are strengthened in terms of skills and capacity in order to execute successful PPP projects. Strong political

will or commitment from the public sector client body can also go a long way to drive momentum of the procurement process and ensure that political hurdles are overcome.

3.9.4 Factors that Influence Time Performance of the PPP Procurement Process

Process inefficiencies in the procurement process of PPPs can have adverse effects on the delivery of PPP projects and give rise to unwanted outcomes. These inefficiencies take their form in a variety of ways and are resultant from various factors, namely 'red-tape' with regards to the string of approvals that need to be adhered to in the process, and organisational incapacities regarding the level of skills required to see this process through to 'preferred bidder'. This normally leads to longer than expected lead times that result in higher than expected bid costs being incurred by potential candidates. The final effect is that these inefficiencies act as a deterrent to new entrants and this in turn compromises competitive tendering and desired outcomes, namely innovation, quality, cost and risk transfer.

Pre-contract time overruns and high bidding costs in the PPP procurement process have been identified as some of the main frustrations of the private sector and the public sector alike. A study done by KPMG on behalf of Infrastructure Australia shows that a majority of practitioners in the Australian PPP market have citied one of the causes of procurement inefficiencies as due to, among other things, "a protracted procurement process" (KPMG, 2010: 2). According to a study done by Price Waterhouse Coopers on PPPs in Europe, "there is a shared view across the public and private sectors that the cost and speed of PPP procurement could be lowered and improved" (PWC, 2005: 60). The report cites cases whereby the procurement periods have been reported to be in excess of 24 months, while others have been reported to be between periods of three and five years. Ahadzi and Bowles (2004) wrote that excessive time overruns during the pre-contract stages resulting in huge advisory cost overruns have been reported on some of the projects procured through the PPP procurement strategy. Research on 42 projects which consisted of health, schools and major civil engineering projects, found that "98% of the projects had overrun their pre-contract time estimates ranging from 11-166%" (Ahadzi & Bowles, 2004: 71). Raisbeck, Duffield and Xu (2010) conducted a study that compared the relative performance of PPPs and traditional procurement in Australia at different stages of the procurement process, from a time and cost overruns perspective. Their research found that there was no significant difference between PPPs and traditional procurement for the full project period with respect to time overruns. The study did however find significant difference in time overruns at Stage 1 (i.e. inception to contractual close), whereby PPPs had the weaker performance of the two. The authors attribute the exacerbated time overruns to the amount of work and risk undertaken by the state's consultants, and higher transaction costs during a bidding process to meet onerous specifications. The certainty provided for PPPs at the early stages of procurement lends itself to lengthier timelines than planned for.

The literature exploring the time and cost overruns experienced during the PPP procurement is vast and wide. The burden of these overruns can prove to be a deterrent to PPP projects for both the public and private sector. The majority of studies done on process inefficiencies are based on the more established and developed markets, especially UK and Australia and USA. Notwithstanding the fact that South Africa's

PPP market has not reached maturity stage, similarities can still be drawn from its developed counterparts, and the severity of the inefficiencies thus highlighted.

3.9.4.1 Theory on Procurement Process Delays

It is maintained in PPP literature that PPP contracts are immensely complex contractual arrangements due to the high level of uncertainty that is attached to long term investments of this nature (Cruz & Marques, 2013). Given the long-term nature of the projects and the large sums of capital that are committed to projects, Cruz and Marques have identified three main sources of uncertainty, namely cost over-runs, demand furcating and capital costs. A combination of the complexity of the financial arrangement that bind the parties to the PPP, unavoidable uncertainties and associated risks, make most PPP contracts incomplete (Iseki & Houtman, 2012: 74).

Several theories in academic literature have been adopted as an attempt to explain the factors that may lead to delays in the pre-contract stage of the procurement process. We will attempt to 'unpack' some of the pertinent factors.

Trust

Trust forms the basis of any contractual relationship. Many a scholar have debated the role of trust on contracts. Zitron (2006) describes "trust as a means for reducing uncertainty and complexity in trading relations". Furthermore, the importance of forming successful alliances from the onset helps to put to bed any preconceived perceptions of the contracting party for negotiation purposes.

Negotiation theory

Time and cost overruns are prevalent during the bidding and negotiation stage of PPP procurement. Furthermore, previous research has identified the contract negotiation as the critical stage during which delays are most prominent. Using 'negotiation theory', Ahadzi and Bowles (2004: 968) explain that over 80% of the time is spent arguing during negotiations. The theory follows on to explain that "whenever a yawning gap exists between the minimum expectations of the negotiating parties (i.e. the bargaining arena within the bargaining continuum), the process towards reaching a meaningful agreement could be frustratingly long. By establishing the characteristic attributes that positively influence the outcome of the negotiation process and the divergence of perceptions of both the public and private sector parties, the author drew valuable conclusions.

The results of the authors' study show the key characteristic attributes of the consortium or private sector that positively influence the negotiation process as follows in rank order:

1. Organisational nature and strength;

2. Quality of technical proposal; and
3. Quality of financial proposal.

(Ahadzi & Bowles, 2004)

The results showing the key characteristic attributes of the public sector that positively influence the negotiation process were as follows:

1. Organisational capabilities;
2. Technical capabilities; and
3. Financial capacities.

(Ahadzi & Bowles, 2004)

Organisational capabilities includes attributes such as “top-level commitment within the public sector organisation”, “level of collaboration and commitment among public sector team” and “open/frank and flexible communication during negotiations” (Ahadzi & Bowles, 2004). The attributes that are grouped in ‘technical capabilities entail “ability to effectively establish the project parameters”, “strong in-house expertise in infrastructure procurement” and “ability to establish clear statements of the evaluation criteria” (Ahadzi & Bowles, 2004). The least rated of the above was ‘financial capabilities’ and included attributes such as “capability to pay shadow tolls/tariff proposed”, “ability to receive financial support/guarantees from the central government” and “ability to raise funds through Bonds” (Ahadzi & Bowles, 2004).

Principal-Agent (P-A) Theory

Poulton and Macartney (2011: 98) use principal agency (P-A) theory to explain some of the challenges behind imbedded in the initiation and management of PPP projects. In P-A theory, the client (state) is the principal while the private entity is the agent. The analogy of the P-A theory to PPP’s is based on the fact that in a PPP agreement, the principal and the agent generally have differing objectives when approaching a PPP, or any contract for that matter. The private sector is in the business of profit maximisation. In a healthy competitive market environment, private compares may be encouraged to maximise profits by seeking innovate and efficient ways of running projects. Conversely, a business may attempt to maximise profits by opting to increase margins, reduce quality or displace competition (Poulton & Macartney, 2011: 99). Basically the principal is never fully aware of the agent’s intentions prior to sign and during a contract stage. If the principal finds themselves in a wanting position, the result may lead to prolonged contract negation period, poor quality contracts and consequently poor implementation of the project.

3.9.4.2 Lack of Capacity and Skills

The establishment of PPP implementation units is essential for the successful delivery of PPP projects. These units require the "availability of diverse skills and expertise in procurement, legal, and financial management" (Aziz, 2007: 921). The skills-set required in the implementation units is beneficial in "streamlining the implementation of PPPs within government, reducing bidding time, reducing transaction costs for both public and private partners, and standardising bidding procedures" (Aziz, 2007: 921). By having PPP units that are central to all government departments, PPP experience gained over previous projects can be centralised and resources can be optimised (Aziz, 2007: 921). Conversely, PPP policy units deal primarily with PPP policy development in lieu of the actual implementation of projects.

It is important to note that both the public and private sector need to be well geared from a capacity and skills perspective to deal with the technical challenges that come with procuring PPPs. In her research paper, Malao (2011) investigates the various challenges that face the South African PPP procurement process and highlights the challenges experienced by the PPP Unit. Malao (2011) explains that the PPP Unit does not have powers to develop its own projects, and consequently has to wait for other government departments to initiate the process, which is problematic. Other challenges that the PPP Unit is faced with are political interference at local and provincial government, lack of strong ties between the Unit and government institutions, and ineffective communication by the Unit as to the real costs of project delay to the relevant institutions

It seems evident from the literature that the skills and expertise of government departments, including the PPP unit, is one of the more prominent issues exacerbating the inefficiencies of the PPP processes. Given the lack of skills base plaguing African countries, it is not surprising that South Africa also suffers from a skills shortage in its government departments.

3.9.4.3 Weak Public Procurement Framework

The 'inefficient public procurement framework' relates to the lack of appropriate standard procurement framework and inefficiencies of the PPP procurement process from tender adjudication to negotiation with preferred bidder

3.9.4.4 Standardisation of Procurement Documentation

Excessive information and documentation requirements have also been cited as one of the contributors to the inefficiencies of the PPP procurement process. The excessive information mostly relates to the detail of design input that is required for the submission of the bids at an early stage of the procurement process. Greater standardization of PPP procurement documentation is required in order to achieve success in PPPs (Ghobadian et al., 2004: 90). In South Africa, the PPP market is fairly new and hence there

are not enough completed projects to build on experience and draft "well-structured standardised frameworks" to use on current and future projects (Malao, 2011).

Bidders spend a huge amount of resources and time compiling detailed design submissions. Some of the information requested is generic in nature and can be avoided in the submissions. Some of the more experienced countries such as Canada have adopted reduced information requirements at the bidding stage (KPMG, 2010: 33). According to Zitron (2006: 60), the UK government has gone through a great deal of effort into standardising PFI contract documentation in order to lower transaction costs, and therefore increase competition.

The standardisation of procedures and contracts can go a long way towards the successful delivery of PPP projects. Bidders can benefit significantly as less input into design translates into lower bidding costs. The establishment of standardised tender/contract documentation is set to benefit the private sector by reducing bidding cost in preparing bids and public sector and assessing them, as well as reducing the time of reaching financial close (Zhang, 2005: 75). This is because the use of standardised documentation and risk share proposals can negate the need of negotiating large parts of the transaction when a clear precedent exists (PWC, 2005: 64). Ideally, there should be a reliable standard that provides suitable guidelines of how to deal with risk. It is argued that standardisation that is taken up to a point where risks are "pre-identified and pre-packaged" can acutely keep the bidding and development costs to a minimum as consultants will not have to keep re-inventing the risk criteria for every project Akintoye, Hardcastle and Beck (2003: 467) .

3.9.4.5 Quality of Service Agreements-Performance and Methods Specifications

Unlike the traditional approach of procurement whereby the client (government) specifies the standards and method specifications that describe the inputs, most PPPs use a performance based (PB) approach in their contracts (Aziz, 2007: 926). Performance based specifications are mostly used in a service-based approach of PPP procurement. Complete procurement document at pre-contract stage ensures higher level of confidence from bidders from a viability and certainty perspective, and ensures quality responses to allow for easier evaluation of return documentation (Ghobadian et al., 2004: 92). It is of absolute importance that the terms in the contract documentation, risk profile analysis and the payment mechanism are as complete as possible. Incomplete documentation reflecting unclear project objectives by government institutions, and hence incomplete specifications in the RFP phase of the procurement process can delay the pre-contract procurement time frames (Malao, 2011). The assessment of the performance of concession projects during the operation phase can be difficult, especially if onerous performance deliverables were outlined during the pre-contract phase (Malao, 2011).

3.9.4.6 Government Level of Commitment to PPP Procurement Process

Government buy-in or commitment is also pivotal in making PPP projects a success, and this success translates itself into a smoother procurement process where target milestones and outcomes are

achieved within envisaged timeframes. In South Africa, more traditional procurement methods are still in favour, hence getting government support for PPP procurement methods tends to seemingly have less support. The lack of commitment leads to greater time spent on decision making. More time spent on decision making leaves bidders results in higher bid costs. These costs act as inhibitors to competition and compromise the value outcomes of the project.

Potential PPP participants will also be deterred from placing their bids if there is an 'air' of uncertainty regarding government's commitment to PPP projects. These bids take a huge amount of time and expertise to prepare; therefore bidders need a degree of certainty that the projects will in fact be implemented.

Political meddling or interference is quite prevalent in government institutions and unfortunately the PPPs are not immune to this phenomenon. A shuffle in the administrative heads or decision makers means negotiations have to be relooked at by any new administration, therefore prolonging the process (Malao, 2011)

It is important that governments implement efficient and practical PPP procurement processes in order to ensure that they meet their delivery milestones, and reduce bidding costs for potential bidders. High bid costs create barriers to entry and competition amongst participants. Without adequate competition when evaluating bids, governments cannot reap the full benefits of the PPP model towards implementation of infrastructure projects. This stems from the fact that competition increases the value of submissions.

3.9.4.7 Lack of Pipeline of Projects

In South Africa, the roll-out of PPPs is reported to be relatively slow (approximately two per annum) and this has been attributed this to "the lack of skilled staff capacity in individual departments and provinces to develop a PPP and take it through its project lifecycle" (Akintoye & Beck, 2009: 86). In addition, the authors wrote that the majority of PPP projects that were in the pipeline have not materialised and end up being deregistered (Akintoye & Beck, 2009: 88). Again this is credited to the lack of capacity in the government organs to see the projects to fruition. In response to an interview to investigate the factors that affect contractors' decision making to bid for projects, a financial advisor emphasised that the real issue for a lot of firms is to have sufficient deal flow to keep the market buoyant (Zitron, 2006: 60).

3.9.5 Critical Success Factors for Implementing PPP's

Successful PPPs allow governments to reap the full benefits of a project in terms of "price, innovation, quality and risk transfer." (Fussell & Beresford 2009: 42). It is therefore vital to determine the critical success factors required for the successful implementation of PPP projects in order to allow governments to make informed decisions regarding their policies. Many a PPP scholar have examined these critical success factors in detail.

Based on the review of existing literature, it is evident that a vast majority of researchers have tackled the issues around investigating performance of PPPs by determining the factors attributable to successful PPPs. In their paper, Jefferies, Gameson and Rowlinson (2002: 352) examine the perceptions of Build-Own-Operate-Transfer (BOOT), which make up part of the body of PPP procurement options, "in order to develop a framework of critical success factor". Their research paper motivates for a single case study of a stadium project in Australia that was procured by means of a BOOT procurement method. The study found that the critical success factors (CSFs) of the project were the wealth of expertise and experience of the winning consortium, an efficient approval process in a very tight timeframe, and innovation in the financing and equity raising methods employed by the consortium. Gordon (2013) suggests the factors important for successful transport PPP's in developing countries as follows:

- Strong political will;
- Appropriate and stable regulatory and legal framework;
- Stable macro-economic environment;
- Willingness of the public sector to provide a public sector contribution, in-kind and otherwise, perhaps up to 40-60% of total project cost;
- Sufficient traffic volumes; and
- Robust economic and financial appraisal of the project.

(Gordon, 2013: 300)

3.9.6 Implementing PPP's in South Africa – A Systematic Model Approach

In his research paper, Nyagwachi (2008: 141) proposed a systematic model for the implementation and monitoring of PPP projects in South Africa and the Southern African Development Corporation (SADC) region. According to Nyagwachi (2008: 143), the advantage of a systematic model is that it links PPP project elements, activities and resources in a graphic model format which allows PPP practitioners to be able to monitor the direction of project activities against the most important project objectives. The model identifies the shortfalls in the current PPP Model as depicted by the National Treasury's PPP Unit (see Figure 3.3).

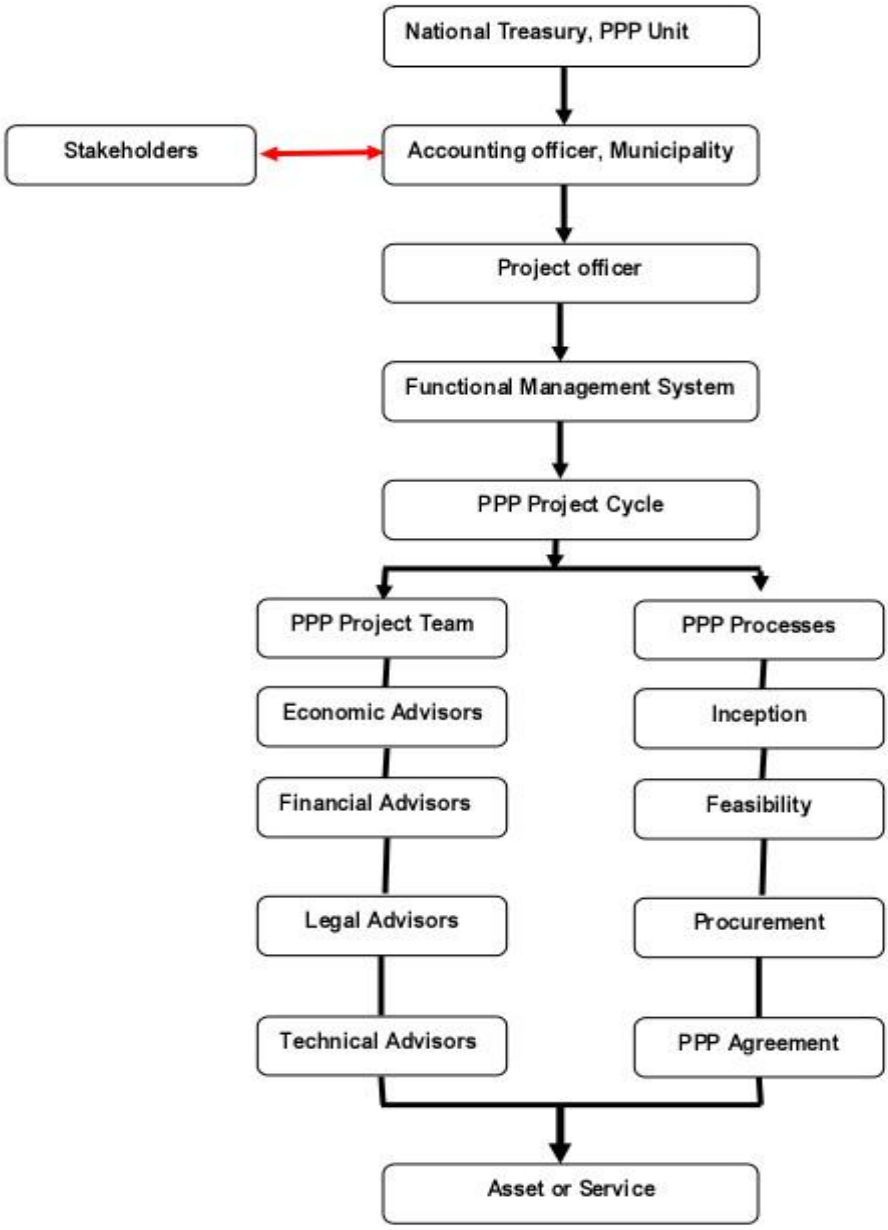


Figure 3.4: A Generic PPP Model

Source: As adapted from National Treasury, PPP website generic PPP Model by Nyagwachi, 2008: 144

Nyagwachi (2008: 145) explains that that at project inception, the Gazette Notice No. 27368 (Republic of South Africa, 2005) allows for the Accounting Officer or the accounting authority of an institution to

- register a PPP project with the relevant treasury;
- to inform Treasury of the of the expertise with the institution to proceed with the PPP; and
- to appoint to both a project officer and transaction advisor (if the relevant Treasury so requests).

Nyagwachi (2008: 145) makes reference to the "missing link" and argues that the Treasury Regulations do not make mention of the provision of the following functions:

- Project management competency levels required for both the accounting officer institution, or the project officer responsible for implementing the PPP project;
- The appointment of the project political champion;
- The appointment of a PPP project manager;
- The appointment of an independent PPP project auditor;
- The establishment of the project management office and systems; and
- PPP education and training.

The proposed model offers to fill in the "missing gaps" in terms of the missing functions shown above as follows (Nyagwachi, 2008: 146):

- **The Political Champion** - The emphasis of formalising the function of a Political Champion at Chief Executive Level in the form of a Mayor or Member of the Executive Committee (MEC) is emphasised as a key aspect to successful implementation of PPP projects.

- **The PPP Project Manager** – A well rounded and experienced person in PPP projects' policies, procedures and processes to ensure delivery of the project by performing project management functions (i.e. selecting and organising the project team; interfacing with stakeholders; monitoring project status; identifying technical and functional problems; solving problems; and closing the project).

- **The PPP Project Auditor** – The function of the PPP Project Auditor is to administer project monitoring procedures during contract negotiations and to implement them during operation to ensure fulfilment of quality-related requirements for the asset and/or service.

- **PPP Training and Awareness** – It is proposed that a paradigm shift is required by PPP practitioners in South Africa and the SADC region from the traditional way of thinking to a "systematic approach" to solve PPP related problems. Continuous training and awareness of PPP practitioners to view problems from a broader perspective is considered key in this regard.

3.9.6.1 Using a Systematic Approach to Improve the Time Performance of the PPP Procurement Process in South Africa

Insights derived from the systematic model for the implementation and monitoring of PPP projects in South Africa can be used to improve the time performance of the PPP procurement process in the country. Three key functions can be considered in this regard, namely the Political Champion, The PPP Project Manager and the PPP Project Auditor.

The literature review has already shown that a lack of political will can hinder the success of a PPP project as a whole. It has been stated that a lack of commitment from political powers can delay the PPP procurement process due to prolonged time spent in decision making. A strong political commitment for a PPP project means that decisions will be made promptly to ensure that the project is delivered in the envisaged time frame. Having a formalised post for a Political Champion from the inception of a PPP project will ensure that there is always a strong political drive giving the project momentum and overcoming political hurdles.

The PPP procurement process is complex and requires a competent individual who understands policies, procedures and processes to drive it. A formal post of a PPP Project Manager is essential in this regard. The PPP procurement process also needs to be monitored on a continuous basis to ensure that objectives and deliverables are being met. The PPP Project Auditor can play a meaningful role to raise the red flag if project milestones from a time perspective are not being met.

3.10 Theoretical Framework – Determination of Time Performance

This research paper is about investigating the time performance of the procurement process for PPP projects in South Africa, and determining the influencing factors of the PPP performance. It is therefore important to define time performance, and how time performance will be measured based on sound research principles. The author will embark on an exercise to review existing literature that has attempted to measure performance of infrastructure projects, and particularly time performance of PPP procurement process.

3.10.1 Measurement of Time Performance

Various industries, and more especially manufacturing, “have introduced new methods and techniques to shift traditional paradigms in order to improve their performance” (Kagioglou, 2001: 85). This concept is driven primarily by the “optimization of an organisation’s performance both internally and externally within its respective marketplace” (Kagioglou, 2001: 85). Research has shown that there is a distinction between performance management and measurement, with performance management defined as “a closed loop control system which deploys policy and strategy, and obtains feedback from various levels in order to manage the performance of the system”, while a performance measurement system is defined

as “the information system at the heart of the performance management process and it is of critical importance to the effective and efficient functioning of the performance management system” (Kagioglou, 2001: 85). It is important to identify performance objectives in order to improve project outcomes. Performance objectives are defined as “…the baseline for performance measurement in the process of determining how successful organizations or individuals have been in attaining these objectives” (Yuan et al., 2009: 254). Entities also need to ensure that they design their performance measures to suite their organisations, and manage their performance measurement systems through measurement of their performance measures (Baily et al., 2008: 422).

Baily et al. (2008: 422) warn against the traditional method of measuring performance by focusing primarily on financial measures. The authors elaborate, by stating that focusing on financial measures alone can be detrimental as this is tends to focus more on the external financial reporting needs rather than the needs of managing a business, encourages an emphasis on the short term, is backward looking, and does not encourage the entity to think holistically about their environment but only on internal inefficiencies. They encourage practitioners to seek other non-financial methods of performance measurement such as productivity, speed of response, quality, and variability.

As mentioned above, it is important to define the objectives of an organisation when setting up a performance measurement system. The PPP procurement process is seen as a project in itself, and can be quite time consuming and resource intensive. Traditionally, the main “objectives of any project are usually defined in terms of cost, quality and time” (Baily et al., 2008: 278). One of the primary objectives of a PPP procurement system is therefore to ensure that the milestones as set in the envisaged in the planned procurement timelines are achieved on time. Failure to achieve these milestones can be costly to both the project sponsor and the bidders of the project. It was further noted that the second step after defining the objectives, is to define performance measure reinforces the achievement of the objective (Baily et al., 2008: 422). The most appropriate measure of determining whether or not a milestone of the PPP procurement process is achieved is time performance. Time performance is therefore a well-defined and appropriate performance measure.

Given the above it is logical that the time performance of any project is measured by monitoring progress to plan (Bailey et al., 2008: 278). An investigation into time performance was conducted by Ahadzi and Bowles (2004) to determine the extent of time overruns during the pre-contract stage of PPP procurement process for projects in the UK. During their investigation, a comparison was done between the envisaged length of time (in months) allocated for the pre-contract activities versus the actual length of time taken to complete the process for different project types. Thereafter, the actual percentage variance was computed. This is determined by the comparing the planned timelines as set out at the planning stage of the procurement process, against the actual timelines that were achieved. Similarly, Raisbeck, Duffield and Xu (2010) conducted a study to compare the time performance of PPP projects and traditional procurement in Australia. The time performance was measured against fixed project milestone as shown in the figure below:

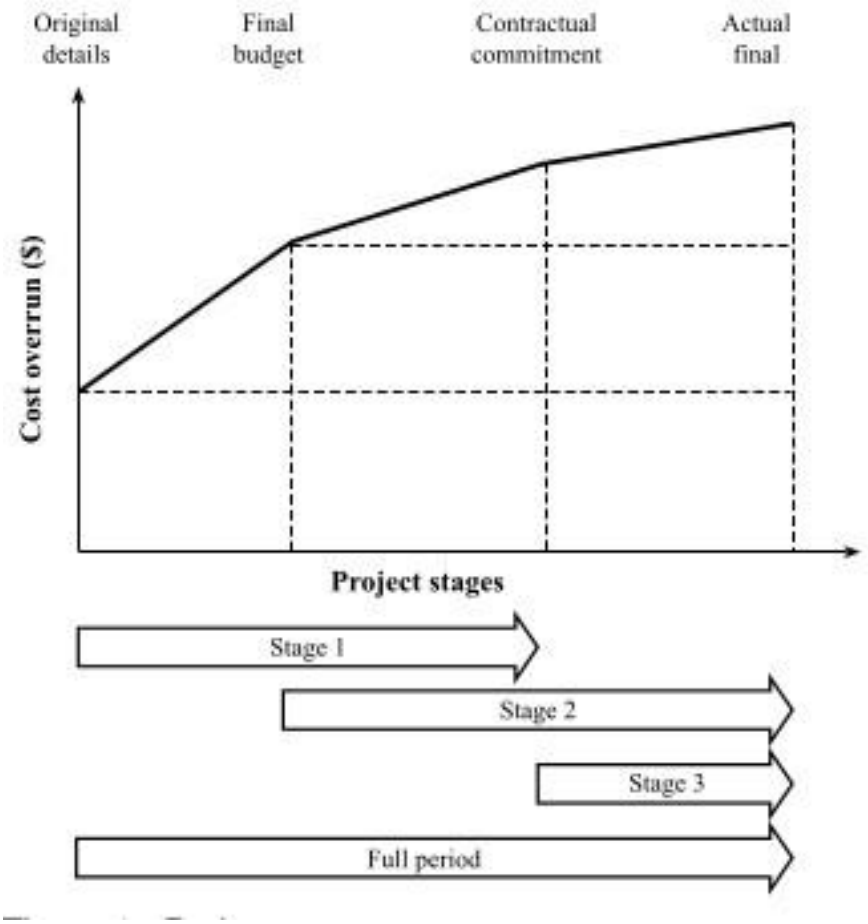


Figure 3.5: Project Stages

Source: Raisbeck, Duffield & Xu, 2010: 351

A time efficiency measure called 'normalized time' which "…. was measured as the time taken to achieve the next milestone in a stage compared with the timing anticipated at the beginning of that stage" (Raisbeck, Duffield & Xu, 2010: 352). The normalised time was determined as follows:

Time indicators

Relative time: full period = $(F_A - A) / (F_1 - A)$ Equation 1

Relative time: Stage 1 = $(F_3 - A) / (F_1 - A)$ Equation 2

Relative time: Stage 2 = $(F_A - B) / (F_2 - B)$ Equation 3

Relative time: Stage 3 = $(F_A - C) / (F_3 - C)$ Equation 4

whereby,

A = Original announcement date

F_1 = Forecast completion date for the project at the time of the original announcement

B = Date budget was approved

F_2 = Forecast completion date for the project at the time of the budget

C = Date contract was signed (or financial close for PPPs)

F_3 = Forecast completion date for the project at contract signing

F_A = Completion date for the capex component of the project

(Raisbeck, Duffield & Xu, 2010: 352)

A positive percentage indicates a time overrun relative to normalized expectations, and a negative percentage indicates completion ahead of time. From the results, the authors could establish the percentage of projects that had an overrun of their pre-contract time estimates, and the severity of these time delays per project type.

CHAPTER 4
RESEARCH DESIGN AND METHODS

4.1 Introduction

The aim of this chapter was to establish the research design and methods to address the research problem. This was done firstly by reviewing the various philosophical approaches that are applicable to guide the author to a suitable research approach. A justification for the most suitable data analysis methods was prepared. An analytical framework adopted for the analysis of each case study was presented, followed by the approach to the cross case-analysis of the case studies. The reliability, validity and ethical considerations are summarised at the end of the chapter.

4.2 Philosophical Perspectives and Approaches to the Research

Philosophical perspectives are the foundation that makes any research. Philosophical perspectives to research influence how one understands a research question, how the research question is addressed in the research methodology, and how the findings from the data collection are interpreted (Saunders, Lewis & Thornhill, 2012: 128). This study investigated the time performance of the PPP procurement process on projects in South Africa, and the factors that influence that time performance. It is important to breakdown the concept of research philosophy and approaches, and how these influence the choices the researcher makes in tackling a research problem. Research philosophy "…relates to the development of knowledge and the nature of that knowledge" (Saunders, Lewis & Thornhill, 2012: 128). The research approach relates to how theory is developed. The 'research onion' looks at the process of selection of a research methodology holistically and as a continuum, with the outer layers informing the choice of philosophical perspectives and research approach, while the inner layers speak to the research strategies and the methods of data collection and analysis embedded in those strategies (Saunders, Lewis & Thornhill, 2012: 128).

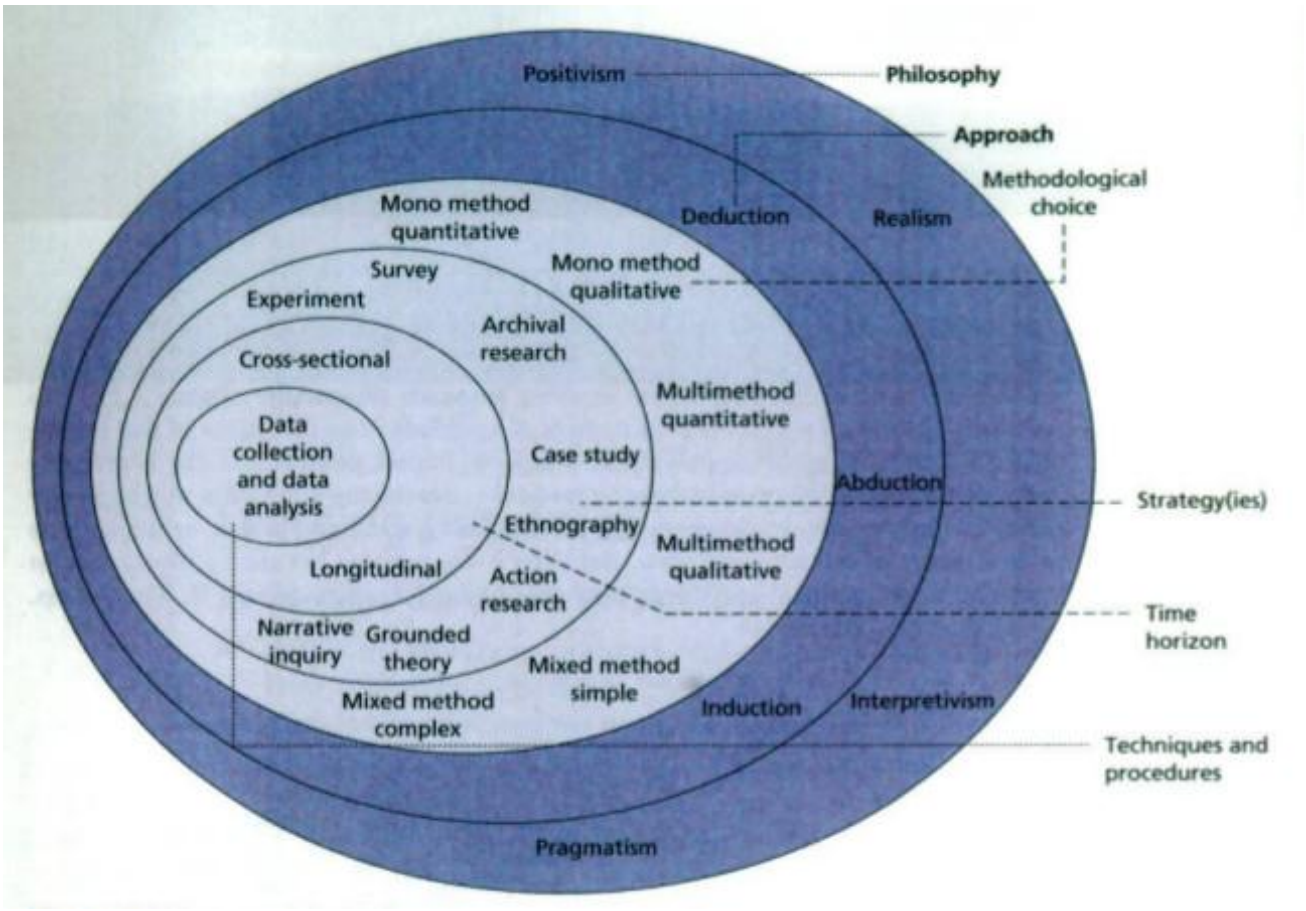


Figure 4.1: The Research Onion

Source: Saunders, Lewis & Thornhill, 2012: 128

4.2.1 Philosophical Perspectives

The research approach forms the foundation of good research. Understanding one's philosophical approach to research is an important aspect determining the research strategy to be chosen. It is important to put the philosophical perspectives of research to the fore. This is because these philosophical assumptions inform the choice of theories that guide research (Creswell, 2013: 15; Saunders, Lewis & Thornhill, 2012: 128). There are four broadly accepted philosophical assumptions, namely ontological, epistemological, axiological and methodological assumptions.

i. *Ontological* assumptions refer to the nature of reality and its characteristics (Creswell, 2013: 20). There are two aspects to Ontology being objectivism and subjectivism. *Objectivism* assumes that "social entities exist in reality external to and independent of social actors", while subjectivism takes a more subjective view and assumes that "social phenomena are created from perceptions and consequent actions of social actors" (Saunders, Lewis & Thornhill, 2012: 130).

ii. *Epistemological* assumptions relate to the development of knowledge through the experiences of others, and therefore subjective (Creswell, 2013: 20). It studies the nature of knowledge and what constitutes acceptable knowledge in the field of study (Saunders, Lewis and Thornhill, 2012: 132).

iii. *Axiological* assumptions allows the researcher to bring their values to the fore in the research (Creswell, 2013: 20). The values of the research appear throughout all the stages of the research process, from the choice of philosophical approach, to the research design etc. (Creswell, 2013: 20).

iv. *Methodological* assumption relates to the process of research of inductive reasoning (Creswell, 2013: 19-22).

In research, a researcher's philosophical assumptions are expressed in the research approach that is chosen to address the research question. Following in the work of Merriem (2009), Creswell (2013), and Myers (2009), there are different epistemological perspectives or interpretive frameworks that follow on from the abovementioned philosophical assumptions. These perspectives are limited to:

i. P*ositivist/Postpositivist – A positivist* or *postpositivist* perspective assumes that "reality exists out there and it is observable, stable, and measurable" (Merriem, 2009: 8). The assumption is that "reality is objectively given and can be described by measurable properties which are independent of the observer (researcher) and his or her instruments" (Myers, 2009: 37). *Postpositivism* is scientific in nature and often surfaces in quantitative and health sciences research (Creswell, 2013: 24).

ii. *Interpretive* approach or social constructivism that assumes that reality is socially constructed meaning that there is no single, observable reality (Merriam, 2009: 8). The researcher constructs 'subjective' meanings towards a subject based on other people's views and/or their experiences (Merriam, 2009: 8).

iii. *Critical Research - Critical research* goes beyond the boundaries of interpretive research and aims to "critique and challenge" findings in research, and tackle the power struggle that brings about phenomena. Critical research assumes that the ability for people to change their social and economic circumstances is constrained by various forms of social, cultural and political domination (Myers, 2009: 42).

iv. *Postmodern/Postructractal – Postmodern/Postructractal* is a far cry from the former perspectives, and it challenges the myth that there is a single truth, but holds the notion that the complexities of the world give rise to multiple truths about a single phenomenon under investigation (Merriam, 2009: 10). Those who abide by this train of thought believe knowledge should be contextualised within the current conditions of the world and those who live in it (Merriam, 2009: 10).

v. Pragmatism – A Pragmatism viewpoint does not abide by one system of philosophy or reality, but rather believes that a researcher has freedom of choice to choose a research method that works at the time of the research (Creswell, 2009: 28).

4.3 Description of the Research Question

It is of the utmost importance to identify the research approach and nature of the research question as this informs the strategy that is to be adopted. Saunders, Lewis and Thornhill (2012: 143-148) refer to three approaches to research. The first is *deduction* whereby data is collected to test and evaluate existing theory, i.e. moving from theory to data. Deduction is used primarily for scientific research. The *induction* approach entails the collection of data to explore a phenomena and create theory. And lastly, an *abduction* approach combines the strengths of both deduction and induction to either build new theory or modify existing theory. The authors explain that choice of the research approach lies with the emphasis and the nature of the research question.

According to the works of Saunders, Lewis and Thornhill (2012: 160) the nature of research can either be exploratory, descriptive or explanatory. Exploratory studies are useful when there is no clear idea of the subject being studied (Cooper & Schindler, 2003: 151), especially if the research problem is still ambiguous and the researcher is unsure of the precise nature of the problem (Saunders, Lewis & Thornhill, 2012: 171). Exploratory studies offer the researcher a means to discover what is happening and gain insights about the topic of interest (Saunders Lewis & Thornhill, 2012: 171). Exploratory studies rely heavily on qualitative techniques to answer research topics (Cooper & Schindler, 2003: 151). Descriptive studies aim to identify characteristics of a phenomenon or to determine possible correlations between two or more such phenomenon (Leedy, 2005: 179). By utilising descriptive research, the researcher has the ability to "gain an accurate profile of events, persons or situations (Saunders Lewis & Thornhill, 2012: 171). And lastly, explanatory research is defined as a study that helps one to establish and explain the casual relationships between variables (Saunders Lewis & Thornhill, 2012: 172).

The research study is aimed at addressing two primary research questions as follows:

i. What is the time performance of the procurement process of four PPPs projects in South Africa?
ii. What are the factors that influenced the reported time performance of the procurement process for the four PPP case studies?

Each research question will be interrogated separately with regards to defining the research approach and nature of the research question.

PART I: What is the time performance of the procurement process of PPP projects PPP projects in South Africa?

Time performance is a scientific in nature and can certainly be described by measurable properties. Furthermore, the research question is descriptive in nature. The research question aims to deduce or quantify a phenomena being the time performance of the PPP procurement process. From the above, it

is warranted to conclude that the process of determining the time performance of the PPP process is descriptive in nature, and therefore fall under the *descriptive research.*

PART II: What are the factors that influence the time performance of the procurement process for PPP projects in South Africa?

The objective of the second research question is to determine the factors that influence the time performance of the procurement process for PPP projects in South Africa. An inductive approach is suitable when the purpose is "…to get a feel of what was going on, so as to understand better the nature of the problem" (Saunders, Lewis & Thornhill, 2012: 146). This research follows an inductive approach because it is intended to collect data to explore a phenomena to explore a phenomenon, which in this instance is the time performance of the PPP procurement process. The findings of the exploration can be used to generate or build theory. An inductive approach is appropriate if the objective is to contextualise how certain events have taken place. The research question is exploratory in nature. It is exploratory because the objective is to gain insights and discover what factors are influencing the time performance of the PPP procurement process (Saunders, Lewis & Thornhill, 2012: 171). The research approach and nature of the research question had a direct effect on the choices made regarding the research strategy and design, as will be demonstrated in the succeeding sections of this chapter.

4.4 Choosing an Appropriate Research Strategy

Choosing an appropriate research strategy or methodology is not an easy task. One of the difficulties of this process results from the fact that there is a vast array of research methods available to the researcher. Most researchers who face the challenge of selecting an appropriate research method will generally search similar literature for ideas on how others have tackled a similar type of research problem (Walker, 1997: 149). However, many published papers are more concerned with reporting results than providing detailed information on how the research methodology was chosen. This section of the paper will review various literature that explain the considerations one needs to make when selecting a research methodology for their research work.

Yin (2009: 10) stresses the importance of classifying the type of research question being asked in order to differentiate among the various research methods. Yin (2009) explains that a general rule is that the "what" type questions may either be exploratory and therefore utilise any of the research methods, or about prevalence which favours surveys or the analysis of archival records. Yin (2009: 10) adds that the "how" and "why" type questions are more likely to favour the use of case studies, experiments, or histories research methods. Another aspect to consider is whether the type of information to be collected is to be specified in advance, or later in order to allow it to emerge from the participants in the study (Creswell, 2014: 17).

Creswell (2014: 20) explains that it is important to note that certain research problems call for a certain type of approach. Quantitative approaches are more suitable when one wants to identify "factors that influence an outcome, the utility of an intervention, or understanding the best predictors of outcomes".

On the other hand, qualitative approaches are more exploratory in nature, and are more suited for research where a certain phenomenon needs to be understood. Mixed methods brings about the best of both worlds of quantitative and qualitative enquiry. This is desirable when the researcher wants to examine a certain process, and offer explanations to the cause-and-effect of the observations. This offers a more holistic approach that allows the researcher to have a more rounded and better understanding of the research findings

Various researchers have adopted a clear and concise path to selecting a research strategy. The strategy recommended by Gill and Johnson (2010: 216) was adopted whereby the potential application of each strategy is evaluated against the three criteria suggested to validate any research findings: internal validity, external validity and reliability. After completing a successful PhD which involved a detailed study of 33 building projects in which the objective was to understand better why some buildings were constructed faster than others, Walker (1997) produced a paper which reported on the research approach that was adopted. This paper identified some important points which will be highlighted briefly. Walker was clear about the limitations that resource constraints can have on the choice of research method to be adopted, especially by a single researcher as was the case for his PhD. Walker (1997: 150) stated that the considerations of the choice of method "involved false starts and continual attention to setting boundaries so the work could be completed within constraints of time, scope and the resources of a single researcher learning the craft, rather than a team of skilled and experienced researchers". The author adopted a method that proves exceptionally helpful for a researcher who has a vague idea of the potential problem worthy of research, and who is debating on whether to go the qualitative or quantitative route. Qualitative research answers the questions pertaining to the 'how' and the 'why', while quantitative research answers the 'how much' and 'how many' type questions (Walker, 1997: 151).

4.4.1 Case Study Research

The following excerpts were selected as good quality descriptions of the case study research strategy:

"The primary purpose for undertaking a case study is to explore the particularity, the uniqueness, of the single case"

(Simons, 2009: 3)

"Anchored in real-life situations, the case study results in a rich and holistic account of a phenomenon. It offers insights and illuminates meanings that expand its readers' experiences. These insights can be construed as tentative hypotheses that help structure future research; hence case study plays an important role in advancing a field's knowledge base"

(Merriam, 1998: 41).

Flyvbjerg (2011: 301) advises that there are four aspects that define case study research. Firstly, case studies take cognisance of the choice of the individual unit of study and the setting of its surroundings. Secondly, case studies provide "more detail, richness, completeness and variance" of the phenomenon being investigated. Thirdly, case studies consider "developmental factors" whereby a case evolves over time. And lastly, case study research is focused on contextualising the phenomenon under investigation.

Research case studies can be used in both exploratory studies to discover all the relevant features, factors or issues that might apply in other similar situations, and in explanatory studies to test theory, to develop casual explanations and to compare theories (Myers, 2009: 72). Case studies can take either a postitivist, interpretive or critical form. The positivist case study "is seen as a method for testing and refining hypotheses or propositions in the real world"; the interpretative case study relies on an "interpretive and constructivist epistemology" attempt to explain "phenomena through meanings that other people assign to them"; while the critical case study critiques the status quo on widely accepted theories (Myers, 2009: 77). Eisenhardt (1999: 535) explains that case study research is conducted with the purpose of achieving at least one of three aims of either to provide descriptions, test theory, or generate theory. Macpherson, Brooker and Ainsworth (2000: 51) write that case studies are conducted with the intention to be either interpretive or to draw on critical perspectives. The critical approach entails the collection of data from different actors in the field "in order to reflect the structures of meanings created in the particular social environment (in single or multiple sites)" (Macpherson, Brooker & Ainsworth, 2000: 51). On the other end of the spectrum, critical case studies are more collaborative and involve a direct and participatory engagement between the "researcher and the researched" with the intention of bringing about "social change or reform" (Macpherson, Brooker & Ainsworth, 2000: 51).

The researcher needs to be aware of the objections to case study research, and how these can be overcome when doing a motivation for using a case study in a research work. Flyvebjerg (2006: 221) summarised the objections to case study research method, and the responses to the objections. It is often argued that the context independent (theoretical) knowledge is more valuable than context dependent (concrete or practical) knowledge. Another contention that is often raised to case study research is that the researcher cannot generalise from a case, and therefore case studies cannot contribute to (scientific) knowledge. This is challenged by the fact that expertise emerges from the encounter of numerous cases. Others argue that case studies are only useful for generating hypothesis, but not for testing them and building theory. It is however important to note that advances in (social) science more often than not occur through analysis of single case than the analysis of large, random samples. Yin (2009: 14) also summarises the frequent causes of concern against case study research, and response to these concerns:

- Case studies are most often criticised for their lack of rigour in not following a systematic approach - It is however argued that systematic approaches to case studies do exist and it is up to the researcher to "work hard to report all evidence fairly".
- Another contention is that case studies provide little basis for scientific generalisation - It is however argued that this contention can be overcome with the use of 'multiple-case studies'. Yin also argues that case studies should not be generalised to "populations or universes" but rather to "theoretical propositions".

- Another contention of the case study is that they are generally long and incoherent in terms of overburden of data - Modern case study techniques do however make for shorter and more succinct methods of inquiry.
- Case Studies are a subset of "randomised field trials" or "true experiment" and have been criticised for not being able to establish casual relationships between variables, i.e., cause and effect and extent thereof - Yin argues that case studies can be highly valuable when used in conjunction or to supplement other research methods such as experiments (p. 16).

Research studies that aim to answer the "how" and "why" questions tend to be more exploratory in nature and likely to lead to case study research (Yin, 2009: 9). Yin (2009) explains that one of the major strengths of case studies is the opportunity this strategy allows for the use of multiple sources of data collection. Another strength of case study research that the author mentions is that the method has the added advantage over other research strategies to use a larger array of multiple methods. This gives case studies the added advantage for a corroboration of data collected via triangulation resulting in "more convincing and accurate" conclusions of findings.

4.4.2 Discussion of potential application of Case Study Research

In this section, the potential application of the case study research strategy to address the research question was examined. This process involved the identification of the 'pros' and 'cons' of case study research. It is useful to reiterate the research question being addressed, which is to investigate the time performance of the procurement process for PPP projects in South Africa, and to determine the factors that influence that time performance. The evaluation of the suitability of the case study research strategy also took into account reliability and validity concerns.

The potential application of the case study as a potential research strategy was assessed against the rationale for use of case study research described by Schwandt (1997) as follows:

- "…a case study strategy is preferred when the enquirer seeks answers as to how and why questions…"

  The research question seeks to determine the factors that influence the time performance of the procurement process for PPP projects. The case study approach is most suitable for answering this 'how' and 'why' type question through "rich descriptions" and "rich understanding" of the human and organisational dynamics involved in the PPP procurement process. These cannot necessarily be easily determined using a quantitative approach.

- "…when the enquirer has little control over events being studied..."

The procurement process occurs in a natural setting which is difficult to duplicate in a controlled environment. Case study research therefore became an appropriate choice of strategy for this particular study as it is well suited for natural settings.

- "…when the object of study is a contemporary phenomenon in a real-life context…"

  There is currently global interest in PPP's and their potential to solve a lot of the infrastructure challenges countries are faced with. Case studies are appropriate in that they can address this real-life phenomena.

- "…when boundaries between the phenomenon and the context are not clear…"

  Not a lot of research has been conducted to investigate the time performance of the procurement process for PPP projects in South African context. This advantage of case study research would therefore allow the opportunity to interrogate this subject more thoroughly and to bring new perspectives to the fore.

- "…when it is desirable to use multiple sources of data…"

The use of multiple sources of data by triangulation was required to address reliability and validity concerns.

4.4.3 Justification of Choice of Research Strategy

Saunders, Lewis and Thornhill (2012: 173) advise that the choice of research strategy should primarily be driven by the research question(s) and objectives. These factors were considered in the final selection of a suitable research strategy to address the research problem, which is to determine the main factors that influence the time performance of the procurement process for PPP projects in South Africa. Saunders, Lewis and Thornhill (2012: 173) also advise that the pragmatic concerns related to availability of time and other resources needs to be considered.

There are various research strategies that have the potential to address the research problem under investigation. The feasibility of using the experiments strategy is highly dependent on the nature of the research question being addressed. This strategy utilises predictive hypothesis rather than open research questions. Experiments also require controlled laboratory environments which was not possible for this research. The need for a controlled environment also affects the external validity of the research as results cannot be generalised across other organisations. The drawbacks of a survey are (1) lack of a representative sample; and (2) uncertainty in ensuring a good response rate; and (3) lack of depth to give a richer understanding of the phenomenon being studied. Both ethnography and grounded theory were not considered as feasible research strategies because of the demands they impose in terms of the protracted timeline and resource intensity. Getting access into an organisation to do to do action research

was also considered as a major hindrance. Getting access into organisations can easily take a couple of months or longer to negotiate with organisations.

Having weighed all the strengths and weaknesses of the various research strategies, the case study was selected as the most suitable research strategy to address the research problem. The choice of the case study strategy was driven by three main conditions as set out by Yin (2009: 8) being, (1) the type of research question posed; (2) the extent of control an investigator has over actual behavioural events; and (3) the degree of focus on the contemporary as opposed to historical events. The first consideration was related to the research question, which was taken as an exploratory 'what' type of question, whereby the research problem was aimed at determining "what" the influencing factors are of the time performance of the PPP procurement process. The goal here is to develop further hypothesis and propositions for further enquiry. The exploratory case study was found to be suitable to address this type of research question. The second condition is related to the extent of control over behavioural events. The investigation to determine the factors that influence the time performance of the PPP procurement process is a contemporary phenomenon that happens in a natural setting. In this instance case studies are advantageous because a variety of methods ranging from interview of public and private PPP practitioners and documentary evidence can be used to determine the factors that influence the time performance of the procurement process. Another consideration was the ability of the case studies to follow a rigorous methodical path to protect against threats of construct, internal and external validity. The threat of construct validity could be overcome by using multiple sources of evidence (i.e. interviews and documentary analysis) and therefore "encouraging convergent lines of enquiry" (Yin, 2009: 42). Multiple case studies were used to overcome the threats of external validity by generalizing beyond the immediate case study.

4.4.4 Single or Multiple Case Study

The primary distinction in case study research is between "single- and multiple-case designs" (Yin, 2009: 47). The author explains that the rationale for a single-case method may be to highlight either a critical, an extreme or unique case. Other types of cases include the representative or typical case, a revelatory case, and the longitudinal case. A single-case study can also be distinguished either by an 'embedded case study' when there is more than one unit of analysis within a single case, or holistic case studies which reflect the "global nature" of the subject matter or organisation (Yin, 2009:50). This approach can be motivated based on the uniqueness of the case (e.g. extreme cases and polar types) in which the process of interest is 'transparently observable' (Eisenhardt, 1999: 537).

In many instances, there is a strong case for cross-case analysis. Stake (2006) describes the shift in thinking when one needs to make a choice between a single-case or multiple-case analysis. Stake (2006) writes that the emphasis of the research question shifts from one whereby the focus is to understand the case, to one whereby the focus is to understand a particular phenomenon or condition. It is better to view cases as part of a whole. Cross-case analysis involves the researcher's interpretation across cases by connecting the theme that strings the cases together (Stake, 2006). The process starts with the establishing a certain

phenomenon worthy of investigating, then identifying cases to establish their own situational issues, then finally "…interprets patterns within each case, and then analyses cross-case findings to make assertions to the binding" (Stake, 2006).

There are various reasons why a researcher may opt to go the cross-case analysis route. Miles and Huberman (1994) highlight two reason why a researcher may opt to take the cross-case analysis approach. The first reason mentioned is to enhance generalizability. The advocacy for generalizability stems from the fact that researchers would like to make sense of the findings of a case by establishing how they have relevance to other similar settings. Without this rationalisation, a single case may end up being meaningless in the bigger context of our reality. According to the authors, the more fundamental reason to opt for this method of analysis is to deepen understanding and explanation. This is done by examining the similarities and differences across cases, establishing the conditions required for certain phenomena to exist, and how these factors are all related.

A distinction needs to be made between variables and cases for the purposes of conducting cross-case analysis. Miles and Huberman (1994) mention two alternative approaches to cross-case analysis, namely *variable-orientated analysis* and *case-orientated analysis*. Variable-orientated analysis focuses on the actual variables and their relationship, but does not tie these in with the actual cases. Conversely, case-orientated approach analyses a single case in its entirety, and then turns to a comparative approach of analysis of a number of cases (Miles & Huberman, 1994). The choice between a variable-orientated or case-oriented analysis is based on what the researcher aims to achieve with the research question. It is worth mentioning that the "Variable-orientated analysis is good for finding probabilistic relationships among variables in a large population, but it is poor at handling the real complexities of causation or dealing with multiple subsamples" while case-orientated analysis is preferable for "…finding specific, concrete, historically grounded patterns common to small sets of cases, but its findings often remain pluralistic" (Miles & Huberman, 1994).

This research paper has adopted the multiple case study method. The research aims to determine factors that influence time performance of the procurement process for PPP projects in South Africa. The case-orientated analysis is therefore appropriate for establishing patterns across cases. Merriam explains that there are two stages of analysis involved with the multiple case study method, namely the *within-case analysis* and the *cross-case analysis* methods. The within-case analysis method involves the analysis of each case on its own merits, using the same single case study analysis techniques as described in the literature above. This method of analysis "seeks to build abstractions across the cases" (Merriam, 1998: 195). The main emphasis with multiple case study analysis is "to build a general explanation that fits each of the individual cases, even though the cases will vary in their details" (Merriam, 1998: 195). All in all, the difference in the analysis of the single case versus the cross-case analysis is minor.

4.5 Research Design

Research designs can be described as a particular type "of inquiry within qualitative, quantitative, or mixed methods approaches that provide specific direction for procedures in a research design" (Creswell, 2014:12). Research design can also be described as "…the logical sequence that connects the empirical data to a study's initial research questions and ultimately to its conclusion" (Yin, 2009:26). Leedy and Ormrod (2005:85) write that research design provides the overall map of the procedures the researcher plans to adopt, data that needs to be collected, and the data analysis techniques that will be employed to reach a conclusion on the topic being studied. In essence, research design is the researcher's road map towards the final destination which is to address the research problem, and to draw meaningful conclusions from the data collected. It is essential to firm up one's research design before attempting to embark on the actual research implementation phase. This is important because a well planned and executed research design can assist with getting the maximum value with the least effort (Rugg and Petre, 2007:60).

The first part of the research design was aimed at determining the most suitable method to measure time performance of the PPP procurement process. This was done by investigating similar studies that have investigated time performance of the procurement process on infrastructure projects. A time performance measurement tool was thereafter established based on the findings.

The second stage of the research involved the investigation of the factors that influence the time performance of the PPP procurement process. An extensive literature review was done to determine the factors that influence the time performance of PPP procurement process. This was further extended to a South African setting. The findings of the literature review were used to prepare the interview questions of the semi-structured interviews.

4.5.1 Time Horizon of Research Design

The anticipated time horizon to conduct the research study will have an influence on the type of research design to be adopted. The time available to the researcher and other resource constraints were taken into consideration. A research project that is conducted or funded by an organisation will have far more resources available than a research project that is being done by a solo student with limited time and resources to finish their dissertation. There are two types of time horizons to consider when preparing one's research design. *Cross-sectional* studies take a "snapshot time horizon" whereby the research involves the study of a phenomenon at a particular point in time (Saunders, Lewis & Thornhill, 2012:190). Conversely, longitudinal studies study a phenomenon over a longer time duration, which allows the researcher to capture the changes and developments of events as they occur (Saunders, Lewis & Thornhill, 2012:190).

Most research projects for academic courses are normally time constrained and can therefore not afford to take the longitudinal route to research (Saunders, Lewis & Thornhill, 2012:190). This was the case for

the research at hand. A cross-sectional approach was therefore adopted as the most ideal for practical purposes.

4.5.2 Selection of Case Studies

4.5.2.1 Population

The target population for the research was PPP projects listed in the National Treasury archive. It was preferable for the PPP projects to have reached financial close, or at least relatively close to financial close. The list of projects were selected from the National Treasury PPP Unit database as published on their official website (National Treasury, 2013). It was deemed that the projects in the National Treasury database represented a true reflection of the PPP projects in the country.

Access to information on PPP projects was one of the driving factors in the case selection. The primary method of gaining access was done through personal contacts. The personal contacts stemmed from strategic relationships the author had garnered from previous working experience.

4.5.2.2 Unit of Analysis

The unit of analysis describes what the case is about (Yin, 2009). The unit of analysis was the PPP procurement process for each case study selected, i.e. from RFQ to Financial Close. This is the procurement process as outlined in the National Treasury's Regulation 16 and comprises of four significant approval stages, namely Treasury Approval: I, Treasury Approval: IIA, Treasury Approval: IIB, and Treasury Approval: III (National Treasury, 2004).

4.5.2.3 Sampling Approach

The logic behind the selection of a case for a multiple case study is based on the fact that the case either "… (a) predicts similar results (a literal replication) or (b) predicts contrasting results but for anticipatable reasons (a literal replication)" (Yin, 2009: 54). Case selection, as described by Rosendal (2010: 3) is rational rather than it being random. The case selection for the research was rational with the intention of predicting similar results. The first consideration was "…whether to do a large number of extensive case studies with a potential for a high degree of statistical generalisation, or a few intensive studies which provide more insight about the specific case (Rosendal, 2010: 3). It is noted that the latter is less suited for statistical generalisation. Yin (2009: 15) explains that case studies are generalizable to theoretical propositions and not to populations or the universe, and are therefore aimed at expanding general theories (analytical generalization) instead of ascertaining frequencies (statistical generalization). Saunders, Lewis and Thornhill (2012: 281) mentions that it is at times preferable to undertake an in-depth study that focuses on a small number of cases selected for a particular purpose. This is because a focus

on a small number of cases can provide for an information rich case study that allows for proper exploration of the research question and gaining of theoretical insights.

Based on the above, a *non-probability, purposive sampling technique* was used to select the case studies. A decision was made to select a small number of cases for the investigation. The decision was based on the fact that the cases selected could be explored in a far more in-depth manner, and therefore provide valuable insights into the main factors that affected the time performance of the PPP procurement process for the selected cases.

4.5.2.4 Sample Adequacy

There are no rules that specify sample size in non-probability sampling, and it depends primarily on the research question(s) and objective(s) (Saunders, Lewis & Thornhill, 2012: 283). There is no distinct formula, but the consideration on determining a suitable sample size for non-probability sampling should take cognisance of whether "the validity and understanding that the researcher gains from the data in non-probability sampling has more to do with the method of data collection and the skills of analysis than the size of the sample" (Zigmund, 1994). This is supported by Flyvbjerg (2011: 310) who argues that one can learn more about a certain phenomenon by "intense observation of individual cases than from statistics applied to large groups".

Given the considerations of sample adequacy highlighted above, the sample size for this study was driven by the criteria of practicalities to do with time, affordability, access to information, and the quality of case studies to provide insightful input to the subject matter being studied.

4.5.2.5 Justification

Three of the four cases were based on office accommodation PPP's. The office accommodation PPP projects selected for the case study analysis were as follows:

- Statistics South Africa (DSSA) – New Head Office Accommodation
- Department of Foreign Affairs (DFA) – New Head Office Accommodation
- Department of Rural Development and Land Reform (DRDLR) – New Head Office Accommodation

Office accommodation PPPs were selected based on the fact that they are a prevalent form of PPP's in South Africa. Gaining access to information on office accommodation PPP's as compared to other PPP types was therefore more feasible. Access to information was therefore a driving factor when selecting the three office accommodation PPP projects.

The fourth case study selected for the research was the Maropeng and Sterkfontein PPP project which forms part of the Cradle of Humankind World Heritage Site (COH WHS). The Maropeng and Sterkfontein PPP project is unique in that it is a tourism PPP project. The case was chosen because it demonstrates an

expeditious procurement process. The factors that lead to the timeous procurement process were deemed to be worthy of highlighting in the research. The PPP project is also unique in that it was one of the first tourism PPP's executed, and lessons learnt were used by National Treasury to compile the PPP Tourism Toolkit. The aim of the research was therefore to use the lessons learnt from the PPP procurement process examined in this case study as a guideline for other future PPP projects.

4.5.3 Semi-Structured Interview: Planning and Implementation

This section presents the methods employed in the administration of the semi-structured interviews to the selected interview respondents. The interviews were conducted from September 2013 to December 2013. The objective of the semi-structured interviews was to determine the factors that the respondents perceived to have influenced the time performance of the PPP procurement process for the projects under investigation.

4.5.3.1 Respondent Sample Population

The participants of the interview process were chosen based on the strategic roles they played in the procurement process for the selected cases. The sampling adopted consisted of the following sampling units:

Transactional Advisors

These were primarily Transactional Advisors who were involved in the PPP projects from inception as advisors to the project sponsors, i.e. State department. The advantage of the Transactional Advisor is that they are in all likelihood the most impartial individuals on a project. Their main goal is to ensure that the clients' objectives are met in terms of specifying the project, and ensuring the right concessionaire is identified and appointed to meet these objectives.

Public Officials

Key individuals from the project sponsors who played strategic roles in the procurement process were also identified. Strategic in this regard means individuals who were responsible for both the execution and decision making during the procurement process on behalf of their respective State departments.

Private Concessionaire Members

Key individuals from the winning bidder consortium who were intricately involved in the procurement process.

4.5.3.2 Sampling Technique

The aim of the research was to identify the main factors that influenced the time performance of the PPP procurement process for the selected case studies. A *non-probabilistic purposeful* sampling strategy was used to select respondents for the interviews. This strategy was chosen because it allowed the researcher to identify individuals that could assist in helping one to "…discover, understand, and gain insight…" of the factors that influenced the time performance of the procurement process (Merriam, 1998: 61). The *judgement* or *purposive sampling method* allowed for a 'call' to be made on a sample or group which was representative of the population of interest (Davis & Cosenza, 1988: 231). The participants that were selected were deemed to be key role players in the PPP procurement process for the case studies under investigation. The initial respondents or cases were retrieved from an existing data base. The *snowball* (sometimes referred to as *chain* or *network*) sampling technique was thereafter used to source other respondents for the interviews. The *snowball* sampling technique is one whereby the participants who partake in a study are asked to identify and provide reference to other key participants they deem can offer the same amount of rich contextual information to inform the study (Merriam, 1998: 63). The participants of this study were asked to assist in this regard because of their superior knowledge of the cases under investigation. This process was also repeated with the newly identified respondents.

4.5.3.3 Sample Size

The nature of qualitative findings being "transferable" and not "generalizable" means that "the actual number of interviews is not predetermined as it would be in a quantitative study" but rather that the "principle of saturation requires that the interviews continue until there are no new revelations that contribute to the understanding of the research questions" (Clovis et al., 2011: 92). At times it may be advisable to use a sample size similar to that of a previous study when determining sample size on the basis of judgment (Zikmund, 2003: 428). For example, Ahadzi and Bowles (2004: 969) conducted semi-structured interviews with a limited number of experts who actively participated in PPP negotiations and the PPP strategy in the UK.

The sample size of respondents for each case study was driven by the quality of information it was deemed the respondents could offer to the investigation of the PPP procurement process. The sample size adequacy was therefore purposeful rather than being driven by the actual number of respondents. For this purpose, a 'judgement call' was made by the researcher. Access to respondents was also a driving factor in the final sample sizes.

4.5.4 Semi-Structured Interviews

A systematic approach was conducted to determine the factors that influence the time performance of the PPP procurement process. This process involved a literature review of documentary and archived information, including books, publications, and industry reports written on the subject. The information was reviewed in thorough detail to a point where generalisations could be made. The generalisations were used to inform the structured-interviews questionnaire design.

4.5.4.1 Overview

4.5.4.2 Semi-Structured Interview Questionnaire Development

According to Merriam (1998: 75), asking good questions that will yield good data for analysis cannot be overemphasised. The choice of interview questions is highly dependent on the focus of the study. The focus of the study is to determine the factors that influenced the time performance of the PPP procurement process for the selected cases. The questions were developed around the themes that were identified in the literature review. Rubin and Rubin (2012: 134) describe three basic approaches when deciding on the main questions for an interview, which are to firstly reason out what to ask based on one's own knowledge, secondly to allow the literature to suggest the main questions, and finally to do preliminary research to discover appropriate main questions.

Literature reviews have been used extensively by researchers to contextualise issues surrounding a particular phenomenon under investigation. Ahadzi and Bowles (2004) did an extensive literature review to investigate the factors that lead to time overruns during the PPP pre-contract procurement process. The reason the authors conducted a comprehensive literature review at the initial process was to help "in affirming the issues and main centres of influence on the PPP negotiation outcome in the literature" (Ahadzi & Bowles, 2004: 970). Zhang (2005) did a literature review, along with case studies and interviews with experts and experienced practitioners to explore measures of removing barriers to PPPs in infrastructure development. Akintoye, Hardcastle and Beck (2003) used a literature review to inform the formulation of their 'survey instrument' in their study to determine aspects that lead to best value in PFI project procurement. Akampurira, Root and Shakantu (2009) used a literature review that identified the constraints that hamper "private sector participation in development of hydropower generation facilities through public partnerships in Uganda" to draw up their questionnaire. In their research, Akampurira, Root and Shakantu (2009) split their questionnaire into two, with the first half being a 'background-check' on the respondents and the second section extracting perceptions of the respondents on the relative importance of constraints identified in the literature review.

The approach adopted in this research was to firstly review extensively the literature on the factors that influence the time performance of the PPP procurement process. The literature review helped contextualise the issues that are experienced in both developed and developing countries. The literature review was subsequently used to refine the research questions and objectives (Mbachu, 2003). The literature review comprised books, various leading journal publications and industry reports on PPP procurement. From the literature review, a set of propositions were able to be made to inform the semi-structured interview questions.

4.5.4.3 Type of Questions of the Semi-Structured Interviews

The interviewees were asked open-ended questions. The open-ended questions were selected because they allowed the participants to contribute as much detailed information as they deemed fit, and also allowed the interviewee to ask probing questions as a means of a follow up. The open-ended questions also allowed the interviewees to reveal their attitudes about a particular issue. More often than not, the open ended questions were useful in revealing other facts that were not apparent in the existing literature, especially in the context of a procurement process that is executed in South Africa.

The guidance of Merriam (2009: 95) was followed in terms of the criteria that make up good questions. Merriam categorizes the questions in four main categories: hypothetical, devil's advocate, ideal position, and interpretive questions. The guidance of Merriam (2009: 99) was also followed in as far as the type of questions to avoid. These are described as 'multiple questions', 'leading questions' and 'yes-or-no questions'. Multiple questions confuse both the interviewer and the participant, and will leave the respondent to either seek clarification or avoid answering part of the question completely. On the contrary, leading questions should be used with caution as they can "reveal a bias or an assumption that the researcher is making, which may not be held by the participant" (Merriam, 2009: 99). And lastly, 'yes-or-no' questions give no information on the topic and would defeat the objective of a qualitative enquiry, which for this study was to interrogate deeply the factors that influence the time performance of the PPP procurement process.

4.5.4.4 Recording of interviews

The interviews, from start to finish, were recorded using a Dictaphone. Notes of the discussions were also taken during the interview process. Permission was requested from the interviewee in advance to record the interview. Once the qualitative data from the interview were collected in audio form it was thereafter converted into a "word processed text" by the process of transcription. Transcribing is the process of reproducing an audio-recorded interview into a "written (word-processed) account" using the actual words" and serves the purpose of ensuring that data is useable for analysis (Saunders, Lewis & Thornhill, 2012: 550). This is because a transcript is a far more efficient way of retrieving information from an interview than repeatedly listening to an interview. More importantly, preparing a transcript that contains a full and accurate word-for-word written account of the interview is far more reliable than memory alone (Rubin & Rubin, 2012: 190). This is important as memory can be selective, whereby the researcher only remembers statements that support the preliminary assumptions rather than those opposing them. In this instance, a "written and meticulously coded transcript can evade that probability of bias and improve the quality of the research" (Rubin & Rubin, 2012: 190).

4.6 Research Instrument and Data Collection

There are a variety of data collection methods available to a researcher at any given point in time. It can therefore be quite confusing to identify the most suitable data collection method to fit the chosen research strategy. There are three "noble principles" that should be considered when selecting the most appropriate data collection method, namely "cockroach, cabinetmaking and cartography" (Rugg & Petre, 2007: 94). Firstly, the *cockroach* principle is based on the fact that there are ideal and not ideal data collection methods within any discipline. Secondly, the *cabinetmaking* principle is based on the fact that the method that is being considered should demonstrate a required skill for someone doing research in the chosen area of study. Lastly, the *cartography* principle works on the basis that the method being considered should add to the body of knowledge of the chosen area of study.

A two-staged data collection approach was adopted to address the two-fold research question, which was to (1) measure the time performance of the procurement process for PPP projects, and (2) to determine the factors that influence that time performance. The former research question is quantitative in nature while the latter is qualitative in nature.

4.6.1 Part 1: Collection of Data to Determine Time Performance of the PPP Procurement Process

As already stipulated, the research question is two-fold, whereby the first part aims to determine the time performance of the procurement process for PPP projects in South Africa. This research question is inductive in nature and is associated with a quantitative research design.

4.6.1.1 Documentary Evidence

The research methods for data collection are driven by the type of research question and suitable research strategy to address that research question. Yin (2009) distinguishes between documentary information and archival records, but we will assume that these fall under a single category for the purposes of this paper. Yin (2009: 103) writes that "the most important use of documents is to corroborate and augment evidence from other sources". The author also explains that there is a huge opportunity for a researcher to make inferences from documents. For the purposes of this research, documentary evidence was used to start giving the researcher a sense of the case, its different parts and its history (Rule & John, 2011: 67).

Documentary evidence was used as data collection method to collect information on the time performance of the PPP cases under investigation. This was done by collecting procurement timeline information from various sources, primarily from the RFQ and RFP documentation pertaining to the projects under investigation. Other sources were used, including local PPP publications and any other source of information that could be sourced. The sources of publications were retrieved from reliable websites. The participants of the PPP projects under investigation were also requested to verify the PPP procurement timelines from their own archives.

It is important to be aware of the bias that may occur from documentary evidence. Yin (2009: 103) advises the reader to use documentary evidence with caution because most documentary evidence is prepared for a particular purpose, and perhaps to pursue a particular agenda.

4.6.2 Part II: Collecting Data to Determine the Factors that Influence the Time Performance of the Procurement Process for PPP Projects in South Africa

The second part of the research question is aimed at investigating the factors that influence the time performance of the procurement process for PPP projects in South Africa. The case study method was identified as the most appropriate research strategy to address this research question. One of the requirements of selecting the most appropriate data collection method was that it needed to allow for deep probing of the issues. It was evident to the researcher that the issues around the factors that influenced the time performance of the PPP procurement process could be best contextualised by the parties who participated in the execution of the procurement process of the cases identified. The method also needed to be rigorous and credible enough to offer a high degree of validity. Three data collection methods for collecting **primary data** were considered.

Potential for the Questionnaire Survey research method: The nature of the questionnaire survey is that the respondent participates without the interviewer's assistance (Cooper & Schindler, 2003). According to Rugg and Petre (2007: 144), questionnaires are suitable to use when a researcher wants to find out how widespread something is, for ancillary data collection, or for feedback about people's opinion or perception about a certain subject. A lot of literature however expresses caution about using this data collection method. The down side of questionnaires is their potential for a low response rate from suitable respondents. In addition to the bias associated with low response rates, it is worth noting that "…the real problem is that we lack good information about when nonresponse is likely to seriously affect estimates" (Fowler, 2009: 177). The question then arises: How do we then determine when the non-response is too low to provide legitimate results?

A low response rate can compromise the credibility of the research. The population of PPP participants in South Africa is already low as it is a fairly new sector. Pursuing questionnaires from a low population base would therefore be problematic. It was because of this legitimate concern that questionnaire survey was not selected as a suitable data collection method.

Potential for the Observation research method: Rugg and Petre (2007: 108) found that the best way to describe observation studies is to highlight the various categories that fall under this research method. Observation studies can be subdivided into *direct* and *indirect* observation. Direct observation entails observing something directly such as watching behaviour, while indirect observation does not involve watching an activity of interest directly, but rather observing something else which indirectly says something about the object under scrutiny. Another distinction is between *participant* observations whereby the researcher joins the group that is being studied, and *non-participant* observations where the

researcher remains outside of the group. According to Rugg and Petre (2007: 110), observation research method has the potential of providing rich, interesting and valid data.

With the observation method, the validity of the research is enhanced because what the observer sees with their own eyes is not filtered by what others say or document to have seen or experienced (Yin, 2011: 143). The author however cautions that the researcher is at risk of collecting dubious data as well. There is also a danger of conflict in the event that those that are being observed had not granted permission and find out about the observation subsequent to the fact. Ethical considerations also play a factor, especially depending on the degree to which one reveals their identity to those being observed (Saunders, Lewis and Thornhill, 2012: 348). Data collected from observation studies can also prove to be difficult to analyse.

Two of the most important factors that were considered for observation studies were time required to conduct observation studies, and organisational access (Saunders, Lewis & Thornhill, 2012: 347). The procurement process for PPP projects in South Africa is normally a lengthy process, and can easily take longer than 18 months. As the paper was done on a part-time Master's program, it was not viable to devote time during working hours to conduct observations. Negotiating access into an organisation such as National Treasury, or the offices of the Transactional Advisors to observe the procurement process at work was also considered a major constraint as access can take months to negotiate in certain instances. For these reasons the observation method was not considered as a practical data collection approach for this research.

Potential for Interview research method: The interview research method was considered as a potential data collection strategy. As already mentioned, a literature review was conducted to identify the factors that influence the time performance of the PPP procurement process. The literature review also focused on contextualising the factors into a South African PPP context. The greatest value with personal interviews lies in the depth of information and detail that can be retrieved (Cooper & Schindler, 2003: 325). Zikmund (2003: 201) explains that personal interviews allow the interviewer the opportunity to ask probing and complex questions which cannot necessarily be asked in telephone or mail surveys. This is reaffirmed by Gillham (2005: 3) who explains that interviews allow the researcher to achieve a deeper understanding of the issues at play. From a research philosophy perspective, "the epistemology of the qualitative interview tends to be more constructionist than positivist" with the purpose of deriving "interpretations, not facts or laws, from respondent talk" (Gubrium & Holstein, 2001: 83). Their "flexibility allows the researcher to explore complex issues, as well as to assess perceptions and beliefs" (Clovis et al., 2011: 92). Interviews therefore have the ability to assist the researcher to understand and to contextualise the phenomenon being investigated.

There are three different types of interviews, namely *structured interviews*, *semi-structured interviews*, and *unstructured interviews*. Structured interviews "use questionnaires based on a predetermined and 'standardised' or identical set of questions" (Saunders, Lewis & Thornhill, 2012: 374). Conversely, unstructured interviews are informal and allow the interviewer the opportunity to ask questions freely about the topic being studied (Saunders Lewis & Thornhill, 2012: 374). The aim of the semi-structured interview method is to strike a balance between the two aforementioned approaches. The semi-

structured interview method strikes this balance by combining a list of themes and key questions (Saunders, Lewis & Thornhilll, 2012: 374). This allows the interviewer flexibility in adapting the line of questioning (if and when required) to probe issues more deeply, and to vary the questions in line with the flow of the interview.

4.6.3 Justification for Adopting Semi-Structured Interview Method

The semi-structured interview was chosen as the most ideal method of data collection to determine the factors that influence the time performance of the PPP procurement process. This method of interviewing was selected because it allows the interviewer flexibility to capture the uniqueness and complexity of the issues at hand (Rule & John, 2011: 65). The flexibility of the method allows the interviewer to steer the interview in the direction that is stimulated by the interview itself (Rule & Paul, 2011: 65). The semi-structured interview method affords the interviewer the opportunity to interrogate in more detail the issues underlying the factors that influence the time performance of the PPP procurement process for the PPP projects under investigation. This is because the semi-structured interview method allows the interviewer "an opportunity to 'probe' answers" by letting the interviewee "explain, or build on, their response" (Saunders, Lewis & Thornhill, 2012: 378). Semi-structured interviews also "allow the study to test the applicability of existing theory" and explain any deviances in the theory (Saunders, Lewis & Thornhill, 2012: 383).

Other researchers have also used semi-structured interviews successfully in their research to get a better understanding of the main issues at play in their area of study. In a similar study, Ahadzi and Bowles (2004: 969) used semi-structured interviews to get a better understanding of the factors that lead to the protracted nature of PPP pre-contract bidding and negotiations process.

4.7 Data Analysis

Data analysis is a crucial step in the process of answering any research question(s) (Blaikie, 2003: 28). Failure to understand the approach to be taken at data analysis stage of the case study can leave the researcher in disarray. It was therefore important to have a systematic approach to the analysis of the data collected for each case study. This chapter discusses the various approaches, strategies and methods for analysis of data that were adopted in the case study research, and explains the rationale for the choices that were made in this regard.

4.7.1 Approach to the Analysis

Saunders, Lewis and Thornhill (2012: 548) suggest that the over-arching question the researcher needs to answer when deciding on an approach to analysis is to determine whether the research is deductive or

inductive. The deductive approach seeks to use existing theory to inform the research topic, while the inductive approach involves the researcher using the data collected to determine the themes and issues from that data. As previously discussed, the research topic is deductive in nature. The topic entails using the data collected to determine the time performance of the procurement process and the factors that influenced that performance.

4.7.2 Analytical Procedures Employed to Analyse Quantitative Data

The objective of the first research question was to determine the time performance of the procurement process for the four PPP's selected for the case study investigation. Quantitative data was collected in the form of planned and actual timelines of the procurement process, from RFQ to Financial Close, for the four PPP projects.

Quantitative data is however meaningless in its raw form. Quantitative analysis techniques allow for the processing of quantitative data to make it more useful and meaningful (Saunders, Lewis & Thornill, 2012: 472). This can be done through various quantitative data analysis techniques such as graphs, charts and statistics. There was therefore a need for the identification of an appropriate quantitative data analysis technique to address the first research question.

4.7.2.1 Tabular and Graphical Display

Similar studies that have been conducted by other researchers to analyse the time performance of the PPP procurement process were reviewed for the analysis. In their study, Ahadzi and Bowles (2004) collected data on the procurement process timelines (i.e. planned and actual) from various PPP projects for various project types. The data was displayed and analysed using the tabular and graphical data display technique to determine the extent of time overruns during the pre-contract stage of PPP procurement process for projects in the UK (Ahadzi & Bowles, 2004: 471). This was done by making a comparison between the planned and actual timelines for the procurement process for the projects identified. The time variance of the planned and actual procurement timelines was computed thereafter. From the results, the authors could establish the percentage of projects that had experienced time overruns during the procurement process, and the severity of these time overruns per project type.

For this research, procurement timeline data was collected on the projects selected for the case studies from the relevant RFQ and RFP documentation. This data was illustrated using a 'tabular and graphical' method of displaying data. The purpose of using this method was to summarise and communicate the meaning of the data (Zikmund, 2003: 483). A combination of tables prepared from Microsoft Excel, and graphs prepared using both Microsoft Excel and Construction Computer Software (CCS) were used to illustrate the data. CCS is used widely by planners in the South African construction industry to assist with the preparing programmes for construction projects. The proposed timelines of the procurement process for each case study were mapped against the actual timelines as reported by the case respondents.

Activity durations were calculated using Excel and verified against the durations computed by the CCS for each procurement stage. The graphical display allowed the researcher to pick up the stages of the procurement process that were problematic in terms of delay, and those that fared well against the original timelines. The time variance calculation was done using Microsoft Excel to compute the time performance for each case study and results were illustrated in table format.

Below are the descriptions for each PPP procurement milestone:

Milestone	Description
RFQ Issue	Formal issue date of RFQ document to potential bidders
RFQ Return	Return date for RFQ documents as prepared by potential bidders
Notification to Prequalified Bidders	Notification to prequalified bidders of compliance
RFP Issue	Formal issue date of RFP document to prequalified bidders
RFP Return	Return date for RFP documents as prepared by pre-qualified bidders
Award of Preferred Bidder	The date of award of preferred bidder
Financial Close	Financial close of procurement process leading

Table 4.1: Description of PPP Procurement Milestones

Below are the descriptions for each PPP procurement stage:

Stage Name	Stage Description
Stage 1	RFQ issue to Financial close
Stage 2	RFQ issue to RFQ return
Stage 3	RFQ return to Notification to Prequalified bidders
Stage 4	Prequalified bidders to RFP issue
Stage 5	RFP issue to RFP return
Stage 6	RFP return to Award of preferred bidder
Stage 7	Preferred bidder to Financial close

Table 4.2: Description of PPP Procurement Stages

The abbreviations of the PPP procurement milestones were defined as follows:

Milestone	Description
RFQ_{issue}	Planned RFQ issue date
RFQ_{issue1}	Actual RFQ issue date
RFQ_{return}	Planned RFQ return date
$RFQ_{return1}$	Actual RFQ return date
Prequal	Planned announcement of prequalified bidders
$Prequal_1$	Actual announcement of prequalified bidders
RFP_{issue}	Planned RFP issue date
RFP_{issue1}	Actual RFP issue date
RFP_{return}	Planned RFP return date
$RFP_{return1}$	Actual RPP return date
Pref Bidder	Planned announcement of preferred bidder
Pref $Bidder_1$	Actual announcement of preferred bidder
Fin Close	Planned financial close date
Fin $Close_1$	Actual financial close

Table 4.3: Abbreviations for PPP Procurement Milestones

4.7.2.2 Time Variance Calculations

The time variance calculation that was adopted was as follows:

$$\text{Time variance} = \frac{\text{Actual duration} - \text{Expected duration}}{\text{Expected duration}} \times 100\%$$

Equations adopted per stage:

$$\text{Stage 1} = \frac{(\text{Fin Close}_1\text{-Pref Bidder}_1) - (\text{Fin Close} - \text{Pref Bidder})}{(\text{Fin Close} - \text{Pref Bidder})} \times 100\% \quad (7)$$

$$\text{Stage 2} = \frac{(\text{RFQ}_{\text{return1}}\text{-RFQ}_{\text{issue1}}) - (\text{RFP}_{\text{return}}\text{-RFQ}_{\text{issue}})}{(\text{RFQ}_{\text{return}} - \text{RFQ}_{\text{issue}})} \times 100\% \quad (2)$$

$$\text{Stage 3} = \frac{(\text{Prequal}_1 - \text{RFQ}_{\text{return1}}) - (\text{Prequal} - \text{RFP}_{\text{return}})}{(\text{Prequal} - \text{RFP}_{\text{return}})} \times 100\% \quad (3)$$

$$\text{Stage 4} = \frac{(\text{RFP}_{\text{issue1}}\text{-Prequal}_1) - (\text{RFP}_{\text{issue}}\text{-Prequal})}{(\text{RFP}_{\text{issue}}\text{-Prequal})} \times 100\% \quad (4)$$

$$\text{Stage 5} = \frac{(\text{RFP}_{\text{return1}}\text{-RFP}_{\text{issue1}}) - (\text{RFP}_{\text{return}}\text{-RFP}_{\text{issue}})}{(\text{RFP}_{\text{return}} - \text{RFP}_{\text{issue}})} \times 100\% \quad (5)$$

$$\text{Stage 6} = \frac{(\text{Pref Bidder}_1 - \text{RFP}_{\text{return1}}) - (\text{Pref Bidder-RFP}_{\text{return}})}{(\text{Pref Bidder-RFP}_{\text{return}})} \times 100\% \quad (6)$$

$$\text{Stage 7} = \frac{(\text{Fin Close}_1 - \text{Pref Bidder}_1) - (\text{Fin Close} - \text{Pref Bidder})}{(\text{Fin Close} - \text{Pref Bidder})} \times 100\% \quad (7)$$

4.8 Strategies to Analyse Qualitative Data

In his book, Yin (2009: 130) has categorised data analysis strategies into four groups. The first strategy relies on theoretical propositions that lead to a case study. These propositions guide the objectives and design of the case study, and infiltrate into the data analysis. According to Yin (2009), these propositions help to focus the researcher's attention on useful data that can address these propositions, and discard others. This is analogous to the deductive approach to research. The second research strategy involves the development of a case description. This strategy falls under the inductive approach and entails the development of "a descriptive framework for organizing the case study", with the ideas from the framework emanating from the initial review of literature (Yin, 2009: 131). The third strategy involves the use of both qualitative and quantitative data. The fourth strategy mentioned by the author involves "trying to define and test rival explanations" (Yin, 2009: 133).

This research relied on the *theoretical propositions* strategy. This method was driven by the theoretical propositions that initially led to the case study itself. These propositions were informed by the review of the literature on the issues around PPP projects, and more specifically around the factors that influence the time performance of the PPP procurement process. The propositions were based around themes that

emanated from the literature review, which included factors such as the skills and capacity of the PPP Unit, political will, and standardisation of procurement documentation.

4.8.1 Potential of Qualitative Content Analysis

The process of Qualitative Content Analysis (QCA) involves the creation of "constructs and concepts" and recording the number of times these arise in the interview (Remenyi, 2012: 107). "The process involves the simultaneous coding of raw data and the construction of categories that capture relevant characteristics of the document's content" (Merriam, 1998:160). These concepts and constructs are assigned codes, using a process known as coding. Coding is defined as a "process of choosing labels and assigning them to different parts of data" (Rule & John, 2011: 77). This process of working from raw data in the form of codes to themes is at the root of Qualitative Content Analysis (Rule and John, 2011: 78). Shreier, (2012: 2) highlights three attributes of QCA analysis as being systematic, flexible and good at reducing data. Firstly, QCA is systematic in that "…all relevant material is taken into account; a sequence is followed during analysis, regardless of your material; and you have to check your coding for consistency (reliability)" (Shreier, 2012: 5). Secondly, the method is flexible "…in that your coding frame must be adopted so as to fit your material" (Shreier, 2012: 5). And thirdly, QCA is advantageous because "it reduces your material by limiting your analysis to relevant aspects of the material" (Shreier, 2012: 5). QCA is a method that is suitable for interpreting a host of qualitative data, including interviews transcripts, brochures, reports, and websites.

4.8.2 Justification of Choice of Data Analysis Method

The majority of literature recommended that a suitable way of selecting a method of analysis is to define the research question. The research question, whether quantitative or qualitative, drives the research design and data analysis of a study. Qualitative research questions are more open ended" and "tend to seek, to discover, to explore a process, or describe experiences" (Onwuegbuzie & Leech, 2006: 482). The challenge with qualitative research question is that there is not one specific method that fits a specific type of research question because the same qualitative research question can be analysed in multiple ways (Onwuegbuzie & Leech, 2006: 490). At a high level, research questions can either be descriptive, exploratory, or explanatory. Miles and Huberman (1994: 90) describe the natural progression from descriptive to explanatory research questions. The progression starts by describing what the phenomenon is (descriptive), to identifying and connecting the variables that affect the phenomenon (exploratory), and finally building a theory or model of how these variables influence each other (explanatory).

Qualitative Content Analysis (QCA) was selected for the analysis of the qualitative data. The decision was driven primarily by the nature of the research question. It was noted that inductively based analytical procedures to analyse the qualitative interview data would not suitable for a research topic of this nature. The aim of the research question is to determine the factors that influenced the time performance of the PPP procurement process for the cases selected in the study. This research question is deductive in nature

which fits the criterion for QCA. The descriptive nature of the research question makes it ideal for QCA (Shreier, 2012: 43). QCA will allow for coding of the interview transcripts, which can thereafter be captured in the relevant themed categories based on the literature review.

4.8.3 Analysis of Semi-Structured Interview Data

4.8.3.1 Coding of data collected from Interviews

Data is more useful or meaningful once it is grouped into categories. These categories are informed by the purpose of the research expressed through the research question and objectives (Saunders, Lewis & Thornhill, 2012: 557). This process of categorising data is described as coding. Coding is an intricate part of analysing qualitative interview data. Coding is described as "…a process of choosing labels and assigning them to different parts of data" (Rule & John (2011: 77). The coding process assists the researcher to define what the data being analysed is about (Gibbs, 2007: 39). The art of coding entails the researcher's ability to identify concepts, themes, events, and then mark these on the transcripts produced from the interviews. The concepts and themes must be relevant to the research problem, i.e. concepts and themes that the research asks about (Rubin & Rubin, 2012: 195). These codes are labels that highlight different themes or foci within data (Rule & John, 2011: 77). The coding process for interview research involves retrieving vital information on what was said on each topic (Rubin & Rubin, 2012: 192).

Merriam (1998: 183) provides a guideline that can be used to determine the coding categories efficiently. The author explains that the categories should (1) reflect the purpose of the research, (2) be exhaustive, (3) be mutually exclusive, (4) be sensitizing and (5) be conceptually congruent. There are two approaches to approaches to building a coding frame, namely a *concept-driven approach* and a *data-driven approach*. Schreier (2012: 84-89) explains the difference between the two types of approaches to coding as follows:

- A concept-driven approach is a deductive strategy which entails making use of existing knowledge, either from theory gained through the literature review process, other people's research or from logic.
- A data driven approach is an inductive strategy which entails a compilation of the categories and subcategories based on the data retrieved from the field.

The development of the coding frame for this research combined both a concept driven and data-driven approach. The strategy recommended by Schreier (2012: 87) for building a coding frame was adopted.

- The interview questionnaire itself was based on the themes that emerged from the literature. It was used as a deductive framework for building part of the coding frame.
- The subcategories for the dimensions of main categories were generated inductively from the data collected. The data collected was from the interviews with PPP participants involved in the four case studies selected for the research.

- *Subsumption* was used to generate the subcategories. This entailed an examination of the relevant passages for pertinent concepts, and thereafter determining whether the concept is new, and therefore turned into a new category, or forms part of existing concept, and therefore passed over into the same bucket (Schreier (2012: 88).
- *Segmentation* was used to divide the data collected into manageable units to allow each segment or unit to fit into one category of the coding frame. Segmentation was adopted because it is a rigorous method that ensures that all the data is taken into account. Segmentation also assists with implementing a clear research focus due to the fact that attention is directed to the issues that fit the size of the units of coding (Schreier (2012: 128).
- The thematic criterion for segmentation was used to decide where one unit of coding ends and where another begins. The thematic criterion was chosen because of its suitability for interview data, which does not have an inherent structure. It was easier to distinguish between units of coding that were more likely to fit into the coding frame (Schreier (2012: 134-138).

4.8.3.2 Comparisons

Once the information had been coded, sorted and summarised, comparisons were conducted. Comparisons go beyond providing description of the data. According to Gibbs (2007: 77-80), a comparative analysis assists the researcher to start interrogating the relationships either within individual cases, or across multiple cases as well. These comparisons were used to find both differences and associations from the categorised data. Once the comparisons were done, there was then a process to explain why there were certain variations, which then assisted in drawing informed conclusions about the factors that influence the time performance of the PPP procurement process. These comparisons were done by using tables as described by Gibbs (2007: 78). A simple table showing the respondents and their responses was used to present the coded information for ease of comparison.

4.9 Analytical Framework – Procedures for Case Study Analysis

Various authors have provided their own description or interpretation of an analytical framework and what it aims to achieve in a research context. According to Merriam (1998: 45), an analytical framework is the structure, scaffold, or frame of the case study. The purpose of an analytical framework is essentially to guide the researcher on how to craft the story that is being told in the case study (Yin, 2009). The analytical framework basically draws from "…concepts, terms, definitions, models and theories of a particular literature base and disciplinary orientation" (Merriam, 1998: 46). Yin (2009) is an advocate for the development of an analytical strategy when doing case study research and argues that without one, the researcher is prone to using their time and resources inefficiently.

The analytical framework for this research consisted of both qualitative and quantitative data analysis methods to analyse the data collected. There were four cases in total that were investigated. Each PPP project was firstly analysed as a single case study, before a generalist approach in the form of a cross-case

analysis was conducted. Studying each case individually allowed the researcher to extract the unique aspects of each PPP project in terms of factors that influenced the time performance of the PPP procurement process. The cross-case analysis thereafter allowed for the revelation of dominant trends across cases, in terms of similarities and differences, from which broader propositions could be reported.

4.9.1 Technical Aspects

The first part of the single case study analysis was to determine the technical aspects of each PPP project. The technical aspects entailed the project brief in terms of scope to bidders, and other material aspects pertaining to the project, e.g. site description. The information pertaining to the technical aspects of the project was retrieved primarily from the RFQ and RFP documentation. This information was corroborated with other information from credible publications and websites.

4.9.2 Time Performance of Procurement Process

The second part of the single case study analysis was to determine the time performance of each individual case study. This was done by firstly collating the planned and actual timelines of the procurement process for each PPP project. The planned timelines of the procurement process for each case study were retrieved from the RFQ and RFP documentation, while the actual procurement timelines were retrieved from the interview respondents themselves after the interview process. This was done via email correspondence with each of the respective respondents who participated in the PPP projects. A time variance calculation to compute the time performance was thereafter conducted using the PPP timelines. The results were presented in a tabular and graphical format for ease of reference. The presentation of results was followed by a discussion of the results. The purpose of the discussion of results was to highlight the procurement stages that were most problematic in terms of keeping up with the planned milestones, and to also highlight stages that were good at keeping up with the envisaged procurement timelines. The review of the time performance of each stage of the procurement process would thereafter prove invaluable when evaluating trends in the cross-case analysis.

4.9.3 Factors that Influenced the Time Performance of the PPP Procurement Process

The third part of the analytical framework was to determine the factors that influenced the time performance of the procurement process for each of the PPP projects under investigation. This was achieved by using the semi-structured interview method to get the perceptions of the respondents on what they deemed to be the main factors that influenced the time performance of the procurement process. The respondents that were chosen for the semi-structured interviews were strategic in that they were key role players and decision makers during the PPP procurement process for the case studies selected. The aim was to get respondents from both the public and private sector in order to get a

balanced and more impartial view of the dynamics that influenced the time performance of the PPP procurement process for the selected case studies.

The interview data was transcribed, coded and analysed using the **Qualitative Content Analysis (QCA)** method. The findings from the interviews were corroborated by other sources of credible documentation, where applicable. These sources included credible publications and websites on the PPP projects selected. A detailed summary of the findings was prepared for each case study thereafter. The summary highlighted important or dominant factors that influenced the time performance of the procurement process, as well as the least influential factors.

4.9.4 Cross-Case Analysis

The single case study analysis was followed by the cross-case analysis. The aim of the cross-case analysis was to pick up on any associations across cases, as well as differences between the cases. A discussion of the findings of the cross-case analysis was prepared which summarised the trends across cases in terms of the most dominant factors that influenced the time performance of the procurement process, and the least influential.

4.10 Threats to Reliability of the Research

The quality of the research was gauged against the constructs of reliability and validity. These two research concepts measure the level of, or degree to which there may be errors in the findings. Reliability is defined as a means of determining "whether your data collection techniques and analytical procedures would produce consistent findings if they were repeated on another occasion or if they were replicated by a different researcher" (Saunders, Lewis & Thornhill, 2012: 192). Reliability is therefore a measure of the consistency of the research, and generally refers to the extent to which a variable or set of variables is consistent in what it is intended to measure (Ihantola & Khin, 2011: 43). Measurement in research takes on a unique context and refers to "…limiting the data of any phenomenon – substantial or insubstantial- so that those data may be interpreted and, ultimately, compared to an acceptable qualitative or quantitative standard" (Leedy & Ormond, 2005: 21).

It was important to take note of the threats to reliability when preparing the research design as these may affect findings and conclusions drawn from the research. It was therefore crucial that these threats were identified from the onset, in order to avoid or mitigate their effects and strengthen the legitimacy of the research. Some of the main threats to reliability can be summarised as follows (Saunders, Lewis and Thornhill, 2012: 192):

- *Participant error* refers to any factor which negatively alters the way in which a participant performs;
- *Participant bias* refers to any factor that induces a false response;
- *Research error* refers to any factor that alters the researcher's interpretation; and

- *Research bias* refers to any factor which induces bias in the researcher's recording of responses.

4.10.1 Threats to Validity of Research

Following the work of Saunders Lewis & Thornhill (2012), Ihantola and Khin (2011), and Collingridge and Gantt (2008), three classifications of validity, namely 'construct validity', 'internal (contextual) validity' and 'external (criterion) validity' were identified as follows:

- *Construct validity* is related to the "extent to which your research actually measures what you intend them to assess" (Saunders, Lewis & Thornhill, 2012: 193). The intention is to establish "whether we are truly assessing an underlying construct" of the subject being investigated (Collingridge & Gantt, 2008: 391).
- *Internal validity* is "established when your research demonstrates a causal relationship between two variables" (Saunders, Lewis & Thornhill, 2012: 193). For internal validity to be valid, one needs to demonstrate that "variations in the dependent variable result from variations in the independent variable(s)" and not from other "confounding factors" (Ihantola & Khin, 2011: 41).
- *External (criterion) validity* refers to "the strength of the relationship between our measurement tools and other measures of the same phenomenon" (Collingridge & Grantt, 2008: 391). It basically answers the question of whether we can "draw more general conclusions on the basis of the model used and data collected and whether the results may be generalised to other samples, time periods and settings" (Ihantola & Khin, 2011: 42).

4.10.2 Addressing Validity of Interview Research

It is important to be aware of the limitations that come with the interview approach. Gillham (2000) advises any researcher who is intent on using interview research to be cautious of interviewee responses. Research using rating scales has shown that people tend to be satisfied with mostly everything that they are asked during an interview. It is therefore recommended that the interviews should therefore be part of a *multi-method* approach (Gillham, 2000: 93). It is also important to distinguish between what people say, and what they actually do in real life, as there is not always a direct relation (Gillham, 2000: 93). It is therefore recommended that the researcher has enough "theorizing" in order to draw plausible conclusions from the evidence gathered.

The choice of whether to conduct telephonic or face-to-face is crucial. Telephonic interviews can prove to be effective in terms of cost and time savings. This form of interviewing does however come with its own challenges. One of the challenges of telephone surveys is that they can potentially produce higher rates of nonresponses. Telephonic surveys can also allow researchers to collect less data as telephone interviews are normally designed to be relatively shorter than personal interviews (Fowler, 2009: 177). It was therefore concluded that face-to-face interviews would be more effective in enhancing the validity of the interview research.

4.10.3 Addressing Reliability Concerns of Interview Research

Interviews fall under exploratory research which qualitative is nature. Even though qualitative research is descriptive in nature and "bound to a particular perspective", the aim is to enhance the objectivity, and "assure accuracy and inclusiveness of recordings" and "test the truthfulness of the analytical claims that are being made about those recordings" (Peräkylä, 2004). From an ethnographer's point of view, reliability of the research results depends to a large extent on the possibility of another ethnographer obtaining the same findings if research was done again in the same way (Peräkylä, 2004: 285). One of the ways the author proposes to eliminate problems associated with "unspecified accuracy of field notes and with the limited public access to them" is to take and keep audio recordings as these can provide "highly detailed and publicly accessible representations of social interaction" (Peräkylä, 2004: 285).

One of the major concerns related to interview research is related to interview bias. Saunders, Lewis and Thornhill (2012: 381) make reference to three types of potential bias that may occur from the interview process as follows:

- *Interview bias*, whereby the comments, tone or non-verbal behaviour of the interviewer may influence the way in which the interviewee responds to questions.
- *Interviewee or response bias* may be caused by either perceptions about the interviewer, or the interviewee's attempt to conceal certain sensitive information that they perceive may be detrimental to their image or social standing.
- *Participation bias* relates to the nature of the individuals or organisational participants being interviewed.

4.10.3.1 Triangulation

The case study offers the researcher the flexibility of selecting various research methods to address the research question. The research method that is identified needs to be rigorous enough to have a high degree of validity. The use of various methods to carry out a study is referred to as the '*concurrent triangulation strategy*'. Creswell (2014: 201) explains that triangulation involves examining different types of data sources to build a coherent justification for themes which results in added validity to the study. The use of the different approaches to research are conducted with the notion that they will "converge to support a particular hypothesis or theory" (Leedy & Ormrod, 2005: 99). "Triangulation assumes that looking at an object from more than one standpoint provides researchers and theorists with more comprehensive knowledge about the object" (Miller & Fox, 2004: 36).

Darke, Shanks and Broadbent (1998: 286) advise that the issue of biases introduced by the researcher during the collection and analysis of case data also needs to be addressed. The authors write that there are two types of biases that can be introduced, namely those arising from the effect of the researcher on events and behaviour of participants, and the researcher's own beliefs, values and prior assumptions of the research problem. The authors suggest that these biases can be overcome by using multiple sources

of evidence in the form of triangulation to provide multiple perspectives of the same issue(s). The authors also explain that having multiple sources of evidence assists in "corroborating information provided by different participants where there are conflicting accounts of events and their actions" (Darke, Shanks & Broadbent, 1998: 286).

A combination of semi-structured interviews, documentation, and archival records were used data collection methods for the case studies. A combination of the documentation and archival records was an obvious choice for the data collection as it was evident that there was a vast amount of information that could be collected from the various sources. The quantitative analysis to compute the time performance of the procurement process of each case study was used to validate the responses from the interview process.

4.11 Ethical Issues

Whenever research deals with human beings as subjects then ethical considerations need to be examined (Leedy & Ormond, 2005: 101). This was certainly the case with the research as human beings were going to be the main area of focus during the data collection phase due to the use of semi-structured interviews. Due consideration therefore needed to be taken to ensure that the ethical implications of these interactions were clearly identified and mitigated early in the planning stages of the data collection.

It is highly recommended that those conducting research should follow codes of ethics when faced with the ethical dilemmas which need to be overcome (Saunders, Lewis & Thornhill, 2012: 228). Ethics in research refers to "the standards of behaviour that guide your conduct in relation to the rights of those who become the subject of your work, or are affected by it" (Saunders, Lewis & Thornhill, 2012: 226). Good ethical practice requires the researcher to act with absolute integrity and objectivity at all times during the course of the research (Saunders, Lewis & Thornhill, 2012: 231). This inevitably means being transparent, truthful and ensuring accuracy in reporting results of the research. Acts that may infringe on the obligations such as deception or dishonesty were therefore avoided by the researcher at all times.

The ethical issues that were considered when conducting the research as described by Leedy and Ormrod, (2005: 101) were categorised into four principles, being (1) protection from harm; (2) informed consent; (3) right to privacy; and (4) honesty with professional colleagues. The first *principle of protection from harm* requires the researcher to ensure that participants in the research are not exposed to undue physical or psychological harm. In clinical research, the potential for physical harm may come in the form worsening or exacerbating the symptoms of a patient, or inducing side effects from experimental treatment. Physical harm is unlikely to take place given the nature of this research study (Sim, 2010: 82). The other form of harm may be psychological in nature. Psychological harm can occur during interviews on a potentially sensitive topic which, if not treated in a delicate manner, can bring about distress or stir up painful memories to the interviewee (Sim, 2010: 82). *Informed consent* requires the researcher to ensure that the research participant is fully aware of the nature of the study to be conducted, and given voluntary powers to participate or decline this participation in the study (Leedy & Ormrod, 2005: 101;

Saunders, Lewis & Thornhill, 2012: 231; Sim, 2010: 81). And lastly *honesty with professional colleagues* obligates a researcher to report their findings in a 'complete and honest fashion'.

There are certain conflicts that a researcher has to deal with when approaching ethical issues in their research. It can be argued that the moral principles that are imposed on a researcher can be best thought of as "prima facie rather than absolute"(Sim, 2010: 81). This means that in the instances when a researcher finds that two or more of the moral principles mentioned are in conflict with each other, then the researcher needs make a call on whether one of the moral requirements outweighs the other. A good example of this conflict is seen in the recommendations by Leedy and Ormrod (2005), which are contradictory to those of Saunders, Lewis and Thornhill (2005), both works of which are highly respected. On the one hand, Leedy and Ormrod (2005: 101) recommend the use of 'unobtrusive measures', even where consent has not been granted, as long as "people's behaviours are merely being recorded in some way during their daily normal activity". Conversely, Saunders, Lewis and Thornhill. (2012: 243) advise strongly against conducting a 'covert observation' study after access has been denied. The authors recommend that a process of 'debriefing' should occur should a covert study have taken place after access has been denied, which involves informing those affected by the study of what has occurred and why. In the case of this research, there will be no use of the observation method, and therefore such a conflict will therefore not be applicable.

Saunders, Lewis and Thornhill (2012: 237) recommend that the ethical issues that may potentially be encountered need to be identified and addressed early in the during the research design stage of any research project. One of the primary data collection methods of this research work was the use of semi-structured interviews. Saunders, Lewis and Thornhill (2012: 237) add that the stage at which the researcher needs to consider ethical issues is when access is required. In this paper, access was required for interviews of key PPP procurement participants for each case study. During the course of negotiating access, no attempt was made to put undue pressure on any potential participant to partake in the study. Participants were also made aware of their right to refuse to partake in the study, and the right to withdraw from a study at any point without penalty or giving reason. All attempts were made to avoid questioning that makes the interviewee uncomfortable in any way, or feeling pressurised to respond. The interviewees were advised of their right to intervene if the questioning infringes on their rights. The interviewees were also advised of their right to withdraw from the interview without having to give reason if they felt the need. The names of all respondents were kept anonymous for ethical reasons.

CHAPTER 5
CASE STUDIES – DATA COLLECTION

5.1 CRADLE OF MANKIND WORLD HERITAGE SITE

5.1.1 Introduction

The Cradle of Humankind World Heritage Site (COH WHS) is one of the most revered heritage marvels in the world. The COH WHS is approximately 47 000 ha in extent and is located in the western Gauteng Province with a small portion within the North West Province (Department of Agriculture, Conservation, Environmental and Land Affairs [DACEL], 2002: 15). The COH WHS is one of eight listed South African world heritage sites (Maropeng a'Afrika Leisure, 2014). The COH WHS consists of approximately 40 hominid fossil sites. It is reported that 40 percent of the world's hominid fossils can be found at this heritage site (Naidu, 2008:185). Hominids are an archaeological term for early human ancestors. The UNESCO World Heritage Convention website describes the COH WHS as follows (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2014):

> *"The area contains essential elements that define the origin and evolution of humanity. Fossils found there have enabled the identification of several specimens of early hominids, more particularly of Paranthropus, dating back between 4.5 million and 2.5 million years, as well as evidence of the domestication of fire 1.8 million to 1 million years ago."*

The COHWHS was identified as one of the "special projects" under the Blue IQ Projects. The Blue IQ Investment Holding (Pty) Ltd is one of the key infrastructure programmes initiated by the Gauteng Provincial government to "undertake or invest in identified projects and enable increased private sector investment, through the utilisation of legally recognised commercial enterprises" (Department of Economic Development [DED], 2006: 457). The key objectives of Blue IQ is to leverage the entities strong balance sheet for financing of projects, to improve operational performance for sustainability, and to stimulate private sector investment in the public sector (DED, 2006: 457). As a commercial enterprise, Blue IQ allows the provincial government to engage and partner with external parties, more especially the private sector, on commercial projects.

The Sterkfontein Caves are located within the COH WHS. These caves are reported to have some of the world's "richest deposits of vertebrate remains" dating back as far as 2.6 million years ago (Reynolds & Kibii, 2011: 59). According to the research conducted by Reynolds and Kibii (2011: 60), over 600 homin species have been discovered in the area, "representing as many as five species, seven primate species, 52 species of macromammals, 28 micromammal species, several reptile and bird species and at least two plant species". To date, only a fraction of the caves have been explored by scientists, meaning that there is still a wealth of knowledge that is yet to be discovered given the continued research in the area. It is

therefore not surprising that the Sterkfontein Caves are world renowned for being one of the most important heritage sites on planet Earth.

5.1.2 Project Description

5.1.2.1 Site Description

The COH WHS is located in the north-west of the Gauteng Province and covers an area of 47 000 hectares. A portion of the site extends into the North West Province. "The site is approximately 2km to the north of Krugersdorp, 45km from the Johannesburg City Centre and 40km from Tshwane" (Gauteng Tourism Authority, 2014). The Mohale's Gate site is a 100 ha in extent and is located on land which is adjacent to the Cradle of Humankind World Heritage Site (COH WHS) (DACEL, 2002: 15). The existing Orientation Centre which was earmarked for an upgrade is located on Sterkfontein site which is situated in the Cradle of Humankind World Heritage Site.

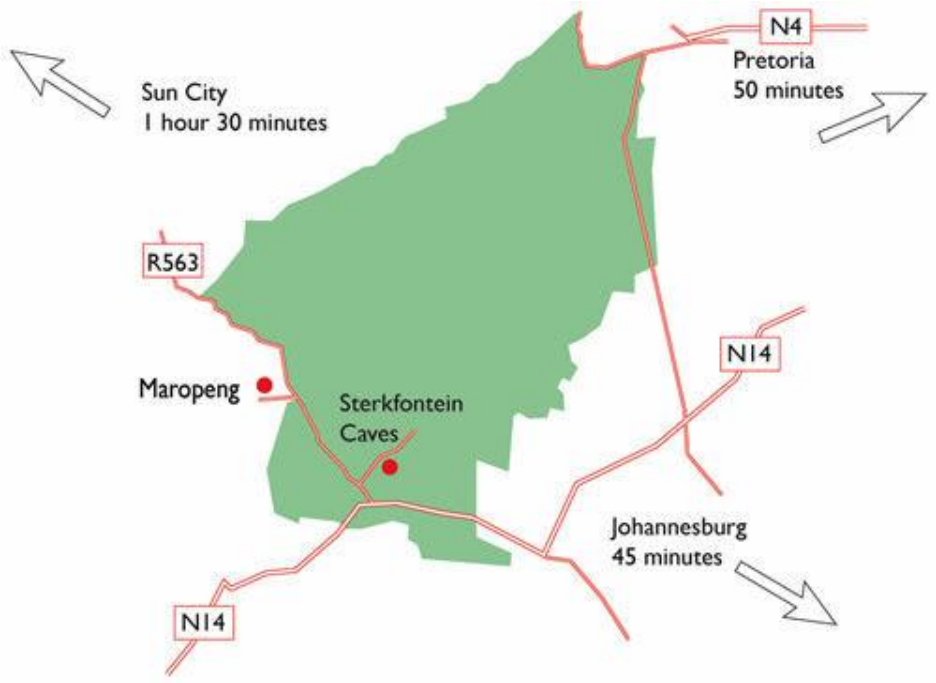


Figure 5.1: Map showing Sterkfontein Caves and Maropeng within the Cradle of Humankind World Heritage Site (COH WHS)

Source: Community Walk, 2014

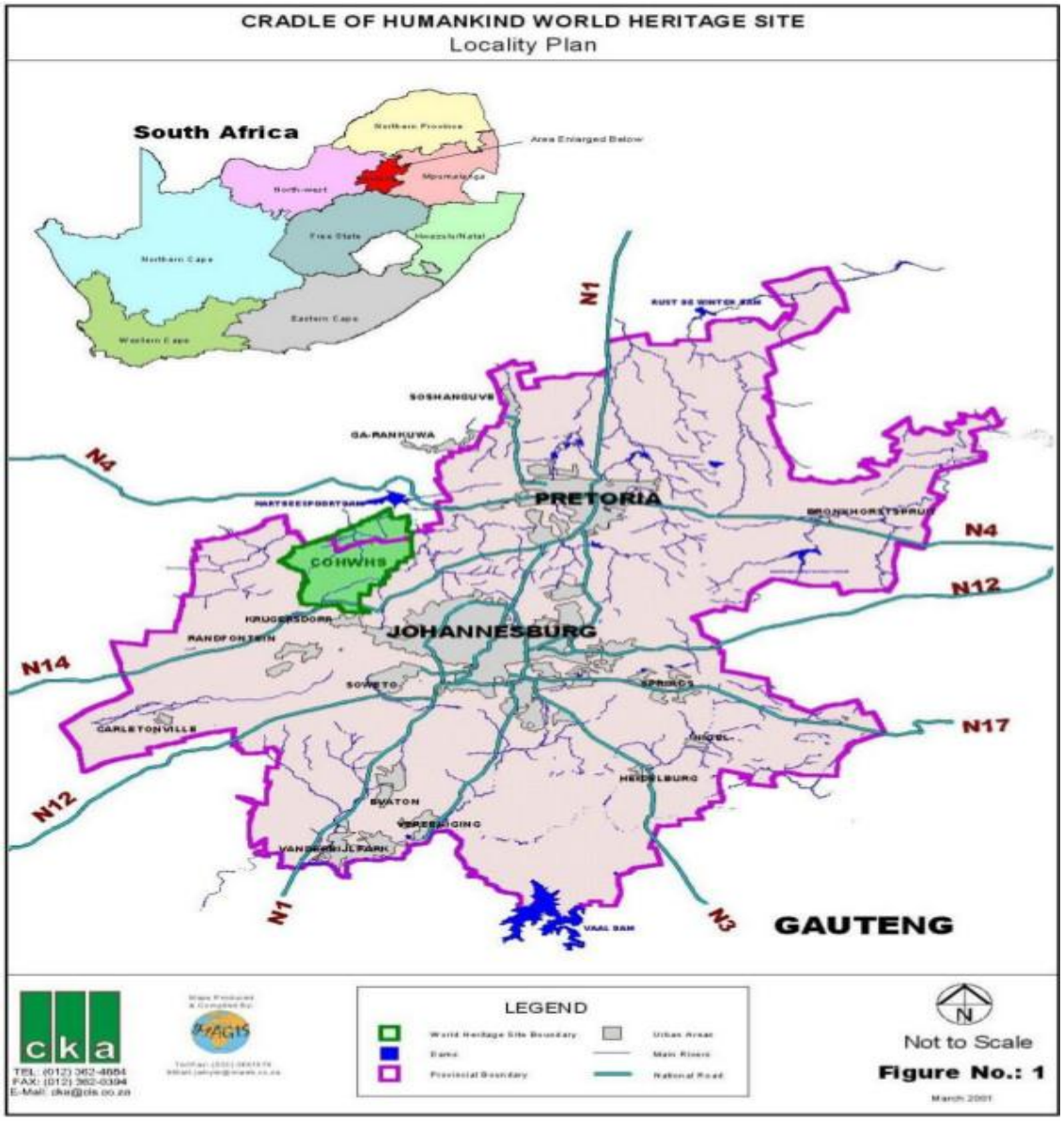


Figure 5.2: Map showing Cradle of Humankind World Heritage Site, South Africa

Source: Pillay, 2010: 34; cited from Cradle of Humankind World Heritage (COH WHS) Site Management Authority

Before interrogating the Maroperng and Sterkforntein PPP project, it is worthwhile to do a brief background of the Cradle of Humankind World Heritage Site (COH WHS) to provide a context around the inception of the PPP project.

5.1.2.2 Project Scope

In 2002 the DACEL invited potential bidders to submit their bids to "design, build, install exhibitions and operate a world class Interpretation Centre Complex (ICC)" (National Treasury PPP Unit, 2002: 2). The DACEL invited prospective concessionaires to bid for two developments at the Interpretation Centre Complex, namely a world class Interpretation Centre at Mohale's Gate and an Orientation Centre at Sterkfontein (DACEL, 2002: 15).

At the time of procurement, the Gauteng Department of Agriculture, Conservation, Environment and Land Affairs (DACEL) had committed R51 million which was spent on bulk infrastructure upgrades to the COH WHS site boundary, and a further sum of R163 million to the capital costs of the project (National Treasury, 2002: 2). The bidders were expected to "…offer an annual concession fee for the rights to operate the ICC as an educational and tourism destination for visitors over an initial 10 year period, with a re-pricing mechanism for certain contract" (National Treasury, 2002:2).

Maropeng Visitor Interpretation Centre Complex

Mohale's Gate, a site donated by Standard Bank to Gauteng Province, was earmarked for the Maropeng Visitor Interpretation Centre Complex. According to the RFP document, the winning bidder was to be responsible to "…provide for the final permitting, design, construction, exhibition installation, and operation of the Interpretation Centre Complex at the COH WHS" (DACEL, 2002: 20).

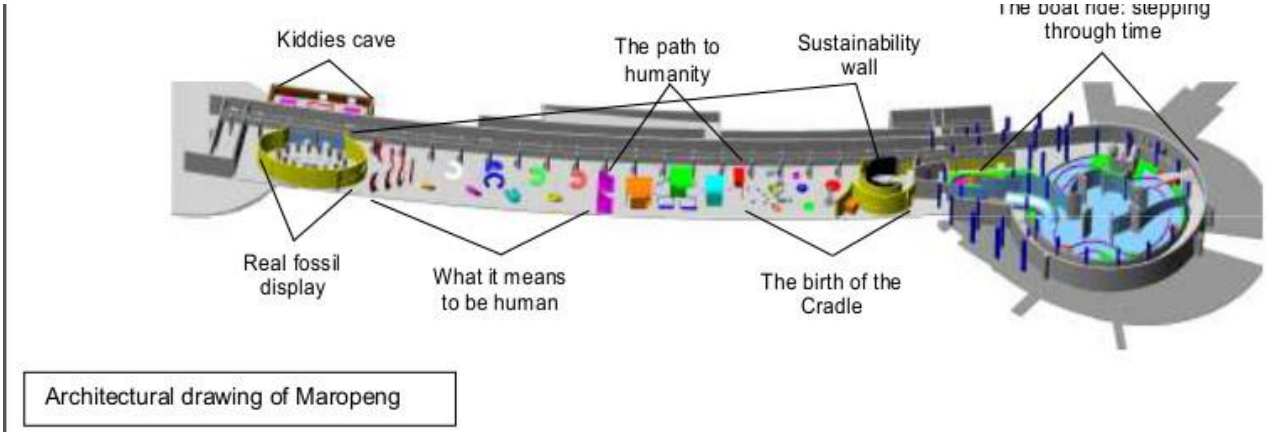


Figure 5.3: Architectural cross-section of the Maropeng Visitors Interpretation Centre

Source: UNESCO, 2011: 11





Entrance and Exit to Maropeng Visitor Centre post

Maropeng has the following Education and conferencing:

- 80 seater facility in the exhibition area
- 120 beds learners accommodation
- 500 seater conferencing and events facility
- 5000 seater outdoor amphitheatres

Hotel and Restaurants:

- 45 bed luxury boutique hotel
- 3 Restaurants
- Viewing deck

Figure 5.4: Photographic image showing Maropeng Visitors Interpretation Centre

Source: UNESCO, 2011: 13

Visitors Orientation Centre at Sterkfontein

The Sterkfontein Caves PPP initiative involved the upgrade of an existing Exhibition Centre at the Sterkfontein Caves which was owned by the University of Witwatersrand. The upgrade was done with the objective of improving the visitors' experience and making provision for additional working facilities for scientists (Moolla, n.d.).

5.1.3 The PPP Procurement Timelines

The planned procurement timelines for the Maropeng and Sterkfontein PPP project were retrieved from the RFP document (DACEL, 2002: 32), while the actual procurement timelines were retrieved from Respondent 1 (Respondent 1, personal communication email, February 2, 2014). The tables below show the timelines and durations of the PPP procurement process:

Procurement Milestone	Planned Date	Actual Date
Issue RFQ document	14-Oct-01	14-Oct-01
Return Date for RFQ	14-Nov-01	14-Nov-01
Announcement of prequalified bidders	15-Dec-01	15-Mar-02
Issue RFP document	14-Mar-02	15-Mar-03
Return Date for RFP	10-May-02	10-May-03
Announcement of Preferred Bidder	01-Jun-02	08-Sep-03
Contractual Close	26-Aug-02	19-Oct-03
TA III and Financial Close	N/A	N/A

Table 5.1: Planned and Actual Procurement Milestones - Maropeng and Sterkfontein PPP Project

Procurement Stage	PPP Procurement Stage Description	Planned Duration	Actual Duration	Slippage
Stage 1	RFQ_{issue} - Fin. Close	316	735	-419
Stage 2	RFQ_{issue}-RFQ_{return}	31	31	0
Stage 3	RFQ_{return}-Prequal	31	121	-90
Stage 4	Prequal-RFP_{issue}	89	365	-276
Stage 5	RFP_{issue}-RFP_{return}	57	56	1
Stage 6	RFP_{return} - PrefBidder	22	121	-99
Stage 7	PrefBidder-Fin. Close	86	41	45

Table 5.2: Planned and Actual Durations and Slippage per Stage - Maropeng and Sterkfontein PPP Project

The procurement process took 24 months from the time of RFQ submission to contractual close. According to Respondent 1, there "…was no Financial Close per se, because Province was to pay the capital cost of constructing the facility whereas the private party, MAL, was to pay for the furniture, fittings and fixtures. So there were no big loans undertaken by MAL" (Respondent 1, personal communication email, January 31, 2014). Another important point raised by Respondent 1 was highlighting the fact that "…the deal was signed in 2004 before the PPP Manual in 2004 and also before Treasury Regulation 16 issued in its current form" (Respondent 1, personal communication email, January 31, 2014). At the time of the procurement process the Treasury's Regulation 16 was in its very crude form.

The contract was awarded for a 10 year concession contract. The winning bidder was appointed to design, build and operate the facilities. In return, the concessionaire was to pay a 7.5% concession fee which was to be paid out to the COH WHS Trust, an SPV "established to receive and disburse funds for ongoing scientific research and community projects" (UNESCO, 2011: 11).

5.1.4 Time Performance of the Procurement Process

Stage	Stage Description	Time Performance (%)
1	RFQ_{issue} - Fin Close	133%
2	RFQ_{issue}-RFQ_{return}	0%
3	RFQ_{return}-Prequal	290%
4	Prequal - RFP_{issue}	310%
5	RFP_{issue} - RFP_{return}	-2%
6	RFP_{return} - Pref Bidder	450%
7	Pref Bidder - Fin Close	-52%

Table 5.3: Time Variance (%) per Stage– Maropeng and Sterkfontein PPP Project

5.1.4.1 Discussion of Results

The results of the times performance analysis can be summarised as follows:

- The highest time variance was experienced at the RFP Return to Announcement of Preferred Bidder stage at 450%. The high time variance indicates a protracted adjudication period.
- The second highest time variance was the shortlist of Prequalified Bidders to RFP Issue stage at 310%,
- The time variance for the RFQ Return to Shortlist of Prequalified Bidders stage was 290%.
- Time variance at RFP Issue to RFP Return was negligible, and
- Time variance for RFQ Issue and RFQ Return stage was nil.

5.1.5 Semi-Structured Interviews to Determine the Factors that Influenced the Time Performance of the Procurement Process

This section of the case study discusses the factors that influenced the reported time performance of the PPP procurement process of the Maropeng and Sterkfontein Caves PPP project. The factors that influenced the time performance of the procurement process were determined from the semi-structured interview process.

The interview with Respondent 1 had a duration of approximately 47 minutes and 6 seconds. The interview was held on the 20th November 2013. The transcription of the interview with Respondent 1 is included under Annexure 2.

The interview with Respondent 2 had a duration of approximately 77 min. The interview was held on the 27th June 2013. The transcription of the interview with Respondent 2 is included under Annexure 3.

5.1.5.1 Profile of Respondents

There were two respondents interviewed for the Maropeng and Sterkfontein PPP case study.

Respondent 1

Respondent 1 represented a big multi-national auditing firm appointed as Transaction Advisors (TA) by DACEL. Respondent 1's career spans working in both the public and private sector procurement space in the United States.

Respondent 2

Respondent 2 was employed as the DACEL's community liaison. Respondent 2 had been working with an NGO doing land rights related work before joining the project.

5.1.5.2 How did political will influence the time performance of the procurement process?

Respondent 2 described the political will on the project as "fantastic" and recalled how the strong political will came from the then president of South Africa, Thabo Mbeki, "…but when your president can stand up with confidence and talk about what you're doing, what else can you ask for?" (Respondent 2, personal interview, June 27, 2013). The strong political will also came from the various ministers and the premiers, down to lower level government officials. Strong political will was signified by events to mark milestones in the project. The strong political will that was experienced on the project kept the momentum of the project going, and kept "everyone's eye on the ball" (Respondent 2, personal interview, June 27, 2013). The political will also gave the project team a great sense of achievement (Respondent 2, personal interview, June 27, 2013). Respondent 1 also spoke of how important the strong political will was to the project, "…the will is very important" (Respondent 1, personal interview, November 20, 2013). Respondent 1 recalled how the Vice Chancellor from the University of Witwatersrand used to always attend the project meetings. Respondent 1 (2013) concluded by stating, "So we never had a problem with political will" (Respondent 1, personal interview, November 20, 2013).

Strong political will was demonstrated by DACEL in committing a full-time dedicated team to the procurement process. It was not merely a matter of going through the adjudication as a part-time job. This was reaffirmed by Respondent 2, "…and when you actually make it your full-time job. I think a lot of people are busy, not just in government, and you're kind of like we'll do a morning here and a day there. You cannot do that" (Respondent 2, personal interview, June 27, 2013).

Strong political was also demonstrated by the DACEL in the form of the department's financial commitment to the capital expenditure requirements of the project. DACEL contributed the amount required to build the facility, while the concessionaire only had to pay for the fitting of the facility (Respondent 1, personal interview, November 20, 2013). This substantially lowered the financial risk exposure of the concessionaire. Respondent 1 felt strongly that the financial commitment by the State

paved the way for less “acrimonious” negotiations between the contracting parties before signature of concession agreement, i.e. contractual close (Respondent 1, personal interview, November 20, 2013). It can therefore be concluded that strong political will in terms of financial commitment by the State to the project led to a reduced negotiation process, and therefore had a positive influence on the time performance of the procurement process.

There were no comments related to a lack of political will from both interviewees. It was therefore concluded that a lack of political will did not influence the time performance of the procurement process.

5.1.5.3 How did the Communication Structures within the Client Department influence the time performance of the procurement process?

There were no comments from both respondents regarding the influence of the communication structure within the Client department on the time performance of the procurement process. This led to the conclusion that the communication structure within the Client department had negligible influence on the time performance of the procurement process.

5.1.5.4 How did Turnover of Staff influence the time performance of the procurement process?

Both respondents did not mention a high turnover of staff as a factor that influenced the time performance of the procurement process of the Maropeng and Sterkfontein PPP project. Respondent 2 advised that turnover of staff happened post the completion of the procurement process. It can therefore be concluded that the time performance of the procurement process was not influenced by a high turnover of staff.

During the interview, Respondent 1’s comments on high turnover of staff were more general statements based on experience working in the South African public sector (Respondent 1, personal interview, November 20, 2013). Respondent 1 advised that there is generally a high turnover of staff in the public sector, including senior public officials. Respondent 1 explained that the problem with the high turnover of staff in the public sector is that the intellectual property is lost when a senior official who has been working on a project leaves their position. Respondent 1 advised that the experience of working with government departments is a far cry from joyous, “You can hardly maintain any sort of communication with any official in any of the departments for more than four or five months and they’re gone. It’s very distressing” (Respondent 1, personal interview, November 20, 2013). Respondent 1 made an example of the infamous Correctional Services PPP project which was adversely affected by a change of “four or five heads” before it got pulled (Respondent 1, personal interview, November 20, 2013). This project ended up undermining the image of the National Treasury in terms of their perceived commitment to PPP projects.

5.1.5.5 Did skills and capacity influence the time performance of the PPP procurement process?

Both respondents advised that there was a high level of skills and capacity available during the procurement process. Respondent 1 advised that the team members were very capable and "up to the task" (Respondent 1, personal interview, November 20, 2013). The team from University of Witwatersrand (Wits) played a crucial role in strengthening the skills and capacity of DACEL. The adjudication itself involved a lot of input from the Wits scientists to ensure that the winning bid was able to capture the palaeo-archeological requirements of the PPP. Respondent 1 described how valuable the input from the University of Witwatersrand scientists was during the procurement process, "It's, it becomes a big team effort where the expertise from Wits, we access whatever expertise we could find that was appropriate for the focus of that" (Respondent 1, personal interview, November 20, 2013). Respondent 2 also attested to the valuable input that was provided by the university during the procurement process (Respondent 2, personal interview, June 27, 2013).

DACEL committed a lot to the human capital to the project during the procurement process, especially in instances whereby expertise was found lacking. Respondent 2 stated how "the head of all the museums in London" at the time was brought in to assist in evaluating the bids. Tourism PPP's are unique in a sense that they involve a lot more than bricks and mortar (Respondent 2, personal interview, June 27, 2013). Unlike the typical office accommodation type PPP's, Tourism PPP's also need to take cognisance of the visitor experience of those who will be utilising the facility. Respondent 2 recalled that a team from both Treasury and Environmental Affairs that had previously had experience working with Tourism PPP projects were roped in to assist with the procurement process. Their input was invaluable, "That process was interesting, it's allowed us to think about what we were doing, in a room full of people who had no stake in this project. That's really clever, no agenda, so that was quite interesting" (Respondent 2, personal interview, June 27, 2013). Respondent 2 also stated that there was also an external expert from the hospitality industry who was brought in during the procurement process to ensure that the visitor experience of the winning bid was up to par with global standards.

In general, the Maropeng and Sterkfontein PPP project was administered by a very capable team all round, which included the Client (i.e. DACEL), the Client's advisors, the scientists from the University of Witwatersrand, and the National Treasury's PPP Unit. Both the interviewees did not have any negative comments relating to the skills and capacity on the project during the procurement process. It can therefore be concluded that having had the requisite skills and capacity influenced the time performance of the procurement process in a positive manner.

5.1.5.6 Did standardization influence the time performance of the procurement process?

According to Respondent 1, at the time of procurement of Maropeng and Sterkfontein PPP, the Regulation 16 was still in its "crude" form. Nevertheless, Respondent 1 recalls how knowledgeable the appointed legal advisor was in terms of drafting the procurement documentation, including the PPP Agreement. As a result, Respondent 1 advised that it did not vary a lot from the more standard contracts being drafted currently, "So the fact that one of the very good ones put together this contract meant that it didn't vary from it a lot" (Respondent 1, personal interview, November 20, 2013). In fact, Respondent 1 gave credit for the lack of dispute during negotiations due to the high quality of contract, "We've never had a

magnitude of any magnitude at all. I think a lot of it goes back to the contracts, very clear" (Respondent 1, personal interview, November 20, 2013). The clarity of contract ensured lack of dispute and a more expeditious negotiation process between the client and preferred bidder. The fact that the contract at the time did not vary a lot from the current standard contract had a positive influence on the time performance of the procurement process.

In a later email discussion, Respondent 1 mentioned that he did not believe that not having the Regulation 16 in place played a major role in influencing the time performance of the procurement process. Respondent 1 credited this to Treasury's strict regimen when it came to procurement approval processes, "National Treasury still had to provide its approval, and we were following, from a process basis, the procurement steps in use by the United Kingdom" (Respondent 1, personal communication email, January 31, 2014). Respondent 1 did however acknowledge that the current Regulation 16 does assist in fast tracking the procurement process, "…we think the presence of the PPP Manual actually helps move things along" (Respondent 1, personal communication email, January 31, 2014).

5.1.5.7 How did a Project Champion influence the time performance of the procurement process?

Respondent 1 spoke very highly of the Project Officer from the Department, "Trish did it all. She was a tiger" (Respondent 1, personal interview, Novembers 20, 2013). According to Respondent 1, the Project Officer knew her job very well, and her enthusiasm and commitment was key to driving the procurement process, "she was the driver of it from day one" (Respondent 1, personal interview, Novembers 20, 2013). As the Project Officer, Trish also had the full backing of the head of department. The support from the head of department demonstrates the confidence senior management had in her ability to drive the project. Respondent 2 spoke of how the head of department was also an integral part of the procurement process, and explained how she was very hands-on, "…she chaired all of this stuff. She chaired the steering committees and what have you" (Respondent 2, personal interview, June 27, 2013). Not only was the head of department hands-on, but the CFO also sat in on most of the meetings (Respondent 2, personal interview, June 27, 2013). Having senior management play such a hands on role on the project inspired the project personnel working below them. Having project champions within DACEL was certainly one of the factors that had a positive influence on the time performance of the procurement process.

5.1.5.8 How did the Client Structure influence the time performance of the procurement process?

Both respondents did not provide any input in relation to how the client structure influenced the time performance of the procurement process of the Maropeng and Sterkfontein PPP project. The fact that there was no input inferred that this factor had a negligible influence on the time performance of the procurement process.

5.1.5.9 How did the Type of Client influence the time performance of the procurement process?

Both respondents did not provide any input in relation to how the client type (i.e. sophisticated or unsophisticated) influenced the time performance of the procurement process of the Maropeng and Sterkfontein PPP project. The fact that there was no input inferred that this factor had a negligible influence on the time performance of the procurement process.

5.1.5.10 How did Land Enablement matters influence the time performance of the procurement process?

Respondent 1 advised that there were no land enablement factors that influenced the time performance of the procurement process, "Going down this list there were no town or land matters that I can recall" (Respondent 1, personal interview, November 20, 2013). Respondent 2 did not provide any feedback regarding any land enablement matters that may have influenced the time performance of the procurement process. Given the above, it was concluded that the influence of the land enablement factors on the time performance of the procurement process was negligible.

5.1.5.11 How did External Factors influence the time performance of the procurement process?

Both respondents did not provide any input in relation to how external factors may have influenced the time performance of the procurement process of the Maropeng and Sterkfontein PPP project. The fact that there was no input on the external factors inferred that these did not influence the time performance of the procurement process.

5.1.5.12 Conclusion

Strong political will was one of the dominant factors that was mentioned by the respondents that influenced the time performance of the procurement process. More specifically, Respondent 2 mentioned how the project enjoyed strong political will from the top government officials, including the then president of the country, Thabo Mbeki. In Respondent 1's own words, "…we never had a problem with political will" (Respondent 1, personal interview, Novembers 20, 2013). In fact, strong political will was shown in the State's substantial pledge to the capital expenditure towards the project. In a subsequent email correspondence, Respondent 1 mentioned how the negotiation period was shortened due to the government's pledge to the capital expenditure of the project, "I definitely feel that the negotiating period was shortened because the consortium wasn't being required to secure financing" (Respondent 1, personal communication email, January 31, 2013). There was actually no mention at all by the respondents about a lack of political will on the project. The respondents also highlighted the high level of skills and capacity of the project team to be one of the factors that positively influenced the time performance of the procurement process. Respondent 1 credited the legal advisor for transaction as being very knowledgeable in drafting the procurement documentation and PPP Agreement, especially at a time when the Regulation 16 documents was in its very crude form. Respondent 2 mentioned how various specialists were brought in during the adjudication process to assist the team where they fell short in

expertise. Both respondents mentioned how having the University of Witwatersrand as a strategic partner to the PPP project was a great advantage, especially when it came to the review and signing off of sections in the bidder submissions related to hominid requirements of the project. Respondent 1 gave praise to the Project Officer from the DECAL for being a strong project champion and ensuring delivery by the team during the procurement process.

Based on the interviewees responses or lack thereof, there were also factors that had negligible influence on the time performance of the procurement process. The factors that did not feature in the interviews were communication structure within DECAL, turnover of staff, standardisation of procurement documentation, client structure, client type, land enablement matters and external factors.

5.2 DEPARTMENT OF STATISTICS SA NEW HEAD OFFICE ACCOMODATION PPP PROJECT

5.2.1 Introduction

In 2012 the Department of Statistics South Africa (DSSA) embarked on a process to procure new head office accommodation via a PPP procurement route. The new offices were required to improve the department's service delivery efficiency and improve its image as the "leading partner in quality statistics" (Department of Statistics South Africa (DSSA), 2013: 16). One of the main requirements of the mandate requires that Statistics South Africa remains a leader in producing quality statistics for South Africa. The new head offices were therefore envisaged as a means to achieving this mandate.

5.2.2 Project Description

The RFQ and the RFP documents were used to determine the technical aspects of the project, including the project's output specification or scope, and site description.

5.2.2.1 Project Scope

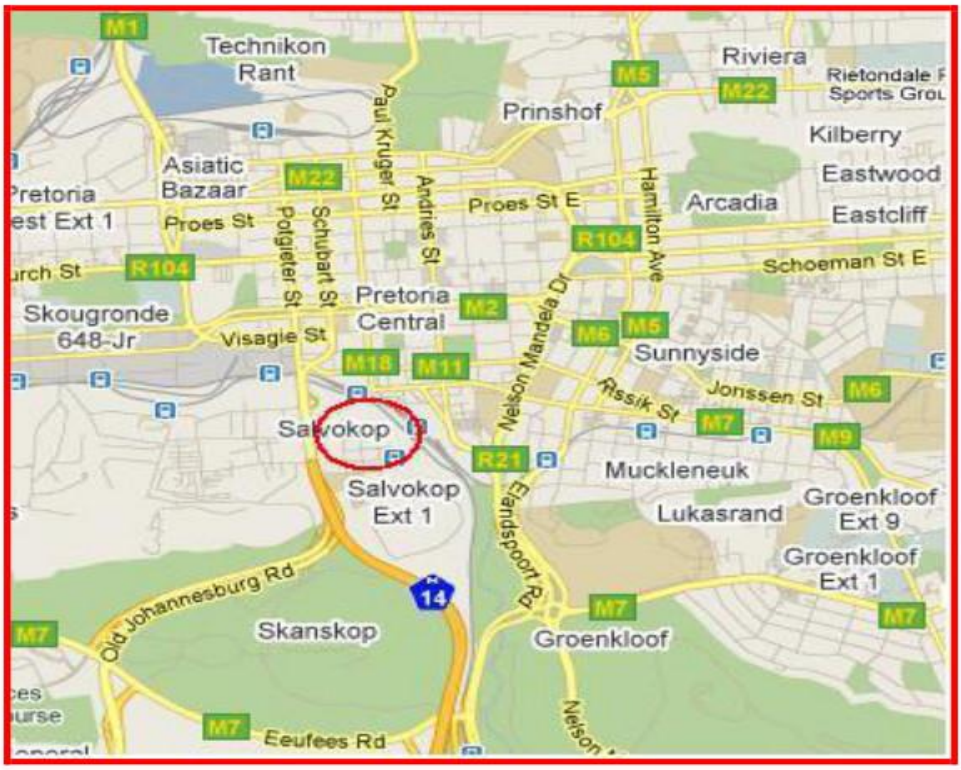
The project scope for DSSA's new head office accommodation was defined in the Output Specification Section A of the RFP documentation. The scope of the PPP project entailed "the procurement of suitable and sustainable accommodation facilities for Statistics South Africa…" (DSSA, 2013: 16). The total space required from DSSA was 75 233 m^2 and included lettable office space, functional space, common area and parking (DSSA, 2013: 18).

The winning consortium was required to design, finance, construct, manage and provide complementary services relating to a facility for prime office accommodation and in accordance with the terms and conditions of the PPP Agreement. In summary, the PPP will deliver the actual physical infrastructure as determined in the output specification, both 'hard' and 'soft' facilities management services, and specialised services that are unique to Statistics South Africa (DSSA, 2013: 17).

5.2.2.2 Site Description

The project site is described in the RFP Output Specifications (DSSA, 2013: 17). The project site is on a portion of land within Salvokop site, Portion 406 of the farm Pretoria Town and Townlands No351-JR, Gauteng Province. More specifically, the Salvokop area is situated on the south of the Pretoria CBD between Potgieter Street and the Pretoria Station. The Salvokop site spans a total of 79 883 (ha) and is zoned for "Railway Use". 9.5 ha has been allocated for the Statistics South Africa new head office

accommodation. There are existing buildings on the site, which comprise of historical buildings that need to be protected during the construction of the new office accommodation.



A part of the Remainder of Portion 406 of the farm Pretoria Town and Townlands No. 351-JR, Gauteng Province, in extent 79,8334ha

Figure 5.5: Map showing the DSSA project site on the portion of land within Salvokop site

Source: DSSA, 2013: 54

5.2.3 Organogram of the Preferred Bidder

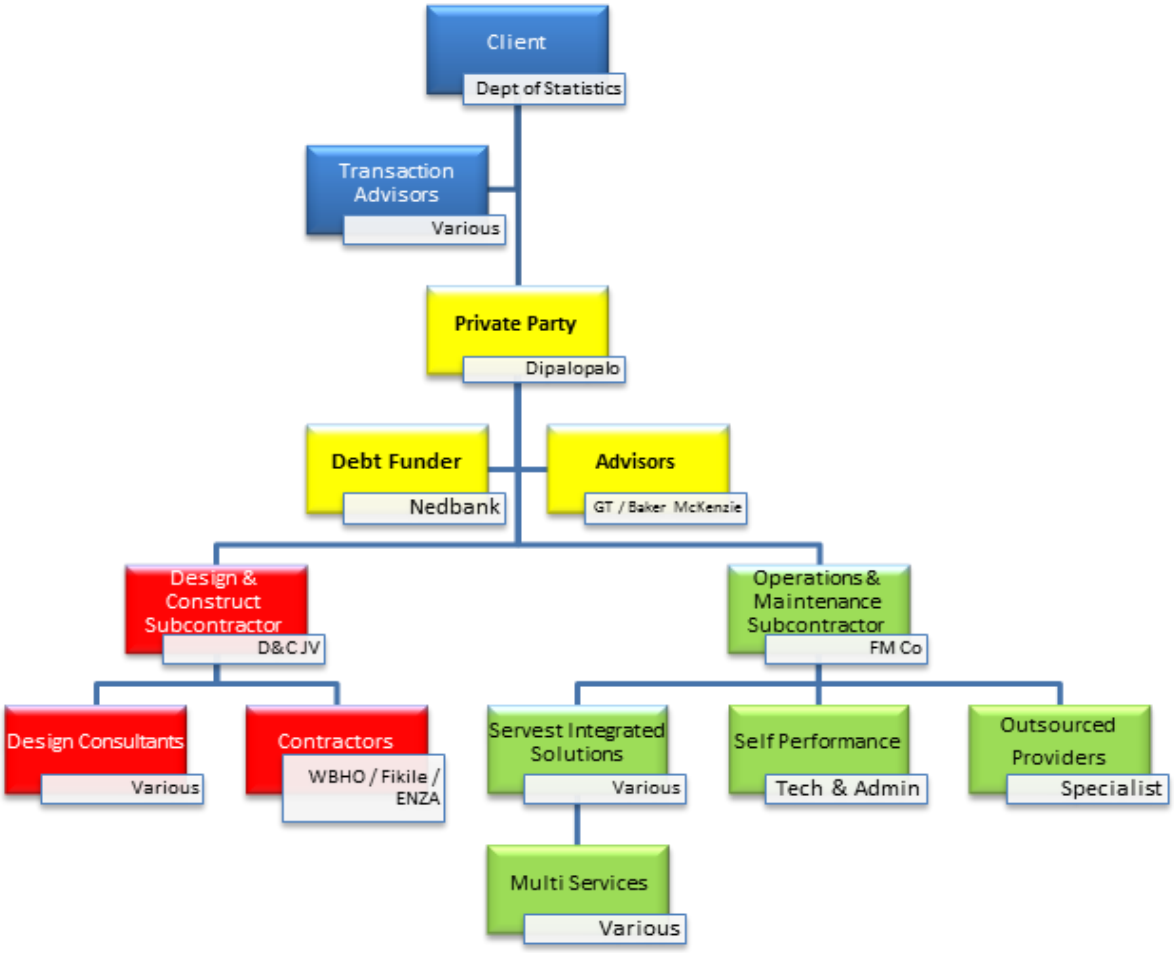


Figure 5.6: Organogram of Preferred Bidder on the DSSA PPP Project

Source: Image courtesy of Respondent 3, 2013

5.2.4 PPP Procurement Process Timelines

The planned procurement timelines for the Department of Statistics South Africa New Head Office Accommodation PPP project were retrieved from the RFP document (DSSA, 2013a: 32), while the actual procurement timelines were retrieved from Respondent 3 via email correspondence subsequent to the semi-structured interview. The tables below show the timelines and durations of the PPP procurement process:

Procurement Milestone	Planned Date	Actual Date
Issue RFQ document	30-Apr-12	30-Apr-12
Return Date for RFQ	30-Jun-12	30-Jun-12
Announcement of prequalified bidders	17-Aug-12	17-Aug-12
Issue RFP document	12-Nov-12	30-Nov-12
Return Date for RFP	28-Mar-13	31-Mar-13
Announcement of Preferred Bidder	01-Jul-13	30-Jun-13
TA III and Financial Close	30-Sep-13	18-Mar-14

Table 5.4: Planned and Actual Procurement Milestones - DSSA PPP Project

Procurement Stage	Stage Description	Planned Duration	Actual Duration	Slippage
Stage 1	RFQ_{issue} - Fin. Close	518	687	-169
Stage 2	RFQ_{issue}-RFQ_{return}	61	61	0
Stage 3	RFQ_{return}-Prequal	48	48	0
Stage 4	Prequal-RFP_{issue}	87	105	-18
Stage 5	RFP_{issue}-RFP_{return}	136	121	15
Stage 6	RFP_{return} - PrefBidder	95	91	4
Stage 7	PrefBidder-Fin. Close	91	261	-170

Table 5.5: Planned and Actual Durations and Slippage per Stage - DSSA PPP Project

5.2.5 Time Performance of the PPP Procurement Process

The results of the time variance calculation can be summarised as follows:

Stage	Stage Description	Time Performance (%)
1	RFQ_{issue} - Fin Close	33%
2	RFQ_{issue}-RFQ_{return}	0%
3	RFQ_{return}-Prequal	0%
4	Prequal - RFP_{issue}	21%
5	RFP_{issue} - RFP_{return}	-11%
6	RFP_{return} - Pref Bidder	-4%
7	Pref Bidder - Fin Close	187%

Table 5.6: Time Variance (%) per Stage - DSSA PPP Project

5.2.5.1 Discussion of Results

The results of the time variance comparison can be summarised as follows:

- The overall procurement process was delayed by 33%.
- The longest delay was experienced during Announcement of Preferred Bidder and Financial Close stage, with a time variance of 187%. This indicates a protracted negotiation period between the Client and Preferred Bidder.
- The second longest delay happened between Announcement of Prequalified Bidders and RFP Issue dates at 21%.
- There was a negative time variance for the RFP Issue to RFP Return dates, and RFP Return and Announcement of Preferred Bidder stages, at -11% and -4% respectively, meaning that the achievement of these milestones were ahead of expectations.
- Both the planned and actual milestone dates for the RFQ Issue and RFQ Return stage, and RFQ Return and Announcement of Prequalified Bidders stage were the same, therefore no time variance.
- The results show that the highest time variance was experienced between Announcement of Preferred Bidder and Financial Close, at 187%.

It is important to note that the actual Financial Close date had not actually been achieved at the time of reporting but was based on the envisaged dates as agreed between the Preferred Bidder and the Department of Statistics South Africa (DSSA).

5.2.6 Semi-Structured Interviews to determine the Factors that influenced the time performance of the procurement process

This section of the case study discusses the factors that influenced the reported time performance of the PPP procurement process of the Department of Statistics South Africa New Head Office Accommodation PPP Project. Semi-structure interviews were used as a basis to determine to the main factors that influenced the time performance of the procurement process. Only one respondent was available and willing to participate in the interview process. The other potential respondents who were approached did not avail themselves due to the 'sensitivies' around confidentiality given that the procurement process had not yet reached Financial Close. It is however important to note that Respondent 3 did not, at any point, disclose any information that may have compromised the PPP procurement process of the project.

The interview with Respondent 3 had a duration of approximately 76 minutes and 37 seconds. The interview was held on the 10th September 2013. The transcription of the interview with Respondent 3 is included under Annexure 4.

5.2.6.1 Profile of Interview Respondents

There was one respondent, Respondent 3, who participated in the semi-structured interview process for this case study.

Respondent 3

Respondent 3 was a director of a company which was part of the Preferred Bidder consortium. The company was both shareholder and responsible for the facilities management of the facility. Respondent 3 explained that their company's responsibility in the consortium "…was not only to respond to the bid requirements but to sit within the design process…", therefore ensuring that the design solutions that were being produced by the design team "…were maintainable and were optimized from a cost perspective" for the full life cycle of the PPP project (Respondent 3, personal interview, September 10, 2013). Respondent 3 has had extensive experience working on PPP's from the private sector perspective, including prominent projects such as Queen Mmamohato Hospital in Lesotho, King Edward Hospital in Durban, South Africa, and the SADC building in Botswana. Respondent 3's perspective on the factors that influenced the time performance of the procurement process on DSSA PPP project were therefore invaluable.

5.2.6.2 Did political will influence the time performance of the procurement process?

Respondent 3 advised that strong political will was a key factor that influenced time performance of the procurement process of the Department of Statistics South Africa New Head Office Accommodation PPP Project. Respondent 3 spoke of how the Project Officer had support from the top structures within Department of Statistics South Africa (DSSA), "In this case she seems to have the support of the SG, the Statistician general" (Respondent 3, personal interview, September 10, 2013). Respondent 3 (Respondent 3, personal interview, September 10, 2013) explained that since there is no minister in the DSSA, the SG can be seen to hold a similar position. Another key factor that showed strong political was high level of human resources that the State had committed to the project in the form of a full-time representative from National Treasury. Respondent 3 (Respondent 3, personal interview, September 10, 2013) stated that "this is another key issue on its success" (Respondent 3, personal interview, September 10, 2013).

The project has had its fair share of problems during the procurement process. Respondent 3 (Respondent 3, personal interview, September 10, 2013) advised of the land enablement issues that plagued the project during the procurement stage. The land enablement issues were related to consent use of the land, Heritage and EIA approvals that were outstanding during the procurement process (Respondent 3, personal interview, September 10, 2013; Respondent 3, personal communication, January 28, 2014). Respondent 3 explained that Department of Public Works (DPW) had for a long time failed to resolve these land enablement issues. This showed a lack of political will on the part of DPW, which is the official landlord of the state, "For the last two years looking backwards while they went through the whole feasibility stage and procurement stage it would appear that Public Works has done nothing" (Respondent

3, personal interview, September 10, 2013). Given the severity of the land enablement issues in terms of the potential to delay the finalisation of the procurement process, Respondent 3 noted that "…National Treasury and Public Works has had a huge wakeup call and they have set up a special committee within Tshwane and National Public Works to try and fast track the project" (Respondent 3, personal interview, September 10, 2013). This initiative showed the strong level of political will that the State had towards the project. Respondent 3 saw the step towards the setting up of a special committee internally within the DPW to address the land enablement issues as exemplary for other PPP projects experiencing similar problems. Respondent 3 was optimistic that this would be an ongoing trend on other PPP projects, "Stats will be the first project, but I suspect there are a number of other projects lined up that will go through this committee, not to short circuit, but to finalise" (Respondent 3, personal interview, September 10, 2013). The fact that DSSA is the first PPP project to have utilised a special committee within DPW shows the high level of political support the project had.

One of the key factors that drove the political will on the project was the upcoming census, "…this project has been driven by the next census, we've got to get it operational 6 months before the next census" (Respondent 3, personal interview, September 10, 2013). It was therefore not surprising that the Deputy Director General (DDG) from DSSA was putting the pressure on the team to finalise the procurement process "big time" (Respondent 3, personal interview, September 10, 2013).

Given the above, it was concluded that strong political will from the State had been one of the key factors that had a positive influence on the time performance of the procurement process on DSSA PPP project.

5.2.6.3 How did the Communication Structures within the Client Department influence the time performance of the procurement?

Respondent 3 did not provide any feedback on whether the communication structures within DSSA, or lack of in terms of government bureaucracy, influenced the time performance of the procurement process. It can however be inferred from the strong political will that there were very open lines of communication between the Project Officer, who was responsibility for running the procurement process on behalf of DSSA, and the high ranking political officials during the procurement process.

5.2.6.4 How did Turnover of Staff influence the time performance of the procurement process?

Respondent 3 did not provide any feedback on the influence of the level of turnover of staff on the time performance of the PPP procurement process on the DSSA PPP project. Based on the lack of feedback, we can deduced that the influence of the staff turnover on the time performance of the procurement process on this particular project was negligible.

Respondent 3 did however make a general comment of a high turnover of staff in the PPP Unit at National Treasury, "In my view the PPP Unit historically has had a very high turnover in staff…" (Respondent 3, personal interview, September 10, 2013). Respondent 3 made an example of King Edward hospital were

three officials left the PPP Unit during the procurement process. “It is very disruptive” (Respondent 3, personal interview, September 10, 2013). Respondent 3 explained that the disruption comes about when an official leaves the PPP Unit because it is very difficult to source their replacement. The problem then comes about when another official is appointed who has no background on the issues affecting the project, and is therefore ineffective in driving the procurement documentation for approval at Treasury, “You work so hard, your project is at TA 3, the PPP guy hasn’t been involved, his job is to take the TA 3 submission and walk it through the various departments to get approval, now if he does not understand what’s gone into it, every query they raise he’s not going to be able to answer, and it gets back to advisors” (Respondent 3, personal interview, September 10, 2013). This can cause delays and therefore have a negative influence on the time performance of the PPP procurement process.

5.2.6.5 How did the level of Skills and Capacity influence the time performance of the PPP procurement process?

Respondent 3 commended both the DSSA and Treasury’s PPP Unit for their depth of expertise. During the interview, Respondent 3 described the representative from the PPP Unit as experienced and knowledgeable, “Strover Mochanetsi has been around the PPP Unit for a long time, so I don’t know if he’s a senior person there but he understand the process…” (Respondent 3, personal interview, September 10, 2013). Respondent 3 advised that Strover’s involvement has been key in addressing government related queries required to get the requisite approvals from Treasury, “…so he’s been sort of getting the government side…” (Respondent 3, personal interview, September 10, 2013). Respondent 3 had no reservations on how key Strover’s input had been key in driving the procurement process, “He’s been very proactive in helping the project to where it is now” (Respondent 3, personal interview, September 10, 2013).

Respondent 3 also commended the DSSA for their depth in expertise, “So yes, I would say it’s a skilled unit” (Respondent 3, personal interview, September 10, 2013). In the interview, DSSA was described as a department that is “…very conscious of their procurement processes…” and stated that “their whole supply chain management was very proactive” (Respondent 3, personal interview, September 10, 2013). Their pro-activeness was key to driving the procurement process” (Respondent 3, personal interview, September 10, 2013). To conclude, credit was given to the preferred bidder consortium members. Respondent 3 (Respondent 3, personal interview, September 10, 2013) noted that the consortium team members as a collective held a wealth of experience related to PPP projects. The influence of the experienced private party on the time performance of the procurement process was however unclear.

A lack of skills and capacity from either the public or private sector was not mentioned by the interviewee as a factor that influenced the time performance of the procurement process. It was therefore deduced that a lack of skills and capacity did not influence the time performance of the procurement process on this particular project.

5.2.6.6 How did the level of Standardisation of Procurement Documentation influence the time performance of the procurement process?

The administrators on DSSA did something very innovative in terms of their approach to procurement process. Respondent 3 advised that after the RFQ stage, the DSSA did an initial round whereby a draft PPP Agreement was circulated to the prequalified bidders for comment. The DSSA thereafter did a review of the comments from bidders, whereby some comments were accepted and incorporated into PPP Agreement, whilst others that were not acceptable were rejected by the client. "Then they issued the revised PPP and said take it or leave it" (Respondent 3, personal interview, September 10, 2013). After this round a final version of PPP Agreement was issued to the prequalified bidders, and there was no more opportunity for bidders to comment. This process was effective in that it radically cut the protracted time for negotiations typically experienced between Announcement of Preferred Bidder to Financial Close, "…6 months of legal negotiations disappeared" (Respondent 3, personal interview, September 10, 2013). Respondent 3 advised that the trick for DSSA was to have the round of comments "when you're most competitive" because every bidder is wanting to get the deal, meaning that the bidders will be "more inclined to accept the position" (Respondent 3, personal interview, September 10, 2013). Having provision in the procurement process for a round of comments on the draft PPP Agreement was effective in improving the time performance of the procurement process as it reduced the time for negotiations with the preferred bidder, which is traditionally the stage at which the procurement process has the most time delays. Respondent 3 highly recommended this strategy, "So I think it's a great way, if I was an advisor I would definitely do that" (Respondent 3, personal interview, September 10, 2013).

5.2.6.7 How did a Project Champion influence the time performance of the procurement process?

Respondent 3 identified the Project Officer, who was the Deputy Director General (DDG) of DSSA, as the project champion of the project (Respondent 3, personal interview, September 10, 2013). The fact that the Project Officer was senior enough to be a DDG of the department gave her access to the head of department and other high ranking political officials within DSSA. The other advantage was that the Project Officer came from within the DSSA ranks, and therefore understood how the department works, and could push DSSA's agenda and mandate with more intent. Respondent 3 described the Project Officer as "incredibly dynamic, driven, powerful person' (Respondent 3, personal interview, September 10, 2013). These were the key traits that have helped the procurement process to progress. In the words of the respondent the Project Officer was one of the key factors to driving the momentum of the procurement process, "And she has the energy that has got us to where we are today" (Respondent 3, personal interview, September 10, 2013). The Project Officer was not only driven, but also disciplined in her approach, "I don't want to say overpowering, but she is so driven and makes every decision and delivers on her promises" (Respondent 3, personal interview, September 10, 2013). The discipline transcended into the way the Project Officer ran the project, "Mondays are technical negotiations, Tuesdays are finance, Wednesdays are legal, she expected her team there, she expected our whole team there…and if

you missed it" (Respondent 3, personal interview, September 10, 2013). The Project Officer ensured that the team remained accountable to meeting deadlines.

Respondent 3 definitely saw great value in having a strong project champion to drive the procurement process of a PPP project. Respondent 3 also made an example of a strong project champion based on previous experience on another PPP project conducted by Lesotho government, "I don't know if you ever met Katherine, she is an American lady, she was also very driven and focused on closing the project" (Respondent 3, personal interview, September 10, 2013). There is certainly a lot of value in having a huge personality as a project champion to drive the procurement process. In the case of DSSA, the Project Officer was the project champion, and highlighted as the individual who influenced the time performance of the procurement process in a positive manner.

5.2.6.8 How did the Client Structure influence the time performance of the procurement process?

Respondent 3 did not make mention of the influence of the client structure, either pertaining to a single or multiple client body setup, on the time performance of the procurement process on DSSA PPP project. Respondent 3 did however feel the urge to mention how the client structure had influenced the time performance of the procurement process based on previous experience on other PPP projects. Respondent 3 advised that a multiple client body structure has proved to be problematic in the past on many PPP projects. Respondent 3 made an example of King Edward hospital in Durban, Kwazulu Natal, whereby the interviewee was involved as a Transaction Advisor (TA). The client body was made up of National and Provincial Health, The University of Kwazulu Natal and the Department of Health. Respondent 3 described this client structure as a means to a disaster, "The same project, no one leader, there's no decision ever made, no project three years down the line, and they still don't have one comments on the needs analysis" (Respondent 3, personal interview, September 10, 2013). An example was made of the highly anticipated State programme for the construction and refurbishment of various hospitals around South Africa. The client body driving the programme consists of the National Department of Health, Provincial Departments of Health, and the Development Bank of Southern Africa (DBSA). The problem is that "…you've got this very complex client bodies, where there is no decision making in that" (Respondent 3, personal interview, September 10, 2013). One of the more prominent hospitals on the programme, Baragwanath Hospital, has been on the radar in terms of going to market for the past three to four years. The delay was blamed due to the lack of decision prompted by the complex multi-client bodies (Respondent 3, personal interview, September 10, 2013).

5.2.6.9 How did the Type of Client influence the time performance of the procurement process?

Respondent 3 did not make specific reference to the influence of the client type, either sophisticated or unsophisticated, on the time performance of the procurement process on the DSSA PPP project. It can however be deduced from Respondent 3's responses during the interview that DSSA had the necessary expertise to run the procurement process efficiently. The accolades Respondent 3 gave to the Project

Officer were testimony that the client was fairly sophisticated. Fairly sophisticated in this sense means that the client was not as sophisticated as a seasoned property developer, but knew enough to make well informed decisions, and take cues from the advisory team.

Respondent 3 made mention of instances on other PPP projects when the type of client had influenced the time performance of the procurement process. Respondent 3 made an example of previous experience representing the Lesotho government in the construction of a national hospital that was procured via a PPP process. “There we had a naïve client if I can call it that, that didn’t really participate actively” (Respondent 3, personal interview, September 10, 2013). Respondent 3 described the project as “a success story” given the quick delivery of the procurement process and project as a whole (Respondent 3, personal interview, September 10, 2013). Respondent 3 explained that part of the reason for the expeditious procurement process was having a less sophisticated client, “It was quick, so there, we had the ministry of Health, taking a lesser role, and placing huge faith in the transaction advisors and getting us there” (Respondent 3, personal interview, September 10, 2013). Respondent 3 made mention of experience working on another PPP project in Botswana, a SADC facility, which also had “a completely naïve client” (Respondent 3, personal interview, September 10, 2013). The speed at which that the procurement was finalised was extraordinarily fast for a PPP project, “very similar, we did that in 9 months” (Respondent 3, personal interview, September 10, 2013). From experience, Respondent 3 advises that the procurement process can go a lot faster if dealing with a more naïve versus a sophisticated client. Respondent 3 reckoned working with unsophisticated clients is a consequence of working in Africa, “Africa in some ways are, is easier, because you can go faster” (Respondent 3, personal interview, September 10, 2013). This revelation does however need to be tested in a lot more detail via further research. Respondent 3’s revelation, as advantageous may seem to have a naïve client to fast track a procurement, did however leave the interviewee questioning whether the “naïve client” really ended up getting the end-product they bargained for when they pursued the PPP project.

5.2.6.10 How did any Land Enablement matters influence the time performance of the procurement process?

The DSSA project had its fair share of land enablement issues. Respondent 3 advised that the site identified for the project was meddled in land enablement challenges. The two main issues were a pending land consolidation and the moving off a servitude (Respondent 3, personal interview, September 10, 2013). The road servitude was only picked up during a late due diligence that was done by the DSSA. Dominy advised that the matter was being treated as urgent, and had been sent to the High Court to expedite. There was also the issues of getting consent use of the land, and outstanding Heritage and EIA approvals (Respondent 3, personal communication, January 28, 2014). The land enablement issues were urgent because they were affecting the resolution of Financial Close of the procurement process, “So this is a force that will determine Financial Close” (Respondent 3, personal interview, September 10, 2013). At the time of reporting the land enablement issues had still not been resolved.

The land enablement issues on DSSA PPP project show how important it is to identify these during the Feasibility stage, and put together a strategy to resolve them effectively. If land enablement issues are

not resolved in time then they will cause delays and hinder the conclusion of the procurement process, i.e. land enablement issues will have an adverse effect on the time performance of the PPP procurement process. The problem arises because no financial institution will commit funds to a PPP project if the land enablement issues have not been resolved (Respondent 3, personal interview, September 10, 2013). Respondent 3 therefore recommended that the client needs to ensure that any land enablement issues are highlighted at the Inception and Feasibility stages of any PPP project, and not during the formal adjudication process (Respondent 3, personal interview, September 10, 2013).

5.2.6.11 Did any External Factors influence the time performance of the procurement process?

There were external factors that adversely influenced the time performance of the procurement process. External factors in this context refer to those that were out of any of the contracting parties' control. Respondent 3 highlighted the external factor related to funding of the PPP transaction, "Just prior to the bid going in we had to, DBSA pulled out of all BEE funding on accommodation deals which had left us in the position we are now" (Respondent 3, personal interview, September 10, 2013). The withdrawal of DBSA to fund part of the loan left a huge dent in the preferred bidder's ability to take the deal to Financial Close. It seemed that DBSA was not the only lending institution shying away from BBBEE funding on office accommodation PPP deals. Respondent 3 advised that the consortium had gone to "…all the banks, all the IDC's and NEF's and DTI's of this world, we've gone to all those asset management companies…" (Respondent 3, personal interview, September 10, 2013). Respondent 3 blamed the lack of interest on office accommodation PPP projects due to a shift in financiers' appetite towards the huge infrastructure projects that the State had committed large funds to over the next couple of years. Respondent 3 advised that the consequences of this shift is two-fold. On the one hand, the impact has "…been the PPP Unit has been sucked dry, all its resources are based on those projects at the moment" (Respondent 3, personal interview, September 10, 2013). On the other hand, "…from a market perspective, one of the finance houses have had their resources drained, both human resources and cash, in the debt funding, so these projects are now starting to compete to get funding" (Respondent 3, personal interview, September 10, 2013). It's a phenomenon that will possibly persist over the next 5 years at the least, "…where there's too much work, all at once…" (Respondent 3, personal interview, September 10, 2013).

5.2.6.12 Conclusion

The procurement process on DSSA PPP project has progressed relatively well. A number of factors have influenced the time performance of the procurement process on the project. There was strong political will from both the DSSA and the National Treasury's PPP Unit. Both public institutions had fully committed resources on the project that enabled the procurement process to progress. During the interview, Respondent 3 gave a lot of credit to the Project Officer, as the project champion, who was driven and experienced and made sure that the wheels were always turning during the procurement process. Another factor mentioned by Respondent 3 that influenced the time performance of the procurement process in a positive manner was the standardisation of procurement documentation approach that was

adopted by DSSA. This entailed the issuing of the draft PPP Agreement to the prequalified bidders for comment. After comments were considered a final PPP Agreement was prepared and no further comments were considered. Respondent 3 advised that this strategy omitted approximately 6 months off the procurement process timeline which would have typically been dedicated to negotiations between the Client and Preferred bidder.

At the time of reporting, there were too main issues that were hampering financial close. Firstly, there was the external factor related to the BBB-EE debt funding whereby the initial lender, DBSA, had withdrawn their commitment to the project. This was attributed to the lack of appetite by financial institutions to fund office accommodation PPP's and the shift to fund infrastructure type projects. Secondly, the land enablement issues were delaying the procurement process by withholding Fiancial Close. The land enablement issues related to land consolidation and the moving of a road servitude, along with outstanding land consent use, Heritage and EIA approvals which had not been resolved at the time of reporting. A special steering committee within DPW had been set up to expedite the resolution of the land enablement issues.

There were also factors highlighted during the interview which had the least influence on the time performance of the procurement process. These related to the communication structures within DSSA, client structure and turnover of staff.

5.3 DEPARTMENT OF FOREIGN AFFAIRS NEW HEAD OFFICE ACCOMODATION PPP PROJECT

5.3.1 Introduction

The Department of Foreign Affairs (DFA) PPP project entailed the provision of suitable new head office accommodation to be utilised by the DFA. According to the RFQ documentation that was issued to potential bidders, the purpose of the new head office accommodation was to allow the DFA to fulfil its overall mandate which is to "work for the realisation of South Africa's foreign policy objectives" (Department of Foreign Affairs (DFA), 2004: 16). According to the RFQ document, DFA's working environment at the time did not meet its fundamental needs that would allow it to meet its mandate (DFA, 2004: 16). At the time of going out to market, the DFA had their offices in seven buildings throughout the Tshwane area. DFA therefore elected to procure a new consolidated head office for better operational efficiency. This was done via a PPP procurement route. The RFQ document was issued to market on 22nd November 2004.

5.3.2 Project Description

The RFQ and RFP documentation was used to determine the technical aspects of the DFA PPP project. The technical information included the project brief in terms of the type of office accommodation required, as well as the services that were required to operate the facility. The technical information also included the details of the designated site, i.e. site description.

5.3.2.1 Project Site

The project scope entailed the construction of new head office accommodation to accommodate the full staff compliment of the DFA. The accommodation included a training facility, conference facility, a new guest house, and the upgrading of an existing guest house on the Waterkloof site. The total space required made provision for a 25 year growth and was anticipated to be 64 000 m^2, exclusive of the existing guest house (DFA, 2005: 39). The project scope extended beyond the physical infrastructure and included the provision of both "hard" and "soft" services. The full scope of services being procured by the DFA included the planning and design of the facility to meet the output specification, construction of the aforementioned facilities, full provision of furniture, fittings and equipment, and facilities management (DFA, 2005: 38). The facilities management entailed the provision of both "soft" and "hard" services.

The PPP required the Private Party to design, construct, operate, maintain and finance the Project at its own cost and risk.

5.3.2.2 Site Description

The Soutpansberg site was dedicated to the construction of the new head offices for DFA. The Soutpansberg site is 10 hectares in extent. The Soutpansberg site is located within the Waterkloof Site. According to the RFQ document, the Waterkloof site was in the process of being proclaimed to a township (DFA, 2004: 24). DFA did not, however, foresee a risk to developing the site as it was merely exercising its right to develop on government owned land. It was noted that part of the winning concessionaire's obligations would however be to share responsibility with government to ensure completion of the town planning application process (DFA, 2005: 54).

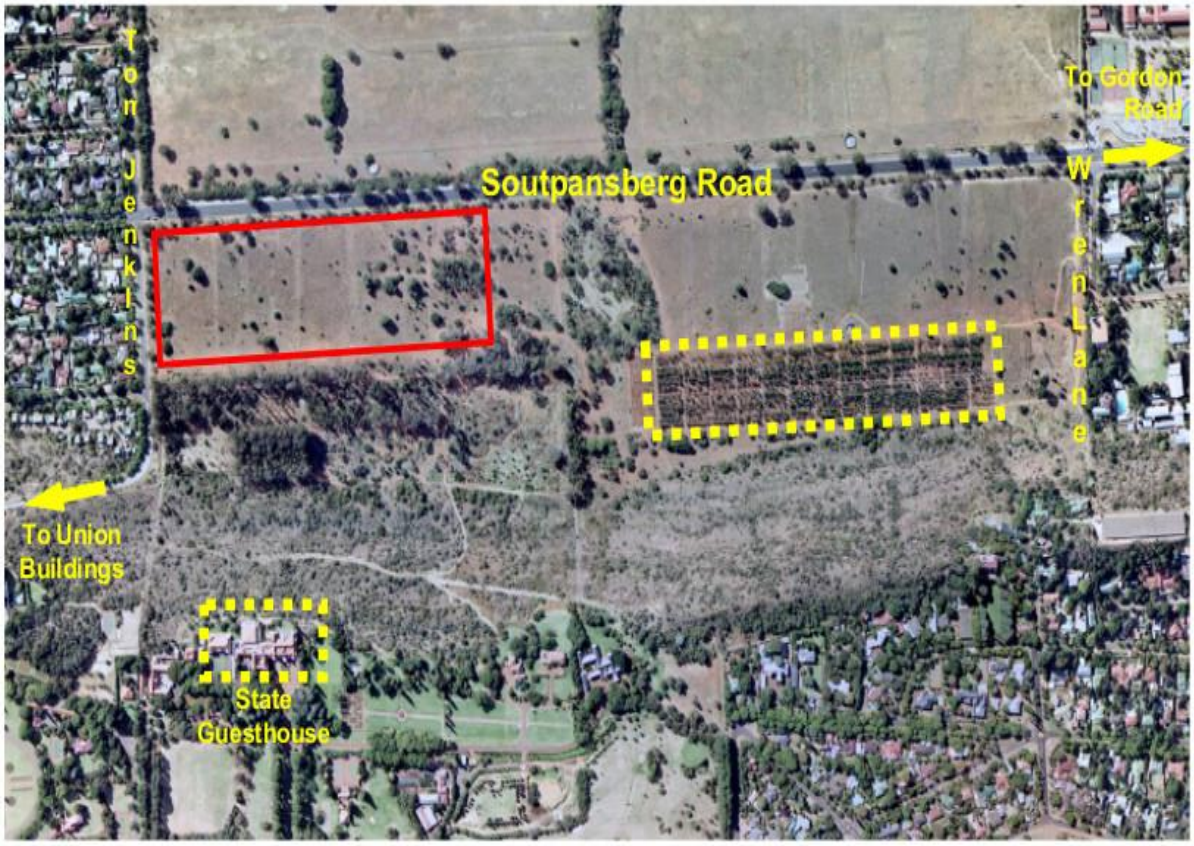


Figure 5.7: Photographic map showing Soutpansberg site located within the Waterkloof Site for the DFA PPP Project

Source: Department of Foreign Affairs Request for Qualification (RFQ), 2004: 56

5.3.3 Organogram of Preferred Bidder

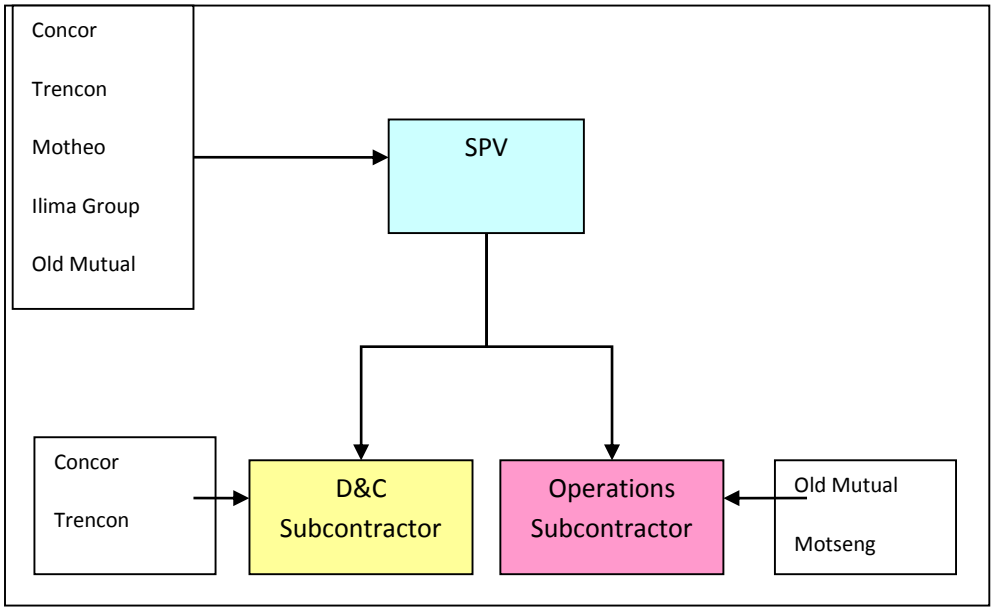


Figure 5.8: Organogram of Preferred Bidder for the DFA PPP Project

Source: Respondent 5, 2013

5.3.4 The PPP Procurement Process Timelines

The planned procurement timelines for the Department of Foreign Affairs New Head Office Accommodation PPP project were retrieved from the RFQ and RFP documents (DFA, 2004: 42; DFA, 2005: 52), while the actual procurement timelines were retrieved from Respondent 5 via email correspondence subsequent to the semi-structured interview (Respondent 5, personal communication, February 10, 2014). The tables below show the timelines and durations of the PPP procurement process:

Procurement Milestones	Planned Dates	Actual Dates
Issue RFQ document	19-Nov-04	21-Nov-04
Return Date for RFQ	17-Jan-05	28-Jan-05
Announcement of prequalified bidders	14-Feb-05	29-Mar-05
Issue RFP document	15-Aug-05	15-Aug-05
Return Date for RFP	07-Nov-05	21-Nov-05
Announcement of Preferred Bidder	01-Feb-06	06-Sep-06
TA III and Financial Close	18-Sep-06	31-Mar-09

Table 5.7: Planned and Actual Procurement Milestones - DFA PPP Project

Procurement Stage	Stage Description	Planned Duration	Actual Duration	Slippage
Stage 1	RFQ_{issue} - Fin. Close	668	1591	-923
Stage 2	RFQ_{issue}-RFQ_{return}	59	68	-9
Stage 3	RFQ_{return}-Prequal	28	60	-32
Stage 4	Prequal-RFP_{issue}	182	139	43
Stage 5	RFP_{issue}-RFP_{return}	84	98	-14
Stage 6	RFP_{return} - PrefBidder	86	289	-203
Stage 7	PrefBidder-Fin. Close	229	937	-708

Table 5.8: Planned and Actual Durations and Slippage per Stage Process - DFA PPP Project

5.3.5 Time Performance of the PPP Procurement Process

Stage	Stage Description	Time Performance (%)
1	RFQ_{issue} - Fin Close	138%
2	RFQ_{issue}-RFQ_{return}	15%
3	RFQ_{return}-Prequal	114%
4	Prequal - RFP_{issue}	-24%
5	RFP_{issue} - RFP_{return}	17%
6	RFP_{return} - Pref Bidder	236%
7	Pref Bidder - Fin Close	309%

Table 5.9: Time Variance (%) per Stage – DFA PPP Project

5.3.5.1 Discussion of Results

The results of the time variance analysis can be summarized as follows:

- The overall time variance from RFQ Issue to Financial Close stage was approximately 138%. This shows that the procurement process as a whole took more than twice as long as was initially expected.
- The longest delay was experienced between Announcement of Preferred Bidder and Financial Close at a time variance of approximately 309%, which was significant. The delay indicates a protracted negotiation process.

- The second longest delay was between RFP Return and Announcement of Preferred Bidder stage at a time variance of approximately 236%. This highlights an extended adjudication process.
- The third longest delay happened between RFQ Return and Announcement of Prequalified Bidders at time variance of 114%.
- The time variance for the periods between RFQ Issue and RFQ Return stage, Announcement of Prequalified Bidders and RFP Issue stage, and RFP Issue to RFP Return stage were negligible at 15%, -24% and 17% respectively.
- Given the above, the delays in the procurement process were mostly attributed to the time period between RFP Return and Announcement of Preferred Bidder stage, and the period between Announcement of Preferred Bidder and Financial Close stage.

5.3.6 Semi-Structured Interviews to Determine the Factors that Influenced the Time Performance of the Procurement Process

This section of the case study discusses the factors that influenced the reported time performance of the PPP procurement process of the Department of Foreign Affairs New Head Office Accommodation PPP Project. Semi-structure interviews were used as a basis to determine the main factors that influenced the time performance of the procurement process. There were four respondents in total that were interviewed.

The interview with Respondent 4 had a duration of approximately 73 minutes and 11 seconds. The interview was held on the 23rd September 2013. The transcription of the interview with Respondent 4 is included under Annexure 5.

The interview with Respondent 5 was conducted over two days, with the first interview having had a duration of approximately 68 minutes, while the second interview had a duration of approximately 28 minutes. The interview was held on the 6th November 2013, and 7th November 2013 respectively. The transcriptions of the interviews with Respondent 5 are included under Annexure 6.

The interview with Respondent 6 had a duration of approximately 41 minutes and 42 seconds. The interview was held on the 14th November 2013. The transcription of the interview with Respondent 6 is included under Annexure 7.

The interview with Respondent 7 had a duration of approximately 65 minutes and 44 seconds. The interview was held on the 29th November 2013. The transcription of the interview with Respondent 7 is included under Annexure 8

5.3.6.1 Profile of Interview Respondents

The interviews were used as a basis to determine the factors that influenced the time performance of the procurement process. There were four respondents who took part in the interviews. The respondents

were all from the private sector, but played different roles on the project during the procurement process. As a collective the four respondents held a wealth of knowledge in terms of their experience working on PPP projects in South Africa. Their input was therefore invaluable.

Unfortunately getting access to representatives from DFA and the PPP Unit was not possible. However, having had access to the advisors to DFA did ensure a more informed and objective perspective from the public sector's perspective.

Respondent 4

Respondent 4 was involved with the Preferred Bidder consortium as Financial Advisor.

Respondent 5

Respondent 5 was involved as the lead Transaction Advisor to the DFA.

Respondent 6

Respondent 6 role was two-fold, being involved as the Bid Coordinator and the Lender's Transaction Advisor.

Respondent 7

Respondent 7 was involved as the Technical Advisor to the DFA.

Below is the evaluation of the responses compiled from the semi-structured interviews in relation to determine the factors that influenced the time performance of the procurement process.

5.3.6.2 How did Political Will influence the time performance of the PPP procurement process?

There was a general consensus amongst the interviewees that the DFA PPP project had strong political support behind it. Respondent 7 recalls how the Minister of Foreign Affairs at the time, Dlamini Zuma, saw this as a legacy project to leave for her staff and department as a whole, and how this was expressed in the preliminary discussions the Minister had with the project team to ensure that the department's requirements were captured (Respondent 7, personal interview, November 29, 2013). Respondent 5 reaffirmed this statement and spoke about how the Minister of Foreign Affairs had rallied behind the project, stated that the "political will was very driven, they knew exactly what they wanted, so there wasn't a lack of political will in relation to this particular project" (Respondent 5, personal interview, November 6, 2013). During the interview, Respondent 6 advised that the success of any PPP project hinges on three critical links being "political will, political will, political will" (Respondent 6, personal interview, November 14, 2013). Essentially, Respondent 6 argued that if the political will is there, then everything else will inevitably fall into place. This would translate to, for example, the client department appointing

the right team, and more specifically the right transaction advisor for the job, and not doing appointments as favours for friends (Respondent 6, personal interview, November 14, 2013).

There was a stage at the beginning of the project when a lack of political hindered progress of the procurement process. The lack of political at this stage was cited as coming from the Department of Public Works (DPW). In fact, Respondent 4 goes as far as speaking of the DFA PPP project in two halves, with "part one" being the time when DPW was the custodian of the project, and "part two" as the stage of the project when DFA took the project over from DPW (Respondent 4, personal interview, September 23, 2013). According to Respondent 4, DFA's frustration with a lack of effectiveness from DPW led them to take over the project. Respondent 7 shared the same frustration towards DPW, and stated that if DPW created an enabling environment then a lot of the time taken for procurement on other PPP projects could potentially be "halved" (Respondent 7, personal interview, November 29, 2013).

The respondents felt the urge to point out how a lack of political will has led to the unwarranted challenges on other PPP projects. The Correctional Services PPP project was the highlight of the discussion in this regard. During the Correctional Services PPP project, bidders had spent an enormous amount of time and resources to prepare their bids. These were never opened by the Department of Correctional Services. In the exact words of Respondent 7, this "left a dent, left a mine shaft, left a massive hole" in the confidence the private sector had on the State's commitment to PPP projects (Respondent 7, personal interview, November 29, 2013). Another example that was made was the Baragwanath Hospital which forms part of the government programme to rebuild and refurbish health facilities around the country. There is uncertainty in the market regarding this initiative. Respondent 6 speaks of how the Client is not visible on the project. The concern is therefore that the project team is "running the rebuild of Bara without the client" (Respondent 6, personal interview, November 14, 2013). Respondent 6 blamed the slow progress on a lack of political will.

5.3.6.3 How did the Communication Structures within the Client Department influence the time performance of the PPP procurement process?

Respondent 7 emphasized the importance of having access to high level personnel in any Department embarking on a PPP project as one of the drivers of good time performance of the procurement process (Respondent 7, personal interview, November 29, 2013). Respondent 7 advised of how the Project Director at DFA was brought in at a high enough level to have direct access to CFO and the DG. In the interview, Respondent 6 also spoke about how the Project Director had direct access to the DDG and the DG, "What Bernice had, she was a Chief Director and her DDG was sitting right there in the office with her, which was Mr Pleeny, who is now – and he was right below the DG" (Respondent 6, personal interview, November 14, 2013). This meant that the Project Director in the DFA did not have to report through layers to get to the decision makers. Respondent 7 mentioned how, even though not intimately involved in the day to day running of the project, the Minister of Foreign Affairs used to insist on getting regular briefings regarding the status of the project, and stated the following in this regard, "The DDG used to brief her, and Bernice used to brief her, and Mr. Pleeny used to brief her. Going through it and at

certain times we used to go as a team and brief her" (Respondent 7, personal interview, November 29, 2013).

Respondent 7 also mentioned different personal experiences working with government officials on other PPP projects. Respondent 7 mentioned how the structures in government can be bureaucratic, which can be obstructive to any process (Respondent 7, personal interview, November 29, 2013). The statement was aimed specifically at Respondent 7's experience working with DPW.

5.3.6.4 How did Turnover of Staff influence the time performance of the PPP procurement process?

Respondent 6 did not recall a high turnover of staff being problematic during his tenure on the project. On the contrary, Respondent 6 mentioned during the interview that the Project Director and her Contracts Manager were still serving at DFA at the time of reporting. Having the Project Director and the Contracts Manager serve throughout the procurement process was good as it allowed for continuity. Respondent 7 did not provide any feedback regarding turnover of staff at DFA or on the private sector side.

Respondent 4 on the other hand stated how the PPP Unit working on the DFA project had a high turnover of staff with "different people" serving on the project over a four year period (Respondent 4, personal interview, September 23, 2013). Whether or not this had an influence on the procurement process of the Foreign Affairs PPP project was however not evident. Respondent 4 did not limit the statement of high turnover to the PPP Unit, but also stated how the Preferred Bidder also experienced a high turnover of critical staff members during the restructuring of the consortium. Respondent 4 explained how the project leader from the Preferred Bidder was removed during the restructuring which created a "leadership crisis" within the consortium (Respondent 4, personal interview, September 23, 2013). Respondent 4 further stated how an external party was introduced to take on the project lead role, and how "a lot of momentum" was lost during the whole debacle, which delayed the procurement process (Respondent 4, personal interview, September 23, 2013). Even though an experienced project lead was appointed, Respondent 4 mentioned how this individual did not possess the same drive as the initially appointed project lead, due to the fact that this was a "paying job" whereby he would ultimately walk away at the end of the project (Respondent 4, personal interview, September 23, 2013).

Respondent 5's comments on turnover of staff were not directly aimed at the DFA, but were rather targeted at the public sector as a whole. According to Respondent 5, staff generally grow a particular skills set in a department, but are thereafter "absorbed into other functions" over time (Respondent 5, November 6, 2013). This means that the skillset is lost when the official is moved to other functions or divisions within the public sector. Respondent 5 further mentioned that DPW also suffered from high turnover of staff and explained how the high turnover of staff has affected a special unit within DPW called APOX, which was earmarked to assist other public sector departments such as DFA to deliver infrastructure projects (Respondent 5, personal interview, November 6, 2013). In addition, Respondent 4 also made a general statement in relation to high turnover of staff in the public sector, stating that elections and change in ministers can slow down the momentum of the procurement process of any

project as the focus normally shifts from the project to conserving the politics (Respondent 4, personal interview, September 23, 2013).

5.3.6.5 How did the level of Skills and Capacity influence the performance of the PPP procurement process?

The general response from the interviewees on the skills and capacity of the Department of Foreign Affairs (DFA) was positive. Respondent 7 spoke of the competency of the Project Officer/Director from the DFA in high regard. Respondent 7 spoke of how she was "very competent" and "dedicated to the project" and mentioned how her level of competency was "key" to the running of the procurement process (Respondent 7, personal interview, November 29, 2013). Respondent 4 uttered the same level of praise towards designated official from Treasury's PPP Unit, stating that "she is very competent" (Respondent 4, personal interview, September 23, 2013). Respondent 4 spoke of how supportive the PPP Unit was in advising the Foreign affairs Department of the Treasury requirements for PPP's. Respondent 5 commended the PPP Unit as a key role player in driving the PPP procurement process (Respondent 4, personal interview, September 23, 2013).

An interesting point Respondent 7 mentioned was how there was a "culture of excellence" in the Department of Foreign Affairs, and extended this by mentioning how the department "is a very, very professionally run, well managed complete organisation" (Respondent 7, personal interview, November 29, 2013). Respondent 4 spoke of a project of two halves being "phase one" and "phase two". Phase one refers to the period initially when the project was being run by DPW and "phase 2" by DFA, and blamed the lack of efficiency at DPW due to a lack of capacity (Respondent 4, personal interview, September 23, 2013). Respondent 4 explained that Phase 2 of the project was the period when DFA was frustrated with inefficiency at DPW and embarked on taking on the project themselves (Respondent 4, personal interview, September 23, 2013). This was highlighted as the real turning point of the project. During the interview, Respondent 4 summarised DFA's competency as follows, "But they were well prepared, they knew what they wanted, done a proper feasibility, good project manager, site issues were pretty sorted as far as I recall" (Respondent 4, personal interview, September 23, 2013). These factors influenced the time performance of the procurement process in a positive manner. Respondent 5 made note of how the Project Officer at DFA, Bernice, 'beefed' up the capacity of her team by bringing in "contracts management people who were certainly more than adequately schooled" (Respondent 5, personal interview, November 6, 2013).

The dissatisfaction of the lack of skills and capacity from the interviewees was targeted at DPW. It is DPW that is mandated to ensure that the accommodation needs of government departments are met. DPW was therefore supposed to drive the procurement process on the project on behalf of the DFA. As already mentioned above, the project was not making much progress under DPW, to a point whereby DFA took it upon themselves to see the project to fruition. Respondent 7 expressed his discontent at the how government departments are frustrated by the "incompetence" of DPW officials (Respondent 7, personal interview, November 29, 2013). Respondent 4 shared his dismay, and explained how DPW is "starved" of competent officials to adequately drive projects (Respondent 4, personal interview, September 23, 2013).

Respondent 6 noted that DPW is not well staffed in its current state, and does not attract the right people (Respondent 6, personal interview, November 14, 2013). The lack of skills and capacity of DPW was therefore a factor that contributed to a delay in the time performance of the procurement process.

A PPP is a very complicated procurement arrangement that requires a high level of skills to roll out from the inception of a project, procurement, implementation and through to operation. Respondent 5 spoke of the high level of skills required, and how the general "pool of skills is quite small" (Respondent 5, personal interview, November 6, 2013). Respondent 6 contributed to the discussion and explained how the PPP's are a "newish industry in SA, 12, 13 years, probably from the about - and for people to get that skill and learn it is, is taking years" (Respondent 6, personal interview, November 24, 2013).

5.3.6.6 How did the level of Standardisation of Procurement Documentation influence the time performance of the PPP procurement process?

Respondent 7 mentioned that standardised of procurement documentation was not in place at the beginning of the DFA procurement process, and only came in later during the process whereby it was adapted into the documentation (Respondent 7, personal interview, November 29, 2013). Respondent 4 stated that the delays during the procurement process were not necessarily from the adjudication, but rather the negotiation stage of the project, "There was a lot of changes, add this and take that. I think that was one of the things that added the time frame, it was long" and mentioned that further time delays resulted from issues around repricing when the tender validities of the preferred bidder had lapsed (Respondent 4, personal interview, September 23, 2013). The 2008/2009 financial crisis saw an escalation in the local currency and therefore an increase in the price of imported goods. The issue therefore became, "how long can you hold your price certain for?" (Respondent 4, personal interview, September 23, 2013). Respondent 4 noted that the experience taught them a lesson that indices for escalation on the contract price need to be agreed upfront, or else the client is left exposed when the contractor has to reprice. These are the indices that would in all likelihood be agreed in standard procurement documentation. An interesting point that Respondent 4 highlighted was also the lesson on tender validity. There is certainly a point whereby the value for money aspect which should hold true at all times for a real PPP is lost or at least degraded. Respondent 4 explains that there is therefore a tradeoff, whereby there is higher value for money if price validity is short, and lower value for money if price validity is longer (Respondent 4, personal interview, September 23, 2013). The tradeoff comes because if the price validity period is kept short to conserve value for money, the client will always get knocked on the repricing when the period has lapsed.

When asked about the influence of standardization of procurement documentation on the PPP procurement process, Respondent 5 responded by explaining that, to date, there was no standardised PPP procurement document that was completely accepted by the market, more specifically lenders (Respondent 5, personal interview, November 6, 2013). To Respondent 5's recollection, Treasury was in the process of preparing a standard PPP procurement document which would be published to the market for comment. The main issue as explained by Respondent 5 was getting a "bankable" standard procurement document that would be acceptable to market (Respondent 5, personal interview,

November 6, 2013). Respondent 5 made note that the main areas of contention between the public and private sector are "lending type issues" primarily to do with the termination clause (Respondent 5, personal interview, November 6, 2013).

Respondent 7 spoke as a proponent for standardisation, and made the example of the roll-out of the Independent Power Projects (IPP) by the Department of Energy (DoE) whereby a set of standard procurement documentation that the market is familiar with are used, which has translated to reduced procurement timeframes (Respondent 7, personal interview, November 29, 2013). Respondent 7 explained that if the market knows the terms and conditions of contract before they bid, then risk can be priced into the bids accordingly, which would therefore reduce the negotiation period (Respondent 7, personal interview, November 29, 2013). The key, as mentioned above, is to put in place a set of PPP procurement documentation that is accepted by the market, i.e. bankable.

5.3.6.7 How did a Project Champion influence time performance of the PPP Procurement Process?

The interviewees stated the importance of having a good project champion on a PPP project during the procurement process. Respondent 4 explained that an official who is fully dedicated to the project is required, "…you need someone who is almost going to eat and sleep the project" and noted that a good project manager is required from both the public and private sector side, "particularly once you get into negotiation" (Respondent 4, personal interview, September 23, 2013). Respondent 4 mentioned that a dedicated team is also a prerequisite for a successful procurement process (Respondent 4, personal interview, September 23, 2013). Respondent 5 emphasised the importance of having a good project champion to drive the procurement process, "You've got to have a strong project champion, absolutely!" (Respondent 5, personal interview, November 6, 2013). For Respondent 5, a good project champion was someone "who is going to sort out the political sphere". Respondent 7 summarised the key characteristics of a good project champion as follows:

> "I mean you've almost got to be, a champion for your project and you've got to drive it through no matter what, what obstacles come your way. You're going to have 1,000 obstacles, take the knock, work your way around it, take the next knock, work your way around it, take the next knock, work your way around it. You get there eventually and everybody then will want to take the glory."
>
> (Respondent 7, personal interview, November 29, 2013)

Respondent 7 spoke highly of the Project Officer from DFA who was dedicated to running the project on behalf of DFA and recalled how the Project Officer was a "very driven proactive official" who was not "obstructive", but managed the process efficiently (Respondent 7, personal interview, November 29, 2013). Respondent 4 acknowledged the contributions of both the project manager from the Preferred Bidder and DFA side (Respondent 4, personal interview, September 23, 2013. Respondent 6 mentioned how the Project Officer instilled a sense of discipline amongst all involved in the project by setting up "a programme where she was negotiating every two weeks" (Respondent 6, personal interview, November

14, 2013). According to Respondent 6, the Project Officer ran a 'tight ship' with a fixed reporting structure that ensured everyone was working to a fixed timeline. This resulted in successful negotiations that were finalised within in an outstanding 3 months (Respondent 6, personal interview, November 14, 2013). Should external factors not have played a role in delaying the process, Respondent 6 was adamant that the Project Officer could have had the contract signed "within four operating months" (Respondent 6, personal interview, November 14, 2013).

For Respondent 4, the official from the PPP Unit also stood out as project champion who steered the procurement process in the right direction. Respondent 4 stated that she "seemed very supportive of the Department, in finding out ideas, and solving solutions and so forth. Tough on private sector" (Respondent 4, personal interview, September 23, 2013).

It was not always a smooth ride, and Respondent 7 recalled how DFA "phase 1" suffered at the hands of DPW. Respondent 7 attributed the derailment that happened initially to a week project manager from DPW who had no grip on the project, "But we sort of got the sense that it was somebody who once saw the DG in a lift, but only once" (Respondent 7, personal interview, November 29, 2013).

5.3.6.8 How did the Client Structure influence the time performance of the PPP procurement process?

There was not a great deal of response from the interviewees on whether a single or multiple client structure had any influence on the time performance of the procurement process on DFA PPP project. In fact, Respondent 6 was not convinced that the client structure had any type of influence over the time performance of the procurement process (Respondent 6, personal interview, November 14, 2013). From his experience, Respondent 6 felt that political will could overcome complications regarding the client structure, "But if you look at it and say if the client is four heads and the four heads can't agree, then you haven't got the political will to get it done" (Respondent 6, personal interview, November 14, 2013). On the opposite end, Respondent 5 felt that having to report to two authorities being the DFA and Treasury did pose a challenge to the time performance of the procurement process, and explained that the challenge was that the advisors are often "serving two masters" which can "give rise to conflicts" because of "differing instructions" (Respondent 5, personal interview, November 6, 2013). The extent to which this factor influenced the time performance of the procurement process was however unclear.

5.3.6.9 How did the Land Enablement matters influence the time performance of the procurement process?

Respondent 4 advised that getting an approved Environmental Impact Assessment (EIA) for the DFA site caused some delay to the procurement process, "The environmental was a trick and it did cause some delays" (Respondent 4, personal interviewer, September 23, 2013). Respondent 4 advised that the issue was that the project could not get an approved EIA without producing plans for submission to the environmental authorities, which could only be furnished after the Preferred Bidder was appointed (Respondent 4, personal interview, September 23, 2013). Respondent 6 advised that it is at times not

possible to have all land enablement matters resolved at Feasibility stage, but that these can normally be addressed during the procurement process depending on their severity (Respondent 6, personal interview, November 14, 2013). For instance, on DFA Respondent 6 advised that the land enablement issues included the consolidation of two separate erven on which the project was to be built, and explained that the DFA took a view that this issue was not major and therefore proceeded with the project on this basis (Respondent 6, personal interview, November 14, 2013). In general, Respondent 6 felt that the land enablement issues did not play a major role in influencing the time performance of the procurement process on the DFA PPP project (Respondent 6, personal interview, November 14, 2013).

Respondent 7's comments on land enablement matters and how these can influence the time performance of the procurement process were not targeted at the DFA PPP project, but were more of a general statement based on previous experience working on PPP projects over the years (Respondent 7, personal interview, November 29, 2013). Respondent 7 advised that land enablement issues can be a hindrance to the finalisation of the procurement process (i.e. Financial Close) if not resolved timeously at the beginning of a project (Respondent 7, personal interview, November 29, 2013).

5.3.6.10 How did External Factors influence the time performance of the procurement process?

According to the respondents, external factors had an influence on the time performance of the PPP procurement process on the DFA project. Respondent 4 mentioned that one of the external factors that had an influence on the time performance of the procurement process was the changing of ownership structure of the Preferred Bidder consortium (Respondent 4, personal interview, September 23, 2013). Respondent 5 concurred and stated that the change in the Preferred Bidder consortium structure was a main contributor to the delays in the procurement process, "The issues on Foreign Affairs in terms of delay was largely centred around the change in the consortium, when we were almost done with the negotiations…" (Respondent 5, personal interview, November 6, 2013). During the period between Announcement of Preferred Bidder and Financial Close stage, the main shareholder from the Preferred Bidder consortium, Concor, was bought out by Murray and Roberts. As a result Murray and Roberts became one of the major shareholders of the concessionaire. The issue in terms of delay was that Murray and Roberts came in with differing ideas in terms of how the deal should be structured which were not accepted by DFA at such a late stage of the process (Respondent 5, personal interview, November 6, 2013). Respondent 5 explained that at the time negotiations were basically done, after which the "wheels fell off" (Respondent 5, personal interview, November 6, 2013). Respondent 6 explained that Murray and Roberts were previously part of the losing bidders, and that their main contention was that the terms agreed in the original 'Concor' bid would not provide favourable returns to investors (Respondent 6, personal interview, November 14, 2013). Respondent 6 reckoned that Murray and Roberts probably tried to "can the project" as "they were not particularly interested in it" after their attempts at having the conditions of contract changed were shut down by the DFA (Respondent 6, personal interview, November 14, 2013). The delay caused by the revised negotiations attempt were substantive, "What happened was this went on for about six or nine months, this whole fighting and backwards, messing around" (Respondent 6, personal interview, November 14, 2013). The situation worsened because after their failed

attempt at renegotiating the contract, Murray and Roberts withdrew as main shareholder but stayed on as the Design and Construction (D&C) contractor, "which then created a problem because now the private party had a big gap in their funding…" (Respondent 5, personal interview, November 6, 2013).

Another external factor that influenced the time performance of the procurement process was the 2008 financial crisis. Respondent 4 explained that the 2008 financial crisis affected the affordability of the project, "Interest rates have gone up. It's through no fault of anybody's, the affordability has changed" (Respondent 4, personal interview, September 23, 2013). Respondent 4 expanded on this point and advised that it was not necessarily an issue of a lack of funding, "so money was available but it's just going to cost you more" (Respondent 4, personal interview, September 23, 2013). This was not the case before the 2008/2009 financial crisis because the cost of raising money was a lot less.

5.3.6.11 Conclusion

A review of the responses shows that the main factors that positively influenced the time performance of the DFA PPP procurement process were political will, having a highly driven and competent project champion, and the fact that DFA was a highly skilled and capacitated department. Having the top leadership structures in department such as the Minister of Foreign Affairs rallying behind the project gave the project momentum to overcome challenges. This was evident when DFA elected to take over the responsibility for executing the project based on the failure by DPW. The case study highlighted that the incapacity of DPW to fulfil their mandate of executing projects on behalf of government departments needs to be addressed. Having a project champion to drive the procurement process proved to be invaluable. The Project Officer on the DFA PPP project was reported to have done a great job in keeping the team focused and disciplined.

The case study on DFA PPP project also demonstrated how detrimental external factors can be to the time performance of the procurement process on PPP projects. The change of concessionaire structure in terms of majority shareholder moving from Concor to Murray and Roberts led to substantial delays during the negotiation stage of the procurement process. In fact, Respondent 6 reported that it had taken 3 months from the Announcement of the Preferred Bidder to close out of negotiations before the 'takeover' issues with a change of main shareholder happened (Respondent 6, interview, 2013: Respondent 6, Email). "The deal then took about two years to close due to a take-over in the Private Party (Concor as preferred bidder being bought by Murray & Roberts who were the Reserve bidder) and an external audit instituted by National Treasury" (Respondent 6, personal interview, November 6, 2013). The 2008/2009 financial crisis was also cited as one of the external factors that negatively influenced the time performance of the procurement process as it affected the affordability of the project.

5.4 DEPARTMENT OF RURAL DEVELOPMENT AND LAND REFORM NEW HEAD OFFICE ACCOMODATION PPP PROJECT

5.4.1 Introduction

The Department of Rural Development and Land Reform (DRDLR) (previously known as Department of Land Affairs) New Head Office accommodation PPP project was a result of the need for consolidated office space by the DRDLR. The RFQ document stated that DRDLR's working environment did not allow it to fulfil its mandate, "which is the implementation of land reform as well as land planning and information" (DRDLR, 2008:15). The Department therefore embarked on the PPP to allow for a consolidation of its "Pretoria-based operations into a single working environment with related service provision" (DRDLR, 2008:16). The RFQ document was issued to market on the 28 September 2008.

5.4.2 Project Description

Various sources of information were used to do the case study research for the DRDLR PPP project. The procurement documentation, namely the RFQ (issued September 2008) and RFP (issued July 2009) documents, were used to compile the technical requirements of the PPP project, including the project scope and site description. The project scope in the procurement documentation outlined the specific physical and operational requirements of the DRDLR office accommodation.

5.4.2.1 Project Scope

The project scope entailed the construction of new office accommodation to accommodate a growing staff complement of the DRDLR. The purpose of the PPP was to consolidate the facility into a single campus that would cater for the head office and provincial operations of the DRDLR. The staff was estimated to grow from a 1084 in 2008 when the document was released to 2099 in July 2011 and this would translate into a space requirement of 58 386 m2 (DRDLR, 2008:16). The aim at the time of going out to market was to have the facilities ready by the end of April 2012.

The DRDLR RFQ (2008:17) outlines the physical infrastructure to be provided by the winning concessionaire. The office facility will include meeting spaces, departmental special areas, functional areas, auditorium and central meeting facility, ICT space and parking. The winning concessionaire was also required to provide security equipment and ICT (hardware and software). The winning concessionaire did not only have to provide the physical infrastructure, but the scope extended to 'hard' and 'soft' services. The project further called for the private party to undertake the staffing, training and development for the Project.

The PPP required the Private Party to design, construct, operate, maintain and finance the project at its own cost and risk. At the time of issuing the RFQ, the Department had estimated that the cost of

constructing the building will be approximately R1 192 million over an estimated 24-month construction period (DRDLR, 2008:22).

5.4.2.2 Site Description

The project site is located in the Nelson Mandela corridor in Pretoria, South Africa. The site is bound "…to the east by the Apies River and Nelson Mandela Drive, to the north by Rhodes Avenue and to the west and south by Van der Walt Street" (DRDLR, 2008:53). The State had bought the site from Transnet. According to Respondent 8, the transaction of the land from Transnet to the State took approximately 2 years to complete. This delay was however incurred during the Feasibility stage of the project, before the PPP procurement stage.



Figure 5.9: Photographic map showing Berea Park site located within the Nelson Mandela Corridor, Pretoria, for the DRDLR PPP Project

Source: DRDLA RFP Document, 2009: 99

5.4.3 Organogram of Preferred Bidder

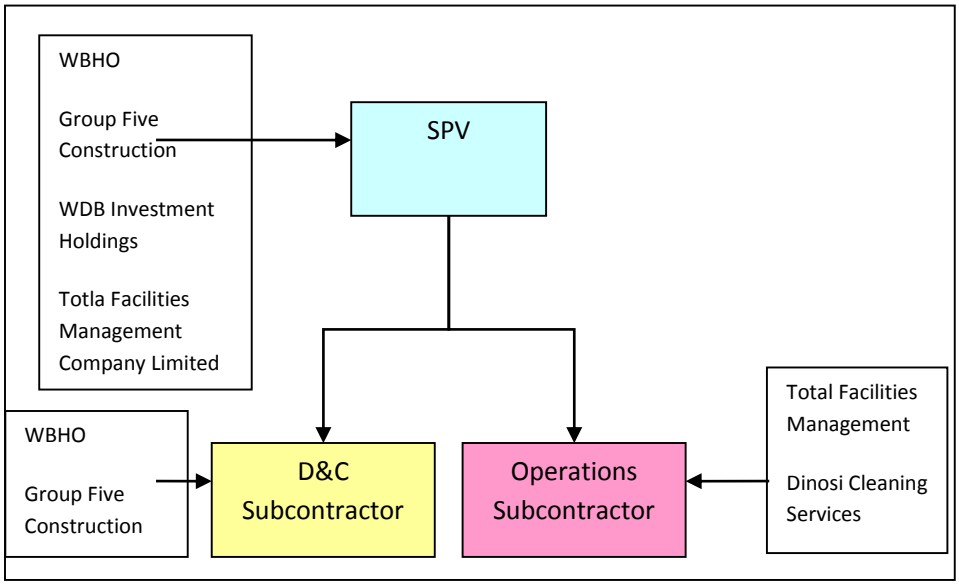


Figure 5.10: Organogram of Preferred Bidder for the DRDLR PPP Project

Source: Respondent 5, 2013

5.4.4 The PPP Procurement Process Timelines

The planned procurement timelines for DRDLR PPP project were retrieved from the RFQ and RFP documents.

Procurement Milestone	Planned Date	Actual Date
Issue RFQ document	22-Sep-08	19-Sep-08
Return Date for RFQ	20-Oct-08	28-Oct-08
Announcement of prequalified bidders	12-Nov-08	05-Jan-09
Issue RFP document	27-Jul-09	27-Jul-09
Return Date for RFP	01-Dec-09	01-Dec-09
Announcement of Preferred Bidder	03-May-10	26-Jul-10
TA III and Financial Close	05-Oct-10	19-Feb-14

Table 5.10: Planned and Actual Procurement Milestones - DRDLR PPP Project

Procurement Stage	Stage Description	Planned Duration	Actual Duration	Slippage
1	RFQ_{issue} - Fin. Close	743	1979	-1236
2	RFQ_{issue}-RFQ_{return}	28	39	-11
3	RFQ_{return}-Prequal	23	69	-46
4	Prequal-RFP_{issue}	257	203	54
5	RFP_{issue}-RFP_{return}	127	127	0
6	RFP_{return} - PrefBidder	153	237	-84
7	PrefBidder-Fin. Close	155	1304	-1149

Table 5.11: Planned and Actual Durations and Slippage per Stage – DRDLR PPP Project

The planned dates of the procurement process (i.e. from RFQ to Financial Close) as envisaged by DRDLR were from 22 September 2008 to 5th October 2010 which would have equated to approximately 21 months. The actual procurement process had not reached Financial Close at the time of reporting (i.e. 19th February 2014). The procurement process had been ongoing for approximately 53 months. Respondent 8 advised that DRDLR and the Preferred Bidder had only just agreed and finalized the negotiated PPP Agreement for submission to Treasury for approval (Respondent 8, personal interview, October 2, 2013).

5.4.5 Time Performance of the procurement process

Stage	Stage Description	Time Performance (%)
1	RFQ_{issue} - Fin Close	166%
2	RFQ_{issue}-RFQ_{return}	39%
3	RFQ_{return}-Prequal	200%
4	Prequal - RFP_{issue}	-21%
5	RFP_{issue} - RFP_{return}	0%
6	RFP_{return} - Pref Bidder	55%
7	Pref Bidder - Fin Close	741%

Table 5.12: Time Variance (%) per stage – DRDLR PPP Project

5.4.5.1 Discussion of Results

The results of the time performance analysis of the DRDLR PPP procurement process can be summarised as follows:

- The time variance or time performance for the procurement process as a whole (i.e. from RFQ Issue to Financial Close was 166%). It was anticipated that the time variance would increase as Financial Close had not yet been achieved at the time of reporting.
- The period that experienced the highest time variance and therefore highest delay was the Announcement of Preferred Bidder to Financial Close stage at 741% which was significant. This delay indicated a protracted negotiation process.
- The second highest time variance was the period between RFQ Return and Announcement of Prequalified Bidders stage at 200%.
- The third highest time variance was the period between RFP Return and Announcement of Preferred Bidder stage, followed by period between RFQ Issue and RFQ Return at 55% and 39 % respectively.
- The time performance of the period between Announcement of Prequalified Bidders and RFP Issue stage was -21%. This milestone was therefore achieved ahead of expectations.
- There was no time variance for the period between RFP Issue and RFP Return, i.e. the planned milestones were achieved as per programme.

The factors that influenced the reported time performance of the procurement process are evaluated in the section below.

5.4.5.2 Semi-Structured Interviews to Determine the Factors that Influenced the Time Performance of the Procurement Process

5.4.5.3 Profile of Interview Respondents

A structured interview was used as a means to determine the factors that influenced the time performance of the PPP procurement process on the DRDLR PPP project. There was one main respondent, Respondent 8, who provided input on the procurement process. Other respondents involved in the DRDLR PPP project were also interviewed, but their input was not as extensive.

Respondent 8

Respondent 8 was employed as the DRDLR's Project Officer during the procurement process. Respondent 8 described the role during the interview, "I was appointed by government to procure a transaction as a team, to represent the department and to manage the project to Financial Close" (Respondent 8, personal interview, October 2, 2013). The interview transcription for Respondent 8 is included under Annexure 9.

The interviewees included Respondent 5, who was appointed as the Transaction Advisor. The interview with Respondent 5 is included under Annexure 6.

Respondent 7 who was involved as the Technical Advisor to the DRDLR. The interview with Respondent 7 is included under Annexure 8.

Respondent 6 was appointed as an advisor to DRDLR. The interview with Respondent 6 is included under Annexure 7.

5.4.5.4 How did Political Will influence the time performance of the PPP procurement process?

Respondent 6 was adamant that the slow progress on the procurement process of the DRDLR PPP project can largely be attributed to a lack of political will from the government side, "…and so from a speed point of view, it's again nervousness on government and it comes back to the political commitment" (Respondent 6, personal interview, November 14, 2013). Respondent 6 blamed the State for not showing strong leadership with regards to making the tough decisions. Respondent 6 also blamed the State for its constant indecision. Respondent 6 made an example of the DRDLR going back on their original scope for the facility late during the procurement process, "Procurement went through against the spec…Now they're saying but we want to drop the cost" (Respondent 6, personal interview, November 14, 2013).

Respondent 7 attributed the weak time performance of the procurement process on the weak administrative structures within the DRDLR, and advised that the lack of administrative support was evident during the negotiation process, "The lack of negotiation there has been due to a lack of institutional support within Land Affairs. I think that's been one of the major items" (Respondent 7, personal interview, November 29, 2013). Respondent 7 explained that weak administrative structures within the department all stemmed from a lack of political commitment or intent from the government, "And the lack of strong administrative and political driving there has been a huge mission" (Respondent 7, personal interview, November 29, 2013).

Respondent 8's comments on the influence of political will on the time performance of the procurement process on the DRDLR PPP project were not directed to the project itself, but rather to the government's level political will in general on other public projects. Respondent 8 advised that signs of strong political will is reflected by a State department that is strong enough to make tough decisions and stick with them, "The government department should be strong enough to say I'm happy to let it slide, let's move on, or we are not going to slide, let's negotiate this" (Respondent 8, personal interview, October 2, 2013). Respondent 8 advised that another sign of political will is when high ranking officials demand to be regularly briefed about the progress on a project, "The DDG or chief directorate is seldom going to sit in on a monthly steering committee or bi-weekly or whatever it is, but do they have sufficient involvement to be demanding a monthly 20minute update" (Respondent 8, personal interview, October 2, 2013). The briefing to high ranking officials in the department is essential because ultimately they will be signing off any project related documentation. If they are not up to date then decision making is delayed, which will delay the procurement process.

Having been involved on DRDLR as a public official, Respondent 8 elaborated on the lack of political will experienced working in government space. Respondent 8 advised that most delays on the government side result from a series of small delays which accumulate to become big delays in the long run. For example, "…you've arranged a meeting with the Director General. The day before the meeting or the morning of the meeting, oh no he's been called to the minister" (Respondent 8, personal interview, October 2, 2013). The result is that "Little delays start creeping up on the timeline on one level" (Respondent 8, 2013). He added that "You get big delays and minor delays. That's why it takes a long time" (Respondent 8, personal interview, October 2, 2013). These delays can adversely affect the time performance of the procurement process of any PPP project.

Respondent 8 advised that another problem is the disproportionate powers designated to the departments and the National Treasury on PPP projects. Respondent 8 explained the conundrum during the interview, "The other fact that can be problematic is that Treasury has a regulatory function, a funding function, they will provide technical advice to the Department, but the Department itself owns the process" (Respondent 8, personal interview, October 2, 2013). The client holds the power to steer a project in a certain direction, while National Treasury, even though they do provide advisory support to government department, only has approval powers. The consequence of misappropriation of powers is that "Treasury can push and push, but they have no power of moving the process and if a client department changes their mind, Treasury can't do anything, even though they hold approval" (Respondent 8, personal interview, October 2, 2013). With limited powers, Treasury is therefore unable to crack the whip on departments that slack when it comes to driving their procurement process on PPP projects.

Respondent 8 made examples of PPP projects whereby a lack of political will has stalled progress of the procurement processes. The first example Respondent 8 mentioned was of the Correctional Services project that was withdrawn by the Minister at an advanced stage of the procurement processes. Respondent 8 was not questioning the Minister's withdrawal from the PPP but rather the timing of the enquiry, "Now that's a valid question, but not at that stage of the process" (Respondent 8, personal interview, October 2, 2013). The second example he made was off the Hospitals PPP programme that had still not taken off. He blamed the delay to "…government's inability to make big ticket decisions" (Respondent 8, personal interview, October 2, 2013). According to Respondent 8, delays will tend to persist because there are no consequences for poor performance in government. Respondent 8 advised that the key to getting over delays is for senior government officials to start showing leadership. He advised that it all boils down to "…a level of political commitment from senior management within a government department. That the biggest thing, so the PPP's they take long" (Respondent 8, personal interview, October 2, 2013).

5.4.5.5 How did the Communication Structures within the Client Department influence the time performance of the PPP procurement process?

Respondent 8 did not make specific comments related to the DRDLR project, but rather made a general statements on the importance of communication based on his experiences working for and with

government on numerous projects. Respondent 8 advised that in an ideal environment the senior officials in a department to be briefed on a regular basis, "…ideally you want your DG to be briefed quarterly, your DDG to be briefed monthly, and you want to also brief your minister quarterly as well" (Respondent 8, personal interview, October 2, 2013). He highlighted that a briefing with the project champion, who is normally a project officer from the Department, needs to be briefed regularly enough to be able to communicate same to the officials above them. This type of briefing is only possible when channels of communication are open between high ranking officials and those below them.

Respondent 8 does however caution that bureaucracy tends to persist in government institutions. He makes an example of how those in charge of facilities normally need to go through bureaucratic structures to get a way forward on decisions, "So to get a decision, you've got to go through like 5 people. The memo goes up and goes down before you get a decision" (Respondent 8, personal interview, October 2, 2013). The problem then becomes the slow pace of decision making which, in a fast pace procurement environment where decisions need to be made promptly, can negatively influence the time performance of the procurement process.

5.4.5.6 How did Turnover of Staff influence the time performance of the PPP procurement process?

One of the key concerns raised by Respondent 8 in relation to key factors that influenced the time performance of the procurement process was the turnover of key staff members from within DRDLR, "the project went through about four CFO's and three DG's and two ministers. Different people had different attention spans" (Respondent 8, personal interview, October 2, 2013). This was cause for concern because the senior officials, including the minister, are responsible for making key decisions regarding the direction of the project. Continuity in terms of the procurement process was therefore compromised because every senior official that was brought in needed to debriefed on the status of the project, and each one brings their own ideas. Respondent 7 also attested to the high turnover of key officials within the DRDLR, "There's been a change of DG's, turnover of staff" (Respondent 7, personal interview, November 29, 2013). Respondent 6 also attested to the negative impact of turnover of key staff within DRDLR on the time performance of the procurement process, "The first thing that surprises me a little is that they have at or around financial close, getting there, they've changed their Technical Advisor from who was running it" (Respondent 6, personal interview, November 14, 2013). The change of the Technical Advisor happened at a very crucial stage of the procurement process being negotiations between DRDLR and the Preferred Bidder. Respondent 6 explained that the problem with a high turnover of your key staff is that, "…a lot of the institutional knowledge has gone out of the door" (Respondent 6, personal interview, November 14, 2013).

To make matters worse, Respondent 8 reported that the project champion had also left the project leaving a huge void in the efficient running of the procurement process. The problem then becomes identifying a new project champion who can fill the void. Respondent 8 voiced his frustration, "Especially if the original champion has disappeared and other people have inherited this project and now have to run it" (Respondent 8, personal interview, October 2, 2013).

The turnover of key personnel was not limited to the DRDLR on the project. Respondent 8 advised that the PPP Unit was also troubled by a high turnover of staff during the course of the procurement process. Respondent 8 suspected that the turnover of staff was prompted by people's frustration of a protracted process, "We had several different people from the PPP Unit involved, which also because the project took so long. Some people resign, some don't" (Respondent 8, personal interview, October 2, 2013). Respondent 8 explained that delays on projects can be detrimental when it comes to retaining key staff members, "One of the causalities if your project takes forever, your project champion might have moved on. Both within government, Treasury, project officers, and even your advisory team, people" (Respondent 8, personal interview, October 2, 2013).

5.4.5.7 How did the level of Skills and Capacity influence the performance of the PPP procurement process?

Respondent 8's comments on the influence of the skills and capacity on the time performance of the procurement process were aimed at the state organs in general. Respondent 8 advised that a lot of State departments find it challenging from a skills perspective to roll out PPP's projects, including the running of an efficient procurement process. Respondent 8 argued attributed this to the fact that a lot of State departments seldom do more than one PPP project, therefore their experience in rolling out PPPs is limited, "Most government departments only ever do one PPP so they're not skilled for it, so they have to learn along the way…so that is the problem" (Respondent 8, personal interview, October 2, 2013). Respondent 8 further explained that the complexity of structuring a PPP project, which are not the norm for most government departments, means the skills requirements are normally not readily available, "It's out, a slightly different procurement process which is another area of complication" (Respondent 8, personal interview, October 2, 2013). Respondent 8 advised that the procurement process, especially at negotiation stage, will suffer if there is no active involvement of a high ranking official, "at least a deputy director general" from the department. Respondent 8 added that involvement of a high ranking official is important, especially during the negotiation stage, "Particularly when you start negotiations, otherwise your negotiation team does the best they can and hopefully the government does the best they can" (Respondent 8, personal interview, October 2, 2013).

In concluding, Respondent 8 advised that the lack of pipeline of PPP projects in South Africa makes it difficult for the potential bidders to resource projects accordingly, "Essentially one of the big challenges with an irregular pipeline is it makes it hard for the various groups to skill up, to retain skills in that field" (Respondent 8, personal interview, October 2, 2013). The result is that if the PPP industry's resources are stretched in times when there is an influx of PPP projects, or when PPP projects are competing with other infrastructure projects, this will ultimately affect the time performance of the procurement process of PPP projects in a negative manner based on a lack of skills in the market.

5.4.5.8 How did the level of Standardisation of Procurement Documentation influence the time performance of the PPP procurement process?

Respondent 8 mentioned that "procurement went relatively efficiently to tender close" (Respondent 8, 2013). Essentially, the big timing gap in the procurement process happened during the negotiation stage between DRDLR and the Preferred Bidder. "We said this is an agreement, mark it up in your bids and we will deal with it then, which can lead to a lengthy negotiation" (Respondent 8, personal interview, October 2, 2013). Given this experience, Respondent 8 advised the best way to conduct PPP procurement is to adopt a process similar to that used by Department of Energy (DoE) on the Independent Power Projects (IPP). Respondent 8 explained further, "…you can do what they've done in the renewable energy process recently, that's the contract, price that. We're not negotiating" (Respondent 8, personal interview, October 2, 2013). DoE has taken a stance that all interested bidders need to accept the department's standard contract if they want to bid for any of the IPP projects. The key to adopting this approach is to ensure that the contract is realist and will be accepted by the market, i.e. bankable, "Then you must know your agreement and schedules must be bankable" (Respondent 8, personal interview, October 2, 2013). The problem with PPP's in South Africa is that there is no standard PPP contract that has been accepted fully by the market, and more especially lenders. The big issues that are continually up for contention during the negotiation stage are relief events, "Relief events – in other words, what counts as a project delay, compensation events, delay with compensation, and termination events…Those are the big issues" (Respondent 8, personal interview, October 2, 2013). Respondent 8 did mention that the South African PPP market is getting to a point whereby the project participants are getting to know what to expect in the contracts, and are pricing the risks accordingly, "Because it's such a small market so people kind of know what's beginning to be accepted, what was granted on one project, and therefore it now becomes granted on another" (Respondent 8, personal interview, October 2, 2013).

5.4.5.9 How did a Project Champion influence time performance of the PPP Procurement Process?

There was not much of a mention about a project champion on the DRDLR PPP project. Respondent 8 did stress the importance of having senior officials within a state department to be briefed frequently in order to drive the process, "Also having a senior member of government either on the steering committee or getting briefed significantly, to keep an eye on this thing or to push if necessary" (Respondent 8, personal interview, October 2, 2013). Respondent 8 cautioned that a project that does not have a project champion will suffer, "…if you don't have a really strong project champion owner, it takes forever to get decisions made, and unless decisions are made, the project can't commence" (Respondent 8, personal interview, October 2, 2013). He blamed a lot of state organs for their slow decision making, which leads to a protracted procurement process, "And so a lot of time government is poor at making quick decisions" (Respondent 8, personal interview, October 2, 2013).

5.4.5.10 How did the Client Structure influence the time performance of the PPP procurement process?

Respondent 8 provided some input on the influence of client structure on the time performance of the procurement process "I think government commitment, this big thing is who owns the project, National government, or provincial, is it Treasury or the institution, government department" (Respondent 8, personal interview, October 2, 2013). It was however not possible to determine whether this factor influenced the time performance of the procurement process on this particular project.

5.4.5.11 How did the Type of Client influence the time performance of the procurement process?

None of the respondents made comments on whether the type of client, whether sophisticated or unsophisticated, influenced the time performance of the procurement process on DRDLR. It was therefore concluded that the influence of this factor on DRDLR was negligible.

5.4.5.12 How did the Land Enablement matters influence the time performance of the procurement process?

There was no mention by any of the respondents of land enablement issues that influenced the time performance of the procurement process on DRDLR. It was therefore concluded that the influence of this factor on this particular project was negligible.

5.4.5.13 How did External Factors influence the time performance of the procurement process?

Respondent 5, Respondent 6, and Respondent 8, all advised that there was a legal contention by the Reserve Bidder on the awarding of the contract to the Preferred Bidder by the Department of Land Affairs. In the judgement of Basil Read (Pty) Ltd and Others v The Minister of Rural Development and Land Reform and Others it is explained that the Reserve Bidder submitted an urgent application to the High Court seeking an interim interdict that would restrain DRDLR to finalise their contract with the Preferred Bidder. This matter put the whole procurement process into a deadlock situation, "The big thing at Land Affairs, was the thing that caused all the mayhem" (Respondent 5, personal interview, November 6, 2013). Respondent 5 explained that the contract could have been finalised if it not for the legal contention because the negotiations between the DRDLR and the Preferred Bidder had been finalised, "We finished the negotiations. The documents are all finished" (Respondent 5, personal interview, November 6, 2013). The application to rule the matter as urgent went against the applicants. The problem was that even though the High Court made a ruling in favour of DRDLR stating that the matter was not urgent, the contention to the awarding of the contract was still pending. Respondent 5 explained that this left a lot of officials at DRDLR very uneasy to finalise the contract with the Preferred Bidder until the matter was

resolved, “You make the award then the department is on the hook so people are a little bit nervous” (Respondent 5, personal interview, November 6, 2013). The legal contention has therefore lead to significant time delays to the procurement process, “…they went into a freeze then and sat in the freeze for six or nine months, however long” (Respondent 6, personal interview, November 14, 2013).

5.4.5.14 Conclusion

The Department of Rural Development and Land Reform Accommodation PPP project has experienced a protracted procurement process for a number of reasons. The main factor that has negatively influenced the time performance of the process is the legal contention by the reserve bidder against the awarding of the contract to the preferred bidder consortium. It was mentioned that the negotiations had already been finalised between the Department of Rural Development and Land Reform and the Preferred Bidder before the legal woes prevailed. The uncertainty of the final ruling on the matter by the courts had left the DRDLR with ‘cold feet’ to finalise the PPP Agreement with the Preferred Bidder. At the time of reporting, a decision on this matter by courts was pending, and the contract between parties had still not been finalised.

A lack of political commitment was also highlighted as one of the main factors that have attributed to the protracted procurement process. Respondent 6 blamed the DRDLR for a lack of strong leadership in making decisions and ensuring that they see them through to the end of the procurement process. Respondent 7 attributed the slow progress due to weak institutional support structures within the DRDLR, especially during the crucial negotiation phase of the procurement process. Respondent 8 made a lot of general statements that were not specifically targeted at DRDLR. This may have been because Respondent 8 did not want to compromise his previous employer.

High turnover of key staff within the DRDLR was also highlighted as a factor that influenced the time performance of the procurement process. Both Respondent 7 and Respondent 8 spoke of how the officials as senior as the DG’s and CFO’s had been changed during the procurement process. Respondent 6 mentioned that the Technical Advisor was also changed at the crucial negotiation stage, after which a lot of the institutional knowledge was lost. The respondents have attributed the high turnover due to the frustration of key staff with the protracted procurement process on the project. This demonstrates how a delay can exacerbate an already dire situation, and lead to further delays. The limited experience of DRDLR in executing PPP projects was also highlighted as a challenge to the time performance of the procurement process.

CHAPTER 6
CROSS-CASE ANALYSIS AND DISCUSSION OF RESULTS

6.1 Introduction

Four cases in total were identified for the cross-case analysis. These included three head office accommodation PPP projects, and one PPP tourism project. Independent case study reports were prepared for each PPP project. The individual case study reports reviewed and analysed individually. A cross-case analysis was conducted thereafter. The intention of the cross-case analysis was to analyse the data across all case in order to identify any associations and trends across cases, and any differences worth noting.

The first section comprise of a comparison of the quantitative analysis results across the four case studies. This entailed a comparison of the time performance (or variance) of the procurement process for the four case studies selected. The second section comprises a comparison of the qualitative analysis across cases to determine the factors that influenced the time performance of the procurement process. A question and answer format similar to that used in the individual case reviews was used to conduct the cross case analysis (Yin, 2009: 71). This was done to allow the readers to examine the answers to the same questions within each case study, and therefore begin to make their own cross case comparisons (Yin, 2009: 71). Below is a discussion of the findings of the cross-case analysis.

6.2 Quantitative Analysis to Compare Time Performance of the Procurement Process across Cases?

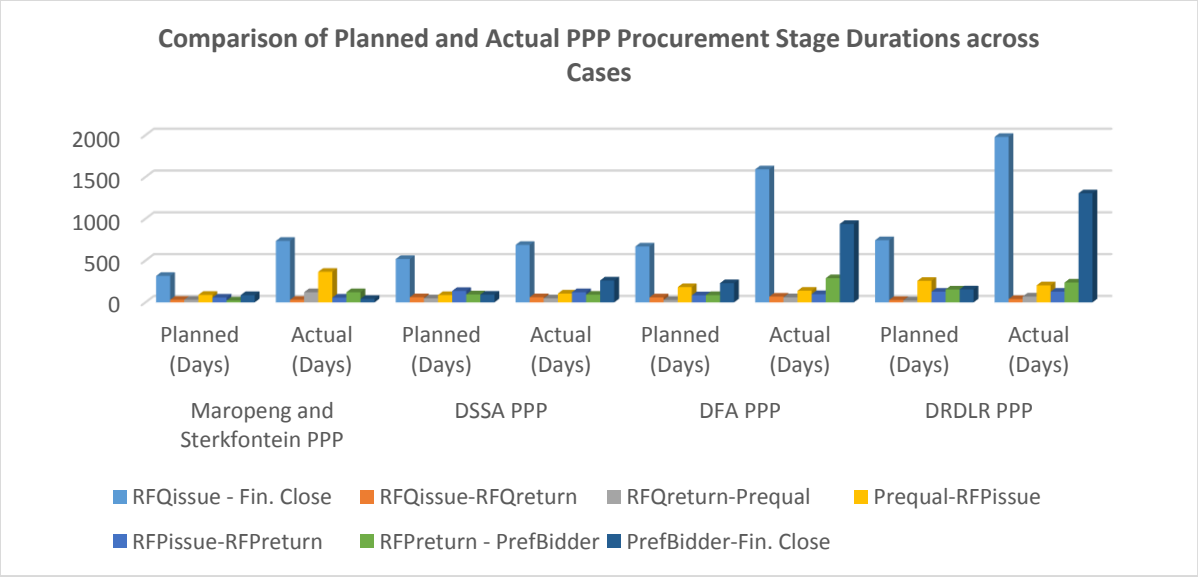


Figure 6.1: Comparison of the planned and actual PPP procurement stage durations across cases

6.2.1 Comparison of Planned and Actual PPP Procurement Stage Durations across Cases

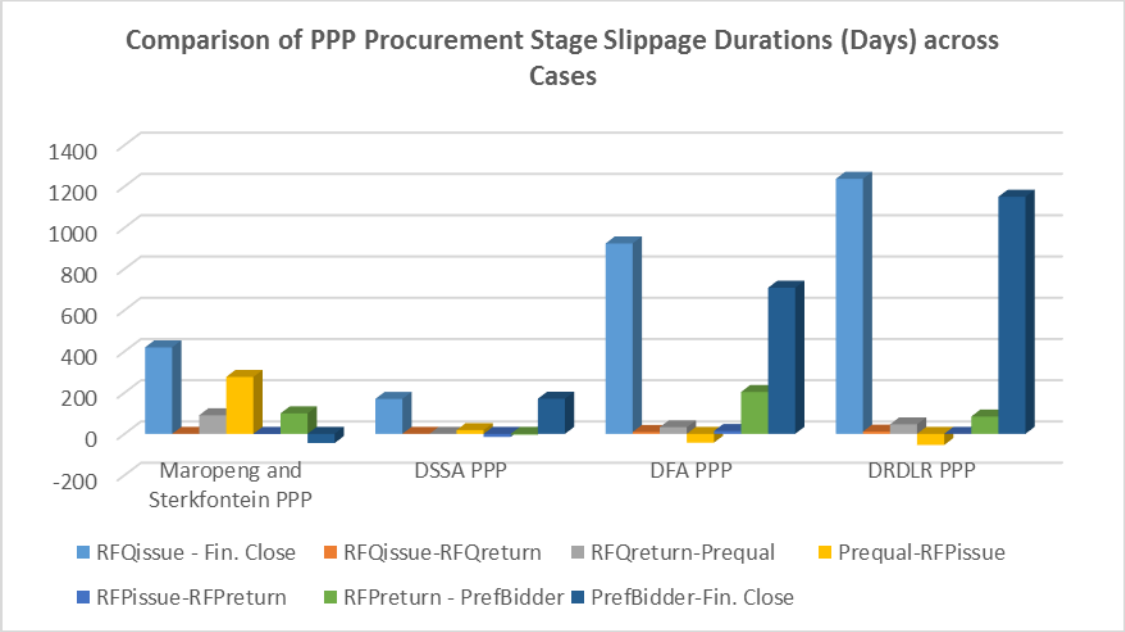


Figure 6.2: Comparison of PPP procurement stage slippage durations across cases

6.2.2 Comparison of PPP Procurement Stage Time Variance across Cases

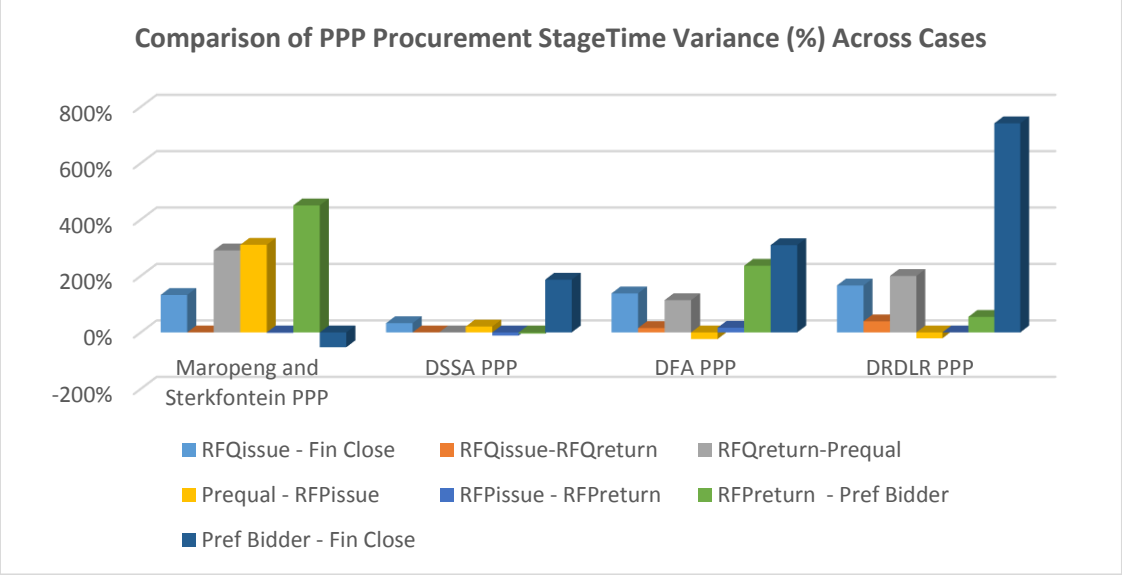


Figure 6.3: Comparison of PPP procurement time variance (%) per stage across cases

6.2.3 Discussion of Results

Figure 6.1 shows a comparison of the planned and actual PPP procurement stage durations across the four case studies. The slippage in days per procurement stage is shown in Figure 6.2. The results of the comparison of the time variance per procurement stage across the cases are shown in Figure 6.3. It is important to note that the longest durations and slippages per procurement stage are not necessarily related to the highest time variances.

A review of the results of the analysis shows that the procurement process as a whole (i.e. RFQ Issue to Financial Close) across all four cases took longer than initially expected. On the one extreme, the DRDLR PPP project showed the widest difference between the planned and actual duration for RFQ Issue to Financial Close stage, with a slippage of 1236 days. This stage also had the highest time variance at 166%. This was followed by the DFA PPP project with a slippage of 923 days, and a time variance of 138%. The Maropeng and Sterkfontein PPP project had a slippage of 419 days and time variance 133%, while DSSA showed a slippage of and 169 day and time variance of 33%. It is however important to note that at the time of reporting both DSSA and DRDLR PPP projects had not reached Financial Close, meaning that the durations and time variances reported could change. Respondent 3 was however quite comfortable with the anticipated dates for Financial Close given for the DSSA PPP project. It was not possible to get the anticipated dates for Financial Close for DRDLR, meaning that the reported figures in the analysis were more at risk to change.

The results show that the procurement stage that took longer than expected across three of the four cases under investigation was the Announcement of Preferred Bidder to Financial Close. This stage showed a high time variance for the three cases. The DRDLR showed the highest slippage and time variance for this stage at 1149 days and 741% respectively. This was followed was by the DFA PPP project at a slippage of 708 days and time variance of 309%. The DSSA PPP project followed at 170 days slippage and time variance of 187%. Conversely, the Maropeng and Sterkfontein PPP project showed a duration for this stage that was better than predicated with negative slippage of -45 days, and negative time variation of -52%.

The adjudication stages, being the RFQ Return to Announcement of Prequalified Bidders, and RFP Return to Announcement of Preferred Bidder stages also showed quite a high time variance. The Maropeng and Sterkfontein PPP project had the highest time variance for the RFP Return to Announcement of Preferred Bidder at 450%, followed by the DFA PPP project at 236%, and DRDLR PPP project at 55%. The time variance for this stage on DSSA PPP project was negligible at -4%. The results for RFQ return to Announcement of Prequalified Bidders stage showed that the Maropeng and Sterkfontein PPP project had the highest time variance at 310%, followed by DRDLR at 200%, and DFA PPP project at 114%. There was no time variance for DSSA PPP project at 0%.

6.2.4 Conclusion

The results show that the Announcement of Preferred Bidder to Financial Close stage of the procurement process is generally the most problematic with the highest slippage and highest time variance. This indicates a protracted negotiation period across cases. The focus should therefore be on identifying ways of reducing negotiation times in order to improve time performance of the procurement process.

The results also showed that the time variance or performance of the adjudication stages (i.e. RFQ Return to Announcement of Prequalified Bidders to RFP Return to Announcements of Preferred Bidder stages is also quite high). More effort should therefore be committed to ensuring a reduced turnaround time for the adjudication of the bid submissions for these stages.

6.3 Cross-Case Analysis of Factors that Influenced the Procurement Processes

6.3.1.1 How did Political Will influence the time performance of the procurement process?

Political will emerged as one the most dominant factors that influenced the time performance of the procurement process across all four cases. A review of the responses from the interviewees revealed that there is a strong link between strong political will, and a positive influence on the time performance of the PPP procurement process. A review of the cases showed that three out of the four cases had strong political will behind them. These were Maropeng and Sterkfontein PPP project, Department of Statistics South Africa (DSSA) PPP project, and Department of Foreign Affairs (DFA) PPP project. Conversely, the one case that demonstrated weak political will was Department of Rural Development and Land Reform (DRDLR) PPP Project. Weak political will was one of the factors that lead to a poor time performance of the procurement process for this project.

The display of strong political will was two-fold across the three aforementioned cases. Firstly, strong political will was shown from the high level support of the projects by top ranking officials. President Thabo Mbeki was a great supporter of the Maropeng and Sterkfontein PPP project. Respondent 2 recalled how the president's enthusiasm rubbed off on the whole team, "…but when your president can stand up with complete confidence and talk about what you're doing. What else can you ask for? So that was great" (Respondent 2, personal interview, June 27, 2013). The project was a national priority based on the fact that the Cradle of Humankind kind was the first site to be proclaimed as a heritage site in the country. Respondent 1 recalled how the Vice Chancellor of the University of Witwatersrand was rallying behind the project' "…we always had the Vice Chancellor on board…" (Respondent 1, personal interview, November 20, 2013). Respondent 4 spoke of the support that the Project Officer on DSSA PPP Project received from the Statistician General (who is analogous to a minister in a typical government department), "In this case she seems to have the support of the SG, the Statistician General" (Respondent 4, personal interview, September 23, 2013). On DLA PPP Project, Respondent 7 spoke of how the high level support went as far as the Minister of Foreign Affairs, from as early as project inception and during

the procurement process, “The Minister of Foreign Affairs wanted to leave a legacy for her staff and of a building that was world class African, that was the face of South Africa. That was her vision in the first discussions with her” (Respondent 7, personal interview, November 29, 2013).

Secondly, strong political will was reflected in the level of resources that the State committed to the procurement process. In the case of Maropeng and Sterkfontein PPP project, there was a fully dedicated team on the project, “I think a lot of people are busy, not just in government, and you’re kind of like we’ll do a morning here and a day there. You cannot do that. You have to block off that time” (Respondent 2, personal interview, June 27, 2013). DACEL also contributed to the full capital expenditure of the project, while the winning concessionaire only had to fit the bill for the fittings and operation of the facility. Respondent 6 advised that this commitment on the capital expenditure was one of the contributing factors for the less acrimonious negotiation stage during the project. In the case of DSSA PPP project, Respondent 3 mentioned how the National Treasury’s PPP Unit had a full time dedicated representative on the project, “Yes, the National Treasury has a full time representative on the project” (Respondent 3, personal interview, September 10, 2013). Respondent 3 expressed how important this contribution was to the procurement process, “This is another key issue on its success” (Respondent 3, personal interview, September 10, 2013). Respondent 3 also described how the DSSA and DPW joined forces to set up a special task team to resolve the outstanding land enablement issues, “Now National Treasury and Public Works has had a big wakeup call and they have set up a special committee within Tshwane and National Public Works to try and fast-track the project” (Respondent 3, personal interview, September 10, 2013). According to Respondent 4, government’s commitment to the DFA PPP project was translated in the amount of capital the state contributed to the project for the early works, “Government’s commitment to the PPP, I don’t think that was an issue. I think the opposite here, the amount of money they spent on the early works showed they were quite committed to the project” (Respondent 4, personal interview, September 23, 2013). As mentioned above, the project that had the weakest political will was DRDLR PPP project. Notwithstanding the dilemma with the legal contention by the reserve bidder, Respondent 6 advised that the process could have gone a lot quicker with strong political intervention, “…and so from a speed point of view, it’s again nervousness on government and it comes back to political commitment” (Respondent 6, personal interview, November 14, 2013). Respondent 7 said institutional support from within DRDLR was found to be lacking during the procurement process, especially during the negotiations, “The length of negotiations there have been lack of institutional support within Land Affairs. I think that’s been one of the major items” (Respondent 7, personal interview, November 29, 2013).

The respondents also expressed their discontent at the general lack of political will from the State departments as experienced on some of the other PPP’s they have worked on. There was strong criticism of the weak political will displayed by DPW. Respondent 3 spoke of how the land enablement issues that were hampering the procurement process on DSSA could have been resolved earlier during the Feasibility stage if addressed by DPW, “It’s a mess of town planning nonsense. For the last two years, looking backwards while they went through the whole feasibility stage and procurement stage is that it would appear that Public Works has done nothing” (Respondent 3, personal interview, September 10, 2013). These issues were only identified when the Preferred Bidder was conducting their own due diligence on the project. Respondent 4 spoke of a DFA PPP project of two halves, “Part 1” and “Part 2”. Part 1 referred

to the stage when DPW was in charge of implementing the project. Part 2 referred to the stage when the DFA took over the project from DPW, "…there was a precursor to this project where Public Works was leading it and then Foreign Affairs got tired of Public Works, and they took over the project" (Respondent 4, personal interview, September 23, 2013). Respondent 7's comments were based on general experiences, and advised that some of the shortcomings related to procurement of PPP projects could actually be avoided or at least mitigated if DPW played their part, "It's incredibly frustrating, I think a lot of the timeline stuff, if there was an enabling environment from DPW on a lot of the projects, we could halve the time that the PPP's take" (Respondent 7, personal interview, November 29, 2013).

Another factor highlighted by the respondents that negatively influences the time performance of the procurement process was the State's general lack of decision making. Respondent 6 made reference to the situation on DRDLR PPP project whereby the client (i.e. DRDLR) requested a scope change long into the procurement process. In another example, Respondent 4 complained that in a lot of instances there are challenges of getting a State department implementing a PPP to just make a decision. Respondent 4 advised that a lot of the times there is "just too much input" whereby the State is "trying to keep everybody happy" which leads to time wasting, and explained that at "…some point somebody must just make a decision" (Respondent 4, personal interview, September 23, 2013). Similarly, Respondent 8 shared the same frustrations related to a lack of decision making, "Decisions need to be made quickly and officially and efficiently and so if a meeting is cancelled, we don't want to wait a month to have another one" (Respondent 8, personal interview, October 2, 2013). Respondent 8 blamed this on a lack of political will from senior level government officials, "It's a level of political commitment within a government department. That's the biggest thing, so the PPPs, they take long" (Respondent 8, personal interview, October 2, 2013).

A majority of the respondents made reference to two prominent PPP projects that have demonstrated a general lack of political will by the State. The first was the roll-out of health facilities programme. The project is massive in terms of expenditure, with Chris Hani Baragwanath alone estimated at a cost of R7 9billion. According to the InfraPPP website, the programme was announced by President Zuma in 2010. The procurement process was scheduled to open in December 2011, but had still not gone to market at the time of reporting (Creamer Media's Engineering News, 2011). Respondent 6 advised that a lack of political will has led to the delay in rolling out the project, "On Bara, we never found the client, which is province. So we're running the rebuild of Bara hospital without the client. It's going to fall over" (Respondent 6, 2013). Another project that was mentioned was the infamous PPP programme by Correctional Services to build four new prisons. According to the Polity.org.za website, the procurement process was initiated in October 2003 when the Transactional Advisory team was appointed, with the RFQ subsequently released in October 2007 and final RFP released September 30, 2008 (Polity.org.za, 2011). The RFP bids were submitted May 2009. The bids were never opened. The website reported that the new Minister of Correctional Services at the time who took over in May 2009, put a freeze on the procurement process of the prisons, arguing that the project "conflicted with policy stipulating that security and custodial services of the state not be handed over to third parties" (Polity.org.za, 2011). Respondent 7 explained that the pulling out of Correctional Services from the PPP did not put fare well with the private sector, "Left a dent, left a mine shaft. Left a massive hole" (Respondent 7, personal interview, November

29, 2013). Respondent 7 questioned the timing by the Minister for pulling out at such a late stage in the procurement process, "Why should we get the private sector to provide custodial service, the prison guards. Now that a valid question, but not at that stage of the process" (Respondent 8, personal interview, October 2, 2013). The abovementioned projects are a clear example of how a lack of political will can adversely affect the time performance of the PPP procurement process.

6.3.1.2 How did the level of Communication Structures within the Client Department influence the time performance of the procurement process?

There were some responses related to how the level of communication structures within a Client department had influenced the time performance of the procurement process. These responses were not extensive and were specific to the DFA PPP project. Respondent 7 made reference to DFA PPP project and spoke about the importance of bringing in the Project Officer at a senior enough level to be able to communicate directly with senior officials in the department, i.e. DG and DDG, "And she was brought in at a high enough level in the structure, to be able to discuss with senior management, I think she was at director level there" (Respondent 7, personal interview, November 29, 2013). Respondent 6 also corroborated this statement about the Project Officer on the DFA PPP project, "What Bernice had, she was a chief director and her DDG was sitting right there in the office with her" (Respondent 6, personal interview, November 14, 2013). Respondent 7 recalled how the Minister of Foreign Affairs always insisted on getting briefed on progress of the DFA PPP project, "She was not intimately involved but she kept tabs on it. The DDG used to brief her and Bernice used to brief her and Mr Plen used to brief her…" (Respondent 7, personal interview, November 29, 2013). Respondent 8 was also of the same opinion, "But you also want to brief the project champion, either DDG or chief director regularly enough that they can also have their own briefing with the DG and bounce things back and forth" (Respondent 8, personal interview, October 2, 2013). It is important to regularly brief the senior officials within a department because they are ultimately the signatories to all procurement documentation. If they are not well briefed during the procurement process, then delays may arise when they have seek clarity on every item before they sign off documentation.

6.3.1.3 How did Turnover of Staff influence the time performance of the procurement process?

There was a general consensus by the respondents regarding the high turnover of key staff at Treasury's PPP Unit across the four cases. Respondent 4 discussed his experience during his tenure on the Foreign Affairs PPP project, "…the PPP Unit was, it came back four years, it was different people" (Respondent 4, personal interview, September 23, 2013). Similarly, Respondent 8 advised of a high turnover of staff at the PPP Unit during his tenure on DRDLR, "We had several different people from the PPP Unit involved…" (Respondent 8, personal interview, October 2, 2013). Respondent 8 described how the procurement process at DRDLR was derailed due to the high turnover of top officials, including Ministers and their DG's, "The project went through about four CFO's and three DG's and two ministers. Different people had different attention spans (Respondent 8, personal interview, October 2, 2013).

The respondents also made note of their observations in relation to turnover of staff in the PPP market in general. Respondent 1 expressed his discontent at the high turnover he has observed at Treasury over the past 10 years, "You can hardly maintain any sort of communication with any official in any of the departments for more than four to five months and they're gone. It's very distressing" (Respondent 1, personal interview, November 20, 2013)). Respondent 3 spoke of high turnover of staff at the PPP Unit, "In my view the PPP Unit historically has had a very high turnover in staff…" (Respondent 3, personal interview, September 10, 2013). Respondent 4 also made mention of his observations in relation to the high turnover of staff at the PPP Unit, "It's a unit that has a high turnover of people. There are a few people there who have been there for a long time" (Respondent 4, personal interview, September 23, 2013).

The influence of a high turnover of staff on the time performance of the procurement process cannot be underestimated. Respondent 1 explained the frustration of having briefed a public official for some time during the procurement process, only to have them leave, "…and you know you can spend 16 months with officials getting him or her up to speed and everything is, and then he or she leaves. It happens all the time" (Respondent 1, personal interview, November 20, 2013)). When the official leaves, they leave with all the intellectual property regarding the project. In his interview, Respondent 3 also described the frustration in terms of the disruption caused by the change of a key staff member. Respondent 3 explained that a new replacement from the PPP Unit constantly needs to be debriefed as the walk the procurement documentation through Treasury approval documents because they normally do not know the history behind these documents, "…now if he doesn't understand what's gone into it, every query that they raise, he's not going to be able to answer and it goes back to the advisors" (Respondent 3, personal interview, September 10, 2013).

The respondents gave their views on the reasons behind the high turnover of staff in the public sector, including the PPP Unit. Respondent 5 attributed the high turnover of staff to a lack of a retention strategy within government departments. Respondent 5 argued that skilled employees are forever being reshuffled within and around departments, "The point I was trying to make, that skill is grown, within a department, then they get absorbed into other function" (Respondent 5, personal interview, November 6, 2013). Respondent 8 attributed the high turnover of staff to the employees' frustration with the protracted procurement processes, whereby constant delays inhibit a project from getting off the ground, "One of the causalities is if your project takes forever, your project champions might have moved on, both within government, treasury, project officers, and even your advisory people(Respondent 8, personal interview, October 2, 2013).

6.3.1.4 How did the level of Skills and Capacity influence the time performance of the procurement process?

The first similarity across two of the cases being DSSA and DFA PPP projects, was the technical support in terms of expertise that the both departments received from the Treasury's PPP Unit. Respondent 3 credited the experienced official from the PPP Unit who was instrumental in supporting the DSSA to ensure adherence with Treasury's PPP requirements. Respondent 3 commended the PPP Unit official for

his understanding of the PPP procurement process, and his proactiveness in driving the procurement process, “He’s been very proactive in helping the project to where it is now” (Respondent 3, personal interview, September 10, 2013). Respondent 4 also commended the competence of official from the PPP Unit who was assigned to support the DRDLR on the PPP project, “Karen Breytenbach was the person there, and she is very competent” (Respondent 4, personal interview, September 23, 2013). Respondent 5 described the PPP Unit as a “key role player” during the course of the DFA PPP procurement process. Respondent 5 also commended the individual who was brought in from the PPP Unit to support the DFA, “…she has experience in terms of PPP’s and in terms of capital procurements” (Respondent 5, personal interview, November 6, 2013). It was important for a government department with minimum experience in doing a PPP projects to get expertise of this nature on the project team. The respondents have emphasised the importance of having a supportive and well skilled PPP Unit to assist a government department to drive the PPP procurement process. The technical support from the PPP Unit was certainly a factor that helped improve the time performance of the PPP procurement on both projects. Having a well skilled and capacitated PPP Unit is one of the factors that can improve the time performance of the PPP procurement process.

The respondents also commended the departments of DACEL, DSSA and DFA for their high level of professionalism shown in running their departments and driving their procurement process. Respondent 3 mentioned how the DSSA was “very conscious of their procurement processes” (Respondent 3, personal interview, September 10, 2013). Respondent 7 uttered praises of the level of professionalism at DFA during the interview, “It’s because of a culture of excellence in the organisation. Dirco is a very, very professionally run, well managed complete organisation” (Respondent 7, personal interview, November 29, 2013). Respondent 7 also commended the Project Officer who ran the DFA PPP project, and of the department as a whole, “They were fantastic, ja. Ja no, Bernice was brilliant. Really, really good official and you had the same in Stats, the DDG there is superb” (Respondent 7, personal interview, November 29, 2013). Respondent 7 mentioned how that the Project Officer was a fully dedicated resource assigned specifically to run the DFA PPP project, “…she wasn’t doing it as just aside, she was brought in to run it” (Respondent 7, personal interview, November 29, 2013). DACEL was strategic and sourced advice from external parties in areas they deemed their department fell short. For example, the head of Museums from London was brought in to assist during the adjudication process to review and comment on the visitors experience aspects of the bid submissions. The Department of Environmental Affairs was also brought in to advice DACEL based on their previous experience in doing tourism PPP projects. DSSA and DFA demonstrated that a well-run and equipped department can help improve the time performance of the procurement processes.

The review of the responses showed that having dedicated resources to run the project, especially the Project Officer, helps to ensure an efficiently run procurement process. The responses suggest that there is a positive correlation between having a well skilled and capacitated department and favourable time performance.

Respondents made comments regarding the lack of skills and capacity at DPW. Respondent 7 mentioned how the lack of skills and capacity at DPW can frustrate a lot of good departments who simply want to get on with rolling out their PPP projects, “…the ongoing issue is the top of staff in DPW means that you have

government departments that have fantastic people and the desire for service delivery but are frustrated beyond belief because of incompetence, the complete and utter, total incompetence of DPW and their officials" (Respondent 7, personal interview, November 29, 2013). Respondent 5 also expressed his despondency with the lack of efficiency at DPW, "…Public Works should be delivering office accommodation for the state. Will they do it? I doubt it" (Respondent 5, personal interview, November 6, 2013).

Another interesting point that was made by two of the interviewees, Respondent 6 and Respondent 8, were of the general scarcity of very good skilled practitioners in the local South African PPP market. They attributed this to two factors. Firstly, Respondent 6 spoke of how PPP's are a new industry in South Africa, "It's a newish industry in SA, 12, 13 years, probably from about – and for people to get that skill and learn it is, is taking years" (Respondent 6, personal interview, November 14, 2013). Respondent 8 spoke of how the government departments rarely ever do more than one PPP project, "And arguably as well this is very new to them, they don't often do project finance type deals or PPP type deals…" (Respondent 8, personal interview, October 2, 2013). PPP's are a complicated procurement structure and require a very high level of skills to successfully see them through to the end. The challenge for the State becomes to ensure that their departments are well staffed with the right skills required to run PPP projects. A lack of experienced officials can therefore adversely influence the time performance of the PPP procurement process.

6.3.1.5 How did the level of Standardisation of Procurement Documentation influence the time performance of the PPP procurement process?

There was acknowledgement from the respondents about the importance of standardisation of procurement documentation to improve the time performance of the procurement process. It was noted that standardisation can improve the time performance of the procurement process by reducing the time it takes for negotiations between the State and the Preferred Bidder. Respondent 4 made reference to the DFA PPP project and spoke of how the negotiations were the cause of a longer than expected procurement process, "It was a lot of negotiation post the submission. There was a lot of changes, add this and take that. I think that is one of the things that added the timeframe" (Respondent 4, personal interview, September 23, 2013). Respondent 8 spoke of how the procurement process went relatively well on the DRDLR PPP project, up until the negotiation stage, "Procurement went relatively efficiently to tender close. From RFQ to RFP submission, that actually went relatively efficiently. The next big timing gap that happens is how long are you going to negotiate for?" (Respondent 8, personal interview, October 2, 2013). A review of the responses shows that the main issue of contention during the negotiations was the "lending type issues" (Respondent 5, personal interview, November 6, 2013). The lending type issues were quite widespread in their nature. On DFA PPP project, Respondent 4 recalled that the issue was agreeing on the escalation indices to be used once the tender validity of the RFP submission had lapsed. Respondent 4 said during the interview, "They weren't agreed upfront, that was for us one of the lessons that came out of this, was to have agreed indices as part of the RFP rules…" (Respondent 4, personal interview, September 23, 2013). Respondent 8 explained that the lending type issues that were holding up the negotiations on DRDLR PPP project were related to contention over relief events and termination

clauses, “Relief events – in other words, what counts as a project delay, compensation events, delay with compensation, and termination events…Those are the big issues” (Respondent 8, personal interview, October 2, 2013). It was therefore apparent that having improved standardisation of procurement documentation will allow the abovementioned areas of contention to be agreed upfront before negotiations.

The respondents had their own suggestions regarding how to ameliorate the protracted negotiation process on PPP projects. Both Respondent 7 and Respondent 8 made reference to the Independent Power Project (IPP) programme being rolled out by the Department of Energy (DoE). Respondent 7 explained that DoE has prepared a set of standardised procurement documents that the market now knows and understands. Respondent 7 explained how having standard procurement documents assists the private sector to price risk upfront into their bids, “I think the IPP programme has proved beyond a doubt that if the market knows before they bid, can mitigate the risks and has accordingly shown to be the best way of doing it” (Respondent 7, personal interview, November 29, 2013). Respondent 7 explained that, if achieved, better standardisation of procurement documentation will result in a more efficiently run PPP procurement process with reduced negotiation timelines. The benefit of standardisation is also passed on to the State departments in terms of the evaluation of bid submissions, “It cuts down negotiation time, makes evaluation easier, and provides certainty to the banks and the lenders” (Respondent 7, personal interview, November 29, 2013). This can also improve the time performance of the procurement process.

Despite the fact that the benefits of standardisation were acknowledged, implementing standardisation in practice for the South African market has proved to be a difficult exercise. Two of the respondents, Respondent 5 during the DFA PPP interview, and Respondent 8 during the DRDLR PPP interview, elaborated on these challenges. Respondent 5 explained that challenge that Treasury’s PPP Unit faces is conceiving a PPP Agreement that the market will accept, “Because standardisation as it currently exists, you’ve probably read it, it’s not bankable” (Respondent 5, personal interview, November 6, 2013). Respondent 8 advised that Treasury’s PPP Unit should adopt the same strategy as the IPP programme by DoE, wherein lies the challenge, “Then you must know your agreement and schedules must be bankable” (Respondent 8, personal interview, October 2, 2013). The term ‘bankable’ in this instance means an agreement that will be accepted by the market, and primarily by the big lending institutions that ultimately fund PPP’s in the South Africa. The challenge for the State is therefore to come up with a “bankable” PPP agreement that will assist in cutting down on the PPP procurement timelines, therefore improving its time performance.

6.3.1.6 How did a Project Champion influence the time performance of the procurement process?

There was a strong consensus from the respondents across three of the case studies affirming that a strong project champion had a positive influence on the time performance of the procurement process in the PPP projects they were involved in. The majority of the respondents mentioned that the project champion on their projects was the Project Officer within the client department. The Project Officer is analogous to a project manager and is mandated to run the PPP project on behalf of the client, being the

State department. According to Respondent 1, the Project Officer from DACEL "…was the driver of it from day one…" on the Maropeng and Sterkfontein PPP project (Respondent 1, personal interview, November 20, 2013). Respondent 3 also advised that that the project champion on DSSA PPP was key in driving the procurement process, "This is just one key issue that has made the project, has got the project to where it is today" (Respondent 3, personal interview, September 10, 2013). The respondents who worked on the DFA PPP project commended the Project Officer there for having driven the procurement process in an efficient manner. Respondent 7 spoke of how the Project Officer from DFA was instrumental in driving the procurement process, "between her and Mr. Plenny and the DG, they managed the process and got approvals for Dirco to do their own processes" (Respondent 7, personal interview, November 29, 2013). Respondent 6 commended the DFA Project Officer for keeping tight deadlines to meet the procurement process milestones, "Three months, Bernice did it" (Respondent 6, personal interview, November 14, 2013). A review of the responses shows that having a strong astute Project Officer can go a long way in positively influencing the time performance of the procurement process. It is also important to note that a project champion is most effective when he or she comes from within the client department, as is the case with the Project Officer role.

The respondents highlighted the character traits that the project champions possessed on their respective projects. According to the respondents, sheer drive and dynamism was one of the character traits the project officers shared. Respondent 1 described the Project Officer from DACEL on the Maropeng and Sterkfontein PPP project as a "tiger" and "phenomenal" person (Respondent 1, personal interview, November 20, 2013). According to Respondent 3, the Project Officer from the DSSA was a "…incredibly dynamic, driven, powerful person" (Respondent 3, personal interview, September 10, 2013). Respondent 7 described the Project Officer on DFA as "…a very driven proactive official…" (Respondent 7, personal interview, November 29, 2013). The Project Officer on DFA adopted a disciplined approach in driving the procurement process which ensured that things actually got done. Respondent 1 spoke of how the Project Officer from DACEL always kept the project team to their timelines for deliverables. Respondent 3 described the strict scheduled meetings and deliverables that the team had to work to on DSSA, "Mondays are technical negotiation, Tuesdays are finance, Wednesdays are legal, she expected her team there, she expected our whole team there…" (Respondent 3, personal interview, September 10, 2013). Respondent 6 described how the discipline instilled by the Project Officer on DFA PPP project ensured that everyone on the project team had to deliver, "That discipline, and she ran it every two weeks. Two weeks, that was it" (Respondent 6, personal interview, November 14, 2013). A review of the responses showed that the project champions were highly dedicated to their projects. Respondent 4 stressed that this character trait is extremely it important to a successful procurement process, "You need someone who is almost going to eat and sleep this project" (Respondent 4, personal interview, September 23, 2013). Respondent 7 described the character traits of a true project champion as someone with dedication and resilience, "I mean you've almost got to be, a champion for your project and you've got to drive through no matter what, what obstacles come your way" (Respondent 7, personal interview, November 29, 2013).

The respondents were also very clear about the pitfalls of having a weak project champion. Respondent 4 made an example of DFA PPP "Part 1" which fell under DPW at the time and reported to have gone terribly wrong until DFA took it over, "…there was a project manager from Foreign Affairs. But we sort of

got the sense it was somebody who once saw the DG in a lift, but only once" (Respondent 4, personal interview, September 23, 2013). Respondent 8 made reference to his experience having worked as Project Officer for DRDLR PPP project, "…like any project, if you don't have a really strong project champion owner, it takes forever to get decisions made, and unless decisions are made, the project can't commence. And so a lot of the time government is poor at making quick decisions" (Respondent 8, personal interview, October 2, 2013). Respondent 7 also made reference to his experience working on DRDLR PPP project and highlighted the detriment of having a weak project manager, "For him, there's a chain there, and if anyone of that chain is not strong, the project is the project will suffer" (Respondent 7, personal interview, November 29, 2013).

6.3.1.7 How did the Client Structure influence the time performance of the PPP procurement process?

A review of the responses from the interviewees in relation to the influence of the client structure (i.e. single or multiple client structure) on the time performance of the procurement process were not widespread. Of the three interviewees that commented, Respondent 3 felt the strongest about the influence of client structure on the time performance of the procurement process. Respondent 3 did not make particular reference to the DSSA PPP project, but rather made comments based on his experience working as a private sector practitioner in the South African PPP market. Respondent 3 made reference to high profile PPP projects that have not taken off due their multiple, complex, client structure. One of the PPP projects highlighted in this regard was King Edward Hospital in Durban, "They have National Health, they have Provincial Health, they have the university, they have National and Provincial Treasury and that's another body. The same project, and there's no one leader, there's no decisions ever made, no projects three years down, they still don't have one comment on the needs analysis report" (Respondent 3, personal interview, September 10, 2013). Respondent 3 also made an example of the highly publicised hospitals PPP programme which has been making media reviews for a long time but not taken off to date. Although not as vocal as Respondent 3, Respondent 5 did acknowledge that having a multiple client structure can be challenging from an advisor's point of view, "…and it's from an advisor's perspective, you're then serving two masters. And therein, you get challenges" (Respondent 5, personal interview, November 6, 2013). In his statement, Respondent 5 was making specific reference to his experience working on the DFA PPP project whereby he was at times serving two 'masters' being DFA and Treasury's PPP Unit. It's important to note that this arrangement would not be as extreme as having multiple client bodies on one PPP project. This is because a State department normally has the ultimate say on the direction of a project, whereas the PPP Unit's powers are limited to regulatory aspects of the project. Respondent 8 also felt that answering to multiple "masters" can be a challenge on a PPP project, "I think government commitment, the big thing is who owns the project, National government, or provincial, is it treasury or the institution, government department" (Respondent 8, personal interview, October 2, 2013).

It can be deduced, from the responses, that having a multiple versus a single client structure can prove to be challenging for the implementation of a PPP project, including the procurement process stage. Examples of prominent projects in the public sector were made whereby projects have not taken off due

to conflicting interests from State owned departments over the direction of the projects. If not managed correctly, this can manifest itself into a poor time performance of a PPP procurement process. The question therefore arises as to which government department or organ is best suited to drive PPP projects? A lot of observers believe that DPW, as the government's official landlord, should be taking a leading role in implementing PPP projects on behalf of government departments. The leadership and skills issues at DPW have however proved that in its current state, DPW can be destructive rather than effective in driving the PPP procurement process.

6.3.1.8 How did the Type of Client influence the time performance of the PPP procurement process?

A review of the responses across the four cases selected in relation to the influence of the type of client (i.e. sophisticated vs unsophisticated) on the time performance of the procurement process, showed that this factor had the least responses. It was therefore concluded that this factor had the least influence on the time performance of the procurement process across the four case studies selected. In fact, only Respondent 3 felt strongly that the client type can influence the time performance of the PPP procurement process. Respondent 3's comments were not directed at the DSSA PPP project, but were based on his experiences having worked as a practitioner on other PPP projects over the years. In summary, Respondent 3 felt that having a 'naïve', unsophisticated client can improve the time performance of the PPP procurement process. Respondent 3 explained that the rationale was based on the fact that an unsophisticated client will tend not interrupt the process, and vests most of the client responsibilities, including decision making, in the hands of the appointed advisors. Respondent 3 did however caution that the danger with a 'hands-off' approach is that the client may end up not getting the facility that they wanted at project inception.

One can deduce from the lack of responses that as a factor, the type of client did not have a major influence on the time performance of the PPP procurement process across the four case studies that were investigated.

6.3.1.9 How did Land Enablement matters influence the time performance of the procurement process?

A review of the cases determined that land enablement issues, if not managed effectively, can become problematic to the procurement process of any PPP project. It is important to note that land enablement matters are normally addressed at the Feasibility stage of a PPP project, before the procurement process commences. Respondent 7 advised that land enablement issues do however tend to filter into the PPP procurement process, "…we've seen enablement of land process, being the main hindrance to a project completion" (Respondent 7, personal interview, November 29, 2013). This was the case on the DSSA PPP project whereby land enablement matters had a negative influence on the time performance of the procurement process of the DSSA PPP project, by delaying the achievement of Financial Close. DSSA and the Preferred Bidder were still in the process of resolving town planning related matters at the time of reporting.

Respondent 4 mentioned that the environmental issues on DFA PPP project were a challenge, "The environmental was a trick and I did cause some delays" (Respondent 4, personal interview, September 23, 2013). It was however unclear whether these challenges were experienced before or during the procurement process. Respondent 1 did not recall land enablement matters being an issue on the Maropeng and Sterkfontein PPP, "Going down this list there were no land matters that I can recall" (Respondent 1, personal interview, November 20, 2013).

Judging from the responses, land enablement and their influence on the time performance of the PPP process was not prevalent, accept for the DSSA PPP project. This can be attributed to the fact that a lot of the land enablement issues should and are normally addressed at the Feasibility stage, before the PPP procurement stage commences. The land enablement issues on DSSA occurred as a result of an oversight on the part of DPW.

6.3.1.10 How did External Factors influence the time performance of the procurement process?

In the context of the research, external factors are defined as those factors that are not in the control of the contracting parties being the client department embarking on a PPP project, and the bidders. A review of the case showed that these factors can be detrimental to the time performance of the PPP procurement process. Three of the four cases, being DSSA, DFA and DRDLR PPP projects were affected by external factors during the procurement process.

The nature of the external factors that influenced the time performance of the procurement process was varied across cases. Two of the four cases were affected by funding challenges during the procurement process. A lack of funding was reported as a hindrance to the achievement of Financial Close for both case the DSSA and DFA PPP projects. Respondent 3 mentioned how the DSSA procurement process got derailed due to the withdrawal of the Development Bank of Southern Africa's (DBSA) on the BBBEE funding. "Just prior to the bid going in, DBSA pulled out of all BEE funding on accommodation deals which had left us in the predicament where we are now" (Respondent 3, personal interview, September 10, 2013). The withdrawal of DBSA left the Preferred Bidder scrambling for a new lender, which led to delays in the achievement of procurement timelines. Similarly, Respondent 4 recalled how the 2008/2009 financial crisis had put immense pressure on the financial viability of the Preferred Bidder's submission. Respondent 4 explained that the financial crisis had eroded the value for money aspects of the submission, "Affordability became tight, so that became an issue. The 2008 crisis was an issue" and added that this was simply as a result of the "external environment" (Respondent 4, personal interview, September 23, 2013). Another external factor that affected the DFA PPP project was a change of the main shareholder of the Preferred Bidder when Concor was taken over by Murray and Roberts. Interestingly, Murray and Roberts had also been prequalified with a separate consortium beforehand and had later submitted their RFP bid for the project, which they had lost. The issue came about during the procurement process when M&R's tried to change the terms of the Concor consortium submission. This resulted in delays to the procurement process. Lastly, there was the legal contention against the client on the DRDLR PPP project during the procurement process, whereby the Reserve Bidder felt that due processes were not followed

in the awarding of the contract to the Preferred Bidder. An urgent application was submitted to the courts to have the awarding of tender withdrawn. It was reported that the delay was worsened by the State's lack of leadership to bring the issue to a head.

6.3.2 Conclusion

The review of the responses provided great insight into the factors that influence the time performance of the procurement process. The review revealed that some factors were more influential than others on in relation to the time performance of the PPP procurement process. Below is a summary of the trends across cases that emerged from the investigation of the four PPP projects.

6.3.2.1 Political Will

One of the most dominant factors that emerged from the review of the cases was the importance of strong political will for good time performance of the PPP procurement process. It was evident from the responses that the interviewees felt very strongly that political will can either drive the procurement process, or lead to delays. In fact, in his interview, Respondent 6, given his vast experience as a PPP practitioner, argued that a lot of the issues that emanate are as a result of a lack of political will. The notion here was that with a strong political will, officials are able to overcome a lot of the issues that may come about during the procurement process. This can be done by the client department committing the required resources to the project either in terms of capital contribution or expertise, retaining the right level of staff, opening up channels of communication within the client department and therefore removing bureaucracy, etc. A good example of the effects of strong political will was Maropeng and Sterkfontein PPP project, whereby the support for project came directly from high ranking government officials, including the presidency at the time.

6.3.2.2 Project Champion

A review of the responses across the cases has shown that having a strong project champion to drive the procurement process on any PPP project cannot be underestimated. Having a strong project champion can lead to an improved time performance of the PPP procurement process. Another revelation was that it is important for the project champion to come from within the ranks of the client body, i.e. the State department embarking on executing a PPP project. The trend across the case studies showed that the project champion is normally the Project Officer that comes from within the client department. Another important factor that was raised by the respondents was the unique character traits that a project champion must possess in order to be effective. The strong project champions were all very driven and dedicated individuals, with a disciplinarian approach to achieving deliverables as set out in project procurement milestones. This proved to be very advantageous when working to fixed timelines as mapped out in the PPP procurement process.

The review of the Reponses also showed that having a weak project champion can lead to an inefficiently run procurement process and ultimately unwanted delays. “Part 1” of the DFA PPP project was a good example of how a weak project champion can delay the procurement process. The project Officer at this stage was not visible and did not take strides to drive the procurement process. There were also no strong project champions on the DRDLR PPP project to show strong leadership by timeously addressing the issues holding back Financial Close.

6.3.2.3 Skills and Capacity ‘

Remarks on DPW by the respondents left a lot of questions with regards to the ability of the State official landlord’s ability to properly execute PPP projects. As the official landlord of the state, DPW is mandated to ensure that it renders services necessary to ensure that its client’s (i.e. state) accommodation requirements are met (Department of Public Works, 2009). A lot of the respondents were vocal in expressing their frustration with DPW poor performance in driving the procurement process on various projects they have been involved in. Respondent 4 attributed the failure of “Part 1” DFA PPP project on the maladministration of DPW. Respondent 4 reported that the only time the project took a turn for the better was when DFA decided to take it upon themselves to drive the procurement process. Respondent 3 mentioned how the land enablement issues which were holding back Financial Close had were an oversight by DPW at the Feasibility stage of the project. Respondent 7 attributed a lot of the procurement delays on DRDLR and other PPP projects to DPW. The overall sense was that DPW has failed in a lot of instances to implement projects efficiently. It can therefore be deduced that the non-performance of DPW can lead to a poor time performance of the procurement process on PPP projects.

The bulk of the skills and capacity required by a client department to roll out their PPP projects is outsourced to the private sector. This includes Transaction, Technical, Legal and Financial Advisors. The PPP Unit also offers institutional support by guiding client departments through Treasury requirements and ensuring submission documents are suitable for approval. The PPP Unit therefore plays an important supportive role to client department during the procurement process. It is therefore important to employ the correct Project Officer and advisors on a project, and to have the right support from the PPP Unit. This can be driven primarily by strong political will from within the department to ensure that the project succeeds.

6.3.2.4 Turnover of Staff

Turnover of staff in the public sector was raised as a concern. During the interview, some of the respondents highlighted the turnover of staff in the PPP Unit as one the areas of concern. It was reported retaining skilled staff in PPP Unit has been a persistent challenge. This was cited as problematic during the procurement process, especially when the representative from the PPP Unit required to walk the submission documents through Treasury for approvals leaves the project. Having to replace this individual is problematic because a lot of the intellectual property is lost. This can cause delays to the procurement

process when Treasury approvals are required because the PPP Unit official earmarked to walk Treasury through the submission for approvals would have left the project. But the PPP Unit was not the only organ of State that was reported to be encumbered by a high turnover of staff. State departments were also cited as having high staff turnover. This turnover was reported to spill over to the top officials such as ministers and their DG's. Examples were made of the high profile prisons PPP project that tainted the government's commitment to rolling out PPP's, when the change of the Correctional Services minister saw the project get stopped after RFP submissions. The consensus generally was that the high turnover of staff can hamper the progress of the PPP procurement process, i.e. lead to poor time performance of PPP procurement process.

6.3.2.5 Standardisation of Procurement Documentation

The advantages of standardisation to the procurement process were discussed during the interviews. It was acknowledged that having standard PPP procurement documentation can go a long way in reducing the time it takes for negotiations between the client and preferred bidder. The negotiation stage has been blamed for most of the procurement time delays. The negotiations are normally prolonged due to discussions around the lending type issues such as relief events, termination clauses and escalation indices once tenders lapse. It also emerged that an envisaged standard document needs to be bankable for the market to accept. Failure to do so will mean that bidders will have to price the increased risk accordingly, or refrain from putting in bids for PPP work. Either outcome will hurt the PPP market tremendously. The consensus is therefore that increasing the level of standardisation of procurement documentation can improve the time performance of the PPP procurement process.

6.3.2.6 Land Enablement Matters

Even though the feedback on land enablement was not extensive, it did prove to be a factor that can seriously derail the procurement process if not managed early enough at Feasibility stage. The DSSA PPP project was a prime example of how land enablement issues can hold back Financial Close of a PPP procurement process.

6.3.2.7 Communication Structure within the Client Department

A review of responses showed that some of the factors that were included in the questionnaire did not play a major influence, positively or negatively, on the time performance of the PPP procurement process. A review of the responses determined that the communication structures within a client department had negligible influence on time performance of the procurement process in comparison to some of the other factor.

6.3.2.8 Client Structure

Client structure relates to how the client is organised, either as a single or multiple client structure. A review of the responses shows that this factor was considered by the respondents to have negligible influence on the time performance of the procurement process when compared to some of the other factors identified for the cases under investigation.

6.3.2.9 Client Type

A review of the responses shows that the client type had negligible influence on time performance of the PPP procurement process when compared to some of the other factors for the cases under investigation. It may be said that a client that lacks in 'sophistication', can make up for this deficiency if they have strong political will. With strong political will, the client can ensure that they are surrounded by a good team of advisers and officials from the PPP Unit who can provide guidance through the PPP procurement process and beyond.

6.3.2.10 External Factors

A review of the cases showed that external factors can adversely affect the time performance of the procurement process of any PPP project. The review also shows that external factors cannot be predicted, both in terms of type and timing. This is shown from the varied nature of external factors that influenced the procurement process of three of the cases selected. These ranged from a lack of funding, change of concessionaire structure, to a legal contention of tender award by a Reserve Bidder. The State department therefore needs to show strong leadership or political will when dealing with external factors in order to ensure that they are dealt with timeously so that the potential of the delay is mitigated.

CHAPTER 7
CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

This chapter includes a summary of the study, summary of the findings of the study, conclusions and recommendations. The summary of findings addresses the postulated objectives at the beginning of the study. Each one of the postulated objectives is evaluated individually in relation to the findings of the study. The recommendations sections is two-fold. The first part of the recommendations section addresses the needs of the industry and higher education, while the second part of the recommendations section addresses potential for future research.

7.2 Summary of the Study

The aim of this study was to determine the time performance of the procurement process, from RFQ to Financial Close, of PPP projects in South Africa, and to determine the factors that influence that time performance. Four case studies were investigated. The methods used for the collection of data addressed both the quantitative and qualitative research questions. Documentary data in the form of the RFQ and RFP documents was used to collect data on the planned procurement milestones. Timelines collated from the interview respondents were used to determine the actual procurement timelines. Qualitative data collected from semi-structured interviews was used to determine the factors that influenced the time performance of the procurement process for the four case studies. A time variance calculation was used to determine the time performance of the procurement process for each of the four case studies selected. Qualitative Content Analysis (QCA) was used to analyse the responses from the semi-structured interviews. A cross-case analysis was used to determine any associations or differences across the cases selected.

The questions in the Interview Protocol were based on themes that were identified in the literature review. The themes were based on factors that influence time performance of the PPP procurement process. The themes adopted in the Interview Protocol were as follows:

a. Political will;
b. Communication within the Client Department;
c. Turnover of Staff;
d. Skills and Capacity;
e. Standardisation of Procurement Documentation;
f. Project Champion;
g. Client Structure;
h. Client Type;
i. Land Enablement Matters; and

j. External Factors.

7.3 Conclusions of the Study

A review of the case studies has led to important insights on factors that influence the time performance of the procurement process for PPP projects in South Africa. The findings of the study are summarised below.

7.3.1 Political Will

The research has shown that strong political will is one of the main factors that have a positive influence on the time performance of the PPP procurement process. Findings show how a lack of political will can adversely affect the time performance of the procurement process and result in unwanted delays. Without strong political will, every other factor that assists in bringing an efficiently run procurement process is hampered. Strong political will is a result of strong leadership from the high level officials within a State department. The case studies have shown that strong political will can emanate from as high up as the office of the presidency. Once a decision is made to deliver a facility or infrastructure via the PPP procurement route, the leadership within that client department needs to be fully committed to the initiative. Leaders need to be able to set the tone for those below them who will be running with the project.

7.3.2 Communication within the Client Department

The study revealed that the communication structures within a client department had a negligible influence on the time performance of the PPP procurement process.

7.3.3 Turnover of Staff

A review of the responses from the semi-structured interviews revealed that retention of skilled staff is one of the factors that has a positive influence on the time performance of the PPP procurement process. When a key staff member leaves a team a lot of intellectual property is also lost which leads to delays. Another example is of the replacement of a Minister in a department which can change the course or scope of a project, and lead to delays in the procurement process. Responses from the interviews have highlighted that poor retention of skilled staff in the public sector is a serious concern. High turnover of skilled staff in the PPP Unit was also reported by some of the respondents. This is of grave concern because a high turnover of skilled staff from the PPP Unit cannot be afforded, especially given the crucial support this unit provides to State departments that implement PPP's. A high turnover of key high level staff members was also reported in the State departments. DRDLR was a prime example of this challenge.

7.3.4 Skills and Capacity

The study revealed that a lack of skills and capacity is detrimental to the time performance of the PPP procurement process. This is because a PPP is a complex procurement structure that requires individuals who are well acquainted with the process. During the interviews, respondents voiced their frustration with the non-performance of the Department of Public Works (DPW) in meeting its regulatory duties of assisting State departments to meet their accommodation requirements in terms of delivery of the physical infrastructure. State departments have in turn had to play the role of "landlord" due to the lack of efficiency at DPW. This has also forced the State departments to outsource advisory services in order to bridge their own in-house skills and capacity deficits. The problem with this arrangement is that provision of accommodation does not form part of the State departments' core expertise. There is also an opportunity cost because the departments' officials should rather be doing work that forms part of their core mandate rather than aligning resources elsewhere.

7.3.5 Standardisation of Procurement Documentation

One of the major issues that was raised by the respondents as an impediment to the time performance of the PPP procurement process was a lack of standardisation of procurement documentation in the South African PPP market. Even though the adoption of Regulation 16 has assisted with improving standardisation of PPP procurement documentation, there is still no standard PPP Agreement that has been fully accepted by the market, especially by financiers. This means that PPP Agreements need to be continuously reworked on a project by project basis. The main areas of contention in finalising the PPP Agreement were reported to be relief events, and agreement on indices to adjust prices (e.g. when the bid validity of a submission has lapsed). The review of the Maropeng and Sterkfontein PPP has also showed that certain types of projects require sector specific agreements to ensure that provision is made for their specific needs (e.g. Tourism PPP Toolkit). For example, a tourism PPP will have different needs from a typical office accommodation PPP project.

7.3.6 Project Champion

The research has shown that a strong project champion is required to have good time performance of PPP procurement process. A strong project champion is defined by their strong character traits. These character traits include a strong drive, passion and dedication. A strong project champion also has the ability to instil discipline amongst project team members. The research has revealed that a project champion who comes from within the ranks of the departments is more effective. The research also revealed that the project champion will in most cases be the Project Officer from the client department executing a PPP project.

7.3.7 Client Structure

The research revealed that the way the client structure is organised has a negligible effect on the time performance of the PPP procurement process.

7.3.8 Client Type

The research revealed that the client type has a negligible effect on the time performance of the PPP procurement process.

7.3.9 Land Enablement Matters

The research revealed that if land enablement matters are not identified, managed and mitigated early at the Feasibility stage of the project, they can have an adverse effect on the time performance of the PPP procurement process. The provision to resolve land enablement issues on PPP projects is catered for in Regulation 16 process via the feasibility stage whereby a due diligence is required to identify the most suitable site to locate a PPP project. The feasibility therefore allows land enablement issues to be addressed early before the RFQ goes out in market. The DSSA PPP project demonstrated how an oversight of this crucial exercise to identify land enablement issues early at feasibility stage can delay the PPP procurement process.

7.3.10 External Factors

The study revealed that external factors are difficult to foresee and therefore plan ahead for. Depending on their severity, external factors can have an adverse effect on the time performance of the PPP procurement process. This was demonstrated in three of the four case studies selected, whereby external factors delayed the procurement process to Financial Close.

7.4 Industry Specific Recommendations of the Study

The insights from the study have led to recommendations that can assist in improving the time performance of the PPP procurement process. The recommendations were determined in consultations with the respondents. Their vast experience as PPP practitioners in South Africa meant that they were in a well suited position to provide recommendations on how to improve the time performance of the PPP procurement process.

7.4.1 Political Will

Based on the research, the recommendation is that strong political will is required from within the State department, and more especially from the top officials, including the Minister, DG and the DDG. Strong political will needs to be part and parcel of the way of doing business by the State and its departments. If strong political will is not shown from the top officials, it results in mediocrity by the officials below them. The research has shown how departments such as the DACEL and DSSA PPP projects have overcome obstacles and had a well-run procurement processes off the strength of strong political will.

7.4.2 Strong Project Champion

It is recommended that a strong project champion is identified from the inception of the project. Particular attention needs to be paid to the individual's character traits when identifying a suitable candidate for project champion. The project champion needs to be a driven individual, who is passionate and dedicated to see the PPP procurement process through to Financial Close and beyond. It is also recommended that the project champion comes from within the ranks of the client department. They are better suited for this role as they understand the processes of the department, and have a vested interest in ensuring that the project becomes a success. It is advisable that the project champion holds a high level position in terms of stature within the department. This will ensure that the project champion has direct access to other top officials within the department, including the Minister, DG and DDG. The Minister and DG are ultimately the main decision makers when it comes to the direction of a PPP project.

7.4.3 Skills and Capacity

It is highly recommended that the State embarks on a massive drive to capacitate DPW with the requisite skills and capacity to execute their mandate. It is also recommended that there is a monitoring mechanism put in place to ensure that DPW delivers on its mandate. The special committee that was formed within DPW to resolve the land enablement issues on DSSA PPP Project is a prime example of how effective DPW can be in addressing infrastructure delivery if their functions are optimised. Respondent 3 strongly recommended that this type of committee should be replicated on other PPP projects to assist departments in executing their PPP projects. This would certainly lead to a more efficiently run procurement process for future PPP projects.

The support from the PPP Unit to State departments in ensuring that they get over the regulatory requirements from Treasury has proved invaluable. The recommendation is for the PPP Unit to be strengthened from a skills and capacity basis to ensure that it can handle an influx of PPP projects in future. It is important to ensure that the unit is capacitated with the right skills to ensure that it can continue assisting State departments to execute PPP projects. This will lead to the improved time performance of the PPP procurement process.

7.4.4 Turnover of Staff

It is recommended that the State investigate the reasons why there is high turnover of key staff in the public sector. A retention strategy should thereafter be put in place to ensure that the skills within the departments and the PPP Unit are retained. Loyalty within State departments needs to incentivised. This is especially crucial for the PPP Unit which supports various state departments across the board to implement PPP projects. The same will need to apply to the DPW infrastructure department.

7.4.5 Standardisation of PPP Procurement Agreement

It is recommended that National Treasury puts together a special task team to prepare standard procurement documentation for PPP projects in general, and per project type (i.e. Tourism, health, transport, education etc.). The aim should be to ensure that the agreements are acceptable to the market (i.e. 'bankable') without compromising the client objectives. This can be done in consult with PPP practitioners, including the lending institutions that ultimately have to fund PPP projects. If bidders know what is required from them upfront, they can prepare bids accordingly to adhere to the procurement requirements. The preparation of a bankable PPP Agreement per project type can drastically improve the time performance of the PPP procurement process by reducing the time taken for negotiations, which is reported as the procurement stage where the bulk of the slippage on programme occurs.

7.4.6 Well drafted PPP Documentation

Preparation of clear and concise procurement documentation can lead to a more efficient PPP procurement process, and result in better time performance. Ambiguous procurement documents can lead to increased requests for information, and incomplete submission of bids from bidders. This can lead to a protracted adjudication process. It is therefore recommended that State departments embarking on PPP projects need to ensure that they appoint competent advisors during the procurement process to prepare clear and concise procurement documentation.

7.4.7 Marked-up PPP Agreement by Prequalified Bidders

The DSSA PPP project revealed an effective way State departments procuring projects via the PPP route can expedite their procurement process. DSSA adopted a strategy whereby they allowed the prequalified or shortlisted bidders to mark-up a draft PPP Agreement with comments. DSSA thereafter reviewed all comments, and left acceptable ones in the Agreement, while leaving omitting comments that they deemed not acceptable. The result was a final PPP Agreement which was prepared before the identification of a Preferred Bidder. The marked up PPP Agreement was taken as the final document and no other comments were considered thereafter. One of the conditions to being selected as the Preferred

Bidder was that of acceptance of the marked-up PPP Agreement. Respondent 3 stressed that it is important to implement this strategy when the bidding environment is most competitive (i.e. before selection of the Preferred Bidder). Respondent 3 advised that adopting this strategy cut out a substantial amount of time from the procurement process that would have normally been spent on negotiations between the State client department and the Preferred Bidder. Respondent 3 also advised that this strategy seems to be growing in popularity amongst some State departments, and has been adopted on one of the PPP's in the Western Cape. State departments are therefore recommended to utilise this fast-track method, where possible, when executing their procurement process. This will assist in improving the time performance of the PPP procurement process by minimising the time taken for negotiations.

7.4.8 Land Enablement Matters

It is recommended that State Departments ensure that the feasibility for a PPP project is done with the outmost rigour, and that particular attention is paid to the land enablement factors that may inhibit the procurement process from reaching Financial Close. Land enablement issues include but are not limited to outstanding town planning approvals, transfers of ownership etc.

7.4.9 Overlapping of PPP Procurement Stages

Respondent 6 made a recommendation that involved an overlapping of the procurement stages to expedite the procurement process. This fast-track approach requires the State department to prepare the RFQ and RFP documentation early at the feasibility stage. The RFQ can thereafter go to market while the feasibility is being evaluated. The RFP will thereafter be issued into the market on the back of a positive feasibility and RFQ returns from potential bidders. Respondent 6 did acknowledge that the department would be taking a risk by taking out the RFQ so early at feasibility, because they would not know whether their feasibility would get the requisite approval from by Treasury. Respondent 6 did however mention that the risk would be worthwhile if the department had a strong will to go the PPP route.

Another recommendation that Respondent 6 made was based on a model used in Victoria, Australia. Victoria has made a decision that all projects will go via the PPP route, unless there is a compelling reason to go the traditional route or any other alternative procurement strategy. Going straight into the PPP procurement route means that the client department would not have to prepare a PSC to motivate the decision adopt a PPP. A combination of issuing an RFQ early at feasibility, and having a blanket decision that the State will procure infrastructure projects via the PPP route could ensure an expedited PPP procurement process. There are no indications that South Africa is at a stage whereby PPP's will be the preferred procurement strategy for infrastructure projects. The traditional procurement route is still the most popular procurement strategy, and it would require a paradigm shift by the politicians to adopt a pure PPP strategy. Having preference for PPP projects would also require a skilled and well capacitated PPP market in general, from both the public and private sectors. This would prove problematic for South

Africa which has a fairly young PPP market in comparison to some of the well established markets such as Australia and the United Kingdom.

7.5 Recommendations for Future Research

The following recommendations for future research are based upon findings and conclusions of the research.

- Further research should be conducted on a larger sample of PPP projects in South Africa to measure the time performance of the procurement process from RFQ to Financial Close;
- Further research should be conducted to compare the time performance of the procurement process for PPP projects in South Africa across various provinces (i.e. Gauteng vs Western Cape etc.);
- Further research should be conducted to compare the time performance of the procurement process for PPP projects in South Africa across various sectors (i.e. transportation, health, water, telecommunications, housing, schools, energy, urban services, correctional facilities and sports);
- Further research should be conducted to investigate how the systematic model proposed by Nyagwachi (2012) can be used to improve the time performance of the procurement process for PPP projects in South Africa;
- Further research should be conducted to determine how the efficiency of the procurement process impacts the levels of transaction costs to Government and bid costs incurred by market participants for PPP projects in South Africa; and
- Further research should be conducted to investigate how to get to an acceptable PPP Agreement by the South African market. An acceptable PPP Agreement by the market can improve the time performance of the procurement process, especially at negotiation stage.

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APPENDIX 1

QUESTIONNAIRE FOR SEMI-STRUCTURED INTERVIEW

Semi-Structured Interview Questionnaire

1. Please provide an overview of your PPP project.
2. Please provide your organisations involvement in the project.
3. Please provide your personal involvement in the project.
4. Please describe the type of the PPP procurement process that was undertaken, and timelines (where possible), i.e. normal Regulation 16?.
5. Please describe the adjudication process.
6. Who drew up the brief for the PPP?
7. Please advise on the make-up of the PPP Unit.
8. Please advise on the make-up of the winning concessionaire consortium.
9. Please advise on whether the planned procurement milestones/timelines were achieved
10. Was there a specific individual or individuals who championed the cause to make the procurement process successful?
11. Please elaborate on the challenges that the project faced during the procurement process.
12. General Procurement Issues
    a. Land and town planning related matters
    b. Client type/Client structure
    c. Political Will/ Government commitment to PPP procurement process
    d. Lack of capacity and skills
    e. Weak public procurement framework
    f. Standardisation of procurement documentation
    g. Clear Brief/Quality of Service Agreement performance and method specifications
    h. External factors – Financial (e.g. lack of strong financial markets, non-dependable revenues, limited raising of funds etc), legal contention, change of concessionaire structure etc.
    i. Lack of pipeline of projects – deters bidders if not sufficient
    j. Other
13. Recommendations for a successful PPP project
14. Any other comments?

APPENDIX 2

CODING FRAME FOR QUALITATIVE CONTENT ANALYSIS (QCA)

CODING FRAME FOR QUALITATIVE CONTENT ANALYSIS (QCA)

CATEGORY NO.	CATEGORY DESCRIPTION	DESCRIPTION
1	**Political Will**	
1.1	Stong Political Will	
		Unit of coding applies if there are signs of strong government commitment ensure by committing time and resources to ensure the procurement process runs efficiently
1.2	Lack of Political Will	
		Unit of coding applies if there is a lack of strong government by committing time and resources to ensure the procurement process runs efficiently
2	**Communication with Client Department**	
2.1	Access to High Ranking Officials	
		Unit of coding applies if the low ranking technical departmental participants in the PPP procurement process have direct and easy access to the high ranking officials who make final decisions, i.e. DG, Minister
2.2	Buracrautic Communication Structures	
		Unit of coding applies if there are burreacratic communication structures in place that impede communication between low ranking PPP procurement participants and high ranking officials who make final decsions, i.e. DG, Minister
3	**Turnover of Staff**	
3.1	Low Turnover of Staff	
		Unit of coding is critical if Client/Department/Bidder can retain strategic staff members during the PPP procurement process
3.2	High Turnover of Staff	
		Unit of coding applies if Client/Department/Bidder cannot retain strategic staff members during the performance PPP procurment process
4	**Skills and Capacity**	
4.1	Requisite Skills and Capacity	

		Unit of coding applies if the Department/PPP Unit has the requisite skills and capacity to drive the PPP procurement process
4.2	Lack of Skills and Capacity	
		Unit of coding applies if the Department/PPP Unit does not have the requisite skill and capacity to drive the PPP procurement process
5	**Standardisation of Procurement Documentation**	
5.1	Standardisation procurement documentation	
		Unit of coding applies if there is a standardised PPP Agreement agreed at the beginning of the PPP procurement process
5.2	Lack of standardised procurement documentation	
		Unit of coding applies if the PPP Agreement is not agreed and accepted upfront by the market meaning a lot of clauses need to be negotiated and agreed during the negotiation phase
6	**Project Champion**	
6.1	Strong project champion	
		Unit of coding applies if there is a strong project champion who has the will, abiltiy, and influence to drive the PPP procurement process
6.2	Weak project champion	
		Unit of coding applies if there is a weak project champion who has does not have the will, abiltiy, and influence to drive the PPP procurement process
7	**Client Structure**	
7.1	Single Client body	
		Unit of coding applies if there is a single department/entity that makes up the client
7.2	Multiple client body	
		Unit of coding applies if there is a conglomerate of departments that make up the client body
8	**Client Type**	
8.1	Sophisticated	
		Unit of coding applies if the Client is experienced in executing PPP projects
8.2	Unsophisticated (naïve)	

		Unit of coding applies if the Client is not experienced at executing PPP projects
9	**Land Enablement Matters**	
9.1	Resolved land enablement matters	
		Unit of coding applies if the time performance of the procurement process is positively affected by resolved land and/or town planning matters
9.2	Unresolved land enablement matters	
		Unit of coding applies if the time performance of the procurement process is delayed by unresolved land and/or town planning matters
10	**External Factors**	
10.1	Legal contention	
		Unit of coding applies if the procurement process is affected by adverse legal matters
10.2	Change of concenssionaire structure	
		Unit of coding applies if the procurement process is affected by a change in the Client/Concessionaire structure
10.3	Lack of Fuding	
		Unit of coding applies if the procurement process is affected by a lack of funding

APPENDIX 3

CONSOLIDATED TEXT MATRICES FOR QUALITATIVE CONTENT ANALYSIS (QCA)